

Learning Ecosystem using New Normal Active Administrative Innovation in Thai Society

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Abstract: Learning ecosystem has been using in educational context in different areas to enhance the development of leaning ability in current situation. The purpose of this article was to propose learning ecosystem using new normal active administrative innovation in Thai society. Documentary study and qualitative research synthesis were used for the study. Results showed that 1) there are four aspects to consider of setting learning ecosystem that consisted of learning differently, supportive collaborative learning, self-directed learning, and thinking utilization. 2) New normal active administrative innovation is an active administration applying constructivism concept that consisted of knowledge, persuasion, decision, implementation, and confirmation. The nature of innovation should have relative advantage, compatibility, less complexity, divisibility, and visibility. 3) e-Learning Ecosystem will be applied in new normal active administrative innovation with 3 aspects consisted of (1) content providers offer content for learning solutions that is linked to competency development and personal development, (2) consultants which are strategy consultant, compensation consultant, information technology consultants, and implementation consultants, and (3) Infrastructure which are learning content management system, content delivery system and tools. Learning ecosystem is not started from how teacher design the lesson, but it will start from acceptance the difference of learners, teachers, parents, and community by performing roles of giving and taking knowledge from learners on supportive collaborative learning

Index Terms: Learning Ecosystem, New Normal, Active Administrative Innovation

1. Introduction

The 21st century is an era of knowledge-based economy in which the factors of production and competition are changing to more intangible factors such as knowledge, information technology and cross-country trade that relies on culture as a medium. Therefore, the development of innovation is one way to help all organizations build a strong stand. It is an innovation organization with the goal of survival, and the growth and creating sustainable competitiveness.

Concept of active also known as administrative which is a learning management ,earning process based on the concept of intellectual creativity (focuses on the learning that (Constructivism process rather than the subject matter to help students connect knowledge or create knowledge in oneself encouraging or facilitating learning through ,directed learning activities-y taking action through teacher learning will be 'Learners .and evaluation of what is gained from learning activities ,synthesis ,analysis This enables students to create innovations from learning that .meaningful and apply in other situations .will be in line with new ways in Thai society

Educational administrators, as educational leaders in the technology era or e- Leadership is important and roles in the educational mission to be successful, clearly view, especially creativity far-flung imagination emphasize the integration of technology in administration and management as well as teaching and learning. 2) Enable education administrators to have administrative and management abilities by integrating technology into the school curriculum administrative system performance in school. 3) Empowerment education administrators must understand and understand the competence of school personnel as well. 4) Energize education administrators must keep the power and spark at all times to provide the power to work. 5) Engage educational administrators must be focused and focused on their work, with a strong commitment to success and high hopes and a gradual lead to the organization's goals. 6) Enhance education administrators must enhance their performance for continuous progress and the benchmarking is clearly defined. 7) Encourage education administrators in the globalization era. It is very important to motivate people to cooperate with each other and to perform their duties happily, and creating a friendly and working environment will support the work to be successful. 8) Emotion educational administrators must have emotional quality, have the ability to intuit the minds of personnel and can read other people's minds including emphasizing the satisfaction of both sides, both oneself and the employees who work together, create positive attitudes, humor, prudence. 9) Education administrators must focus on concrete work and focus on tactile goals or works. Whether it is planning performance, communication, monitoring and evaluation, and a concrete approach should be used, and 10) Eagle study administrators are more like an eagle with far-sightedness and greater overall

focus than detail. Executives should look at the goals and performance as the main as for the details, it is the duty of the owner to make their operations more efficient. E - Leadership or management in the globalized era is truly a new generation of management. Study administrators who are considered to be in charge of the mechanism and drive education towards the goal of educational reform. Whether at the level of ministry of education, universities, offices including the school administrators have to change the important paradigm. It emphasizes the integration of technology into the education system, taking into account in administration and management. In particular, education quality should be the highest aim. It is hoped that the quality of the learners both in knowledge, competence, morality, ethics and can compete with other countries with stability [1].

This article contains three key concepts: 1) the learning ecosystem, 2) innovative learning methods, and 3) proactive educational administration in Thai society. In this article, the 3 concepts and principles will be applied to be integrated and applied for further benefit in the education industry.

Thailand's Minister of Education is vowing to create an ecosystem that will bring education into the 21st century and make students ready and adaptable to the rapid changes taking place in industry and society.

