Edelweiss Applied Science and Technology

ISSN: 2576-8484 Vol. 8, No. 4, 542-552 2024 Publisher: Learning Gate DOI: 10.55214/25768484.v8i4.1129 © 2024 by the authors; licensee Learning Gate

The development of an indicator model for administrative management of faculty of physical education Thailand national sport university the road to a sport learning organizations in ASEAN

Wongphat Chudam

Faculty of Physical Education, Thailand National Sports University Trang Campus, Chonburi, Thailand; nino_2914@hotmail.com (W.C.).

Abstract: This research aimed to examine the congruence of an indicator model for administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN with the empirical data. The research was implemented in 3 phases. The phase 1 aimed to study an administrative management indicator of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN. An in-depth interview was used with 5 key informants selected by a purposive selection method. The instruments used were an in-depth interview and analytic induction. The phase 2 aimed to make indicators of administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN. Key informants included 17 experts selected by a purposive selection method. The instrument used was a rating scale questionnaire to conclude the findings and determine administrative management indicators for Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN for the benefits of harmony and accuracy. The phase 3 aimed to examine the congruence of administrative management indicators for Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN. The sample comprised instructors, students of Faculty of Education and stakeholders, 490 persons in total. The instruments used in this phase were a rating scale questionnaire and confirmatory factor analysis. The research results indicated that 1) there were 5 aspects of the competency-based learning management indicator for professional education teacher students as follow: 1. Factors of administrative management mechanism, 10 indicators, 2. Factors of instructor quality, 6 indicators, 3. Factors of learning management, 17 indicators, 4. Factors of student capability enhancement, 9 indicators, 5. Factors of athlete capability enhancement to excellence, 7 indicators, 49 indicators in total. All of them were consistent, 2) the factor measurement model was consistent with the empirical data. It was found that the model was well congruent with the empirical data, considered from the relative Chi-square that was 0.487(well consistent), GFI (Goodness of Fit Index) was 0.674 (well consistent), AGFI (Adjusted Goodness of Fit Index) was 0.482 (fairly consistent), and RMSEA was 0.05 (fairly consistent). Therefore, the null hypothesis stating that the research model was congruent with the empirical data.

Keywords: Faculty of physical education, Indicator development/Administrative management, The road to sports learning organization.

1. Introduction

Thailand will face significant changes both domestically and internationally and the changes are rapid and complex more and more. It is both an opportunity and a risk for country development. Therefore, it is necessary to bring the existing immunity and accelerate the strengthening of the

^{© 2024} by the authors; licensee Learning Gate

^{*} Correspondence: nino_2914@hotmail.com

country immunity to prepare for the people, society, and economic system of the country for reaching adaptability and being able to facilitate the impact of changes appropriately, making the country developed accordingly. Implementing Thailand 4.0 policy to achieve prosperity, stability, and sustainability, education reform and the country's educational management process are the most important mechanism. Currently, Thailand model of educational management in terms of educational system, instructional curriculum, measurement and evaluation, and educational management structure is not consistent with and not conducive to the policy. The quality of education occurs to learners cannot be measured and evaluated at all. There should be the decentralization of power to educational institutions to be a juristic person that is responsible for the outcome of educational management. Ministry of Education must be smaller. There must be the separation between the policy, supervision, monitoring, and operations departments but they must be linked together in order to ensure the structure can respond to the needs of Thailand 4.0 [1] In education reform, the power must be decentralized to educational institutions as required by laws. The roles between regulator and operator must be clearly separated. The centralized system provides a channel for seeking benefits, a lack of monitoring system, which will affect the overall quality of education in the country. This is consistent with [2] proposing that things must not be the same. The size of Ministry of Education must be reduced 10 times, the educational goal must be changed from creating followers to creating leaders, learning must be focused instead of teaching, methods of learning and teacher production must be adjusted, etc.

