Chapter 2

Review of Literature

Review of literature

In this study the researcher studied the development of the evaluation model on the readiness of technical colleges for joining the ASEAN Community to be the guideline and a conceptual framework of the research. The researcher identified the issues to study as the followings.

1. ASEAN Community

2. Educational management in vocational educational level

3. The concept of evaluation and the development of evaluation model

4. Related literature

1. ASEAN Community

1.1 Background of ASEAN

ASEAN is formally established in Thailand on 8 August 1967 which was during the premiership of Gen. Thanom Kittikajorn in a meeting held in Bangkok and signed as Bangkok Declaration by the Ministers of Foreign Affairs of five founding members which were Thailand, Indonesia, the Philippines, Malaysia, and Singapore. The signing at the time had created the Association of Southeast Asian Nations or ASEAN. It would enhance cooperation among its member countries in politics, economics, social, and peace and security in the region and in the relationship between the region and other countries.

Later time some other countries in the South East Asian region joined ASEAN to be make it a group of 10 countries. On 30 April 2009 the countries that joined came in

the following order: Brunei Darussalam, Vietnam, Lao PDR, Myanmar, and Cambodia (Academic Affairs of Genesis Mediacom, n.d., 18-19).

In 2003 ASEAN Leaders signed the Declaration on the Agreement of Cooperation in ASEAN Book 2 (Declaration of ASEAN Concord II or Bali Concord II) to establish ASEAN Community. By the year 2020 with the support of gathering and cooperation from all around such as in politics economics, society, and culture from the two pillars, ASEAN has two objectives as the followings (Office of the Education Council, 2012: 7-9).

1. ASEAN Political-Security Community (APSC) has the objectives to create peace for the countries in the region by solving problems in the region through peaceful methods and holding the main pillar on security. By using the agreement/declaration and mechanisms of ASEAN, potentials in solving problems in conflicts or disagreement in the region are improved. Also ASEAN initiates new mechanisms to enhance security and identify the standards for preventing of conflicts and promoting for cooperation in the sea. These will not affect the freedom of the member countries by imposing international policy and military cooperation.

2. ASEAN Economic Community (AEC) has the objectives to settle the Southeast Asian Region security, prosperity, and free competition with the other regions. The aims are to create the flow of free trade, service, investment, capital or funds, economic development, to reduce problems related to poverty and inequality in societies. Another purpose is to create one market and one production base (Single Market and Production Base). The others are to cooperate with member countries to reduce development gaps, and to promote cooperation in terms of financial policy and big economies, financial markets, and capital markets, insurance and tax. Development of the infrastructure and transportation system, development on the cooperation in laws, agriculture, energy, tourism, and human resource development are taking place through the enhancement of education level and skilled labour development.

3. ASEAN Socio-Cultural Community (ASCC) has objectives to enhance the level of people's quality of life, to promote the use of resources sustainably and to enhance cultural identity of ASEAN. The implementation plan of the community and

ASEAN Culture would cover cooperation in many fields such as cooperation on drug trafficking, rural development, getting rid of poverty, environmental improvement, education, culture, gender, public health, AIDS/HIV, juvenile, and the likes. One target of the gathering of ASEAN Community is to make the country members to reinforce norms together like a family. It strengthens country members to have power in negotiations at the international forums in arenas of politics or economics especially on economics where the country members have markets and large production base. There are increasingly more trades among countries including the potential in the competition with the outside world (Abhichart Srisa-ard, Patcharee Samrongyen, 2013: 37).

1.2 ASEAN Charter

ASEAN Charter is like the agreement of the ASEAN members to be respected as the guideline to work together. The objective is to allow ASEAN to be effective intergovernmental organisation that has a legal status as legalised entity and creator of true benefits for the people. It creates the legal frame including organisational umbrella for ASEAN members. Besides, it also processes the things such as the values, principles, and practice guideline in the past of ASEAN that were later combined to be a Code of Conduct formally for the ASEAN members. There are improvement, revision, correction, and added mechanisms to identify the areas of responsibility of main organisations in ASEAN including the relationship in implementation of these organisations in order to be consistent with the changes at the world at present. The target is to turn ASEAN in to a more effective organisation (Abhichart Srisa-ard, Patcharee Samrongyen, 2013: 43).

Vor Amphan (pseudonym def, 2012: 41) stated about the three objectives of ASEAN Charter as the followings.

1. Increase effectiveness of ASEAN that it can achieve the set targets especially in the gathering of the community successfully in 2015.

2. Create mechanisms to enhance the member countries to really practice or follow the Agreements of ASEAN.

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3. Create ASEAN to be the organisation that is closely united and can create true benefits for the people especially through enactment or application of the ASEAN Charter.

In addition, language is a part of ASEAN Charter in item 34 that states about the language for the functioning of ASEAN that "he working language of ASEAN shall be English" with consequence that the persons who work in or with ASEAN must be able to use English language well in doing business. It is considered as one problem of entering ASEAN Community for the Thai people who were not well-prepared from the start of ASEAN establishment in 1967. Time flies over 40 years and there has been no serious plan especially on the education sectors. Even Thai teachers do not have chance to develop themselves until ASEAN member countries agreed to allow the Charter to take effect in 2008.There is a campaign on using English as the main language in more concrete form. Besides, the English language is the main language of ASEAN. The national languages of country members are also interesting as well as the languages outside of ASEAN countries which are the countries that will be negotiation or business partners.