"The 21st century has presented itself as an era where growth in knowledge is rapidly changing at an exponential rate. Consequently, the global supply of skilled labor becomes more competitive to meet new expectations," said Nataphol Teepsuwan, the Minister of Education.

"The need for individuals to become adaptive in a fast-paced environment becomes critical. The problem is straightforward: Thai education has yet to move," he conceded.

Thailand achieved near-universal literacy decades ago. Since then, reforms in education have moved at a more gradual pace and significant progress on modernizing the education system, geared for the current and future environment, has been increasingly emphasized in the Kingdom's strategy for more advanced development.

"Thai education must shift in a way where students depart from their 'fixed mindset' of the past and begin to incorporate a 'growth mindset' in their daily lives. This is what the Education ecosystem strives to achieve. This is the modern Ministry of Education that I plan to establish," the Minister said.

Nataphol said that the Ministry would focus on a new evaluation process for new teachers and students. Students would rely less on tests, while teachers would depend more on self-growth to advance in teaching. Education officials will develop a new curriculum and guidelines to produce quality teachers and administrative bodies that require greater management skills.

To achieve these goals, the Ministry of Education will establish a Human Capital Excellence Center (HCEC); Digital Education Excellence Platform (DEEP); and Excellence Individual Development Plan (EIDP)" [2].

Schools are living environments that allow for interactions between learners, educators and the community of people surrounding the environment. The nature of these interactions is crucial to stimulate creativity, trust and the freedom to evolve and transform. The more internal and external stakeholders engage in the maintenance and development of the entrepreneurship education ecosystem, the more dynamic and attractive education will become. To say it with the words of Taddei (2009), the environment is considered to be the "third teacher" (after the parents and the human teachers) which should be designed so as to foster new experiences, exploration, initiative, and creativity.

Acting in an ecosystem thus demands us to (i) be aware of its existence; (ii) be aware of all actors involved – inside and outside school – that may potentially impact on entrepreneurial learning; (iii) build a collaborative project – with and between all these actors - in which lecturers will play a facilitating and/or accelerating role; and collectively and regularly evaluate the results of these collaborative actions – regarding both learning outcomes and the development of an entrepreneurial culture at the school.

Hence, ecosystem cannot be created or developed entirely in a top-down approach. There is a clear facilitator role for public policy, but it is the interaction of all internal and external actors that will be a key success factor for effective entrepreneurship education ecosystem.

2. Administrative Innovation In New Normal

According to the article called "Augmented Reality Technology: Challenges for the Development of Teaching in Thailand in the 21st Century" [4] states that the vast transformation of information and communication technology in today's world, and future trends World economic, social and political basis including Thailand causing the population of the modern world to have new skills, to be ready for living in this modern world, and education can be one of the tools for building skills. Therefore, education must be transformed and it must be developed for

tangible results. The use of educational innovation has become a vital learning tool for most learners to be involved in, particularly in the way of bringing technology into a virtual classroom used in teaching especially called technology “Augmented reality technology”, which is now widely applied, studies of using augmented reality technology to develop education in Thailand have been found to have very high potential, namely 1) able to improve the learning achievement of learners, 2) to help encourage learners to have observation skills and classification skills. 3) Build students' satisfaction towards teaching materials using augmented reality technology. In many subjects 4) it is used to help build interest and appeal to learners, and 5) be able to explain things that are difficult to understand and abstract in concrete.

Considering to the article called “Skills of the 21st Century: Challenges in Student Development” [5] discussed the rapid advancement in information technology that make every region of the world able to get information quickly, connected without boundaries affecting the student's life under the changing society. It poses a great challenge in student development which emphasizes both the 21st century learning skills and important attributes for the future. The Higher Education Quality Assurance 2014 edition recognizes the importance of developing learning skills in the 21st century, which is essential and important for students in this era innovation, information, media and technology skills, life and occupational skills. In addition to learning skills in the 21st century, students are able to live and stand up in the future world happily, both in their lifestyles and in their professional career, be able to adapt to the changes needed in this century to survive, be a qualified graduate and achieve success need to strengthen the student's qualifications new futuristic skills develop awareness of nature and the environment be conscious of citizenship and make the society more livable in the future. There are five attributes in the future: 1) the proficient mind, 2) the synthetic mind, 3) the creative mind, 4) the respectful mind, and 5) the ethical mind.

