



Academic management strategies of private elementary schools based on the concept of quality citizenship attributes in the 21st century

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Abstract

Citizenship in the 21st century is different from traditional citizenship because it is a digital era where the internet is connected to everything with devices and technologies. Therefore, people's way of life differs from the former, and each country needs quality citizenship to keep their country developing in the era of economic, political, social and cultural change. However, schools are essential to providing education to build quality citizenship taught from a young age. This research was a survey research. The objective was to develop a strategy for the academic management of private elementary schools in Thailand based on the concept of quality citizenship in the 21st century. By multi-stage sampling, the samples were 353 private elementary schools teaching at Grade 1–6 in Thailand. The research instruments were questionnaires and strategic evaluation forms to test the feasibility and appropriateness of the strategies. Data were analyzed by evaluating the priority needs index (PNI_{modified}) and SWOT analysis. The researcher used the data to develop academic management strategies based on quality citizenship attributes in the 21st century. The research results found three strategies: (1) Transform the school curriculum to enhance learners with quality citizenship attributes with 2 sub-strategies and 10 procedures; (2) Transform teaching and learning to enhance learners with quality citizenship attributes with 4 sub-strategies and 23 procedures; and (3) Transform the learning outcome measurement and evaluation to enhance learners with quality citizenship attributes with 2 sub-strategies and 10 procedures.

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Introduction

The 21st century is a digital age with borderless communication. People worldwide can communicate through the internet and use the internet to connect with devices and technologies. This internet allows everyone to have unlimited access to information and news. It has made people change their way of life, and encourages people to be alert to information and learn from outside of society, both regionally and globally, without limits. People can easily make friends on social media, follow up on national news, find health information, watch TV, listen to music online, do some online shopping, or get involved in political participation as citizens, a direct democratic process. However, the internet may bring new dangers to users such as children and young people at risk of sexual harassment, social bullying, online commercial scams, or spying on personal information. Therefore, citizenship in the 21st century is different from citizenship in the previous century due to the necessity and demand of citizens with challenging abilities and more knowledge than traditional citizens who only have political knowledge and voting. For citizenship of the 21st century, there must be an understanding of local, national, and global phenomena simultaneously, including the ability to live in today's world, which is the real world, and living online in a responsible, ethical, and safe way (Partnership for 21st Century Skills, 2006; Wongkitrungruang, 2018).

However, citizenship is not a naturally occurring feature; it has to be learned and practiced for “citizenship” to happen. (Thaewananurmitkul, 2012). In particular, school education plays an essential role in developing people to be citizens. This is multidimensional in nature; while including personal development, it also includes a commitment to thinking and acting in ways that take account of local, national, and global communities and their concerns (Cogan & Derricott, 1998; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2014). Citizenship is a status and identity based on belonging to and participating in the political domain of a nation, as well as on the civil and socio-economic domains within which individuals relate to one another and their society. In most countries, citizens are expected to fulfill various duties, responsibilities and loyalties, including participating in political processes and undertaking economic, social and cultural roles according to accepted norms, laws and regulations. Nurturing the values, attitudes and skills of citizenship is a common goal of modern education (United Nations

Educational, Scientific and Cultural Organization [UNESCO], 2017). Citizenship Education aims to develop the potential of people to be qualified citizens with good knowledge and responsibility, as well as to have desirable attributes and participate in the development of society and the nation. For this to happen, the process must start at a young age and continue until individuals reach the tertiary level and enter their working-age (Thai Civic Education, 2013).

It has been observed that the development of Thai people to be quality citizens in the 21st century is an urgent matter, and most importantly, it must be developed from a young age. Education in elementary schools is an essential foundation for developing learners' attributes to have quality citizenship qualities in the 21st century, which requires effective academic administration. In particular, this is required in private elementary schools where institutions are flexible and able to adjust management strategies. Therefore, the researcher is interested in exploring and developing academic management strategies for private elementary schools based on the concept of quality citizenship attributes in the 21st century.

Literature Review

21st century citizenship requires citizens who are as follows: informed, engaged and active; literate in civics; proficient in core academic subjects and interdisciplinary knowledge, such as environmental literacy; empowered with global competencies and 21st century skills; and, capable of participating safely, intelligently, productively and responsibly in the digital world (Partnership for 21st Century Skills, 2006). The 21st century skills gap (World Economic Forum, 2015) defined a set of 16 crucial proficiencies for education in the 21st century. Those skills include six “foundational literacies”, such as literacy, numeracy, and scientific literacy, and 10 skills that can be labelled either “competencies” or “character qualities”. Competencies are the means by which students approach complex challenges; they include collaboration, communication, critical thinking and problem-solving. Character qualities are the ways in which students approach their changing environment; they include curiosity, adaptability and social and cultural awareness (World Economic Forum, 2015). The skills are categorized into four broad sets of skills: personal, social, digital literacy, information and knowledge (Chalkiadaki, 2018).