1.3 Preparation on readiness of ASEAN countries in entering ASEAN Community

Before entering into ASEAN Community in 2015 the country members must prepare for what will happen in the future. ASEAN also has identified the guideline for the country members to prepare for their readiness for joining the ASEAN Community as the followings (Abhichart Srisa-ard, Patcharee Samrongyen, 2013: 60-75).

1. Preparation of readiness on Political Community and ASEAN Security

1.1 Preparation for the readiness on promotion of democracy and human rights is considered the main targets of ASEAN in order to invite its members to see importance and values of the political system and human rights problem in country members which still have the long-term problems and potentials to spread across the nations.

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1.2   Preparation of readiness on cooperation on political development. This preparation has targets to keep the countries in the region to stay together in peace with problem-solving or conflict-resolution systems among themselves. In order to achieve such targets ASEAN enhances country members to understand, respect and value the political systems, histories, and cultures of other country members including promote learning of neighbouring countries through cultural exchanges.

1.3   Preparation of readiness on creating stability and security of the region. One reason of establishing ASEAN Community is to improve the country members' readiness to accept the changes and any new challenges such as terrorism, cross-border criminal examination, or natural disasters.

2. Preparation of readiness on ASEAN Economic Community

Existence of ASEAN Economic Community increases the roles on economies of ASEAN at the world stage because the Community will enhance agility in competition and negotiation in the world trade market. Expansion of economies of ASEAN is necessity because ASEAN has big markets and high purchasing power. The preparation of ASEAN for joining the ASEAN Economic Community is done as the followings.

2.1   Preparation on readiness on ASEAN Communal Market. There is the identification on implementation plan, cooperation and clear achievement or duration plan that will be covering the main economies on targets, investments, production of goods, and transportation. For preparation on readiness to expand investment in ASEAN Community, the ASEAN Investment Area or AIA is established to attract investments from inside and outside the region. There are plans, for example, the system development of the transportation networks through 23 routes, 36 airports, and 46 ports all over the region together.

2.2   Creating economic relationship with countries and organisations at regional level which are called the negotiation partners from countries or organisations beyond region level such as contact with China, Japan and Korea under the frame of ASEAN + 3.

2.3 Making plan to reduce economic gaps among ASEAN country members. ASEAN is aware that some countries that have different statuses and levels of development have become obstacles for making development plans on economies or gathering to be united or one in the economic realm. Therefore there is the campaign during 2000 to 2010 which is called the Decade of Cooperation to develop economies in the Mekong Region in order to support the gathering of economies of these countries to make it consistent with ASEAN markets.

3. Preparation on readiness on the socio-political community and ASEAN Culture

3.1 To enhance creation of ASEAN identity is one of the targets through giving education to people, promoting learning exchange of cultures which will not easily happen because of the dynamic relationship among ASEAN countries in the past with equally cooperation and conflict. Some problems were the conflicts regarding history, politics, border, etc. Therefore, all the conflicts should be resolved in order to create understanding for ASEAN citizens to become citizens who are aware that despite diversity there are still historical links with one another.

3.2 The arrangement of social development projects to improve quality of population. In the past ASEAN gave importance to social development and quality of life of people continuously. Since majority of population are living in ASEAN developing countries, they are living in conditions of poverty, deprivation, lack of education opportunities, and without basic services including high risk of drug addiction and abuse. Therefore, ASEAN as a cooperation project begins a cooperation on society such as the project on children and juvenile called the project of ASEAN Youth Boat.

3.3 Creating the cooperation on culture and education. ASEAN arranged cooperation on culture to preserve many cultural heritages such as holding ASEAN Traditional Arts, ASEAN Annual Film Festival, including creating cooperation on education in regional level; there are exchanging of academicians, students, researchers; giving scholarships on studies on ASEAN language to students in higher education level; and making the networks of ASEAN (ASEAN University Network).

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1.4 Readiness of the educational institutes in structure and learners

Preparation on readiness on education in Thailand for joining the ASEAN Community as one of the five founding members and be the country that has potential to be the leaders in strengthening ASEAN Community. Education is considered important in most societies, communities, and cultures. It plays roles to promote other aspects in the communities. It has strength. Thailand is aware and thus preparing the readiness on educational management by developing the importance on the implementation so there is the integration of education to create learning society. The objectives are as the followings (Vor Amphan, pseudonym def, 2012: 58-59).

1. To create ASEAN Community with education. Thailand is the Educational Hub to promote cooperation among countries in education in three aspects which are on developing the educational quality, expanding the educational opportunities, and promoting participation in the service and educational management.

2. Preparation on the readiness on English language and the languages of country members including the knowledge about ASEAN and the curriculum on ASEAN Studies.