Education reform is a major challenge for all sectors and success can be achieved through effective management that is ready for the challenges and changes that arise, especially the development of essential skills for the 21st century and becoming Thailand 4.0 that require effective human capital management and development [3]. Education is an important tool for building people, society and nation. Ministry of Education by Office of the Education Council prepared the National Education Plan 2017 – 2036 to set a frame of goals and direction of the country educational management. Emphasis is placed on providing education for all Thai people to be able access opportunities and equality of quality education, developing effective educational management, developing people to have work competencies consistent with demands of labor market and the country [4] under the expectation that education is the major mechanism for developing quality people to be able to live happily with other people in the rapidly changing society of the 21st century.

The administrative management of Faculty of Physical Education, Thailand National Sports University is an administrative concept that will be a mechanism driving education reform to be successful. However, according to the synthesis of the concepts, principles and methods of the administrative management, it was found that Faculty of Physical Education needs to adopt those concepts, principles and methods to determine an indicator. Faculty of Physical Education, Thailand National Sports University is a juristic institution of higher education under the supervision of Ministry of Tourism and Sports. It provides undergraduate program in physical education (4 years) (revised curriculum B.E. 2562). The curriculum was improved from the Bachelor of Education curriculum, consistent with the national economic and social development plan, aiming at producing graduates to meet local and social needs. The goal is to promote physical, mental, emotional, social, and intellectual development, generosity, and athletes. Emphasis is placed on theory-practice learning, adhering to collaboration with the educational institution and community organizations that shall lead to professional development and student development. Consequently, the researcher is interested in studying the issue that if an indicator model for administrative management of Faculty of Physical Education, Thailand National Sports University is made and developed to be a base comprehensively covering the mission of the educational institution in terms of the role of supporting decentralization and the role of being a juristic educational institution, it will be beneficial to Thailand National Sports University in selecting the indicator for preparing a tool in directing, monitoring, and managing the Faculty of Physical Education, Thailand National Sports University to be more efficient.

2. Research Objectives

To study the components of administrative management indicators of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN.

To develop indicators of administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN.

To examine the congruence of an indicator model for administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN with the empirical data.

3. Research Methodology

The research on the development of an indicator model for administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN was conducted on the basis of research and development. The research was implemented in 3 phases as follow:

Phase 1 – component synthesis was conducted using an in-depth interview.

Phase 2 – determination of factors was conducted using Delphi technique.

Phase 3 – verifying the quality and appropriateness of factors of an indicator model for administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN was conducted using confirmatory factor analysis (CFA). Step 1: Study and survey preliminary data

Phase 1 – the researcher conducted a preliminary data survey by analyzing and synthesizing research and reports relevant to educational management principles, theories, and concepts before determining the research conceptual framework.

Phase 2 – analysis of indicators for administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN was conducted by analyzing and synthesizing documents, research and reports relevant to educational management principles, theories and concepts. A semi-structured interview was used with 5 experts selected by purposive random sampling.

4. Population and Group of Informants

Population was persons relevant to the administrative management of Faculty of Education, Thailand National Sports University among those involved in educational management as follow: Research population included:

- 1. President of Thailand National Sports University.
- 2. Dean of Faculty of Education, Thailand National Sports University.
- 3. Vice President of Academic Affairs, Thailand National Sports University.
- 4. stakeholders

Step 2: The study on the development of an indicator model for administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN was conducted by analyzing and synthesizing documents, research and reports relevant to educational management principles, theories, and concepts, research related to the development of indicators for the administrative management of Faculty of Physical Education, Thailand National Sports University, including opinions from experts and persons directly related to teaching and learning management.

- 1. The researcher used the preliminary data from the study according to the step 1 to make a research instrument based on the research conceptual framework. It is a rating scale questionnaire.
- 2. The questionnaire was sent to the group of experts for giving responses to it in the second round. Experts' opinions about the administrative management of Faculty of Physical Education, Thailand National Sports University were collected and analyzed to find out statistical values used for collecting experts' opinions in the third round to obtain an indicator model that is possible in practice

and complete for administrative management of Faculty of Physical Education, Thailand National Sports University, using Delphi technique in the second and third rounds. The questionnaire was used to collect opinions from 17 experts about the development of an indicator model for the administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN, based on Delphi technique. The 17 experts were selected by purposive random sampling.

Step 3: The quality and appropriateness of the factors of the development of an indicator model for the administrative management of Faculty of Physical Education, Thailand National Sports University, the road to a sports learning organization in ASEAN was verified using confirmatory factor analysis (CFA).

