

# The Leadership Enhancement in Education 4.0 School Administrators

Kuljira Raksanakorn<sup>1</sup>, Supattarasak Khumsamart<sup>2</sup> & Tuwanan Ratthananin-Anan<sup>1</sup>

<sup>1</sup> Faculty of Education, North Bangkok University, Thailand

<sup>2</sup> Roi Et Provincial Office of the Non-Formal and Informal Education, Thailand

Correspondence: Kuljira Raksanakorn, Faculty of Education, North Bangkok University, Thailand.

Received: January 18, 2022

Accepted: March 7, 2022

Online Published: May 5, 2022

doi:10.5539/ies.v15n3p77

URL: <https://doi.org/10.5539/ies.v15n3p77>

## Abstract

The objectives of this research were: 1) to study the components, 2) to study the current situation and the desirable conditions, and 3) To assess needs for enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region. The sample group included schools under the Office of Secondary Educational Service Areas in the Northeast region. The data were collected from 15 school administrators, 365 teachers, with the total number of 380 persons by using Stratified Random Sampling. The instruments used in this research were component evaluation form and questionnaire. The statistics used for data analysis comprised percentage, mean, standard deviation, reliability and PNI modified. The research results were found that: I. The components for leadership enhancing in education 4.0 professional administrators consisted of 7 components as follows: 1) Knowledge and ability, 2) Leadership skills, 3) Academic skills, 4) Morality and ethics, 5) Modern skills, 6) Characteristics, and 7) Results of performance. II. The current situation for leadership enhancing in education 4.0 professional, in overall, was rated at a moderate level, the desirable conditions, in overall, were rated at the highest level. III. The priorities of needs assessment are 1) Results of performance, 2) Morality and ethics, 3) Characteristics, 4) Modern skills, 5) Leadership skills 6) Knowledge and ability, and 7) Academic skills.

**Keywords:** enhancement, leadership, education 4.0 school administrators

## 1. Introduction

Education in Thailand 4.0 is the government policy vision which needs to be transformed into innovation-driven economy as in “value-based economy” in order to enable the country to become one of the world’s leading countries by 2036 with stability and sustainability. In particular, the mission is to drive and reform the country in various manners to improve the system and the development plan for the country in preparation for opportunities and rapidly-changing threats. In Thailand 4.0 era, the success of this model requires collaboration among different parties referred to as public-private collaboration. The so-called collaboration features a private sector, a financial and banking sector, a public sector, an education sector, universities, and institutions which coordinate efforts to brainstorm and mobilize forces to drive the country towards economy and society with stable and sustainable development. That will in turn enable the future generation of Thais to have the potential to jointly develop the country, to be adaptable to the future development context, to be physically, mentally and intellectually prepared, to develop critical thinking, to have a sense of lifelong learning, to be immune to changes, to have a good conscience, to appreciate the values of Thainess, to have a sense of responsibilities to serve as the solid foundation of communities and societies, and to have patriotism and loyalty to monarchy. All of those attributes will allow Thais to be freed from poverty, to have economic security, and to live in a society of quality. In addition, they will build resilience in the country, along with a connection with the world’s population by adopting the Sufficiency Economy Philosophy of His Majesty King Rama IX as a foundation and the 20-Year National Strategy (2017-2036) as a guideline for national development covering six areas: national security; competitiveness enhancement; human resources development and empowerment; broadening opportunities and social equality; environmental-friendly development and growth; and reformation and improvement of government administration (Jenkwo & Jenkwo, 2017).

Management and administration are different from one another. On the one hand, administration involves determining organizational directions and places emphasis on thinking, external factor-based decision making, and organizations’ system and superstructure. On the other hand, management gives precedence to policy

implementation, management, internal factor-based decision making, and organizations' system and infrastructure. Notwithstanding such differences, those concerned with administration and management are in need of leadership owing to the conception that every individual can be or must be a leader. Such a conception is concerned with instilling leadership into every individual in the organization, not solely restricted to managers or executives. In a theory of leadership, elements of leadership are mentioned, such as qualities, attributes, traits, characteristics, styles, competency, behavior, strategies, and skills (Sanrattana, 2014).