The attributes of citizenship will vary according to the nature of the political system of which they are a part, but in general terms, they can be classified into five categories:

a sense of identity, the enjoyment of certain rights, the fulfilment of corresponding obligations, a degree of interest and involvement in public affairs, and an acceptance of basic societal values (Cogan & Derricott, 1998). Citizenship in the 21st century can be divided into three main concepts which cannot be separated but must be together: good citizenship, global citizenship, and digital citizenship (Wongkitrungruang, 2018). Good citizenship describes a citizen who is active, informed/knowledgeable, skilled and democratic (Thai Civic Education, 2013). Global citizenship describes a citizen who is aware of the wider world, respects and values diversity, understands how the world works, is passionately committed to social justice, participates in the community at a range of levels from the local to the global, and works with others to make the world a more equitable and sustainable place with responsibility for their actions (Oxfam, 2015). Digital citizenship describes a citizen who safely and responsibly uses technology (DQ Institute, 2019).

The most crucial concept in Thailand is the “Sufficiency Economic Philosophy” stated by His Majesty King Bhumibol Adulyadej and given as a way of life for Thai people. The concept is based on the foundation of Thai cultural fundamentals of the middle way and precaution. It is a method that considers moderation and reasonable self-immunity by using knowledge and virtue as the basis for living. In addition, it is vital to have “consciousness, wisdom, and perseverance,” which will lead to “happiness” in real life. The sufficiency

economy philosophy is a philosophy that points to the way the people live and act at all levels, from the family, community, to the public and private sectors. This philosophy includes the development and administration of the country to operate in a middle way and especially economic development to keep up with the globalized world wisely and stably (Office of the Royal Development Project Board, 2016). Even though this has been a concept since 1999, it is still a modern concept for modern citizens to live in a dynamic, balanced, and safe world.

Thailand’s vision as stipulated in the National Strategy (2018–2037) is “to become a developed country with security, prosperity and sustainability in accordance with the Sufficiency Economy Philosophy” with the goals aimed at maintaining national security and ensuring people’s welfare; boosting multidimensional national competitiveness to ensure consistent economic growth; empowering human capital at each and every stage of life to manifest competent and moral citizenry; broadening opportunities to improve social equality; promoting environmentally-friendly growth with improved quality of life; and developing governmental administrative efficiency for greater public benefits. The quality citizenship attributes in Thailand synthetically consists of 4 features: attributes of good citizenship, attributes of global citizenship, attributes of digital citizenship, and attributes of sufficiency economy citizenship. These cover 15 elements (Chimnoy, 2019) and are presented in Figure 1.

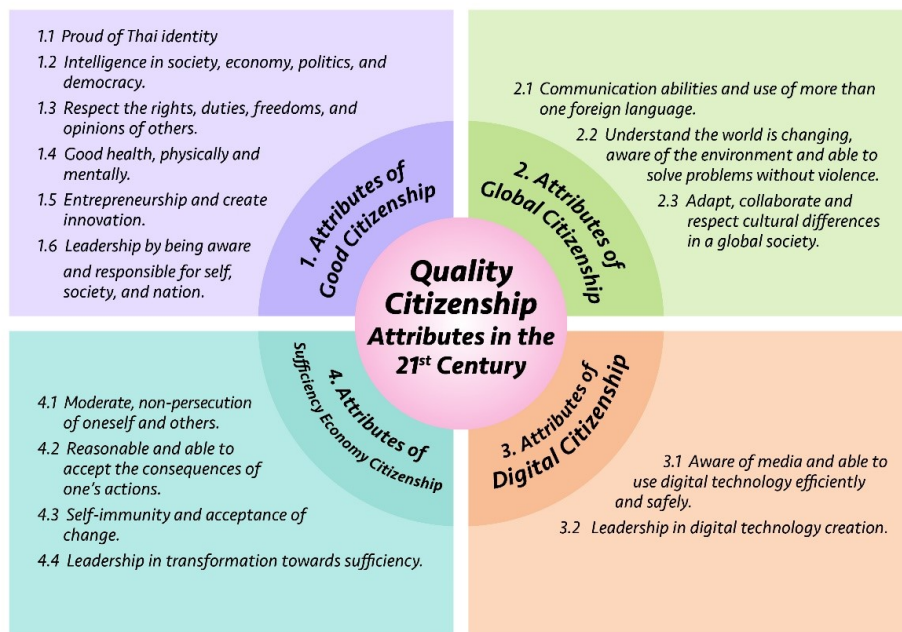


Figure 1 The quality citizenship attributes in Thailand

Source: Chimnoy (2019)

Methodology

This research was a survey research that used quantitative data collection methods and analyzes by the priority needs index method. The details are as follows.

