



ASEAN Journal of Education

Journal homepage: <https://so01.tci-thaijo.org/index.php/AJE>



The Effect of Academic Administration on Learner Characteristics in Thailand 4.0 of the School Under the Secondary Educational Service Area Office Bangkok 1

Utumpon Chuenvinya*, Prapawan Trakulkasemsuk & Tinnakrittapat Rungmuang

School of Creative Educational Management, Panyapiwat Institute of Management, Nonthaburi, 11120 Thailand

Article info

Article history:

Received: 1 July 2023

Revised: 5 August 2023

Accepted: 10 August 2023

Keywords:

Academic administration, Learner's characteristics in Thailand 4.0

Abstract

This research aims to: 1) study the level of academic administration as perceived by teachers in school under the Secondary Educational Service Area Office Bangkok 1; 2) study the level of learner's characteristics in the Thailand 4.0 era in the perception of teachers in school under the Secondary Educational Service Area Office Bangkok 1; and 3) study the effect of academic administration on learner's characteristics in Thailand 4.0 era of the school under the Secondary Educational Service Area Office Bangkok 1. The sample group in this research was 375 teachers from 20 schools under the secondary educational service Area office Bangkok 1 using Taro Yamane's formula. Stratified sampling was applied according to the size of the school. After that the researcher compared sample group from each school with the whole population and then, the Sample Random Sampling was applied. The tools used in this research were academic questionnaire 2. learner's characteristics in Thailand 4.0 questionnaire. The questionnaire was distributed and completed by 375 teachers from twenty schools under the Secondary Educational Service Area Office Bangkok 1. Data analysis used in the study were frequency, percentage, mean, standard deviation and stepwise multiple regression.

The result found that: 1) academic administration according to the perception of teachers in school under the Secondary Educational Service Area Office Bangkok 1 was at high level; 2) The learner's characteristics in Thailand 4.0 of teachers in school under the Secondary Educational Service Area Office Bangkok 1 era was at high level; 3) Academic administration in the aspect of creation and development of curriculum, creation and development of educational technology and learning resources, measurement and evaluation of learning outcome and research for educational development affected the learner's characteristics in in Thailand 4.0 era of the school under the Secondary Educational Service Area Office Bangkok 1. The Correlation coefficient value (R) was .719. The results showed that all of five aspects of academic administration (independent variances) can predict learners characteristics with a percentage of 51.6 and the Multiple Regression (β) equal .277, .195, .059 and .048, respectively. Academic administration in the aspect of Curriculum administration, Technology media and learning resource provision and development, Assessment and evaluation, Research for learning development affect the learner characteristics in Thailand 4.0 era with statistical significant.

* Corresponding Author
e-mail: chuenvinya23@gmail.com

Introduction

Humans are the most important driving factors of pushing Thailand forward according to Thailand 4.0 policy vision. The primary goals of Thailand 4.0 is to develop human capital and increase competitiveness for the country. Therefore, to build Thai people 4.0 is the heart of Thailand 4.0 (Klaewdetsri, 2017). As stated in The Twelfth National Economic and Social Development Plan (2017-2021) about prioritizing human capital development, building the foundation for people to be whole, knowledgeable and have competitiveness in national manufacturing by using economic inventory digital and smart industry, learning management in Thailand 4.0 era is to generate learners who can build new product or innovations. The Ministry of Education as the head of driving learning development and educational skill set the urgent policy to improve student's innovation and digital technology capacity focusing on practical learning process through activities. The learning process focused on creating immunity for students against cyber threats in the new normal by managing learning style that aligns with the demand of job market in the future and applying digital technology to improve students. The policy is to support education institutes to design learning program that is appropriate for demand and context, modern, flexible for each student's skill in each situation. The evaluation system should be appropriate and align with learning program. The test should be essay to allow students to show their opinions in critical thinking, creativity and problem solving. It's the teacher's role in 4.0 era to continuously implant important characteristics and skills on for students. Therefore, it's the teacher's duty to facilitate in learning process (Chularut, 2018). Secondary Educational Service Area Office Bangkok 1 found that Thai learner characteristic cannot be used to developed innovations. Most of the students gained a lot of knowledge but they cannot utilize what they learned. They also lacked many aspects of characteristics such as critical thinking, problem solving, innovative creativity, teamwork, information and media literacy, information technology and communication and Education and necessary ethics for living in the modern world and future. It aligns with the results of Ordinary National Educational Test (O-NET) of the Secondary Educational Service Area Office Bangkok 1 in the aspect of critical thinking and creative thinking with the 38.92 percent mean score. The score needs to be improved despite being higher than the national score. (The Secondary Educational Service Area

Office Bangkok 1, 2020). Boonnak, Chaopo and Podapol, (2021) studied learner characteristic in 4.0 era and summarize it as critical thinking, creative thinking problem solving thinking, productivity thinking and designing thinking.

Academic administration is the main mission of the educational institution's executives. The quality of education will be shown if the administration is done efficiently. Academic work is the work that relates to curriculum, learning program and learning management. Quality of teachers tends to be the factor of educational success, especially student's learning. Quality assessment of basic education is pointed out the necessary development about academic administration that included teachers who don't value the importance of media and innovation development due to the workload. Teachers should encourage students to use learning resources inside and outside of the school. There should be continuous teaching supervision. Teachers should support and develop student's critical thinking skill, creative thinking skill, rational thinking skill, problem solving skill and practical learning style. Teachers should teach students to seek knowledge, love learning and improve themselves continuously (Wannasorn, 2020).