Enhancement of school administrators' leadership in the present era, referred to as the 4.0 era, requires distinguishing attributes, administrative skills, roles in effective change management, and the use of data and information to determine essential strategies. Based on a review of concepts, theories, and studies of foreign and Thai scholars, four main issues of studies are identified, e.g., attributes of the new era leadership, new-age skills, education administrators' roles, and their morals and ethics in Education 4.0 (Paopan, 2016). In school administration, professional teachers and enhancement of school administrators are regarded as a vital mechanism which contributes to achieving Thailand's education reform and enables a master plan for its education reform to be effectively implemented. Those playing the most prominent role in school administration are none other than school administrators. In fact, they are of great importance and have direct effects on administration and education development of educational institutions. More importantly, they will reflect their own abilities, knowledge and professional administration especially in terms of accomplishing their work in accordance with goals of Thailand's education reform with its bureaucracy reformed simultaneously, which will reflect their capability and performance clearly. The works of school administrators have been increasingly complicated; as a result, there is a need for professional administration with improved leadership, administrative skills and knowledge, and academic leadership in school administration. According to the Office of Secondary Educational Service Areas' report on Ordinary National Educational Test (O-NET) in the academic year of 2017, students in ninth and twelfth grade achieved an average score of 33.91 (28th in rank) and 31.51 (26th in rank) respectively among 42 of the Office of Secondary Education Service Areas (the Office of Secondary Education Service Area 25, 2018). Thus, school administrators play a key role in driving educational institutions towards success, and the important approach to administrator development concerns enhancement of administration with leadership among school administrators (Gessala, 2014).

As discussed above, the present study sought to investigate and enhance leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region. It was conducted in the hope of providing guidelines and solutions; specifically, enhancement of leadership of school administrators in Education 4.0 can be used to develop school administrators and enable them to administer schools effectively and efficiently.

### *1.1 Objectives of the Study*

- 1) To investigate the components of enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region
- 2) To examine the current and desirable situations of enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region
- 3) To assess needs for enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region

## **2. Method**

In the study on the leadership enhancement in Education 4.0 school administrators, mixed-method research was employed, so both qualitative and quantitative data were collected. The study consisted of three main phases as detailed below.

Phase 1 investigated the components of enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region. It comprised two steps as follows: 1) reviewing relevant concepts and theories to identify the components of enhancement of leadership of school administrators in Education 4.0 to formulate a conceptual framework for this study; and 2) assessing those components using a semi-structured interview which had been reviewed by qualified experts.

Phase 2 examines the current and desirable situations of enhancement of leadership of school administrators in Education 4.0. It featured the following steps: 1) investigating the current and desirable situations of enhancement of leadership of school administrators through survey research; 2) collecting the data by requesting a letter of request from the university to seek assistance through the Office of Secondary Education Service Areas; and 3) using statistics to analyze the data, including frequency, percentage, means ( $\bar{x}$ ), and standard

deviation (S.D.).

In Phase 3, scores of  $PNI_{Modified}$  were taken into account for need identification. Moreover, the higher  $PNI_{Modified}$  score than the average  $PNI_{Modified}$  score of each item of needs was selected, which would indicate levels of needs for development in order. That is, the  $PNI_{Modified}$  scores would be compared ranging from the highest to the lowest. Finally, the data were presented in a specific model.

### 3. Results

The results are concluded in accordance with the objectives of the study as reported below.

1) The components of enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region: Seven components of enhancement of leadership of the school administrators were identified: knowledge and abilities, leadership skills, academic leadership, morals and ethics, new-age skills, attributes, and performance.

2) The current situation and desirable conditions for enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region

It was found that the overall current situation of enhancement of leadership of school administrators in Education 4.0 was at the moderate level. By considering each aspect separately, two aspects were found to be at a high level, including academic leadership with the highest score and new-age skills. At a moderate level, attributes achieved the highest score, followed by leadership skills, morals and ethics, knowledge and abilities, and performance respectively. Each aspect is explained below.

Academic leadership was overall found to be at a moderate level. By taking into consideration each aspect, that with the highest mean score was the working process of school administrators to achieve goals of academic work, followed by creative knowledge sharing within an organization, while that with the lowest score was authentic assessment.