3. Preparation on readiness on education in the level that is lower than the higher education levels in order to create the feeling of ASEAN family and the values of being ASEAN citizens by creating the network of new generation of youth leaders to be next ASEAN leaders.

4. Preparation on readiness on education in the vocational education level/ higher education levels in order to enhance the occupational skills, to create networks of educational institute in ASEAN, to set projects to transfer grades/ credits, and to set consistent curricula along the direction of ASEAN.

Guideline for learning management for joining the ASEAN Community is to bring the concepts and principles to develop the learners' characters to facilitate the development of ASEAN citizens and to implement various forms of activities that schools may arrange to give knowledge on ASEAN in the following ways.

1. Arranged meetings for the directors, personnel in schools, and others to inform the implementation plan including providing necessary knowledge about ASEAN.

2. Publish documents to provide knowledge about ASEAN in meetings.

3. Arrange activities regarding ASEAN to publish in various forms such as establishment of club, arrangement of ASEAN festivals, preparation of ASEAN activity camps, or dissemination of knowledge about ASEAN on radio programs.

4. Develop and improve learning media about ASEAN including the educational curricula to keep their consistency.

5. Hold meetings in the communities or villages to create familiarity and open discussion floors to exchange learning through the use of simple language.

6. Summary of the implementation results in activities continuously.

Jurairat Sangboonnum (http://www.kruwandee.com/oldweb/news-id2317.html, 2015) stated in the discussion on education entitled "The Strategic Guideline of Pattaya City for joining the ASEAN Community" that the status of Thai people at this time is now in the condition of "They know us but we don't know them." It means that all countries in ASEAN have knowledge and will prepare for joining the ASEAN Community. However, people of Thailand have low awareness and less knowledge on ASEAN than those of other countries (Thais are ranked 8th or 67 per cent out of 10 country members). Thailand Minister of Education arranged a project to create awareness and readiness for Thai people for joining the ASEAN Community with the cooperation with ASEAN National Secretariat, Ministry of Foreign Affairs to hold the trainings for teachers and students all over the country. They sign the MOU together with the Department of International Trade Negotiations, Ministry of Commerce in arranging trainings and seminars for school administrators to be ready for entering ASEAN Community. They must hurry to create and develop the potential for Thai children to have knowledge on three aspects which are the followings.

1. Skill in language(s) especially the English and neighbouring countries' languages. The teachers must push students to talk and communicate efficiently in some languages.

2. Skill on information technology. The teachers must be leaders to transfer knowledge to students using technologies in teaching and to encourage cultural exchanges.

3. Skill on occupation must be accelerated through the development of occupational skill to Thai labourers so they can compete with foreigners in overseas. Because in 2015 there will be anticipated labour movements in 8 kinds of occupation, it is the responsibility of the Ministry of Education to accelerate creation of labour force who are competent to help Thailand to take the leadership in ASEAN.

Educational institutes must have strategies in active form more than passive form to accelerate creation of knowledge and skills for students and to create confidence and love to learn especially the English language that children can communicate without embarrassment. Students must be adroitly able to use technologies beneficially to create networks for initiating exchanges among country members. In addition the schools must build up leadership skill and good citizenship among students who would have responsibility for themselves and society member along with good morality and ethical perspectives.

Ministry of Education identified the frame and guideline for implementation on education in Thailand in order to prepare readiness for joining the ASEAN Community in year 2015. It has identified the ASEAN Frame as the guideline for Thai education as the followings.

1. Office of the Permanent Secretary is implemented under the framework of ASEAN Education Ministers, the framework of ASEAN countries and the other countries, which are the negotiation partners, to create awareness on ASEAN and to establish international institutions to develop educational administrators.

2. Office of the Basic Education Commission has a project of Educational Hub School that is implemented during the implementation of the Project Spirit of ASEAN (Sister/Partner School and Buffer School). The activities that have been implemented in 2015 are the development of curriculum and media on ASEAN including the activities of ASEAN Camp for Learning for joining the ASEAN Community.

3. Office of the Higher Education Commission (OHEC) has an exchange student project among Malaysia, Indonesia, and Thailand. The informal meetings cover those among the high-ranked administrators on the higher education and the arrangement for making strategies on ASEAN higher education.

4. Office of the Vocational Education Commission has many projects. These are projects on international **o**pen floor to exchange knowledge on agricultural technologies, to arrange the teaching and learning to serve societies together with Singaporean students. There is the exchange project with Institute of Technical Education Collage East, Singapore, the development project of Lao technical school and Brunei to exchange students in high vocational certificate levels. Thai-Cambodian tie of affection: Kampong Chheuteal High School. The cooperation also takes place with SEAMEO SEAMOLEC organisation in Indonesia to arrange education in Thailand's southern provinces.

5. Office of the Education Council arranged a seminar project on education research between Thailand and Malaysia to explain or lecture academically awareness in entering ASEAN. Lectures on the educational management are set for people and locals with opportunities among the representatives of Malaysia. The set of projects to develop the educational policy into ASEAN includes a case study of Thai, Laotian, and Vietnamese, the cooperation project (Thailand and Lao), and some cooperation projects in Thailand and Vietnam.