5. Research Sample

The sample in the step 3 research comprised regular lecturers and students of Faculty of Education from 17 campuses of Thailand National Sports University and stakeholders. Rule of Thumb was used to determine a fairly large sample [5] [6] suggest that the ratio of sample size to the number of variables should not less than 10:1 in factor analysis. Therefore, there were 49 indicators in total and the sample consisted of 490 persons selected by cluster sampling.

6. Research Instruments

6.1. A Semi-Structured Interview from 5 Experts

A 5-rating scale questionnaire about factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN

7. Data Analysis

The analysis of factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University the road to a sports learning organization in ASEAN was conducted as follow:

- 1. Find out the mean (x) and standard deviation (S.D.) of factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization by using the criteria of the interpretation of mean scores in accordance with the concept proposed by [7] as follow:
- 2. Confirmatory factor analysis of factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN was performed to verify factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN using maximum likelihood (ML) method.

Significant statistics used for verify congruence between the indicator and the empirical data were Chi - Square /df, GFI (Goodness of Fit Index), AGFI (Adjusted Goodness of Fit Index), and RMSEA (Root Mean Square Error of Approximation) based on the following criteria:

- 1. Chi Square statistic is a statistical tool used to test a statistical hypothesis that the consistency of function has a value of zero. If the chi-square statistic value is very low or close to zero, it means that Lisrail model data are consistent with the empirical data. If the data are highly skewed, the chi-square will be higher than normal. Besides, chi-square values depend on the sample. The larger the sample is, the higher chi-square values become, leading to incorrect conclusion. Therefore, it can be determined based on the relative chi-square value (chi-square/dt) which should be less than 2.00.
- 2. Goodness of Fit Index: GFI is the ratio of difference between the function of consistency model before and after adjusting the model to the function of consistency model before adjusting the model. A GFI value greater than 0.90 meaning the model is consistent with the empirical data.

- 3. Adjust Goodness of Fit index: AGFI is GFI that is revised and considered the size of variables and sample. The term is used in the same way as GFI. GFI and AGFI values equal to or close to 1 show that the model is consistent with the empirical data.
- 4. RMSEA (Root Mean Square Error of Approximation) indicates the inconsistency of the developed model against the population variance matrix. RMSEA less than 0.05 indicates that the value that is valid and assumes that the model developed corresponds to the model should not greater than 0.08.

8. Verification of the Quality and Appropriateness

In this research, research participants' consent was taken into the researcher's consideration. The sample was selected in accordance with the research objectives. The researcher conducted an ethics request for research involving human subjects, which was approved by the Ethics Committee and licenses under Certificate No. 006/2566. All research participants were informed of conditions and voluntariness for being the research sample. The researcher explained all details related to the research and handed out a letter of explanation to all participants.

9. Data Analysis Results

The researcher presented data analysis results in an order. The number of factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, and what kind of the factors were analyzed. Reasoning was used to explain the meaning of qualitative research factors to support the findings obtained from the quantitative research, being able to obtain correct answers in broad and in-depth approaches. The quantitative research was empirical research. A questionnaire was used for collecting data from the sample. The sample consisted of 490 persons working at Thailand National Sports University. An in-depth interview with 5 executives managing Thailand National Sports University was used in the qualitative research. Data analysis and research result interpretation were presented in the form of tables and illustration with explanation as follow:

10. Conclusion

- 1. In this research, relevant documents and research were studied. It was found that indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN should contain ability, proficiency, and expertise in which teaching process is used as an important strategy for learning management, i.e. (1) administrative management mechanism, (2) quality of regular lecturers, (3) learning management, (4) student capability enhancement, (5) athlete capability enhancement to excellence.
- 2. Analysis results of the median and interquartile range of indicator factors for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN are as follow:

Indicator factors of the development of an indicator model for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, in terms of management, consisted of points that the experts had a large degree of consensus. Most of them gave a median value of 1.00 in every point, showing that the experts had a consistent opinion at a high degree.