Population and Sample

The population was private elementary schools under the office of the private education commission, Thailand, in the academic year 2019, totaling 2,522 schools. The sample group consisted of private elementary schools under the office of the private education commission of 353 schools; the sample size was determined by Yamane (1973) at a 95 percent confidence level and a 5 percent error by multi-stage random sampling method. There was a total of 1,059 respondents, which consisted of one principal, one assistant principal or head of the academic department, and one teacher who was randomly selected by the principal with a total of 3 respondents per school. For a teacher, in order to have a sample distribution covering 8 subjects, the researcher used a systematic sampling method and assigned each subject to each school.

Research Instrument

1. The present and desirable condition questionnaire on the academic management of private elementary schools based on the concept of quality citizenship attributes in the 21st century was developed to collect the perspectives of directors and teachers. A 5-point Likert rating scale was employed, ranging from strongly disagree to agree strongly. The questionnaire contained three parts: basic demographic questions, internal factor opinions about academic management, and external factor opinions that affect productive pedagogy in school.

2. A strategic assessment form was used to check the suitability and feasibility of academic management strategies. Again, a 5-point Likert rating scale was employed.

Data Collection

The questionnaires were collected by post. Due to the time frame of the research, the nature of the population, and unqualified return questionnaires, a total of 957 questionnaires were returned, representing a response rate of 90.37 percent.

Data Analysis

1. Modified Priority Needs Index. The mean and standard deviation analyzed the current state and future state and then analyzed the Modified Priority Needs Index (PNI_{modified}) (Wongwanich, 2015) based on the Equation (1):

$$PNI_{\text{Modified}} = (I-D) / D \quad (1)$$

2. SWOT Analysis: Strengths and weaknesses were analyzed from internal factors by using the PNI modified index. The highest value was taken to subtract from the lowest value and then it was divided it into two groups; the group with the high indexes were weakness and the group with the low indexes were strength. The group with the opportunities and threats were analyzed from external factors by using the PNI modified index. The highest value was subtracted from the lowest value and then it was divided it into two groups; the group with the high indexes were threats, and those with low indexes were opportunities.

3. TOWS Analysis: Strengths, Weaknesses, Opportunities, and Threats can be matched between the internal environment and the external environment into four groups: Strength-Opportunity (SO), Weakness-Opportunity (WO), Strength-Threat (ST), and Weakness-Threat (WT).

4. Strategies Development. The strategy developed for Strength-Opportunity (SO) and Weakness-Opportunity (WO). The strategic draft was prepared in three steps: Step 1: Develop Strategy Draft No. 1 and evaluate by using the Strategic Draft No.1 Assessment Form with a 5-point Likert rating scale method by 19 experts. Step 2: Develop a second edition of the strategy and review the feasibility by a focus group meeting with 16 experts. Step 3: Develop a complete strategy for academic management strategies for private elementary schools based on the concept of quality citizenship attributes in the 21st century.

Research Ethics

This research was approved by the Research Ethics Review Committee for Research Involving Human Subjects, Chulalongkorn University. Research Project No. 123/62 Certification Document No. COA No.108/2562.

Results

The results of the SWOT Analysis calculated by the PNI Modified Index are shown in [Table 1](#) and [Table 2](#).

Table 1 SWOT Analysis – Internal factors

Internal Factors	Determination of Curriculum Aim		Determination of desirable attributes of the learners		Instructional Management for 8 subjects area group		Organizing learners' development activities		Learning Outcome Measurement and Evaluation	
	Strength	Weakness	Strength	Weakness	Strength	Weakness	Strength	Weakness	Strength	Weakness
1. Attributes of Good Citizenship	0.1488		0.1770		0.1737		0.1740		0.1750	
1.1 Proud of Thai identity.			0.1220		0.1270		0.1309		0.1424	
1.2 Intelligence in society, economy, politics, and democracy.				0.2072		0.1969		0.1925		0.1870
1.3 Respect the rights, duties, freedoms, and opinions of others.			0.1721		0.1694		0.1671		0.1643	
1.4 Good health, physically and mentally.			0.1356		0.1337		0.1386		0.1421	
1.5 Entrepreneurship and create innovation.				0.2447		0.2325		0.2323		0.2290
1.6 Leadership by being aware and responsible for self, society, and nation.				0.1933		0.1944		0.1914		0.1925
2. Attributes of Global Citizenship		0.1995		0.1986		0.1942		0.1900		0.1904
2.1 Communication abilities and use of more than one foreign language.				0.2173		0.2030		0.1988		0.1977
2.2 Understand the world is changing, aware of the environment and able to solve problems without violence.				0.1913		0.1904		0.1896		0.1921
2.3 Adapt, collaborate and respect cultural differences in a global society.				0.1879		0.1894		0.1825		0.1808
3. Attributes of Digital Citizenship		0.2252		0.2349		0.2379		0.2181		0.2226
3.1 Aware of media and able to use digital technology efficiently and safely.				0.2186		0.2176		0.2005		0.2072
3.2 Leadership in digital technology creation.				0.2518		0.2597		0.2368		0.2383
4. Attributes of Sufficiency Economy Citizenship	0.1702		0.1826		0.1799		0.1756		0.1761	
4.1 Moderate, non-persecution of oneself and others.			0.1588		0.1589		0.1574		0.1586	
4.2 Reasonable and able to accept the consequences of one's actions.			0.1823		0.1803		0.1773		0.1756	
4.3 Self-immunity and acceptance of change.			0.1900		0.1866		0.1808		0.1782	
4.4 Leadership in transformation towards sufficiency.			0.2005			0.1937		0.1880		0.1912
Total	0.1847			0.1976		0.1957		0.1890		0.1905