Moreover, more problems with schools under Secondary Educational Service Area Office Bangkok 1 are found such as curriculum development need to keep with the change of the modern situation. It aligns with Kathong and Chusorn, (2020) who stated that since curriculum is not aligned with the changing context of the society, modification of curriculum and learning process must give students the necessary characteristic to achieve progress in 4.0 era by combining technology literacy with added value and creativity value (Vejjajiva cited in Sutthinarakorn, 2017). It aligns with Office of the Education Council stated that the goal of curriculum in Thailand 4.0 era should be to build the students with 3 aspects of characteristic which are being learner people, innovative co-creator, and strong citizen. (Office of the Education Council, 2022). The problem of designing learning management in each department is not aligned with the necessary contents. Teacher still use the repeated approach and lack the teaching style that allow students to learn from real situations (Wannasorn, 2020). The learning resources in school are not enough. Some of them are not available and not up to date (Chaiprom, 2022). It is aligned with Setsuban (2017) stated that the unreadiness of learning media affects the academic administration of medium educational institutions in

Dusit district. From the above reason, academic administration is the main factor in developing students to have learner characteristics in Thailand 4.0 era. The curriculum and learning management must adapt to the age, aligns with the content of Thai society and the world. Policy and project must respond to the promotion of learner characteristic 4.0.

Objectives

1. To study the level of academic administration in the perception of teachers in school under the Secondary Educational Service Area Office Bangkok 1

2. To study the level of learner's characteristics in the Thailand 4.0 era in the perception of teachers in school under the Secondary Educational Service Area Office Bangkok 1

3. To study the effect of academic administration on learner's characteristics in Thailand 4.0 era of the

school under the Secondary Educational Service Area Office Bangkok 1.

Education in Thailand 4.0 era is the integration of science, art and technology to build people that the society needs in every dimension. The education in Thailand 4.0 era has various learning styles that align with and respond to learner's need. Applying modern technology as a tool to encourage learners to create innovations and conduct scientific research to increase national competitiveness, (Jareonsettasin, 2017) modernize the country, increase income and escape the Middle Income Trap. It is urgent to reform education for Thai children to enter Thailand 4.0 era, The curriculum must be modified to align with creating commercial innovation to drive the country Office of the Basic Education Commission, (2017). Information and Communication Technology (ICT) must be a tool to help students access knowledge. Students should be able to integrate knowledge creatively in order to develop the

Table 1 Synthesis of scope of learner characteristics in Thailand 4.0 era

Learner characteristics in Thailand 4.0 era	Scholars/ educational agencies										Frequency	percentage	
	Office of the Education Council (2021)	Sirisak (2020)	Chalamwong (2018)	Chan-o-cha (2017)	Keesookpun (2017)	Chindanurak (2017)	Sinlarat (2017)	Jareonsettasin (2017)	Buasai (2016)	Office of the Basic Education (2017) Commission			Jedaman et al. (2016)
Critical thinking		✓	✓		✓	✓	✓	✓	✓	✓	✓	9	81.82
Creative thinking for commercial innovation	✓	✓	✓	✓		✓	✓	✓			✓	8	72.73
Utilization of media technology	✓	✓	✓	✓		✓	✓	✓			✓	8	72.73
Adapting to the change	✓	✓	✓	✓	✓			✓		✓	✓	8	72.73
Problem solving		✓	✓	✓	✓				✓	✓	✓	7	63.64
Creatively working with others	✓	✓	✓	✓		✓			✓		✓	7	63.64
English				✓						✓	✓	3	27.27
Information communication	✓	✓			✓							3	27.27
Access information		✓		✓						✓		3	27.27
Information evaluation			✓						✓			2	18.18
Social responsibility						✓					✓	2	18.18
Self-learning		✓		✓								2	18.18
Entrepreneur			✓									1	9.09
Thainess					✓							1	9.09
Volunteer		✓										1	9.09

innovations to respond to the needs of the society (Upper Secondary Education Bureau, Ministry of Education, 2017; Chindanurak, 2017) Office of the Education Council (2022) identified the characteristics of Thai people 4.0 according to the national education standard of year 2018 that respond to the vision of developing country to have stability, prosperity and sustainability in form of Outcomes of Education: DOE) for educational institutes to use as framework for Thai people 4.0 that will conserve Thainess and be able to compete in international level. The characteristic includes being learner person who can adapt to the digital world and conquer the obstacles, being innovative co-creator with the co-working skill, communication skill, digital technology literacy for problem solving, positive communication, critical thinking, creative thinking, ability to create various kinds of work and being an entrepreneur. The last characteristic is strong citizen who love country and community, have a conscience as Thai and world citizen.

Academic administration is the main mission of educational executives. The quality standard of education will be obviously shown if the administration is well managed. This is the reason why academic administration is the most important factor that affect the development of learners because academic administration relates to

development of curriculum and educational institution learning style that prioritize learners, media development, tool modernization, evaluation, monitoring, and educational research for academic development (The Secondary Educational Service Area Office Bangkok 1, 2020). Those are the heart of every kind of Educational institution. The standard and quality is considered by academic work (Kao-ian, 2013)

Moreover, Researcher synthesized characteristic of learner 4.0 and scope of academic administration from scholars and educational agencies as presented in the following table.

The synthesize of all learner’s characteristic in Thailand 4.0 era went in the same direction. The researcher used frequency evaluation criteria upper than 50 percent consisted of 6 characteristics; 1. Critical thinking 2. Creative thinking for commercial innovation 3. Problem solving 4. Utilization of technology 5. Adapting to the change and 6. Creatively working with others.

It was found that the synthesize of Academic administration’s scope went in the same direction. The researcher used frequency evaluation criteria upper than 50 percent consisted of 5 aspects; 1. Curriculum administration 2. Learning administration 3. Technology media and learning resource provision and development 4. Assessment and evaluation 5. Research for learning development.