6. Office of the Non-formal and Informal Education arranged community learning centres for neighbouring countries. Training on the techniques of arranging exhibitions, data presentation, or promotion of knowledge on the biodiversity of the communities in the knowledge centres of neighbouring countries are settled.

7. Office of Private Education Commission emphasises/publishes the knowledge on ASEAN to personnel of private schools, supports the school to join the sports competition in ASEAN primary educational levels on the third time in Indonesia, prepares the exchange project of high school students in year 2008 with Singapore, and opens academic seminars and Thai educational exhibitions in Vietnam.

8. The Secretariat Of The Teachers Council Of Thailand participates to be part of the network of the members of ASEAN's Teacher Council together with teacher organisations in five ASEAN countries which are Indonesia, Malaysia, the Philippines, Singapore, and Thailand. This Council is established in 1978. Now there are members of this Council from 23 organisations of 9 countries.

9. ASEAN University Network or AUN arranged student exchange activities within ASEAN members, set curriculum development, and evaluate the curriculum in many fields such as chemistry, computer science, engineering, and the like.

1.4.1 Readiness and preparation on education for joining the ASEAN Community

Chanpha Thadphuthorn (Theera Nuchpiam, 2014: 174-175) created a model on readiness and preparation on education for joining the ASEAN Community. The model is composed of four main components, which are the followings.

1. The English language is the first important component. Although never identifying that ASEAN people must use English in communication, the ASEAN Charter proclaims that the English language is the central language of the world and the road map of ASEAN has identified of the promotion of learning English.

2. Readiness on making their own people to have knowledge on ASEAN (ASEAN Knowledge). This is necessary and important for creating ASEAN Community.

3. The necessary skills for creating ASEAN Community (or ASEAN Skills).

4. The attitude to promote creation of ASEAN Community (ASEAN Attitudes).
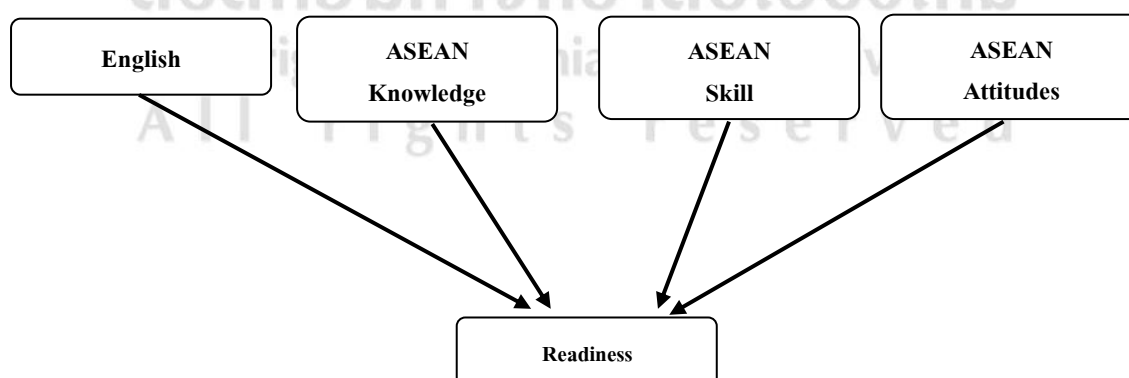

Figure 2.1   The model on readiness and preparation on education
for joining the ASEAN Community

Table 2.1   The whole picture of readiness and preparation of ASEAN country
members

Country	English	Knowledge on ASEAN	Skills on ASEAN	Attitude towards ASEAN	Whole picture
Brunei	High	Moderate	Moderate	Moderate	Moderate (9)
Burma	Moderate	Low	Low	High	Low (7)
Malaysia	High	Moderate	Moderate	Low	Medium (8)
Singapore	High	High	High	Moderate	High (11)
Vietnam	Moderate	Moderate	Moderate	High	Moderate (19)
Laos	Low	Moderate	Low	High	Low (7)
Cambodia	Low	Low	Low	High	Low (6)
Indonesia	Moderate	Moderate	Low	High	Moderate (8)
Philippines	High	Moderate	Moderate	High	High (10)
Thailand	Moderate	Moderate	Moderate	Medium	Moderate (8)

The above table shows the important role of education and cooperation on education among member countries especially in developing human resources and reducing gaps in development. It is the community with close relationship that enhances the development on economic and ability in the competition equally on the road; at the same time the activities and facilities also benefit people as the centre of ASEAN Cooperation. In addition, the Vientiane Operation Project emphasises on promoting every people to get education with high standards with cooperation in form of networks and cooperation with educational organisations at regional and international levels that it will be consistent with the educational management for the people in this region as the followings.

1. Develop cooperation on the educational system in the region based on the comparison studies to improve quality of education in the region.

2. To promote the information networks on education in the educational institute levels in the region.

3. To develop cooperation with other educational organisations in regional and international levels so it is the attempt that will be consistent with the educational management in the region.