Overall, new-age skills were at a high level. Considering each aspect separately, it was found that the aspect with the highest mean score was communication skills for creating positive energy, followed by up-to-date coaching and human resource development techniques. On the other hand, systems thinking skills were found to have the lowest score.

Attributes were overall at a moderate level. By taking into account each item separately, determination of clear and practical visions achieved the highest mean score, followed by constant work enthusiasm, while generosity and empathy had the lowest score.

Leadership skills were overall at a moderate level as well. When considering each aspect, it was discovered that time management skills were found to have the highest mean score, followed by teamwork skills, whereas interpersonal skills had the lowest score.

Morals and ethics were overall at a moderate level. By considering each item separately, accountability for the results of education administration achieved the highest mean score, followed by prestige. On the contrary, living appropriately in accordance with the Sufficiency Economy Philosophy had the lowest score.

Knowledge and abilities, overall, were found to be at a moderate level. By looking into each aspect separately, that with the highest mean score was knowledge about external factors affecting organizational competency, followed by positive attitudes towards working with members inside and outside organizations, generating motivation for development for all-encompassing excellence.

Similarly, performance was overall at a moderate level. When taking into account each item separately, it was discovered that integrated administration achieved the highest mean score, followed by the operation that is responsive to global changes, while the work system enabling schools to be a source of quality learning had the lowest score.

The results showed that overall the desirable situation of enhancement of leadership among school administrators in Education 4.0 was at the highest level. By considering each aspect separately, all aspects were found to be at the highest level, ranging from those with high scores to those with low scores as follows: new-age skills, attributes, performance, academic leadership, morals and ethics, leadership skills, and knowledge and abilities. Each aspect is explained below.

New-age skills were overall discovered to be at the highest level. Consideration of each aspect indicated that inspiring and motivational skills achieved the highest mean score, followed by the use of innovation and information technology in management, whereas strategic thinking skills had the lowest score.

Overall, attributes were found to be at the highest level as well. By considering each aspect separately, constant work enthusiasm had the highest mean score, followed by determination of clear and practical visions. Self-confidence, on the other hand, was found to have the lowest score.

Similarly, performance was overall at the highest level. When taking into account each item separately, results of goal achievement achieved the highest mean score, followed by the work system enabling schools to be a source of quality learning, while integrated administration had the lowest score.

Academic leadership was overall at the highest level as well. By considering each item, it was found that creative knowledge-sharing in organizations achieved the highest mean score, followed by cooperative development supervision and constant follow-up, while strategies for development of student literacy had the lowest score.

In the same manner, morals and ethics were overall found to be at the highest level. By considering each aspect separately, it can be seen that being a role model had the highest mean score, followed by living appropriately in accordance with the Sufficiency Economy Philosophy. Being respected by subordinates and other people, on the other hand, had lowest score.

Leadership skills were overall at the highest level as well. Consideration of each aspect showed that problem-solving and decision-making skills achieved the highest mean score, followed by emotional quotient such as self-control, whereas good administrative skills were found to have the lowest score. Two aspects with high mean scores were creative thinking skills and good administrative skills respectively.

Knowledge and abilities were overall at the highest level. By considering each item separately, it was discovered that contingency management achieved the highest mean score, followed by educational resource management and utilization. Research knowledge, on the contrary, had the lowest score.

### 3) Assessment of needs for enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region

The assessment of needs for the leadership enhancement of school administrators in Education 4.0 revealed that overall,  $PNI_{\text{modified}} = 0.37$ . When considering each aspect by specifying levels of needs ranging from highest to the lowest level of needs, the results are as follows: 1) performance ( $PNI_{\text{modified}} = 0.47$ ); 2) morals and ethics ( $PNI_{\text{modified}} = 0.39$ ); 3) attributes ( $PNI_{\text{modified}} = 0.38$ ); 4) new-age skills ( $PNI_{\text{modified}} = 0.37$ ); 5) leadership skills ( $PNI_{\text{modified}} = 0.36$ ); 6) knowledge and abilities ( $PNI_{\text{modified}} = 0.34$ ); and 7) academic leadership ( $PNI_{\text{modified}} = 0.33$ ). As a result, the all those needs can be ranked in order of their significance as follows: 1) performance; 2) morals and ethics; 3) attributes; 4) new-age skills; 5) leadership skills; 6) knowledge and abilities; and 7) academic leadership. Each aspect of needs is explained below.