Table 2 The synthesize of academic administration’s scope

Academic administration’s scope	Scholars/ educational agencies							Frequency	Percentage
	Sangasang et al. (2022)	Sirirak (2020)	Phetmalaikul (2017)	Secondary Educational Service Area Office Bangkok 1 (2560)	Office of the Basic Education Commission (2013)	Office of Policy and Planning (2013)	Wongamudroj (2010)		
Curriculum administration	✓	✓	✓	✓	✓	✓	✓	7	100.00
Learning administration	✓	✓	✓	✓	✓	✓	✓	7	100.00
Technology media and learning resource provision and development	✓	✓	✓	✓	✓	✓	✓	7	100.00
Assessment and evaluation	✓	✓	✓	✓	✓	✓	✓	7	100.00
Research for learning development			✓	✓	✓	✓		4	57.14
Assistance for learner				✓	✓	✓		3	42.86
Production of academic documents			✓		✓	✓		3	42.86
Educational quality assurance				✓	✓	✓		3	42.86
Strengthening cooperation with relevant parties			✓	✓	✓			3	42.86

Conceptual framework

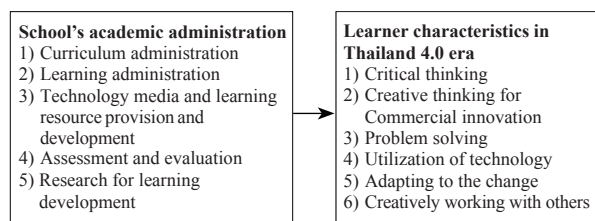


Figure 1 Conceptual framework

Research methodology

In this research, researcher used research methodology as follows, the population of this research was 5,072 teachers from 67 schools under the Secondary Educational Service Area Office Bangkok 1. (Department of Information, the Secondary Educational Service Area Office Bangkok 1, 2023). Sample group was 375 teachers from 20 schools. The size of the sample group was designed following Taro Yamane sample size table. After that, the researcher used Stratified sampling according to the size of school, then calculate the sample group in each size by comparing the ratio of the whole population and each size of school. The researcher used Sample Random Sampling by drawing until the researcher received the needed sample group. The tool of this research was questionnaires. They were 3 parts questionnaires consisting of part 1: general information of respondent. This part was checklist consisted of gender, educational degree, job position and work experience in educational institution. Part 2: Academic administration. It was 5 levels rating scale. Part 3: Learner's characteristic in Thailand 4.0 era. It was 5 levels rating scale with 42 questions. After that, the questionnaires were reviewed by experts. The Index of consistency (IOC) was equal to 1.00 every question. Language in some questions were polished following the expert's suggestion, and the definition was clarified before using. After that, the researcher tried out the questionnaires with 30 non-sample group teachers with the same qualification as the sample group. It was found that the Reliability value of part 2 was equal to .993. The part 3 was equal to .889 and overall was .994. The researcher collected data and received 375 questionnaire (100%). After that, the researcher used package program to analyze data as follows: general information was analyzed by Frequency and Percentage. Academic administration and learner's characteristics in Thailand 4.0 era was analyzed for mean value and standard deviation. The results were interpreted by comparing

mean value and criteria (Srisa-ard, 2002). Multiple Regression Analysis was used to analyze academic administration that affected learner's characteristics in Thailand 4.0 era to make forecasting equitation to analyze academic administration that affected learner's characteristics in Thailand 4.0 era by using Stepwise Multiple Regression Analysis.

Results

The results of Academic administration that affected the learner's characteristic in Thailand 4.0 era in school under the Secondary Educational Service Area Office Bangkok 1 are as follows.

1. The level of academic administration according to the teacher's opinion was at high level (\bar{x} =4.18, SD=0.63), and when consider in each item, it was found that the level was high in every item. Items 3 and 4 were 2 aspects with the highest mean value. They were the item about the executives encourage teacher to create learning unit to align with learning standard, indicator and learning outcome that is practical (\bar{x} =4.24, SD=0.73) and the executives set the policy for teacher to modernize the course to align with the changing world's trend (\bar{x} =4.24, SD=0.72). The aspect of learning administration was in high level (\bar{x} =4.30, SD =0.55), and when consider in each item, it was found that the level was high in every item. The item with highest mean score was item 8, the executive set the policy that teacher must receive learning management supervision (\bar{x} =4.50, SD=0.64). The aspect of Technology media and learning resource provision and development (\bar{x} =4.22, SD=0.63), and when consider in each item, it was found that the level was high in every item. The item with the highest score was the executive encourage teacher to create and develop educational media, innovation and technology (\bar{x} =4.32, SD=0.72). The aspect of learning assessment and evaluation was in high level (\bar{x} =4.20, SD=0.64) and when consider in each item, it was found that the level was high in every item. Aspect 1 and 2 were 2 aspects with the highest mean value. They were the item about the executive encourage teacher to create and develop various measurement and evaluation tools that align with learning standard, indicator or learning outcome (\bar{x} =4.24, SD=0.73) and the item about the executive encourage teacher to evaluate according to real condition (\bar{x} =4.24 SD=0.75). The aspect of research for educational development was in high level (\bar{x} =4.17, SD=0.68) and when considering each item, it was found that the level

was high in every item. The item with the highest mean value was the item 1: the executive encourage teacher to use research methodology to create new body of knowledge as the solution and learning development ($\bar{x} = 4.20$, $SD = 0.71$). The overall of academic administration level was in high level ($\bar{x} = 4.22$, $SD = 0.55$) and when consider in each aspect, it was found that the level was high in every aspect. The mean value was between ($\bar{x} = 4.30$, $SD = 0.55$).