Indicator factors of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, in terms of the quality of regular lecturers, consisted of points that the experts had a large degree of consensus. Most of them gave a median value of 4.00 in every point and the interquartile range was 1.00 in every point, showing that the experts had a consistent opinion at a high degree.

Indicator factors of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, in terms of learning management, consisted of points that the experts had a large degree of consensus. Most of them gave a median value of 4.00 in every point and the

Interquartile range was 1.00 in every point, showing that the experts had a consistent opinion at a high degree. Indicator factors of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, in terms of student potential development, consisted of points that the experts had a large degree of consensus. Most of them gave a median value of 4.00 in every point and the interquartile range was 1.00 in every point, showing that the experts had a consistent opinion at a high degree.

Indicator factors of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN, in terms of athlete potential development to achieve excellence, consisted of points that the experts had a large degree of consensus. Most of them gave a median value of 4.00 in every point and the interquartile range was 1.00 in every point, showing that the experts had a consistent opinion at a high degree.

3. Synthesis of confirmatory factors Confirmatory factor analysis for indicators of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN.

Table 1. shows Bartlett's test of Sphericity and Kaiser-Mayer-Olkin Measures of Sampling Adequacy (MSA) of the learning management competency indicator development model of physical education teacher profession students in the 4.0 era.

Bartlett's test of sphericity	p	Kaiser-Mayer-Olkin measures of sampling adequacy (MSA)
47994.669	0.01	0.865

From Table 1, Kaiser-Mayer-Olkin Measures of Sampling Adequacy (MSA) analysis result is 0.865 and Bartlett's test of Sphericity analysis result is 47994.669 with a statistical significance level (p = 0.01), indicating that the indicators of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN were correlated and highly appropriate to be used for factor analysis accordingly.

Table 2. shows fit index in confirmatory factor analysis for indicators of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN.

Fit indicates	Perfect fit	Acceptable fit	Study finding	Result
Relative χ2	< 2.00	2.00-5.00	0.487	Acceptable fit
GFI	≥ 0.95	0.90-0.94	0.674	Acceptable fit
AGFI	≥0.95	0.90-0.94	0.482	Acceptable fit
NFI	≥ 0.95	0.90-0.94	0.97	Perfect fit
CFI	≥0 .95	0.90-0.94	0.98	Perfect fit
RMSEA	< 0.05	0.05-0.08	0.05	Perfect fit

From Table 2, the confirmatory factor analysis for indicators of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN found $\chi 2$ at 0.487 (probability - value [p-value] at 0.000), degree of freedom (df) at 1700), goodness of fit index (GFI) at 0.674, adjusted goodness of fit index (AGFI) at 0.482, normal fit index (NFI) at 0.97, comparative fit index (CFI) at 0.98, and root

mean square error of approximation (RMSEA) at 0.05. Therefore, it was accepted that the research model was consistent with the empirical data.

Table 3. shows the matrix of the relationship between factors of the development of indicators for the administrative management of faculty of physical education Thailand national sports university, the road to a sports learning organization in ASEAN.

Rxy	System	Lecturer	Learning	Development	Excellence
System	1	0.804	0.810	0.825	0.686
Lecturer		1	0.834	0.779	0.663
Learning			1	0.862	0.720
Development				1	0.784
Excellence					1

Note: *with statistical significance at 0.01 level.

From Table 3, the analysis results of Pearson's correlation coefficient of independent variables were positively correlated with statistical significance level at 0.01 level.

Table 4. shows construct reliability (ρ c) of latent variables and average variance extracted (ρ v).

Latent variables	Construct reliability of variables (pc)	Average variance extracted (ρv)
System	0.65	0.87
Lecturer	0.50	0.72
Learning	0.56	0.83
Development	0.49	0.84
Excellence	0.74	0.92

From Table 4, it was found that knowledge had high reliability (ρc =0.65) and explained the variance of variables in the factors by 87.00%. Skills had high reliability (ρc =0.50) and explained the variance of variables in the factors by 72.00%. Desirable characteristics had high reliability (ρc =0.56) and explained the variance of variables in the factors by 83.00%. The factors related to the use of innovative media and technology in learning management had high reliability (ρc \=0.49) and explained the variance of variables in the factors by 84.00%. Measurement and evaluation had high reliability (ρc =0.74) and explained the variance of variables in the factors by 74.00%.