Table 2 SWOT Analysis – External factors

External Factors	Political		Economic		Social		Technological	
	Opportunity	Threat	Opportunity	Threat	Opportunity	Threat	Opportunity	Threat
1. Determination of Curriculum Aim	0.2144			0.2441		0.2348	0.2137	
1.1 Attributes of Good Citizenship	0.1993			0.2338	0.2198		0.2021	
1.2 Attributes of Global Citizenship	0.2270			0.2599		0.2462	0.2273	
1.3 Attributes of Digital Citizenship	0.2323			0.2674		0.2568	0.2190	
1.4 Attributes of Sufficiency Economy Citizenship	0.2002		0.2168		0.2191		0.2061	
2. Determination of desirable attributes of the learners	0.2145			0.2264		0.2286	0.2132	
2.1 Attributes of Good Citizenship	0.2016		0.2171		0.2202		0.2041	
2.2 Attributes of Global Citizenship		0.2249		0.2384		0.2392	0.2218	
2.3 Attributes of Digital Citizenship		0.2348		0.2454		0.2430	0.2215	
2.4 Attributes of Sufficiency Economy Citizenship	0.1985		0.2048		0.2126		0.2064	
3. Instructional management for 8 subjects area group	0.2158			0.2345		0.2286	0.2031	
3.1 Attributes of Good Citizenship	0.2007		0.2184		0.2151		0.1964	
3.2 Attributes of Global Citizenship		0.2260		0.2466		0.2440	0.2101	
3.3 Attributes of Digital Citizenship		0.2372		0.2552		0.2490	0.2136	
3.4 Attributes of Sufficiency Economy Citizenship	0.2001		0.2177		0.2080		0.1940	
4. Organizing learners' development activities	0.2141			0.2330		0.2311	0.2152	
3.1 Attributes of Good Citizenship	0.1927		0.2169		0.2175		0.2100	
3.2 Attributes of Global Citizenship		0.2255		0.2536		0.2454	0.2230	
3.3 Attributes of Digital Citizenship		0.2458		0.2582		0.2516	0.2261	
3.4 Attributes of Sufficiency Economy Citizenship	0.1946		0.2060		0.2104		0.2022	
5. Learning Outcome Measurement and Evaluation.	0.2262			0.2375		0.2388	0.2140	
5.1 Attributes of Good Citizenship	0.2128		0.2210		0.2297		0.2031	
5.2 Attributes of Global Citizenship		0.2426		0.2521		0.2551	0.2223	
5.3 Attributes of Digital Citizenship		0.2465		0.2587		0.2559	0.2252	
5.4 Attributes of Sufficiency Economy Citizenship	0.2054		0.2189		0.2173		0.2056	
Total	0.2170			0.2350		0.2324	0.2118	

Table 1 shows academic management's internal environment based on the concept of quality citizenship attributes in the 21st century. The strengths were Determination of Curriculum Aim, Organizing learners' development activities, and Learning Outcome Measurement and Evaluation. Instructional management for the 8 subjects area group and the determination of desirable attributes of the learners were the weaknesses.

Table 2 shows academic management's external environment based on the concept of quality citizenship attributes in the 21st century. It found that the opportunities were technological and political. The threats were social and economic.

Table 3 shows a TOWS Matrix; it found that Strength-Opportunity (SO) were political and technological factors that supported the strengths of Determination of Curriculum Aim, Organizing learners' development activities, and Learning Outcome Measurement and Evaluation. Weakness-Opportunity (WO) was a political and technological factor supporting the weaknesses of

Teaching and learning management and Instructional management for 8 subject areas. Strength-Threat (ST) was economic and social factors and was a threat to the strengths of Determination of Curriculum Aim, Organizing learners' development activities and Learning Outcome Measurement and Evaluation. Weakness-Threat (WT) was economic and social factors and was a threat to the weaknesses of Teaching and learning management and Instructional management for 8 subjects area group.

Strategy Development

The academic management strategy of private elementary schools based on quality citizenship attributed in the 21st century developed from Strength-Opportunity (SO) and Weakness-Opportunity (WO) could be outlined in three strategies consisting of 8 sub-strategies and 43 procedures of sub-strategies. The strategy is shown in Table 4.