2. The level of learner's characteristic in Thailand 4.0 era according to the opinion of teachers in schools under the Secondary Educational Service Area Office Bangkok 1 in the aspect of critical thinking was high ($\bar{x} = 3.95$, $SD = 0.65$), and when consider in each item, it was found that the level was high in every item. The item with highest mean value was item 1; students can sort out and collect information based on solid reasons before making decisions ($\bar{x} = 3.98$, $SD = 0.73$). The level of creative thinking for commercial information aspect was high ($\bar{x} = 3.94$, $SD = 0.69$), and when consider in each item, it was found that the level was high in every item. The item with highest mean value was item 1; students can integrate knowledge from everywhere to create creative works ($\bar{x} = 3.96$, $SD = 0.73$). The aspect of problem solving was in high level ($\bar{x} = 4.01$, $SD = 0.66$), and when consider in each item, it was found that the level was high in every item. The item with highest mean value was item 1; students can understand situations by using related information ($\bar{x} = 4.11$, $SD = 0.69$). The aspect of utilization of information technology was at a high level ($\bar{x} = 4.24$, $SD = 0.61$), and when considering each item, it was found that the level was high in every item. The item with highest mean value was item 2; students can use smartphone to seek knowledge by using internet as a tool to seek and connect knowledge ($\bar{x} = 4.33$, $SD = 0.70$). The aspect of adapting to the change was at a high level ($\bar{x} = 4.11$, $SD = 0.60$), and when considering each item, it was found that the level was high in every item. Aspects 1 and 3 were 2 aspects with the highest

mean value. They were the item about students can adapt to changing environments of society ($\bar{x} = 4.12$, $SD = 0.66$), students have good attitudes toward changing social trends and world trend ($\bar{x} = 4.13$, $SD = 0.65$). The aspect of creatively working with others was in high level ($\bar{x} = 4.10$, $SD = 0.64$), and when consider in each item, it was found that the level was high in every item. The item with highest mean value was item 2; students can participate in daily activities as a good follower ($\bar{x} = 4.14$, $SD = 0.68$). The overall learner's characteristic in Thailand 4.0 era was in high level ($\bar{x} = 4.06$, $SD = 0.55$), and when consider in each aspect, it was found that the level was high in every aspect. The aspect with the highest mean value was aspect of utilization of information technology ($\bar{x} = 4.24$, $SD = 0.61$).

Academic administration that affects learner's characteristic in Thailand 4.0 in schools under the Secondary Educational Service Area Office Bangkok 1 are presented in following table.

From the table, it was found that the academic administration that affect the learner's characteristic in Thailand 4.0 era had R^2 value equal .516. The overall variant value of the characteristic was equal to 51.6%. Academic administration in the aspect of curriculum administration (X2) affected learner's characteristic in Thailand 4.0 era with the statistically significant level at .01 level. Regression Coefficients (b) was equal to .243 and Standardized Coefficient (β) equal to .277. It was followed by the Academic administration in the aspect of technology media and learning resource provision and development (X4) that affect learner's characteristic in Thailand 4.0 era with the statistically significant level at .01 level. Regression Coefficients (b) was equal to .143 and Standardized Coefficient (β) equal to .195 and the academic administration in the aspect of Research for learning development that affect learner's characteristic in Thailand 4.0 era with the statistically significant level at .05 level. Regression Coefficients (b) was equal to .103 and Standardized Coefficient (β) equal to .048, respectively

Table 1 Analysis results of academic administration that affected learner's characteristic in Thailand 4.0 era

Variable	b	SE _b	β	t	Sig	Zero order Correlation	Collinearity Statistics	
							Tolerance	VIF
(Constant)	1.140	.160		7.108	.000			
X2	.243	.056	.277	4.325	.000	.637	.319	3.133
X4	.173	.059	.195	2.933	.004	.648	.396	3.382
X5	.210	.059	.059	3.576	.000	.653	.287	3.489
X6	.103	.048	.048	2.153	.032	.596	.380	2.629

$R = .719$ $R^2 = .516$ $SE_{est} = .390$ $F = 78.807$

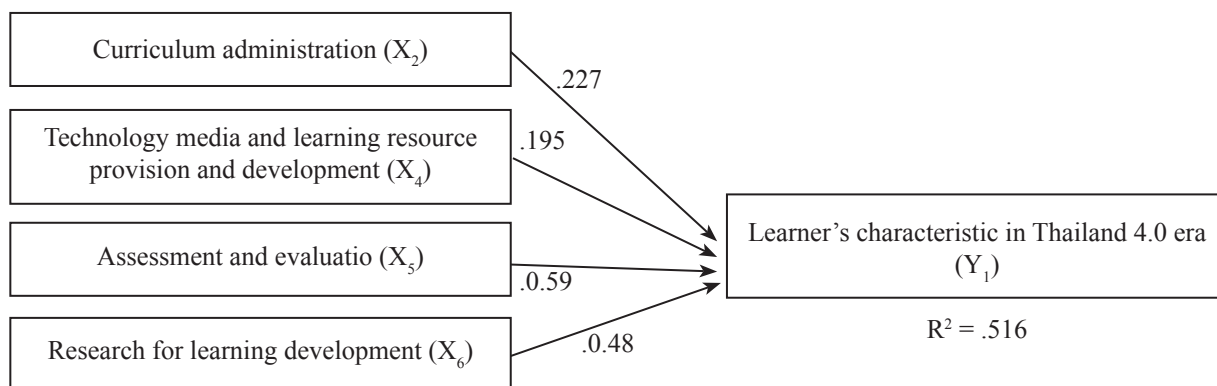


Figure 2 Aspects of academic administration that affects learner's characteristic in Thailand 4.0 era

The result of Multicollinearity of independent variable from Collinearity Statistics analysis showed that the Tolerance level equal .319, .369, .287 and .380, respectively which higher than 0.19. The VIF value equal 3.133, 3.382, 3.489 and 2.629, respectively which lower than 5.3 meaning that independent variable did not have Multicollinearity (Wiratchai, 2010). It can be forecasted as follows.