**Performance:** By determining degrees of needs based on the higher  $PNI_{\text{modified}}$  score than the average one, the  $PNI_{\text{modified}}$  score of performance was 0.46. When considering each aspect separately, it can be ranked in order ranging from the highest to the lowest level of needs as follows: the 1<sup>st</sup> a work system enabling schools to be a source of quality learning ( $PNI_{\text{modified}} = 0.54$ ); the 2<sup>nd</sup> the results of goal achievement ( $PNI_{\text{modified}} = 0.50$ ); the 3<sup>rd</sup> building networks with communities and external organizations ( $PNI_{\text{modified}} = 0.49$ ); and the last one operation that is responsive to the global ( $PNI_{\text{modified}} = 0.48$ ). As a result, all needs were ranked in order based on their significance as follows: 1) a work system enabling schools to be a source of quality learning; 2) the results of goal achievement; 3) building networks with communities and external organizations; and 4) operation that is responsive to the global changes.

**Morals and ethics:** Considering the  $PNI_{\text{modified}}$  score higher than the average one, the  $PNI_{\text{modified}}$  score of morals and ethics was 0.37. By taking into account each aspect separately, it can be ranked in order ranging from the highest to the lowest level of needs as follows: the 1<sup>st</sup> living a life properly in accordance with the Sufficiency Economy Philosophy ( $PNI_{\text{modified}} = 0.50$ ); the 2<sup>nd</sup> being a role model ( $PNI_{\text{modified}} = 0.45$ ); the 3<sup>rd</sup> adhering to democracy and being politically neutral ( $PNI_{\text{modified}} = 0.44$ ); the 4<sup>th</sup> being self-disciplined ( $PNI_{\text{modified}} = 0.40$ ); the 5<sup>th</sup> having good management skills ( $PNI_{\text{modified}} = 0.39$ ); and the 6<sup>th</sup> 3) being honest and transparent ( $PNI_{\text{modified}} = 0.38$ ). Therefore, all aspects of needs were ranked in order based on the significance as follows: 1) living a life properly in accordance with the philosophy of Sufficiency Economy Philosophy; 2) being a role model; 3) adhering to democracy and being politically neutral; 4) being self-disciplined; 5) having good management skills, and 6) being honest and transparent.

**Attributes:** Based on the  $PNI_{\text{modified}}$  score above the average one, the  $PNI_{\text{modified}}$  score of attributes was 0.38. By taking into consideration each aspect of such needs separately, it can be ranked in order of their necessity as follows: the 1<sup>st</sup> generosity and empathy ( $PNI_{\text{modified}} = 0.54$ ); the 2<sup>nd</sup> limitless work potential ( $PNI_{\text{modified}} = 0.43$ );

and the 3<sup>rd</sup> being prudent, reasonable and creditable ( $PNI_{\text{modified}} = 0.42$ ). Hence, all aspects of needs were ranked in order of their importance: 1) generosity and empathy, 2) limitless work potentials, and 3) being prudent, reasonable and credible.

**New-age skills:** Based on the  $PNI_{\text{modified}}$  score greater the average one, the  $PNI_{\text{modified}}$  score of new-age skills was 0.36. When considering each aspect, it can be ranked in order of their necessity as follows: the 1<sup>st</sup> systems thinking skills ( $PNI_{\text{modified}} = 0.45$ ); the 2<sup>nd</sup> inspiring and motivational skills ( $PNI_{\text{modified}} = 0.43$ ); the 3<sup>rd</sup> strategic thinking skills ( $PNI_{\text{modified}} = 0.39$ ); and the 4<sup>th</sup> recruitment skills ( $PNI_{\text{modified}} = 0.38$ ). As a result, all aspects of needs were ranked in order of their importance: 1) systems thinking skills, 2) inspiring and motivational skills, 3) strategic thinking skills, and 4) recruitment skills.