Table 3 TOWS matrix

Academic management of private elementary schools in Thailand is based on the concept of quality citizenship attributes in the 21st century	Political Factors	Economic Factors	Social Factors	Technological Factors
1. Determination of Curriculum Aim	SO	ST	ST	SO
1.1 Attributes of Good Citizenship	SO	ST	SO	SO
1.2 Attributes of Global Citizenship	WO	WT	WT	WO
1.3 Attributes of Digital Citizenship	WO	WT	WT	WO
1.4 Attributes of Sufficiency Economy Citizenship	SO	SO	SO	SO
2. Determination of desirable attributes of the learners	WO	WT	WT	WO
2.1 Attributes of Good Citizenship	SO	SO	SO	SO
2.2 Attributes of Global Citizenship	WT	WT	WT	WO
2.3 Attributes of Digital Citizenship	WT	WT	WT	WO
2.4 Attributes of Sufficiency Economy Citizenship	SO	SO	SO	SO
3. Instructional management for 8 subjects area group	WO	WT	WT	WO
3.1 Attributes of Good Citizenship	SO	SO	SO	SO
3.2 Attributes of Global Citizenship	WT	WT	WT	WO
3.3 Attributes of Digital Citizenship	WT	WT	WT	WO
3.4 Attributes of Sufficiency Economy Citizenship	SO	SO	SO	SO
4. Organizing learners' development activities	SO	ST	ST	SO
4.1 Attributes of Good Citizenship	SO	SO	SO	SO
4.2 Attributes of Global Citizenship	WT	WT	WT	WO
4.3 Attributes of Digital Citizenship	WT	WT	WT	WT
4.4 Attributes of Sufficiency Economy Citizenship	SO	SO	SO	SO
5. Learning Outcome Measurement and Evaluation.	SO	ST	ST	SO
5.1 Attributes of Good Citizenship	SO	SO	SO	SO
5.2 Attributes of Global Citizenship	WT	WT	WT	WO
5.3 Attributes of Digital Citizenship	WT	WT	WT	WO
5.4 Attributes of Sufficiency Economy Citizenship	SO	SO	SO	SO

Table 4 Academic management strategies of private elementary schools in Thailand based on the concept of quality citizenship attributes in the 21st century

Strategy/ Sub-Strategy/ Procedures	
Strategy No. 1	Transform the school curriculum to enhance learners with quality citizenship attributes in the 21st century.
Sub-Strategy No. 1.1	Transform the aim of school curriculum to enhance learners with quality citizenship attributes in the 21st century. (WO,SO)
Procedures of Sub-Strategy 1.1	<ol style="list-style-type: none"> 1.1.1 Educational institution appoints a committee to determine the aims of the educational institution's curriculum and to promote the curriculum objectives according to government policies and to add the aims of quality citizenship attributes in the 21st century. 1.1.2 The committee applied joint technology in analyzing and determining the aims of the curriculum by adding quality citizenship attributes in the 21st century and engaging the community. 1.1.3 Educational institutions determine the vision of the educational institution's curriculum to enable teachers and staff to have a common understanding of the importance of the aims of the school curriculum, which emphasizes enhancing learners to have quality citizenship attributes in the 21st century. 1.1.4 Educational institutions apply media and technology in the design of educational institutions' curricula. 1.1.5 School administrators use digital technology to organize parent meetings to create knowledge and understanding about the school curriculum aims, emphasizing parental involvement. 1.1.6 Educational institutions supervise, monitor, and evaluate the aims of the educational institution's curriculum and apply the assessment results to continuous development.
Sub-Strategy No. 1.2	Accelerate the determination of desirable attributes of educational institution curriculum to build learners with quality citizenship attributes in the 21st century. (WO, SO)
Procedures of Sub-Strategy 1.2	<ol style="list-style-type: none"> 1.2.1 The committee considers technological factors, social factors, economic factors, and community needs. Then, the committee applies technology to analyze the desirable characteristics of learners according to government policy. 1.2.2 The committee determines the desirable attributes of learners in educational institutions by adding quality citizenship attributes in the 21st century and emphasizing community participation. 1.2.3 Teachers distribute the desirable attributes in the educational curriculum to all courses and learning subjects. 1.2.4 Educational institutions supervise, monitor, and evaluate desirable attributes based on the concept of quality citizenship attributes in the 21st century in each learning subject group.
Strategy No. 2	Transform teaching and learning to enhance learners with quality citizenship attributes in the 21st century.
Sub-Strategy No. 2.1	Transforming teaching and learning 8 subjects area group to enhance learner's attributes with digital citizenship attributes and global citizenship attributes by technology and digital technology. (WO)
Procedures of Sub-Strategy 2.1	<ol style="list-style-type: none"> 2.1.1 Educational institutions determine teaching and learning policies for 8 learning subject groups and organize workshops to promote teaching and learning for developing learners to have digital citizenship attributes and global citizenship attributes. 2.1.2 Educational institutions develop teachers to apply technology and digital technology to design instructional plans for digital citizenship attributes and global citizenship attributes by integrating with 8 learning subject groups through the Professional Learning Community (PLC). 2.1.3 Educational institutions provide technology equipment and develop teachers to use digital technology media in teaching and learning. 2.1.4 Teachers organize flexible learning methods and integrate them with STEM Education, including focusing on teaching and learning that allows learners to practice (Active Learning) by applying technology media in teaching management. 2.1.5 Educational institutions organize academic teacher meetings in a symposium style and apply the results from the meetings to continually improve teaching and learning management.
Sub-Strategy No. 2.2	Transforming teaching and learning management of 8 subject area groups to enhance learner's attributes with good citizenship attributes and sufficiency economy citizenship attributes by technology, digital technology, and community network. (SO)
Procedures of Sub-Strategy 2.2	<ol style="list-style-type: none"> 2.2.1 Educational institutions determine teaching and learning policies for 8 learning subject groups and organize workshops to promote teaching and learning, developing learners to have good citizenship attributes and sufficiency economy citizenship attributes. 2.2.2 Educational institutions develop teachers to apply media and digital technology in designing teaching and learning plans which promote learners in terms of good citizenship and sufficiency economy philosophy citizenship attributes through the Professional Learning Community (PLC). 2.2.3 Educational institutions provide technology equipment and develop teachers to use digital technology media in teaching and learning.