According to the Research Fund (TRF) report on “Challenges of the 21st Century with Modern Learning,” discusses the issues of educational movement and innovation for the future that the global education movement is in a grand process of adaptation to prepare people to meet challenging trends and uncertainties, to capture trends and innovations in the management of education and youth development (Innovation and Trends in Education and Child). Development; INTREND) with the support of the Research Fund (TRF) in 2015 and the work to capture the movement and trend of child and youth development of the Ramchitti Institute in 2017, highlighting interesting educational ideas. In many matters since an important issue that many countries have tried to drive education for all in new definitions through various philosophical concepts both education for the future (Future-Oriented Education) that focuses on learning and designing the future. Education to create change (Transformative Education) focuses on motivation & inspiration as well as the issue of “faith” to create a stable life and mind force to a lifelong learning that connects and integrates. Learning with context and real life (lifelong learning & life-wide learning) or even education and communication concepts. Educommunication has become one of the worlds of education and digital society. The image of international movement reflects interesting educational ideas, directions and innovations both in terms of methodology learning process Subject matter to the management system to support new learning such as concepts, methods and learning management since the discovery of new knowledge in neuroscience (neuroscience) that became the basis for human development. This resulted in a dramatic reform of the lifelong learning paradigm both in terms of changing the “Pedagogy” teaching methods for school age children “Andragogy” for adult education to the subject of “Gerontology and geriatrics Education” to promote education for the elderly. The new learning process does not just need to build 21st century skills, which include the essential skills of “3R 7C 2L”, “Reading, Writing, Thinking” and “Group of skills essential to living the future” and “Learning and leadership” since childhood all over the world are also keen to develop future work skills, a wide variety of skills necessary for the life of modern people to be smart in life at different ages and ready to enter the world of work that is very dynamic up as well as being able to learn and develop themselves throughout all ages of life. In many countries, efforts are made to develop and create new knowledge or knowledge necessary for future life. An interesting set of knowledge, for example in the school-age group, found a knowledge set of 3 characteristics, the first being new knowledge to face changes and uncertainty in the future, such as future study, scenario planning alternative energy disaster education in Europe, Japan, Indonesia, the Philippines, etc.

The STEAM (Science, Technology, Engineering, Art, Maths) group that has been pushed into more important subject sets than just STEM in the United States and the West. The second characteristic is knowledge sets that focus on enhancing life skills for learners, such as sex education, media education, conflict resolution, which are strengthened to cover needs or problems of more modern learners. This includes citizenship education, civic education, and history, which have gained more substantial importance in countries such as Hong Kong, Japan and many European countries. The third appearance, focus on building work skills to prepare you for a career in a “career-oriented curriculum” style that learns important careers linked to the market and the manpower needs of each country. Each area focuses on “Learning partner” (Work-Based Learning & Experiences) to build working skills for learners from youth to working age, such as life economics course, investment money Technology and Communication Course Film and animation production courses learned through innovative studio classroom design and innovation classes. A group of mechanics usually based on a factory in the management of learning the

management of learning based on real farmland called "Farm-Based Learning" or "Wild-Based Learning" forest, which is often linked to local learning resources, is often integrated into a holistic environment. While creating a "pathway" of connected and interconnected learning new management system knowledge messages. It is another outstanding message from the experiences of many countries who have tried to drive the reform of the educational administration system seriously. Emphasis is placed on education decentralization, reform of public administration systems including the downsizing of government management (government reform and downsizing) to management of area-based education, which believes that it can better meet the needs of people in each area in terms of opportunities and equality coupled with the dimensions of the quality and the usability of the study. In addition, it emphasizes the promotion of public participation in participating in the criticism of education budget allocation in order to balance the state budget allocation method. Many countries are also investing in education unit costs to provide information on allocating equitable budgets especially with target groups in poor areas and disadvantaged children as well as building a mechanism to promote public participation through educational policy activities in the areas that affect each target group.

However, amidst educational movements and innovations in both the aforementioned learning and management dimensions. It can be seen that the education management needs to adapt to the diversity of the target group. Learning process model to measurement methods and results that believe in everyone's potential to find and develop themselves. In the learning process, therefore, there is no "Ready-made formula" is fixed, but can be variable and flexible according to individual conditions, economic and geospatial context based on participation in education management of all sectors in the area and community.

It is important that insights and lessons from the international community emphasize that tackling these burgeoning challenges requires a "community force, human power" with the capacity of the societal system that keeps up with trends and risks, work together to create a good education for people in the future.

All of these will be challenging education and research problems in the next decade that will use research as a tool to create knowledge and drive future development of education [6].