**Leadership skills:** Based on the  $PNI_{\text{modified}}$  score greater the average one, the  $PNI_{\text{modified}}$  score of leadership skills was 0.36. Considering each aspect, it can be ranked in order of their necessity ranging from the highest to the lowest as follows: the 1<sup>st</sup> emotional quotient ( $PNI_{\text{modified}} = 0.43$ ); the 2<sup>nd</sup> problem-solving and decision-making skills ( $PNI_{\text{modified}} = 0.40$ ); the 3<sup>rd</sup> creative thinking skills ( $PNI_{\text{modified}} = 0.40$ ); and the 4<sup>th</sup> interpersonal skills ( $PNI_{\text{modified}} = 0.36$ ). Consequently, all aspects of needs were ranked in order of their significance: 1) emotional quotient, 2) problem-solving and decision-making skills, 3) creative thinking skills, and 4) interpersonal skills.

**Knowledge and abilities:** Given the  $PNI_{\text{modified}}$  score greater the average one, the  $PNI_{\text{modified}}$  score of knowledge and abilities was 0.34. By taking into account each aspect separately, it can be ranked in order of their necessity ranging from the highest to the lowest as follows: the 1<sup>st</sup> generating motivation for development for all-encompassing excellence ( $PNI_{\text{modified}} = 0.44$ ); the 2<sup>nd</sup> knowledge and understanding of principles, concepts and theories of educational management ( $PNI_{\text{modified}} = 0.43$ ); the 3<sup>rd</sup> contingency management ( $PNI_{\text{modified}} = 0.38$ ), and the 4<sup>th</sup> the ability to perform for better results than predetermined goals. ( $PNI_{\text{modified}} = 0.38$ ). As a result, all needs can be ranked in order based on the significance as follows: 1) generating motivation for development for all-encompassing excellence, 2) knowledge and understanding of principles, concepts and theories of educational management, 3) contingency management, and 4) the ability to perform for better results than predetermined goals.

**Academic Leadership:** Based on the  $PNI_{\text{modified}}$  score greater the average one, the  $PNI_{\text{modified}}$  score of academic leadership was 0.33. By taking into account each aspect separately, it can be ranked in order of their necessity: the 1<sup>st</sup> authentic assessment ( $PNI_{\text{modified}} = 0.43$ ); the 2<sup>nd</sup> cooperative development supervision and constant follow-up ( $PNI_{\text{modified}} = 0.39$ ); the 3<sup>rd</sup> creative knowledge sharing in organizations ( $PNI_{\text{modified}} = 0.37$ ); the 4<sup>th</sup> creating a positive learning atmosphere ( $PNI_{\text{modified}} = 0.34$ ); the 5<sup>th</sup> 3) work improvement and promotion of effective teaching to facilitate learners' learning development ( $PNI_{\text{modified}} = 0.34$ ); the 6<sup>th</sup> strategies for development of student literacy ( $PNI_{\text{modified}} = 0.34$ ); and the 7<sup>th</sup> planning for implementation of curriculums in educational institutions ( $PNI_{\text{modified}} = 0.33$ ). As a result, all needs in this aspect were ranked in order based on the significance to be a measure for strategy formulation as follows: 1) authentic assessment; 2) cooperative development supervision and constant follow-up; 3) creative knowledge sharing in organizations; 4) creating a positive learning atmosphere; 5) work improvement and promotion of effective teaching to facilitate learners' learning development; 6) strategies for development of student literacy; and 7) planning for implementation of curriculums in educational institutions.

#### 4. Discussion

In this study on The Leadership Enhancement in Education 4.0 School Administrators under the Office of Secondary Education Service Areas in the Northeast, the results are discussed below.

Components of enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region comprised 7 components, namely 1) knowledge and abilities; 2) leadership skills; 3) academic leadership; 4) morals and ethics; 5) new-age skills; 6) characteristics; and 7) performance. This finding is in line with Jenkwao and Jenkwao (2017) stating that enhancing the leadership of school administrators in Thailand 4.0 should cover personalities, personal attributes, knowledge and thinking process, social interaction skills administrative skills, and the ability to use technology and innovation. More importantly, it should include cooperative leadership rather than the exercise of power. In fact, a professional administrator should set a vision for students' academic achievements, create a warm learning atmosphere, implant leadership in others, improve teaching and learning management, and manage personnel, data, and processes. The finding is also akin to Muktarakosa, Pangthai, and Sombatsakulkit's (2018) study in that school administrators in Thailand 4.0 must possess outstanding qualifications and be knowledgeable, proficient, and well-experienced in their job responsibilities to lead schools to their intended goals, be competent for competitions and keep abreast of the times to suit Thailand 4.0; they should possess 4 components including

attributes, new-age skills, academic leadership and morals and ethics.