Table 4 Continued

Strategy/ Sub-Strategy/ Procedures	
	<p>2.2.4 Teachers arrange instructional by active learning and authentic learning method which apply using technology and digital technology together with teaching and learning management including learners participating in a variety of learning activities. Then, let learners receive practical training to apply knowledge in real life for the development of quality of life and quality of society as usual.</p> <p>2.2.5 Educational institutions build networks of parents and communities.</p> <p>2.2.6 Educational institutions organize academic teacher meetings in a symposium style and apply the results from the meetings to continually improve teaching and learning management.</p>
Sub-Strategy No. 2.3	Transforming learners' development activities to enhance learners' attributes with digital citizenship attributes and global citizenship attributes by technology and digital technology. (WO)
Procedures of Sub-Strategy 2.3	<p>2.3.1 Educational institutions set up policies for organizing learners' development activities and workshops for understanding the learners' development activities with digital citizenship attributes and global citizenship attributes.</p> <p>2.3.2 Educational institutions develop teachers to apply digital technology media to analyze and design learner development activities through the Professional Learning Community (PLC).</p> <p>2.3.3 Teachers apply technology and digital technology to organize learner's development activities through project-based learning.</p> <p>2.3.4 Educational institutions provide technology equipment and develop teachers using technology and digital technology for learners' development activities.</p> <p>2.3.5 Educational institutions organize academic teacher meetings in a symposium style and continually apply the meetings' results to improve learners' development activities.</p>
Sub-Strategy No. 2.4	Transforming learner's development activities to enhance learner's attributes with good citizenship attributes and sufficiency economy citizenship attributes by technology and community network. (SO)
Procedures of Sub-Strategy 2.4	<p>2.4.1 Educational institutions have established policies for learners' development activities and organize workshops to create knowledge and understanding for developing learners with good citizenship attributes and economic philosophy sufficiency citizenship attributes.</p> <p>2.4.2 Educational institutions develop teachers to apply digital technology media in analyzing and designing learners' development activities through a community of professional learning.</p> <p>2.4.3 Educational institutions provide technology equipment and develop teachers to use digital technology media to organize learners' development activities.</p> <p>2.4.4 Teachers apply digital technology media to organize learners' development activities by experiential learning and case-based learning.</p> <p>2.4.5 Educational institutions build networks of parents and communities to promote learner development activities to enable learners to develop a comprehensive knowledge from experts in various fields both inside and outside the classroom from direct experience.</p> <p>2.4.6 Educational institutions promote student leaders with leadership and act as role models inducing others to see the importance and necessity of self-improvement.</p> <p>2.4.7 Educational institutions organize academic teacher meetings in a symposium style and continually apply the meetings' results to improve learners' development activities.</p>
Strategy No.3	Transform learning outcome measurements and evaluation to enhance learners with quality citizenship attributes in the 21st century.
Sub-Strategy No. 3.1	Transform learning outcome measurements and evaluate learners' desirable attributes for digital citizenship attributes and global citizenship attributes with technology. (WO)
Procedures of Sub-Strategy 3.1	<p>3.1.1 Educational institutions establish policies and appoint a committee to set indicators to design measurement and evaluation of learners' desirable attributes for developing learners to have digital citizenship attributes and global citizenship attributes.</p> <p>3.1.2 The committee determines indicators, criteria, and tools for measuring and assessing learners' desirable attributes using participative assessment.</p> <p>3.1.3 Educational institutions provide technology and digital technology equipment and develop teachers' knowledge and ability to apply technology to measure and assess learners' desirable attributes.</p> <p>3.1.4 Teachers measure and evaluate learners' desirable attributes of digital citizenship attributes and global citizenship attributes using a holistic assessment method and an evidence-based assessment method.</p> <p>3.1.5 Educational institutions supervise, monitor, and assess the results of measuring and assessing the desirable attributes of learners regarding digital citizenship and global citizenship attributes and apply the results to plan for developing desirable attributes continually.</p>