That vision shows the principles that the countries in ASEAN group see the importance of education especially to set education as part of the countries' development into advancing economies. It means that many countries give importance to the roles of education to get rid of poverty and the poor conditions of economic development and to use education as the tools to enhance the potential levels of competition of ASEAN countries at the international level. In addition, most of ASEAN countries arrange the strategic plan on national educational development although only few countries allow such plan to exist in the development plan on economic and social-development plan. That plan is important in term of the strategic plan to guide in making and implementing other plans continuously to make it consistent with the country situation. It can be divided into the development plan on basic education, the development plan on vocational education, the development plan on the higher education, and the implementation plan in the educational service area levels and at school level. Social development develops a learning society which will lead to the knowledge-based economic system so the people in each country get equal opportunity in learning, gain wisdom as the social capital to create income, and lead their country to achieve the set goals.

1.5 Obstacles in entering ASEAN Community

In entering ASEAN Community, the problems and obstacles which influence participation in ASEAN Community have many dimensions. From some studies the problems can be classified into three issues (Abhichart Srisa-ard, Patcharee Samrongyen (2013: 78-91) Narong Phophueksanand (2013: 163-164).

1.   Problems and obstacles in politics and governance. ASEAN Charter has identified clearly democratic principles and allowed member countries to hold

governments that come from constitutional way but the ruling governance of ASEAN members have many forms. For example, Thailand, Cambodia, Singapore, and Malaysia have the ruling government of democracy through cabinet system. Indonesia and Philippines have the ruling governments using democracy in presidential system. Lao PDR and Vietnam use the ruling governance using authoritarian system with communist party.

Myanmar has the ruling government using a military authoritarian government. Brunei is using the absolute monarchy system.

For these clear differences, some ASEAN members still have problems in democracy and rule of governance under authoritarianism but still want to conserve their power. This fact sets troubles for ASEAN development. In addition the conflicts among ASEAN members also add problems to gather ASEAN members peacefully together.

2. The problems and obstacles on diversity in societies and cultures is Southeast Asia Region. Southeast Asia has diversity in ethnic with differences in cultures, beliefs, ways of live, traditions, languages, and religions. Each country has diverse ethnic groups and beliefs in many religions. There is diversity in society and culture. It leads to conflicts in some countries. The countries can be classified according to the religions which the majority of population of the country believes as the followings.

The countries with majority believing in Buddhism are Singapore, Thailand, Cambodia, Lao, Myanmar, and Vietnam.

The countries with majority believing in Islam are Brunei, Indonesia, and Malaysia.

The country with majority believing in Christianity is the Philippines.

Beside the differences in religion, the problem around the minority groups are also many depending on the differences of beliefs, ways of life, languages, traditions and cultures. It renders a peaceful life in the communities difficult.

3. Problems and obstacles in economies of the ASEAN members. Although ASEAN has already established a plan for Economic Community in 2015, there are still

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difficult components to manage together like the market and the production base, the transportation systems of goods, services, investment, mobile skilled labour, and fluid capital. The ability in dealing with competition to create equality in developing economies among ASEAN members may still have some obstacles.

2. The educational management in vocational education level

The educational management in vocational education level is highly important in developing countries in response for joining the ASEAN Community. The educational management at vocational education level is important in developing economies, security, and society. The educational management in vocation education level is one of the educational management systems in Thailand.

2.1 Definition of vocational education

Many experts define vocational education in many ways which can be summarised as the following. It is the process of educational management in the systems of formal and informal school system to people in term of theory and practical and then integrated together appropriately. The students thus have knowledge and ability to perform occupation, to subsist in society, and to develop knowledge and ability in person at a high level. It is the level that the society needs and the labour market needs.

2.2 Administration of vocational education

The management of vocational education and training in occupation is the educational management on occupation that is consistent with National Economic and Social Development Plan and the national education plan to produce and develop the labour force on occupation in high skill level, technical level, and technology level. The management or arrangement of vocational educational and training in occupation can be held in educational institute of vocational education and the institute. According to Vocational Education Act in 2008 this management can be classified into three models (Vocational Education Act in 2008, 2008: 3-4) as the followings.

1. The education in the system is the arrangement of vocational education that emphasises studying in the schools or institutes of vocational education. There is the

identification of objectives, the methods of study, curriculum, periods, measurement, and evaluation in the condition of achieving the educational purposes.

2. Education outside of the system is the educational management on occupation that is flexible in identifying objectives models or forms, methods of study, periods, measurement, and evaluation which is the set of condition for educational achievement. The contents and curricula must be appropriate and consistent with the conditions and needs of persons in each group.

3. The Dual Vocational Education is vocational education management that comes from the agreement between schools of vocational education or institutes and the manufacturers, semi-government or the government organisations on curriculum arrangement, teaching and learning, measurement and evaluation. The learners spend some time in vocational education schools or institutes and learn the practical parts in the manufacturer and semi-government or governmental organisations.

Educational institute or vocational education or institute can arrange education in various forms together to create benefits in producing and developing human resources. Nevertheless, the educational institute of vocational education or institute must aim to arrange education in a dual system that the curriculum arrangement would follow the three sets of identified components by the Committee Board of Vocational Education: the vocational certificate, the high vocational certificate, and the bachelor degrees on technology or operational fields. Besides, the Committee Board of Vocational Education identified the curriculum which prepare for knowledge or skill in performing occupation or pursuing education. It is held in the project or for certain target groups.