Unstandardized Score

$$Y_1 = 1.140 + .243X_2 + .173X_4 + .210X_5 + .103X_6$$

Standardized Score

$$Z = .277Z_2 + 0.195Z_4 + 0.0259Z_5 + 0.048Z_6$$

1. The level of overall academic administration of school under the Secondary Educational Service Area Office Bangkok 1 was at high level. When considering each aspect, it was found that the level was high in every aspect. The aspect with highest mean score was aspect of academic administration followed by technology media and learning resource provision and development, assessment and evaluation and curriculum administration, respectively. The aspect with lowest mean value was the aspect of research for learning development. In the aspect of academic administration, it was found that the item with lowest mean value was the executive set the policy that teacher must receive learning management supervision followed by the executive encourage teachers to make post-lesson record that align with learning objectives. The item with the lowest mean value was the executive encourage teachers to design learning unit that align with local and context of school. In the aspect of technology media and learning resource

provision and development, it was found that the item with the highest mean value was the executive set the policy for teachers to create and develop educational media, innovation and technology followed by the executive encourage teachers to apply educational media, innovation and technology with learning that align with learning contents, standard and indicator or learning outcome and learning objectives. The item with the lowest mean value was the executives support having specialized learning resources for every subject. In the aspect of assessment and evaluation, it was found that the item with the highest mean value was the executives support teachers to create and develop assessment and evaluation tool that is various and align with the learning standards, indicator and learning outcome and support teachers to evaluate according to real conditions followed by the executive encourage teachers to evaluate the quality of the learning assessment and evaluation tool. The item with the lowest mean value was the executives encourage teachers to develop their tool by using the result of the tool quality assessment. In the aspect of curriculum administration, it was found that the item with the highest mean value was the executives support teachers to create learning unit to align with learning standard, indicator and learning outcome that is practical, the executives set the policy for teacher to modernize the course to align with the changing world's trend followed by the executives participate in encouraging teacher to analyze the curriculum to align with learning standard and indicator or learning outcomes. The item with the lowest score was the executives encourage teachers to design learning unit that align with local and context of school. In the aspect of research for learning

development, it was found that the item with the highest mean score was the executives encourage teacher to use research methodology to create new body of knowledge as the solution and learning development followed by the executives encourage teachers to use the research results to improve life quality for students. The item with the lowest mean score was the executives support teachers to conduct research with the proper methodology that fit for problem and need.

2. The level of overall learner's characteristic in Thailand 4.0 era of school under the Secondary Educational Service Area Office Bangkok 1 was at high level. When considering each aspect, it was found that the level was high in every aspect. The aspect with highest mean score was utilization of media technology followed by Adapting to the change, Creatively working with others, Problem solving and critical thinking, respectively. The aspect with lowest mean value was creative thinking for commercial innovation. In the aspect of utilization of media technology, it was found that the item with the highest was students can use smartphone to seek knowledge by using internet as a tool to seek and connect knowledge. The items with lowest mean value were students can sort out and collect reliable information, adapt to changing environments of society and students have good attitudes toward changing social trends and world trends. The items with the lowest mean value were students can adapt their behavior to current situation both in school and everyday life. In the aspect of creatively working with others, it was found that the items with the highest mean value were students can participate in daily activities as a good follower followed by students can participate in daily activities as a good leader and students have intuitiveness to create work with positive outcome. In the aspect of problem solving, it was found that the item with highest score was students can understand situations by using related information followed by students use reliable reason to solve problem. The lowest mean score was students can criticize the relation between problems and find possible solutions. In the aspect of critical thinking, it was found that the item with highest score was students can understand situations by using related information followed by students use reliable reason to solve problem. The lowest mean score was students can criticize the relation between problems and find possible solutions. In the aspect of creative thinking for commercial innovation, it was found that the highest mean value was students can integrate knowledge from everywhere to create creative works

followed by students have creativity that will lead to empirical works. The item with lowest mean score was students can integrate knowledge from everywhere to create creative works with value.

3. Overall, there are 4 aspects of Academic administration that affect learner's characteristic in Thailand 4.0 era in school of school under the Secondary Educational Service Area Office Bangkok. They are curriculum administration, Technology media and learning resource provision and development, assessment and evaluation and research for learning development, respectively. Regression Coefficients was equal to .243, .173, .210 and .103, respectively. Standardized Coefficient equal to .277, .195, .059 and .048, respectively. Multiple Correlation Coefficient value was equal to .719. 4 variables can explain the variant of learner's characteristics in Thailand 4.0 era equal 51.60% with error rate from forecast equal .390.

Discussion

1. The overall of Academic administration of school under the Secondary Educational Service Area Office Bangkok 1 was at high level possibly because school under the Secondary Educational Service Area Office Bangkok 1 managed the education following The National education plan B.E. 2560-2579 (2017-2036) to improve the curriculum to be aligned with the need of school, prioritized the students in learning management, provided and developed learning tools to be able to keep up with change, used assessment result to improve, monitored, controlled and evaluated educational quality, conducted research, supported using research findings for academic development, encouraged local community to participate in learning management as a network and learning resource for learner's development, as well as drive the policy to practice continuously (The Secondary Educational Service Area Office Bangkok 1, 2017) Academic administration is the main work of the system and the heart of educational institute. The executives must understand and be aware of the mission. They must improve themselves and academic development to keep up with the education in moder age as referred in Wongsanudroj (2010) who studied the educational institution and found that 40% of the educational institution give precedence to academic administration higher than other aspects of administration. Sirirak (2020) stated that to driving academic administration towards excellence must consists of academic administration that aims for higher learning achievement, analysis of current