Table 4 Continued

Strategy/ Sub-Strategy/ Procedures	
Sub-Strategy No. 3.2	Transform the learning outcome measurement and evaluate learners’ desirable attributes for good citizenship attributes and sufficiency economy citizenship attributes with technology and community network. (SO)
Procedures of Sub-Strategy 3.2	<div>3.2.1 Educational institutions established policies and appoint a committee to set indicators to design measurement and evaluation of learners’ desirable attributes for developing learners to have good citizenship attributes and sufficiency economy citizenship attributes.</div> <div>3.2.2 The committee determines indicators, criteria, and tools for measuring and assessing learners’ desirable attributes by using participative assessment.</div> <div>3.2.3 Educational institutions provide technology equipment and develop teachers’ knowledge and ability to apply technology to measure and assess students’ desirable attributes.</div> <div>3.2.4 Teachers measure and evaluate learners’ desirable attributes of good citizenship attributes, and sufficiency economy citizenship attributes by using authentic assessment and participatory assessment methods.</div> <div>3.2.5 Educational institutions supervise, monitor, and assess the results of measuring and assessing the desirable attributes of learners regarding good citizenship attributes and sufficiency economy citizenship attributes and apply the results to plan and develop desirable attributes continually.</div>

Discussion

Strategies for the academic management of private elementary schools in Thailand based on quality citizenship attributes in the 21st century consist of three strategies that aimed to be successful by changing the educational system in terms of curriculum development, teaching management, and measurement and evaluation. The strategy used technology opportunities to promote all four aspects of quality citizenship in the 21st century and used social opportunities to promote good citizenship and Sufficiency Economy citizenship. The three main strategies were particularly suitable for Thailand for the following reasons.

The first strategy was to transform curriculum aims and accelerate the determination of desirable attributes of educational institution curricula to enhance learners with quality citizenship attributes in the 21st century. Learner’s outcomes were related to the National Education Plan 2017–2036, which shows a vision that all Thai people shall receive quality education and lifelong learning and a happy life with “the Philosophy of Sufficiency Economy” and the changing world in the 21st century. The main attributes of educational institutions for building democratic citizenship are emphasized based on curriculum design to meet the actual problematic conditions, and learner’s learning psychology, which emphasizes learners to develop skills, behaviors, and practical application for learners (Thai Civic Education, 2013).

The second strategy was to transform teaching and learning management to enhance learners with quality citizenship attributes in the 21st century by taking advantage of technology opportunities and the social context of Thailand. Technology and digital technology

have an essential role in learning styles and transforming schools. It also gives learners the opportunity to practice learned and creative innovations. In addition, it is necessary to train teachers in the use of technology to understand devices and digital technology programs as well as develop teachers to apply technology to curricula and learning activities for learners. The result will be in lasting learning outcomes for learners (Wagner et al., 2005). The initiation of digital technology in the classroom is to increase efficiency and optimal outcome. Digital technology in the classroom is not about replacing the role of teachers, but it is about supporting the role of teachers. Digital technology in the classroom aims to widen students’ learning activities in the most productive ways (Singh, 2021).

Moreover, learners should have the opportunity to understand citizenship in the context of local communities, countries, and the ASEAN region to develop active citizenship skills. This involves being alert in a variety of contexts, and realizing the importance of issues related to the development of communities, countries, regions, and the world, as well as learners, who should engage in activities with the community for learners to receive hands-on experience from various practical activities to enhance citizenship consciousness (Thai Civic Education, 2013). Through the process of transformative teaching and learning management, learners are facilitated to critically understand their perspectives of themselves, their relationships with the world, and the multiple social, cultural, economic and political forces that shape their lives. Learners are motivated to consider changes in their perspectives that lead to transformational, personal and social action, based on principles and values which meet the needs of a changing globalized world.

The third strategy was to transform the learning outcome measurement and evaluation to enhance learners with quality citizenship attributes in the 21st century by using technology, digital technology, and social community. Citizenship assessments are qualitatively dependent on providing quality feedback to learners and assessing their learning process by adjusting the teaching process by applying the assessment results, resulting in more efficiency (Thai Civic Education, 2013). The research report on the way to promote global citizenship in Thailand has reported six approaches to measure and evaluate global citizenship for learners: (1) measuring and evaluation of diversity of learning; (2) assessment and evaluation that emphasizes skills, values, rather than knowledge; (3) assessment of learner development; (4) self-assessment; (5) assessment by others; and (6) teacher-assessment (Office of the Education Council, 2018).