Office of the Vocational Education Commission (www.vec.go.th/เกี่ยวกับ สอศ/การจัดการ อาชีวศึกษาในสถานศึกษา.aspx, 2015) is the organisation that controls and holds responsible for administration and management of the vocational education. There are around 421 educational institutes under it in the whole country. The Commission produces and develops human resources on occupation in vocational certificate level, in high vocational certificate level, and bachelor degree in technology or operational fields. The instructional management has 9 types of subjects, and there are more than 350 branches

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or alternative courses throughout the administration management of the centres to promote and develop vocational education in five regional centres. They are responsible for promoting and developing academic and provincial vocational education in 77 places. The Regional Vocational Educational 5 is responsible for making linkages between administration and management of the educational institute groups at provincial level.

The curricula that are open to teach are as the followings.

1. The curriculum of vocational certificate recruits the students who had finished the education of junior high school to develop human resources at certain skill level to become specialists on certain fields.

2. The curriculum of high vocational certificate is the curriculum that recruits students who finished the education at vocational certificate level or senior high school level in order to produce and develop human resources in expertise of certain fields.

3. The curriculum of High Technical Certificate Teachers, HTCT is the curriculum that is parallel to bachelor degree to recruit the persons who completed high vocational certificate. It is the curriculum that aims to produce professional teachers.

4. The curriculum on bachelor degree on technology or in the operational fields is the curriculum that recruits the persons who finished education in high vocational certificate level and then continue to study and complete education within two years.

5. The curriculum to develop specific occupation is the curriculum that is arranged for the persons who have background knowledge in all education levels. The period of study is 6 to 225 hours and the curriculum is set for around 108 kinds of occupation. It is the teaching according to the vocational field. The duration of study is 1 to 4 hours.

Since there are various kinds of curriculum, keeping educational quality is also considered as important. School administrators under the Office of Vocational Education Commission (second time in the fiscal year 2015 on 21 February 2015) attended a conference entitled "the Strategies of Educational Institute Management to Enhance the Quality of Learners in Vocational Education". Admiral Narong Pipatanasai, Minister of

Education Ministry of Education the chairperson of the conference gave a lecture on " Policy on Vocational Education of Ministry of Education" (http://www.moe.go.th/ websm/2015/feb/064.html, 2015) with some points as the followings.

The school administrators are the important persons for the national education especially vocational education which is part of the work to produce and develop personnel to go out to manufacturing sectors, services, agricultural sectors, and other sectors of the labour market. The production of vocational education is important for the process that will enhance the potential of the country both in country development to advance, to get security, and to join the competition among countries. The target of vocational education management is necessary to be able to answer the question for studying in vocational education that can produce and develop human resources in response to the need of the labour market. It has been consistent with the direction of the country's development in terms of quantitative and qualitative measurement which is considered the big question for the Ministry of Education and relevant people in the schools under Office of Vocational Education.

The Minister of the Ministry of Education stated about the urgent need for moving the vocational education to be the important part for the production and development of human resources to be consistent with the need of labour market and the direction for country development. There is trend of increase in the ratio of number of learners in vocational education against those in the regular education. In order to enhance the quality standard of the vocational education, there are ten steps of implementation which has been identified according to the main policy as the followings.

1. Promote participation of private sectors and civil society sectors to participate in production of human resources to make linkage with labour market. This promotion starts from identifying the needs, the planning, the production, the development of curriculum, the development of teachers and educational personnel in vocational education.

2. Expand the results of the management of dual curriculum and training which the Office of Vocational Education Commission implements for quite some time. The education management in dual system and training is a guideline for educational

management which is widely popular in many countries that have advances in many fields such as in service and industrial sectors, etc.

3. Promotion and supportive cooperation form all sectors to arrange education in occupational fields seriously. It aims to implement according to the mechanisms of the committee boards from the government and private sectors in order to develop human resources from vocational education. It is composed of representations from manufacturers, Siam Commercial Councils, Ministry of Labours, Ministry of Commerce, manufacturers and other relevant organisations.

4. Arrange the curriculum on the skill of occupation along with regular curriculum at high school level. The implementation is done in many places in order to increase ability of students in regular fields. According to statistics, the students who enter into the educational system, especially those who live in the outskirt or the suburban areas are seldom reaching Mathayom Suksa 3 and 6 (not finished school). Then they tend to enter the labour market as non-skilled labourers. Poor in knowledge in vocational skills, these students are open to have additional knowledge in regular occupational fields along with normal occupational skills.

5. The development of system of labour wage or compensation using the competency and ability levels instead of using levels of vocational degrees. The compensation or wage system should not rely merely on educational degree but on the actual level of labour ability. If a labourer has a high ability the salary will be correspondingly high; that holders of higher degrees will not get higher salary than those who complete only vocational certificate or high vocational certificate should be taken as a norm.