The analysis results of confirmatory factors, appropriateness of indicators, the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN.

Can be concluded as follow: (1) Factors of administrative management mechanism contained 10 indicators, (2) factors of instructor quality contained 6 indicators, (3) factors of learning management contained 17 indicators, (4) factors of student capability enhancement contained 9 indicators, (5) factors of athlete capability enhancement to excellence contained 7 indicators.

11. Discussion

The analysis of confirmatory factors for indicators of the development of indicators for the administrative management of Faculty of Physical Education Thailand National Sports University, the road to a sports learning organization in ASEAN can be discussed as follow:

11.1. Administrative Management Mechanism

Information and communication technology development system for sports learning in ASEAN, strategy setting, manpower planning, organizational structure management for sports learning in ASEAN, systems and mechanisms for building networks with universities in ASEAN, such as information database network, digital services network, cooperation network in various fields of

development, development of the capacity of executives and personnel in the faculty for sports learning in ASEAN. This is consistent with the concept proposed by [8] mentioning that currently training is a very common method for leadership development. Personnel are developed to have knowledge and competence in paperwork and correspondence work in English, to have ability in using English practically. There should be a system and mechanism for teaching/research/academic and professional services/nurturing the culture of personnel with universities in ASEAN. There should be a relevant online research database that can be easily accessed 24 hours a day. Similarly [9] said that self-directed learning is independent learning, suitable for learning outside educational setting. The process of self-guidance is human nature. It will be most successful when learners are highly responsible. The administrative management of the faculty to excellence in physical education and sports under Thailand Quality Award (TQA criteria) should require participation and preparedness to enhance a lifelong learning organization, consistent with a research study conducted by [10] finding that 9 factors for preparedness of private higher education institutions towards student development to support careers are 1) planning, 2) identity building, 3) the use of technology, 4) career development, 5) learning management, 6) cooperation, 7) curriculum, 8) the quality of lecturers, and 9) student skill development.

11. 2. The Quality of Regular Lecturers

In order to ensure personnel has English language preparedness for sports learning in ASEAN, there should be an exchange of sports personnel for sports learning in ASEAN so as to standardize sports learning in ASEAN. Emphasis is placed on producing quality research to create new knowledge and innovation, the numbers of research or creative work generated from cooperation of personnel in the faculty that can be disseminated internationally, the development of competency, knowledge, ability, and work skills of personnel in cooperation with ASEAN countries, the development of lecturers to have knowledge and skills that are ready and suitable for working in the 21st century, especially in digital technology, languages and communication. This is consistent with [11] the fourth component instructor, saying that instructors are an important factor in producing graduates. According to study results of [12], it was found that the overall problem of instructor development of Rajabhat University Rattanakosin group was at a moderate level. The areas with the highest problem were writing academic textbooks and articles, followed by research, the nurture of art and culture was at the same level to academic services, and the area with the lowest problem was being an advisor. This is consistent with study results of [13] on management model for lecturer development in Southeast Asia University as it was found that the model for lecturer development consisted of 4 aspects, namely, 1) management of agencies promoting teaching and learning efficiency, 2) management of agencies supporting teaching and learning, 3) management of teaching development activities and 4) management of research development activities.

11.3. Learning Management

A curriculum that is accredited to international professional standards that graduates can work in ASEAN countries or internationally, international programs that are prepared in collaboration with ASEAN community countries are available, courses in the credit bank for life-long learning that learners receive from occupations, training, formal and non-formal education and lifelong informal education. This is in line with [14] saying that a curriculum is like a compass to change people's lives and something that determines and reflect the concept of learning including educational activities for learners. It is necessary that schools need to develop its curriculum to ensure learners achieve lifelong learning. Systems and mechanisms for developing and administering a curriculum related to working language and quality assurance mechanism for curricula-related education. The achievement level of the education quality assurance system is based on AUN (ASEAN University Network) or Ed PEx (Education Criteria for Performance Excellence). A curriculum must determine a guideline for credit transfer with universities in ASEAN community. The number of courses is taught remotely or through