3. New Normal Active Administration Innovation

For the introduction of innovative ideas to be applied in school administration, we can apply Rogers' Diffusion of Innovations [7], which is said to be the dissemination process through communication through different channels. For a period of time between members who are in the social system or here is the school, the learning process and innovation are established. The steps are as follows: 1) Knowledge (Knowledge) is a step to perceive that innovation has occurred and find news until they have an understanding of that innovation, with factors relating to the recipient of the innovation. 2) The innovation should have five characteristics: (1) more useful than the original (Relative Advantage), (2) consistent with the culture of the society that is accepted (Compatibility), (3) not complicated, complicated very much (Less Complexity), (4) can be adopted from time to time. (Divisibility), and (5) visibility and understanding (visibility). 3) Decision is the stage where people are interested in participating in activities that lead towards behavior change and decide whether to accept that innovation or not. In general, the decision is not permanent and may change later. 4) Implementation is a step to be used as a step-by-step trial or periodically. If good results are achieved, they will be recognized quickly. 5) Confirmation is the final step of the process which is to find information to support his decision may last for a long time until accepting new ideas permanently.

4. E-Learning Ecosystem

E-Learning ecosystem is the term used to describe all the components required to implement an e-learning solution. These components fall into three categories: content providers, consultants, and infrastructure from Brodo [7].

1) Content Providers: Content providers offer content for learning solutions that is typically linked to competency development, personal development, or a critical business issue requiring improvement. The learning can be delivered through different methods, such as classroom-based, synchronous online-learning and asynchronous online learning. The term Blended Learning is used to describe a combination of these methods. According to Brodo [8], there are three types of content providers: Branded Content Provider; Commodity Content Provider and Custom Content Provider. Many elearning solutions utilize a combination of all three. A brand name content provider that is typically associated with a leading publisher or business school. A Commodity Content Provider is content aggregator that offers hundreds of titles, courses and modules in a variety of formats. Custom Content Provider is an organization that will tailor internal content and/or develop new content based on a specific requirement. Each group of content providers provides a different value proposition. There really is no right or wrong way to choose one of these groups. Your decision to choose a company from one or more of the groups should be based on your strategy, budget, organizational structure and size, overall training direction, and the relationships and confidence you have in the content provider.

2) Consultants: Brodo [9] suggested that there four different types of consultants in the e-learning ecosystem (some companies perform more than one of the following functions). A strategy consultant helps an organization to develop a new business strategy. Strategy consultants typically begin with a model and tailor it to the specific circumstances. They are usually very good at the process of designing a new e-learning structure, but weak when it comes to implementing it. Compensation Consultant specializes in developing compensation strategies designed to ensure employees are motivated to achieve business goals. Although compensation is often not directly linked to the other parts of the ecosystem, it should be reviewed to ensure people are motivated to help meet business goals. For example, an organization may have a strategy for developing and launching new products, but compensate employees on their ability to manage costs and assets. Information Technology Consultants help organizations set up the infrastructure required to perform e-business and the processes to operate efficiently and seamlessly. Implementation consultants help organizations put new systems, strategies and plans in action. They work with IT teams and strategy groups to successfully implement a new system.

3) Infrastructure: Brodo [10] defines infrastructure as the "plumbing" for the management, delivery and tracking of e-Learning. It consists of learning content management system; content delivery system and tools. A learning content management system (LCMS) is a software solution that enables organizations to efficiently manage the process of training and development. The benefit of LCMS is its ability to be online, providing instant access to data and information regarding the usage and effectiveness of training. The LCMS also allows organizations to generate reports specifying who has been to what programs, how they did it, what else they are signed up for, and much more. A good LCMS must be able to manage all forms of learning, including instructor-led, asynchronous and synchronous e-learning. A content delivery system (CDS) is online software that allows training to be delivered over the Internet. The two types of content delivery systems are asynchronous and synchronous. Asynchronous content delivery systems use open platforms and development standards to physically design and deliver the content for anytime access. Asynchronous content delivery systems provide many interactive features that leverage the full power of the Internet, such as chats, peer counseling, communities, coaching and document sharing. Synchronous content delivery systems enable the simultaneous online delivery of content to a group of people at a specified time. Tools transfer core intellectual property into a learning object. For example, Flash is an authoring tool from Macromedia that is used to develop interactive online content. These tools are used to create content that fully engages the learner and increases memory. Digital ecosystem varies distinctively in a different context. In an educational context, digital learning content is produced, administered and manipulated in an intricate and changing environment [11].