condition of educational institutions, policy and academic plan for each academic year, support on creating and evaluating school curriculum, development of learning process and academic basic data for every semester, meeting to plan learning management, enough provision and development of learning media for students and teachers and encouraging teachers to create their own media, innovation and technology for learning, explore of learning resources inside and outside school. In the aspect of assessment and evaluation, there must be training for teachers including supervision in classrooms to see the problems and increase efficiency in teaching. When considering in aspect, it was found that the academic administration of school under the Secondary Educational Service Area Office Bangkok 1 in the aspect of learning administration has the highest mean value possibly because the Secondary Educational Service Area Office Bangkok 1 (2017) encouraged the schools to manage the learning process following the policy of Office of the Basic Education Commission (2018) that focuses on students, allow students to learn by practicing, encourage them to improve by themselves and fulfill their potential according to their individual differences. Learning units were designed to align with students, course descriptions, nature of learning content, context of school and local. Learning activities were aligned with the various learning content and practical according to their individual differences. The synthesis of academic administration scope of Sangasang and Rojratnavanit (2023) found that the accordance of learning management should be diverse. It should be in accordance with Multiple Intelligences and future career such as Multiple Intelligences - based learning, Project - based learning, Learning from experience and Learning for self-determination. The aspect with lowest mean value was the aspect of research for learning development. It was possibly because teachers lacked understanding in research methodology. They thought research is too complicated and believed that researcher must have high level of knowledge about research and statistic. Moreover, teachers couldn't come up with a research topic, and when they could, it did not match the real problem and need. Therefore, the research findings could not be used to improve learners. Teachers also had other duties more than teaching. Since research takes a lot of time, teachers tend to only do research to meet their criteria and to maintain their academic standing.

2. The overall of learner's characteristic in Thailand 4.0 era of school under the Secondary

Educational Service Area Office Bangkok 1 was at high level possibly because school under the Secondary Educational Service Area Office Bangkok 1 drove the policy to develop student's skill to enter Thailand 4.0 era. The characteristics that need to be emphasized are 1) Critical mind because students need to be able to criticize to not be the victim of advertising about economy, politics and social in the consumerism society 2) Creative mind so that students can have creativity to create new things for themselves and society. 3) Productive mind so they can turn their ideas into new products (Office of the Basic Education Commission, 2018). Learning management that responds to vision of developing Thailand to stability, prosperity and sustainability by creating Thai people 4.0 with 3 basic characteristics which are 1) Learner person, they must be hard working, eager to learn and have a life long learning skill to be able to keep up with digital age and future world. They must have competency that comes from knowledge and aesthetics. They must know how to conserve and apply Thai local wisdom. They must have life skills to create work on the foundation of sufficiency, sustainability, quality of their life, there family and the society. 2) Innovative Co-creator. They must have cognitive skills, 21st century skill, digital intelligence, creative thinking skill, cross-culture skill, competency, cross-disciplinary integration and entrepreneur characteristic to increase opportunities and values for themselves and society. 3) Active citizen. They must love their country and local. They must have consciousness of being Thai citizen and world citizen. They must volunteer, have Ideology and participate in country development on the foundation of democracy, justice, equality for natural resources management and sustainable development and living peacefully in Thai society and world community (Office of the Education Council, 2022). Office of Secondary Education Administration (2017) stated accordingly that learning style that allows students to creatively integrate knowledge from everywhere to develop innovations that respond to the needs of society should use internet as a tool to search for knowledge. Therefore, education must support students to access the internet. It is in accordance with mission of the Secondary Educational Service Area Office Bangkok 1 number 2 about management learning to improve learner's potential, academic skill, professional skill, life skill and necessary skill for 21st century, and increase competitiveness by holding workshops training to teach students to criticize and solve

problems and project to improve student's intelligence to prepare for PIPA assessment. It is also in accordance with mission of the Secondary Educational Service Area Office Bangkok 1 number 3 about improve executives, teachers and educational staff to be professional, have language competency, digital technology competency and competency according to international professional standards, and number 6 about developing learning administration by using digital technology and encourage every party to participate in manage learning to enter Thailand 4.0 era with the strategy to develop administration system, to encourage schools to create and use research, digital technology and innovation to develop new way of education according to school context.

When considering in each aspect, it was found that the aspect of learner's characteristic in Thailand 4.0 era of school under the Secondary Educational Service Area Office Bangkok 1 with the highest mean value was the aspect of utilization of media technology. It is possibly because the Secondary Educational Service Area Office Bangkok 1 (2021) set the policy for schools to manage learning that allows students to develop their computer skills, technology and communication skills. It is in accordance with Office of the Basic Education (2017) that stated about learner's characteristics and necessary skills in school and everyday life including necessary characteristics about media technology that focuses on allowing students to be able to properly access media technology, be able to manage, connect and create information including apply with ethics and law about media technology. Funchian (2019) stated that education 4.0 is the era where learners are able to use better media technology with easy access. It causes the use of technology in supporting learning and creates innovation that respond to the needs of learners. The role of teachers in this era is to be their coach to support a body of knowledge gained from self-learning. It is aligned with Panich (2018) (referred in Office of the Basic Education, 2018) stated about characteristics of Thai children in 21st century (manpower need in 4.0 era) that they need to have computer, media technology and communication skill. The aspect with the lowest score was Creative thinking for commercial innovation. It is possibly because the learning process did not support learners to create innovation with added value. Teacher was not trained to create commercial innovation and the budget was limited. It is in accordance with Vejajiva (referred in Sutthinarakorn, 2017) stated that the solution

for Thailand in educational reform in the context of Thailand 4.0 is to manage learning process that allows students to have necessary skill to use technology with creative thinking in order to create added value.