The current situation and desirable conditions for enhancement of leadership of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast region

Overall, the current situation was at a moderate level. By considering each aspect separately, it was found that the aspect with the highest mean score was academic leadership, followed by new-age skills, attributes, leadership skills, morals and ethics, knowledge and abilities, and performance. In fact, school administrators in the modern era should possess distinctive attributes, skills, and roles in effective change management, and the ability to use data and information to formulate strategies and implement them in the future, which is in accordance with Paopan (2016). With a review of the concepts, theories and research conducted by scholars in Thailand and other countries, four key areas of study were identified: attributes of the new era leadership, new-age skills, roles, and school administrators' morals and ethics in the 21<sup>st</sup> century. In terms of school administration, it was mentioned that professional teachers and enhancement of leadership of school administrators play an important role in enabling education reforms in Thailand to be achieved as intended as well as the master plan for education reforms in Thailand to be efficiently implemented in consistence with the National Education Plan 2017 – 2036.

Overall, the desirable situations were at the highest level. Taking into account each aspect, it was found that new-age skills achieved the highest mean score, followed by attributes, performance, academic leadership, morals and ethics, leadership skills, and knowledge and abilities respectively. It is imperative that leadership of school administrators be instilled into the administrators to strengthen the organizational effectiveness. This finding is compliant with the Office of the Basic Education Commission's policy for the national youth development into the new era in the fiscal year 2019 which aims to promote learners' quality and enable them to be proud of Thainess, to have analytical, creative, and technological skills, and to work cooperatively and live with others in the society harmoniously. Apart from that, it is consistent with the National Scheme of Education 2017-2036 in respect of Strategy 2 which places emphasis on the production and development of manpower, development of research, and innovation workforce to enhance the national competitiveness. Particularly, the goals of this strategy are as follows: 1) the national workforce possesses essential skills and capabilities which meet the requirements of the job market and needs of the national economic and social development; 2) educational institutions and organizations produce graduates with excellence and specialization in specific fields; and 3) research and development to construct knowledge and innovation that create productivity and add economic value. Strategy 3 is to develop people's proficiency at all ages and to promote a lifelong learning society with the following goals: 1) learners possess skills and characteristics of Thai citizens and other necessary skills and qualifications for living in the 21st century; 2) people of all ages have essential knowledge and skills as indicated in the educational and professional standards, and can use their potential to improve their lives; 3) educational institutions at all levels can organize activities as required by the curriculum; 4) learning centers, textbooks, educational innovations, and learning media are of high quality and standards, and people should be able to access these resources without limitation; 5) students' testing, monitoring, and assessment systems and mechanisms are effective; 6) the training and recruitment of teachers and educational personnel must meet international standards and 7) teachers and educational personnel have received standard competency training.

The assessment of needs for the leadership enhancement of school administrators in Education 4.0 under the Office of Secondary Education Service Areas in the Northeast revealed that overall  $PNI_{\text{modified}} = 0.37$ . When considering each aspect by specifying levels of needs ranging from highest to the lowest, the results are as follows: 1) performance; 2) morals and ethics ; 3) attributes ; 4) new-age skills; 5) leadership skills; 6) knowledge and abilities; and 7) academic leadership. As a result, the all those needs can be ranked in order of their significance as follows: 1) performance; 2) morals and ethics; 3) attributes; 4) new-age skills; 5) leadership skills; 6) knowledge and abilities; and 7) academic leadership. Based on those results, three first three needs ranked in priority were performance, morals and ethics, and attributes respectively. Hence, the organization administrators are required to be cultivated with leadership to strengthen the organizational effectiveness and efficiency. School administrators in the modern era should possess distinctive attributes, skills, and roles in effective change management, and can use data and information to determine strategies and put them into practice in the future. According to the studies of the concept, theories and research conducted by scholars in Thailand and other countries, it has been pointed out that the finding corresponds to Paopan's study (2016) which examined the new school administrators in the 21st century as leaders who have influences on internal personnel, play a role in establishing directions and policies, and lead educational institutions to success. It was discovered that they must possess outstanding attributes; in other words, they should be equipped with high