6. Promote research and develop linkage on research and innovation on development and transfer of technology to country's development. It is the important target to increase efficiency in production, to reduce the costs of investment, to enhance the quality level with the aim on research and the development, to lead to production field seriously. From the outcome of the work and the vocational student innovation in the past, many tasks are interesting and can be developed further.

7. Production of labour forces in response to the urgent need of the country development with the cooperation in producing human forces in vocational educational field in response to production sectors and service sectors in the necessary fields. The extension of educational opportunities enhances Thai labour skill level with the manufacturers to receive the work that is coming in the future because Thailand will have some mega-projects under the government sectors' investment.

8. Accelerate to adjust the image of vocational education to be more acceptable to public. It is accepted that the image of vocational education has been quite negative from outside society because of notorious street-fighting or brawls by the students. These students are perceived as not good in class and they have to choose this institute reluctantly. This image must be corrected by increasing values and better image for vocational students. At the stage when the students have to choose to study in vocational institutes, the campaign for better image is done by Ministry of Education with the target of increasing ratio of the vocational educational field learners against the number of general students.

9. Enhancement of cooperation level with overseas agencies that have potential on vocational education and manufacturing sectors. Office of the Vocational Education Commission cooperates with many industrial countries for a long time such as Germany, Singapore, or South Korean. Agricultural sectors also set cooperation with Israel including having the MOU with many countries in many activities.

10. Extension of learning opportunity through scholarships in vocational education fields in order to develop potential of personnel that they have knowledge and skills. This includes especially on creating more dependable teachers at various levels that the development of vocational education can be sustainable in producing teachers in vocational education fields.

From statements earlier it is the policy and programs that the Ministry of Education is implementing based on the belief that the vocational education is highly important in present situation and in the competition with neighbouring countries, the country in same region, or the rest of the world. Therefore, the Ministry needs full support to turn the learners in vocational education field become persons with quality.

They can work in the countries in ASEAN Region or any country in the world for technical skills and communication ability with English fluently. In addition it required that the school administration will be the leaders who are ready to lead the subordinates, teachers and educational personnel, and students to be innovative and creative with changes on the programs that should be corrected.

3. The concept on evaluation and development of evaluation model

The educational evaluation is a part of the educational quality assurance. In this research implementation, the researcher did the following studies.

3.1 Definition of evaluation

Many people define the term evaluation widely in term of general evaluation and educational evaluation. In this study the researcher will give some examples as what follows.

Amnuay Lertchayandee (n.d.: 7; cited from Somboon Tanya, 2002: 11) stated that educational evaluation means the process of making decision on the data which is derived from the measurement or the tests with some criteria.

Poj Sapianchai (1976: 7 2 , cited from Somboon Tanya, 2002: 1 1) stated that educational evaluation means the process to judge the values of educational activities that rely on systematic methods and plans for data gathering, proof or evidence, and reasoning for making judgment. It is to measure whether such educational activities are good or bad, appropriate or not.

Bandon Sukpiti (1976: 5, cited from Sonboon Tanya, 2002: 11) stated that the educational evaluation is the process in making decision to summarise qualification or behaviour that is advanced in students whether it has sufficiency values or not. Or if it has good quality, in what level that quality stands. This can be done based on certain criteria as the principles for comparison.

Nonglak Wiratchai (2002: 150) stated that evaluation means the process that has system and is composed of gathering information through measurement in order to explain the values and make judgment over the things to evaluate whether they are appropriate according to the identified criteria or standards and how.

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For Sirichai Kanjanawasee (2009: 21) evaluation means the process of studying things through research-oriented methodology. The evaluation is to check the achievement according to the set objectives. Evaluation helps presenting information for making decision that is called decision-oriented evaluation. Evaluation is the response of information to the relevant people through description-oriented methods and the evaluation is making judgment on the values on things to evaluate (judgment-oriented).

Sirichai Kanjanawasee (2009: 18; cited from Cronbach, 1963) claimed that evaluation means the systematic process to collect and to use information for making decision.

Somkid Promjouy (2009: 37) evaluation means the process to create information to help administrators or management to make decision efficiently and can check the progress of project in implementation including considering the achievement levels if it achieve the objectives. It can be done before the start of the project during the implementation and after the completion of implementation.

For Somwang Pitiyanuwat (2008: 37) evaluation means the process to get the truth in term of values of something.

Yaowadee Rangchaikul (2010: 9-14) defines the definition of evaluation into two parts which are the followings.

1. Evaluation in terms of measurement means the development according to scientific principles and emphasising the meanings in term of empirical, validity of measurement, the standards of the tools used or measurement methods, including the statistics used in quantity to draw conclusion and the standardised criteria for comparison.

2. Evaluation in term of research means evaluation based on the model of research. There is a set of methods to collect data and the technique for data analysis in the evaluation process but the main objectives lie in seeking for new knowledge.

Alkin (1 9 7 3 , cited from Somwang Pitiyanuwat, 2008: 1 7 2) defined the termevaluation as the process which is related to decision making by selecting information that is appropriate. The gathering and analysis of the information, data and

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report, and summaries are done to pick what is useful for decision makers in selection of possible solutions.