educational media, such as e-learning for sports learning in ASEAN. [15] summarized curriculum issues and content for development; they are important for successful training. Online information technology system, teaching methods, and learning management should be aware of the importance of learning management, such as teaching and learning methods, appropriate instructional media for sports learning in ASEAN. A curriculum for self-learning is created so as to produce manpower having competencies that meet the needs of workplaces, a curriculum focuses on occupations. Emphasis is not placed on a degree. The quality of teaching and learning is developed. The quality of modern teaching and learning is increased and learning efficiency is focused including distance education and learning through new electronic media. This is consistent with study results of [16] finding that computer-based learning and learning via the internet to support content learning and the use of knowledge resources on the internet had a greater impact on improving individual learning outcomes for learners than traditional teaching alone. A network of educational cooperation should be established with professional organizations, sports associations and workplaces. Teaching and learning model should be developed to promote modern learning to keep up with changes. Learning experience teaching model should be developed, including learning by doing or encountering problems by oneself, work-integrated education. Standards for English and computer technology proficiency should be provided before graduation. Integrative education management, practical training theory and knowledge in life skills should be available to develop students to have ability in innovation, careers, and global citizenship. The use of information and communication technology (ICT) will help learning and increase efficiency of education management, such as promoting continuity of learning outside school and informal education, new learning platforms.

11.4. Student Capability Enhancement

Students must pass an English proficiency test at a practical level. Students have a place for practicing professional experience in an organization, institution, and agency in ASEAN community countries. Student exchange program in ASEAN countries is promoted. Activities that develop desirable characteristics of graduates are held to be consistent with working in ASEAN countries. This is in harmony with study results of [17] finding that learners had development, i.e. learning and innovation skills, information, media, and technology skills, core subject skills, and essential learning support system, activities or academic events that promote knowledge about sports are held with ASEAN countries, the development of analytical thinking skills to seek knowledge in ASEAN countries. This is consistent with [18] mentioning characteristics of basic educational institution management; capability in administrative management, creativity, and proactive role in uncertain situations, ability to analyze and distinguish and communicate accurate information through various technological media and devices properly. In order to create a learning process that is in a correct sequence and can be adjusted according to a situation, students should be able to apply knowledge, work skills, and specific skills in accordance with the performance of their career fields to become smart students with necessary skills in the 21st century. This is consistent with [19] [20] finding that leadership of school administrators in the 21st century consisted of vision, management, curriculum and teaching management, communication, teamwork, academic innovation development, thinking process development and intellectual stimulation. The development of high performance graduates must be the competencies required by agencies in government, private, civil society, and community sectors.

11.5. Athlete Capability Enhancement to Excellence

Formulating an explicit plan to develop athlete capability to excellence, long-term planning to promote and develop athlete capability to excellence. Promotion is available for athletes to participate in international sports competitions, students receive awards from participating in international sports events. Athletes should be encouraged to achieve excellence. Professional coaches and specialized sports scientists are provided. Universal management is offered including budgets, materials, durable articles or qualified trainers. This is in line with [21] studying physical and academic sports in an international

situation as it was found that the university's sports financing mechanism required an allocation of adequate budget while public and private funding sources must be sought. It is consistent with [22] studying strategic development of the University of Technology of Jamaica to build the best student athletes in the world in order to develop high level athletes to achieve excellence. The university provided a scholarship system to support it. Selecting good athletes and coaches required a classy leader or team of staff, leading to the selection process. Students who will become athletes to excellence are able to choose to study in any faculty. Sports Intelligence Center selects athletes to enter the program to achieve excellence. Once an athlete is acquired, it shall lead to a process of training, sports science, and competition programs. All of these must be correlated.

12. Suggestions

12.1. Suggestions for Research Result Application

- 1. The development of indicators for any subject is able to use the same process as seen in this research as a practical guideline. It can be used as an evaluation model in universities or other educational agencies.
 - 2. The indicators obtained can be adjusted to meet different context of educational institutions.

12.2. Suggestions for future research

- 1. The indicators obtained should be tested with other levels of educational institutions.
- 2. Other universities are able to adopt the indicators to conduct research and development so as to create teacher professional learning accordingly.