intellectual skills, be a professional administrator, have creativity and good attitudes, be visionary, and have high expectations of task achievement; they are also expected to develop educational institutions to be learning and innovative organizations of the new era. In addition, modern school administrators' prominent roles are to transform from a controller into a leader, to provide operational guidelines for personnel, to understand moral and cultural diversity, to implement proactive management, to adhere to the principle of participation, to transform the organization into be a small organization with flat organizational structure, and to strengthen educational partnerships. Consequently, modern organization leaders in the 21st century need to seek theoretical, practical and experiential knowledge. As discussed, there are four key areas of studies including 1) attributes of the new era leadership, 2) new-age skills, 3) roles, and 4) morals and ethics of school administrators in the 21<sup>st</sup> century. In school management, professional teachers and leadership enhancement of school administrators are considered to play an important role in enabling education reforms in Thailand to be achieved as intended as well as the master plan for such reforms to be implemented efficiently.

## 5. Recommendations

There are three main recommendations, namely policy recommendations, recommendations for implementation, and recommendations for further studies.

### 1) Policy recommendations

On the application of The Leadership Enhancement in Education 4.0 School Administrators under the Office of Secondary Education Service Areas in the Northeast to the practices in educational institutions, administrators should prioritize and create mutual awareness at the first place, along with continuous supervision, which would lead to success.

### 2) Recommendations for implementation

Performance: administrators should possess integrated management and should have the learners' achievement to be able to compete at the regional, national and international levels.

Morals and ethics: administrators should be responsible for the education administration and have public consciousness towards the educational institutions and society.

Attributes: administrators should be able to determine clear and practical visions.

New-age skills: administrators should apply more modern practices on coaching and human development as well as communication skills to create positive energy.

Leadership skills: administrators should be equipped with time management skills.

Knowledge and abilities: administrators should have knowledge of external factors that affect organizational performance.

Academic leadership: administrators should apply an effective working process for academic tasks in educational institution to achieve goals.

### 3) Recommendations for further studies

The results of this research showed that the component with the lowest mean score was academic leadership. Thus, more research and development in academic leadership should be carried out since the findings can be beneficial at both overall and educational institution levels.

In further studies, the major and minor empowerments should be separately directed to boost the accuracy and efficiency in practice.

Further studies should examine strategies to enhance leadership of professional administrators by using a wider range of participants across the country.

## References

- Gessala, L. (2014). *Strategies for Enhancing Professional in Basic Education Schools, Kalasin Province* (Doctoral Thesis in Education Administration, Graduate School, Khon Kaen University).
- Jenkwo, S., & Jenkwao, S. (2017). Being the Professional Manager in Thailand 4.0 Era. *Journal of Nakhonratchasima College*.
- Ministry of Education. (2003). *National Education Act of B.E. 2542 and Amendment (No.2) B.E. 2545 with Relevant Ministerial Regulations and Compulsory Education Act B.E. 2545*. Bangkok: Printing House of ETO.

- Ministry of Education. (2016). *Action Plan for the Fiscal Year 2017 of the Ministry of Education (for expenditure budget preparation for the year 2017)*. Bangkok: Bureau of Policy and Strategy, Office of the Permanent Secretary.
- Muktarakosa, S., Pangthai, S., & Sombatsakulkit, E. (2018). The Professionalism of the Administrators of the Thailand Education School 4.0. *Journal of Suvarnabhumi Institute of Technology, Humanities and Social Sciences*.
- Paopan, C. (2016). *The First National Education Conference, Educational Management for Local Development towards ASEAN Community: New Direction in the 21st Century*. Kalasin University.
- Sanrattana, W. (2014). *New Educational Paradigm: Conception on the 21st Century Education*. Bangkok: Thiphywisuththi.
- The Office of Secondary Education Service Area 25. (2018). *Educational Information*. Retrieved from <https://sites.google.com/a/kksec.go.th/policyandplanninggroup/>
- Wongwanich, S. (2007). *Research of Needs Assessment*. Bangkok: Chulalongkorn University Press.

### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).