5. Related Concepts And Literature

The four principles of learning ecosystems are [12] 1) different life and different learning methods. That in fact it is not a learner with impaired or not able to learn because in fact, students have different ways of learning, understanding and expressing. What are the various learning methods associated with? Thai education may have to go into more understanding this point. In a process that we select or endeavor to promote a wide variety of learners. How do we use it? Do we accept learning differently or are we still caught in the trap of learning disabilities? Not a student with impaired or not able to learn but the learning method has a different nature. Many times, we tend to focus on what we have to say or the learning outcomes that we set. We may have to come back and ask that question. 'What is the thing that the learners can learn by themselves?' because it is based on the students' preferences, and he will do well but we never search for and promote this thing to be developed further. 2) Supportive learning, learning is like a tree that cannot grow at all. This is called the feedback loop such as nature cannot grow all the time at the same rate or increasing more all the time, and nature has a rhythm for its growth in its own way. The question is, in that learning process. How can we accept this phenomenon among learners? Do we have too many requirements to grow learners in our context? 3) Good teaching is not saying that 'How to grow in steps', but if we prepare the soil prepare points that is conducive to growth, and the roots of learning can glide and grow. Learning is like a tree that cannot always grow but with different rhythm and speed. 4) There is no waste of thought in the classroom. There is a lot of information or knowledge that may be in the learner's head, but never been used or it may have been mentioned and then been forgotten and disappeared. Subsequently, students could be punished for littering the thought in the classroom but in a good learning environment no idea waste or leftovers for learning and we need to come up with a process for digesting seemingly useless things [13]. It is comparable to the fact that education may require a vulture of learning. In which nature, dead animal carcasses have the potential to spread disease, but the vultures will be able to handle these carcasses that learning ecosystem did not begin. How do teachers design teaching and learning? However, it must start from accepting the diversity of the learners and accepting that teachers, parents or the community can be both a giver and a recipient of knowledge from learners on a mutually supportive relationship.

The article "Artificial Intelligence Digital Learning Ecosystem for Smart Learning" [14] discusses the Artificial Intelligence Digital Learning Ecosystem for smart learning as a space for learning and learning various contents

through artificial intelligence or AI in the teaching process will use artificial intelligence to support teachers, support learners, meet the needs of many different learners at the same time, personal assistance automatic rating and identify weaknesses in the classroom. This is divided into 3 learning areas according to the nature of the area: 1) the classroom, 2) outside the classroom, and 3) the home. Artificial intelligence plays four main roles: 1) the intelligent creator, 2) the virtual teacher, 3) the intelligent tutor, and 4) the intelligent system administrator.

The development of an artificial intelligence learning ecosystem empowers learners to use digital technology to make intelligent learning at any time and in any location. Be responsible for both oneself, the teacher, and the course content.

In the 21st century, it is time for Knowledge-based-Economy where factors of production and competitive factors are changing and become intangible. Thus, development of innovation is one way to help every organization to create a stronger standpoint and turn into innovative organization. Their goals are to survive, grow and build sustainable competitive performance, turning into innovative era is consistent with the Royal Act of Education B.E. 2542 as revised (No. 2) B.E. 2544 Section 9 of educational technologies. It has been stated that State shall promote and encourage the production and development of academic books, textbooks, media, materials, and other educational technologies by accelerate development of production capacity, provide funding and provide incentives to producers and educational technologists. Therefore, it is necessary that schools must develop their innovations or use innovations to improve quality of education. In order to build, develop or use innovation in education, leader or educational administrator must rely on innovative thinking which basic skills to generate innovation in organization are. Their Innovative leadership must be implemented with cooperation from teachers and staffs to improve student's quality by innovative product. The continuation of this whole process will lead the schools stepping towards innovative organization.