Conclusion and Recommendations

Creating learners with quality citizenship attributes in the 21st century is a big challenge for private elementary schools in Thailand, which has a context that facilitates school management, both course teaching, measuring, and evaluating learning outcomes as well as the budget. Political and technological factors in Thailand were an opportunity for private schools with relatively high flexibility in managing schools at all levels, especially academic management based on the concept of quality citizenship attributes in the 21st century. Academic management of good citizenship and sufficiency economy citizenship were the strengths of Thai citizenship in respects to the sufficiency economy philosophy of the late King Rama 9. However, the weakness of global citizenship and digital citizenship are factors that need to be developed to raise Thai citizenships to be quality citizenships. The researcher presented strategies that included 3 strategies, 8 sub-strategies, and 43 procedures of sub-strategies as a guideline for creating learners with quality civic characteristics in all four areas: (1) Attributes of Good Citizenship, (2) Attributes of Global Citizenship, (3) Attributes of Digital Citizenship, and (4) Attributes of Sufficiency Economy Citizenship, the latter being the quality citizenship that the Thai nation needs. Furthermore, educational policy agencies and all sectors in society must work together to apply the strategies as a guideline for primary private schools across the country into practice. Moreover, additional research is required on the academic administration of

secondary and higher education private schools to create young quality citizens in the 21st century, which can then occur continuously in all ages and create quality citizens in Thailand.

Conflict of Interest

The authors declare that there is no conflict of interest.

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References

- Chalkiadaki, A. (2018). A systematic literature review of 21st century skills and competencies in primary education. *International Journal of Instruction*, 11(3), 1–16. <http://doi.org/10.12973/iji.2018.1131a>
- Chimnoi, W. (2019). *Private elementary schools academic management strategies based on the concept of quality citizen attributes in 21st century* [Unpublished doctoral dissertation]. Chulalongkorn University.
- Cogan, J., & Derricott, R. (Eds). (1998). Setting the context. In *Citizenship education for the 21st century: An international perspective on education* (pp. 1–11). Kogan Page.
- DQ Institute. (2019). *Digital intelligence (DQ) framework*. <https://www.dqinstitute.org/wp-content/uploads/2019/03/DQGlobalStandardsReport2019.pdf>
- Office of the Education Council. (2018). *Research report on ways to promote global citizenship: International experience*. Prigwhan Graphic Co.,Ltd.
- Office of the Royal Development Project Board. (2016). *Knowledge dissemination according to the royal initiative 2: Sufficiency economy*. Office of the Royal Development Project Board.
- Oxfam. (2015). Education for global citizenship: A guide for schools. <https://www.oxfam.org.uk/education/resources/education-for-global-citizenship-a-guide-for-schools>
- Partnership for 21st Century Skills. (2006). Reimagining citizenship for the 21st century: A call to action for policymakers and educators. <https://cms.azed.gov/home/GetDocumentFile?id=58e2c4096f53b71b787231d7>
- Singh, M. N. (2021). Inroad of digital technology in education: Age of digital classroom. *Higher Education for the Future*, 8(1), 20–30. <https://doi.org/10.1177/2347631120980272>
- Thaewananarumitkul, P. (2012). *Civic education*. Nanmeebooks Co., Ltd.
- Thai Civic Education. (2013). *Conceptual framework for Thai democratic citizenship education curriculum*. Imagetech Co., Ltd.
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2014). *Global Citizenship education: Preparing learners for the challenges of the 21st century*. The United Nations Educational, Scientific and Cultural Organization.

- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2017). *Global citizenship education in Asia-Pacific: Diverse interpretations in a dynamic region*. <https://bangkok.unesco.org/content/global-citizenship-education-asia-pacific-diverse-interpretations-dynamic-region>
- Wagner, D. A., Day, B., Tina, J., Kobert, R. B., Miller, J., & Unwin, T. (2005). *Monitoring and evaluation of ICT in education projects: A handbook for developing countries*. The International Bank for Reconstruction and Development.
- Wongkitrungruang, W. (2018). *Digital citizen guide*. Digital Economy Promotion Agency, Ministry of Digital Economy and Society.
- Wongwanich, S. (2015). *Needs assessment research*. Chulalongkorn University Press.
- World Economic Forum. (2015). *New vision for education unlocking the potential of technology*. https://www.academia.edu/33277014/New_Vision_for_Education_Unlocking_the_Potential_of_Technology_Industry_Agenda_Prepared_in_collaboration_with_The_Boston_Consulting_Group
- Yamane, T. (1973). *Statistics: An introductory analysis* (3rd ed.). Harper and Row Publication.