Funding:

This research is supported by Thailand National Sports University Trang Campus.

Copyright:

© 2024 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

References

- [1] Education and Sports Commission National Legislative Assembly, Report on consideration of study guidelines for the management of integration of vocational education and high school (dual education). Bangkok: Author, 2016.
- [2] W. Panich, How does learning occur? (2" ed.). Bangkok: The Siam Commercial Foundation, 2014.
- [3] C. Paopan, "Modern school administrator in the 21st century," Journal of Faculty of Education Kalasin University, 1(1), pp. 304-306, 2016.
- [4] Office of the Education Council, National Education Plan B.E. 2560-2579 (2017-2036). Bangkok: Prikwan Graphic, 2017.
- J. F. Jr. Hair, W. C. Black, B. J. Babin, R. E. Anderson, & R. L. Tatham, *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall, 2006.
- [6] R. E. Schumacker and R. G. Lomax, A beginner's guide to structural equation modeling Lawrence Erlbaum Associates, 2010. (3rd ed.). New Jersey:
- [7] Prakong Kannasut, Statistics for Behavioral Science Research. Master's Thesis Bangkok. Chulalongkorn University, 1999.
- [8] R. Jongwisan, Leadership: Theory, Research and Guidelines to development. Bangkok: Chulalongkorn University, 2013.
- [9] R.G. Brockett, B. F. Cox, J.B. Canipe, S. L. Stock ale, R.C. Donagh, & D. L. Fogerson. "A Collaborator Research Effort in Self-Learning," Adult Education, 14(4), pp. 20-22, 2003.
- [10] C. Pathaisittikul, "Preparedness of private higher educational institutions towards student development to support architectural profession in ASEAN Economic Community," *Journal of Research and Development Suan Sunandha Rajabhat University*, 9(2), pp. 132-145, 2017.
- [11] Office of Higher Education Commission, Manual for the internal quality assurance for higher education institutions B.E. 2557 (2014). Bangkok: Parbpim Printing, 2015.
- [12] N. Prasantree, "Lecturer Development Model Rattanakosin Rajabhat University," Journal of Phranakhon Rajabhat University in Humanities and Social Science, 11(1), pp. 203-216, 2016.

- N. Impanich, "Management model for teacher development in Southeast Asia University," Suthiparithat Journal, 30(94), pp. 83-97, 2016.
- [14] S. lamsen, Article on curriculum development concepts for the true learning. Retrieved 30 June 2023 from http://www.laorutis.dusit.ac.th/research2.php
- [15] G. A. Yukl, Leadership in organizations (6th ed.). Upper Saddle River, New Jersey: Prentice-Hall, 2006.
- [16] T. Boyle, C. Bradley, P. Chalk, R. Jones, & P. Pickard, "Using blended learning to improve student success rates in learning to program," *Journal of Educational Media*, 28(2-3), pp. 165-178, 2003.
- [17] A. Saardnak, Learning management skills in the 21st century. Faculty of Management Science, Silpakorn University: a case study of academic utilization of technology and innovation. The 1st National Academic Conference on Educational Research on 29-30 May 2014 at Hansa JB Hotel, Hat Yai district, Songkhla province, 2014.
- [18] S. Surakitbovorn, Leadership of professional executives. Bangkok: Suwiriyasan, 2013.
- [19] Seneecha, A. (2017). Development of indicators for school administrators in the 21st century. Master's thesis, Bangkok: Chulalongkorn University.
- [20] P. Anannavee, "Development of academic leadership indicators of school administrators in the 21st century under the supervision of the Eastern Basic Education Commission," *Journal of Education Burapha University*, 30(2), pp. 42-44, 2019.
- [21] L. B. Andryushchenko and S.I. Filimonova, "Physical education and student sport in the new socio-economic conditions of Russia: a modern look and points of growth," *Theory and practice of physical culture, 2*, pp. 73-76, 2018.
- [22] A. Davis, The Strategic Development of the U-Tect, Jamaica Sport Program in Producing some of the World's Best Student Athletes. FISU Conference Shenzhen 2011 Proceedings. Shenzhen: China, 2011.