From the article on "Innovation in Academic Management of Basic Educational Institution Administrators" [16]. This research aims to 1) study innovation in academic administration of basic education institution administrators, 2) study innovation of appropriate academic administration of basic education institution administrators. The population used in this research is: 1 school administrator, 1 deputy director of education or academic teacher, and one teacher responsible for the subject matter group, including 3 from 100 educational institutes, divided into sub-district office 50 educational institutions and under the Primary Educational Service Area Office of 50 educational institutions, including 300 data providers. The research tools were questionnaires. The statistics used in data analysis were frequency, percentage, mode, and the Kendall Coefficient of Concordance. The results of the research showed that 1) the academic administration innovation of basic school administrators, there were 50 innovations in various educational institutions. Therefore, it can be seen that each educational institution can and has the potential to create innovation by themselves, and 2) appropriate academic administration innovation of the basic education institution administrators, there are 12 innovations including (1) school administration innovation, (2) participatory management innovation, (3) teaching model management innovation, (4) individual student teaching innovation, (5) management innovation according to educational quality assurance principles, (6) administrative innovation integrated, (7) management innovation using technology and communication, (8) Management innovation using network partners, (9) team management innovation, (10) management innovation according to Tip Co, (11) Management innovation a form to develop the quality of distance education through information technology, and (12) innovation in the management of computer learning center.

Therefore, innovative education management is proactive by the administrators, in addition to being a test of leadership, but also as educational management, prepare yourself for a learner-centered learning process with the goal of promoting teaching and learning management to have potential in order to be a part of the creation of the standard of higher education of the nation in the future.

6. Body Of Knowledge

Body of knowledge from the study of this article can be summarized as the following figure.

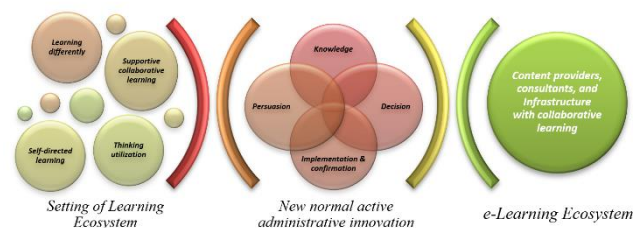


Fig. 1 Body of knowledge from the study

7. Conclusion

Education administrators are important people in providing quality education and influencing internal personnel, having a role in setting policy direction and leading the school to success and achieving the quality goals of education, that is for quality learners, be human of quality and potential by having important skills. The new normal educational administrators must therefore be highly competent persons related to the changing circumstances that have occurred, the world of competition, the development direction and guidelines for the country's educational reform. Developing educational institutions is to be able to provide teaching and learning and to adapt to the changes. Therefore, the education administrators in the new normal must be ready for outstanding features. There is a quest for knowledge in theory, skills, roles, duties, morality, ethics and experience from educational administration to develop educational institutions to become a learning organization and to build educational institutions to be a new generation of innovative organizations in response to Competition and keep up with the world change effectively [17]. It will guide learners to develop new thinking skills [18], and it is a way of development and a new paradigm shift that is from the original paradigm that the teacher gave knowledge to students in various institutions. It is also changing to help design a collaborative learning process between teachers and all children and youth in society, that is, the learning process is more important than knowledge. In addition, the teacher is not the one who gives knowledge but is the designer of the learning process at the same time with children and youth because the knowledge itself is too vast to be able to give to the student. Students in the new century also have a way to find knowledge for themselves everywhere, both in the environment and on the internet. If Thai education is still stuck with the original paradigm, which means giving knowledge as a course, it will not be in time to catch up with the world situation. What should be done is to have a new paradigm to develop children and youth into lifelong pursuers. What children and youth will learn depends on their individual context, but what everyone should have is the ability to learn at all times throughout life and constantly develop oneself. The next paradigm development is learning and innovation skills; information, media and technology; life and work skills and the educational support system of the 21st century, arguing that it is caused by the forces that force education to inevitably change: the world is changing both economically with the emergence of industry and new world professions arising from the advancement of information technology, however, the development of people of the future should complete 5 dimensions in which the characteristics related to human beings are person to person, which is considered a better dimension to look at people as machines, which are proficient minds, creative mind, the mind knows synthesis, the mind knows respect and the mind knows ethics. Therefore, education administrators should make major policy adjustments to guide the development of schools for a new world by harmonizing curriculum standards, teaching methods and assessments, build professional strength among teachers and school administrators without neglecting the role of the professional learning community and towards the advancement of new world skills, changing schedules, allowing teachers to be more involved in professional decision making and allocate resources to educational institutions equally administrators should focus on teachers to be able to shift the curriculum from a unilateral approach to teaching that allows students to participate in problem-solving and questioning. which can be used by students of all ages and all skill levels. Therefore, technology and innovation that are important to learning in the new age that is to bring ideas into concrete or to visualize democracy and a culture of participation in learning that will lead the Thai education system to advance internationally.

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