3. From the study of Academic administration that affects learner's characteristic in Thailand 4.0 era schools in under the Secondary Educational Service Area Office Bangkok 1, it was found that there were 4 aspects of academic administration that affected overall learner's characteristics in Thailand 4.0 era. They were aspect of curriculum administration, aspect of Technology media and learning resource provision and development, aspect of assessment and evaluation and aspect of research for learning development. The aspect of curriculum administration affected the learner's characteristics in Thailand 4.0 possibly because the executives encouraged teachers to analyze the course to align with learning standards, indicator, local and school context by organizing training on the goal of the course, training on creating learning unit that is aligned with learning standard, indicator and learning outcomes especially the added subject that is aligned with learner's characteristics and practical. Moreover, the executives set the policy for teachers to modernize their course to keep up with the changing context of world trends. It is in accordance with the Secondary Educational Service Area Office Bangkok 1 (2017) stating that curriculum development must align with The National education plan B.E. 2560-2579 (2017-2036) in the aspect that respond to the context and dynamic of changing world. There must be project that improve teacher by training them to understand Thailand 4.0 such as Thai Language Teacher Move Forward in Thailand 4.0 Era Project and Chinorot open house. There must be support on budget for learner's characteristic development such as Satriwithaya School that have standard system and worth the budget respond to learning in 4.0 era. Ministry of Education encourage schools to show their potential through exhibition under topic "Morality leads Thai Teachers, Power of Networks Create Thai children 4.0". Kathong and Chusorn, (2020) studied strategy of academic administration in Thailand 4.0 era and the results showed that curriculum development is a part of academic administration strategy in Thailand 4.0 era. The aspect of technology media and learning resource provision and development affected learner's characteristic in Thailand 4.0 era. It is possibly because the executive supported budget for media technology and learning resources that appropriate for current situations and encouraged teachers to use the

them in learning to align with students, learning context, learning standard, indicator, learning achievement or learning objectives. The executive also supported learning resources for every subject and set the policy for teachers to evaluate and report the use of media technology and learning resources in accordance with Office of the Basic Education (2017) that focuses on students to access information from media properly. It is in accordance with Boonnak et al., (2021) state that learning process of Thailand 4.0 plan needs to integrate technology. The aspect of assessment and evaluation affected the learner's characteristic in Thailand 4.0 era. It is possibly because the policy of Office of the Basic Education that supported and developed assessment and evaluation of learner's quality together with learning led to development of learning and learner's characteristics. The executive organized training for teachers to create and develop evaluation tools that are diverse, appropriate and align with learning standard, indicator and learning outcomes. The executives supported assessment and evaluation. Teachers must evaluate according to real conditions and use the results of evaluation tools to improve the quality. Research for learning management affected the learner's characteristic in Thailand 4.0 era. It is possibly because the executives supported teachers to conduct research by using research methodology to create new body of knowledge that will solve problems and develop learning for students according to problems and needs. The executives organized training for teachers to understand research methodology because most teachers thought that research is too complicated and researcher must have high level of knowledge about research and statistics. Moreover, teachers couldn't come up with a research topic, and when they could, it did not match the real problem and need. Therefore, the research findings could not be used to improve learners. Teachers also had other duties more than teaching. Since research takes a lot of time, teachers tend to only do research to meet their criteria and to maintain their academic standing. It is in accordance with Radabut (2013) who studied academic administration and found that research for education development had the lowest mean score. The reason that the aspect of learning administration had the highest mean value but did not affect learner's characteristics in Thailand 4.0 era might be because 60.27% of teachers in school under the Secondary Educational Service Area Office Bangkok 1 are newly hired assistant teachers or assistant teachers who just passed the exam (Office of Policy and Planning, the

Secondary Educational Service Area Office Bangkok 1, 2022a). They might lack enough experience to manage learning process that follow 4.0 characteristics. During Covid 19 pandemic, Office of the Basic Education Commission set policy to do online learning causing the study time to be shorten for only necessary contents. It might be the reason that the learning administration was not effective. The monitoring of the applying policy with teachers and assistant teachers was not enough because teachers and students taught and studied at home. There are many policies on learning management from both Office of the Basic Education Commission and the Secondary Educational Service Area Office Bangkok 1. After Covid 19 pandemic, students experience Learning loss. Even though and the Secondary Educational Service Area Office Bangkok 1 had supervision project to follow and solve Learning loss in reading and writing of students, but the overall operation were only from master teachers. This might be the reason why learning administration did not affect the development of development of learner's characteristic in Thailand 4.0 era (The Secondary Educational Service Area Office Bangkok 1, 2022b).

Suggestions

1. The executive should develop the curriculum to align with learner's characteristics in Thailand 4.0 era, support the using technology as tool for learning, develop learning resources in accordance with learner's characteristics in Thailand 4.0 era as well as encourage teachers to use research findings to improve students.
2. The executives should support and encourage teachers to improve themselves in aspect of knowledge and understanding to support students to integrate knowledge and create work with commercial value.
3. 4 aspects of Academic administration affected the learner's characteristic in Thailand 4.0 era. In the aspect of curriculum administration, the executive should organize training on curriculum development for teachers to align with learner's characteristics 4.0 development and should increase goal of curriculum to align with learner's characteristics 4.0 development. In the aspect of Technology media and learning resource provision and development, the executives should organize training on creating digital media and have a media development contest. For learning resources, there should be learning resources for every subject and support budget to develop media and technology. In the aspect of assessment and evaluation, the executives should set

the policy to improve characteristic and critical thinking. The test must be essay test not a multiple-choice test. The test must emphasize the situation that enhances characteristic in the aspect of problem solving. For research, the executives should create understanding about research methodology for learner's characteristic development, organize training and research contest for research about learner's characteristic in Thailand 4.0 era.

References

- Boonnak, S., Chaopo, T., & Podapol, C. (2021). Education 4.0: Educational Paradigm towards future education 4.0. *Srilanchang Research Journal*, 1(1), 41-52.
- Buasai, S. (2016). *What Skill does Employer Want in Economy 4.0*. Retrieved from https://www.kroobannok.com/79626#google_vignette
- Chaiprom, N. (2022). Academic Affairs Administration of Matthaom Wat Benchamabophit School. *SSRU Academic Journal of Education*, 7(1), 67-77.
- Chalamwong, Y. (2018). *Human Resource Production and Development in the Thailand 4.0 era*. Retrieved from <https://tdri.or.th/tag/Thailand-4.0/>
- Chan-o-cha, P. (2017). *OBEC on Tour; Implementation: From Policy to Practice*. N.P.
- Chindanurak, T. (2017). Teachers and students in Thailand education 4.0. *Electronic Journal of Open and Distance Innovative Learning*, 7(2), 14-29.
- Chularut, P. (2018). Learning management for students in the Thailand 4.0 era. *Veridian E-Journal Silpakorn University*, 11(2), 2636-2680.
- Jareonsettasin, T. (2017). *OBEC on Tour; Implementation: From Policy to Practice*. 22-23.
- Kao-ian, J. (2013). *Techniques for Academic Administration in Educational Institutions Strategies and guidelines for professional executives*. Songkhla: Chanmuang Press.
- Kathong, K., & Chusorn, P. (2020). Academic management strategies of Thailand 4.0 of Schools under Khonkaen Primary Educational Service Area. *Journal of Buddhist Anthropology*, 5(3), 446-460.
- Keesookpun, E. (2017). *School Management in Digital Era*. Retrieved from <https://www.trueplookpanya.com/education/content/52232>.
- Klaewdetsri, T. (2017). *Delving deeper into the fields of study of the future*. Bangkok: Aksorn Sampan Press.
- Office of the Basic Education Commission. (2018). *Assessment Guide for Government Teachers and Educational Personnel Academic position teacher and academic position promotion*.
- Office of the Basic Education Commission. (2017). *OBEC on Tour; Implementation: From Policy to Practice*. N.P..
- Office of the Education Council. (2021). *Research report on guidelines for establishing standards for educational institutions and educational quality assurance for educational institutions*. Bangkok: 21 Century co., ltd.
- Office of the Education Council. (2022). *Research report on guidelines for establishing standards for educational institutions and educational quality assurance for educational institutions*. Bangkok: 21 Century co., ltd.
- Panich, W. (2018). *Teacher Development process with continuous support system*. Retrieved from <https://www.gotoknow.org/posts/532508>
- Phetmalaikul, T. (2017). Academic Administration and Learning Management Model to Enhance 21st Century Learners' Characteristics and Skills in Basic Education Institutes: Mixed Quantitative to Qualitative Analysis. *STOU Education Journal*, 11(1), 126-145.
- Pimdee, P., Jedaman, P., Kidrakam, P., Sukkamart, A., Wangsa-ard, K., & Suksup. C. (2016). The Educational Development in the 21st Century under the Thailand 4.0 Framework. *Journal of Industrial Education*, 16(2), 199-206.
- The Secondary Educational Service Area Office Bangkok 1. (2022a). *Action Plan for Fiscal Year 2022*. The Secondary Educational Service Area Office Bangkok 1: Policy and Plan Division.
- The Secondary Educational Service Area Office Bangkok 1. (2022b). *Standard of the Office of Educational Service Area B.E. 2565*. Bangkok: The Agricultural Co-operative Federation of Thailand., Ltd.
- Radabut, L. (2013). Academic administration of school administrators affecting quality of the digital era students of the Sattabongkot Schools Cluster under the Secondary Educational Service Area Office Pathum Thani. *Journal of Educational Administration and Leadership*, 10(38), 136.
- Secondary Educational Service Area Office Bangkok 1. (2017). *Standard of the Office of Educational Service Area B.E. 2560*. Bangkok: The Agricultural Co-operative Federation of Thailand., Ltd.
- Setsuban, S. (2017). Satisfaction of Students with Academic Administration in Medium-sized Schools Under the Office of Secondary Education Area 1. *Online Journal Graduate Study Faculty of Education (JGED)*, June 2560, 1-11.
- Sangasaeng, C., & Rojratanavanit, N. (2022). A Study of Academic Management of Schools Consortium Based on the Concept of Cross Cultural Skills Frameworks. *Journal of Modern Learning Development*. 7(7), 403-416.
- Sinlarat, P. (2017). *Education 4.0 is more than education*. Faculty of education: Chulalongkorn university.
- Sirirak, P. (2020). *Education 4.0: Academic administration in basic educational institutions towards excellenc under the Office of Secondary Education Service Area 25* (Master's Thesis). Chulalongkorn university.
- Sirisak, P. (2020). *Developing a blended learning management model to promote Thai citizens' new normal competencies 4.0, a case study of Rajinibon School, Bangkok into practice*. The 16th OEC Symposium. 122-130.
- Srisa-ard, B. (2002). *Statistical method for research*. Bangkok: Suweerivasarn

- Sutthinarakorn, W. (2017). Thailand education future in the context of Thailand 4.0 in Abhisit Vejjajiva's Perspective. *Kasetsart Educational Review*, 32(1), 47.
- Office of Policy and Planning. (2013). *School administration manual for the juristic person management development project. Document of Office of Basic Education Policy and Planning No. 4/2013*. Bangkok: The Agricultural Co-operative Federation of Thailand., Ltd.
- Office of the Basic Education Commission. (2013). *School administration manual for the juristic person management development project. Document of Office of Basic Education Policy and Planning No. 4/2013*. Bangkok: The Agricultural Co-operative Federation of Thailand., Ltd.
- Office of Secondary Education Administration. (2017). *Driving Thai Secondary Education 4.0 for Employment in the 21st Century*. Bangkok: The Agricultural Co-operative Federation of Thailand., Ltd.
- Wannasorn, O. (2021). *The Scenario of Academic Administration in Municipal Schools Towards the 21st Century Learner Skills* (Doctoral dissertation). Nakornpathom: Silpakorn University.
- Wiratchai, N. (2010). The Relationship Between Statistics and Research. *The Golden Teak: Humanity and Social Science Journal*, 15(1), 13.
- Wonganudroj, P. (2013). *Academic Administration*. Bangkok: Sun Sue Soem Krung Thep.