Worthen and Sanders (1973: 19) defined evaluation as identification of values of something which include getting data to be used for making judgment of values of the projects, products, processes or objectives in order to achieve the values.

Stufflebeam and Shinkfield (1990: 3, cited from SuwimonTirakanun, 2004: 2) stated that evaluation means identification of values or advantages/good things of something in the system.

From the definitions above, it can be summarised that evaluation means making decision or giving values on something to be evaluated whether or not the implementation is continued, or whether to stop the implementation of activities or to identify further the values of something. However, the evaluation must have data that is true to be used to compare with set criteria or standards which the evaluator has identified. In conclusion, there are three parts of evaluation which are the followings.

1. The data that are facts, not opinion or attitude.

2. The criteria that must be created or have the criteria with comparison with data or facts in order to identify the values.

3. The decision, which is differently from general research, must have judgment on the values, accepted or not accepted after a comparison with the criteria.

3.1.1 Theory of evaluation

Theory of evaluation is acknowledging in general that it can be used for understanding, describing, explaining, and predicting phenomenon of evaluation in certain situation. Sirichai Kanjanawasee (2009:53-181) explained about the theory of evaluation according to the concepts of the followings.

1. A Theory of Evaluation Goal identified that evaluation will be happening under social contexts; there is concept on each and evaluation may have different objectives according to environment and the influential factors for evaluation. It is composed of people and politics. The evaluator must be aware and understand to have

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the evaluation that achieves the set objective. It is the theory that aims to make evaluation according to the objective of the things to evaluate. It has objectives in making judgment of values of the things to evaluate. It has target which is developing the values on the things to evaluate.

2. A Theory of Valuation has identified that values are abstract characteristics which are identified under living social contexts. There is the concept that evaluation is the process of judging values of thing to evaluate to achieve the objectives of development of such things. The values are the abstract characteristics which are identified and differentiated under social contexts. The values are composed of inner value (merit) as the latent thing in all the time and the external value (value or worth) as related to the context. Therefore, in identifying the value of something one must draw conclusion referring to the observable things directly which is the representative of such values and make comparison with the standard criteria.

3. A Theory of Evaluation Criteria is the first process of judging values of something. It is necessary to rely on facts according to the indicators and then to compare the existing characteristics with quality or the achievement of such things or the appropriate criteria. The evaluator can select the appropriate criteria which can be divided into two types which are Absolute Criterion and Relative Criterion.

4. A Theory of Evaluation Model is the concrete guideline based on the real conditions that transfer or link to the relationship according to the concepts in terms of theory and thus lead to implementation plan of evaluation. Evaluators must understand the basic of each model and select to use it appropriately not limiting themselves to only certain models or develop the new model inappropriately in order to gain the highest benefits. The selection of the model will be done from the problem issues and the target of evaluation. There are two concepts of evaluation which are the Decision-oriented Evaluation and Value-oriented Evaluation.

5. A Theory of Performance Evaluation is the evaluation process of implementation that is composed of studying visions, objectives, purposes of the targets for implementation, as well as analysis of the Linear Structure among input factors, process, implementation results and impacts.

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6. A Theory of Evaluation Utilisation identifies the important targets for evaluation with each the process to get information to be used for developing quality of the things to evaluate. The important factors to help bringing the application of the evaluation results are evaluating something that responds to the need, the use information to relevant people, the publication of information of evaluation, and the consideration as a part of evaluation. It is the process related to communication.

7. A Theory of Meta-Evaluation. This evaluation is judging the quality of evaluation. If any evaluation has a quality, this evaluation must be composed of quality of things. Therefore identification of question for evaluation, evaluation methods, and the evaluation results will have the following details.

They are identifying the questions for evaluation that respond to the real needs of activities arrangement and respond to the needs of the users of evaluation results. All of these theories stated above are important parts for the application or usage as guideline for implementing evaluation so they have principles and systems, standards and acceptance. It will lead to utilisation in concrete form later.

3.1.2 Importance of evaluation

Evaluation is important for judging or giving values to projects or activities. Some people give opinion about the importance of evaluation as the followings.

Somboon Tanya (2002:19) defined the importance of educational evaluation that it is related to education directly and can be summarised as the followings.

1. It helps pointing to see the purpose of implementation if they are appropriate or not.

2. To raise awareness on the implementation if it achieves the objectives or not.

3. It stimulates the acceleration on improvement and implementation.

4. It helps pointing the weakness in the implementation in each step as it will be used for improvement of the implementation.

5. It helps control the implementation to have quality and efficiency. It will reduce the waste of resource use.

6. Help giving information to the administrators for implementation.

7. Be the guideline for identifying the appropriate methods for next implementation.

Somwang Pitiyanuwat (2008: 64) summarised the evaluation that it has main objectives to help improving the administration of the project including the implementation that it can get highest effectiveness. And evaluation helps the administrators to make decision on the project or responsible tasks correctly that it really achieves highest effectiveness. For the specific objectives of evaluation, it has the following purposes.

1. To help improve development of tasks or projects.

2. To make decisions on the level of achievement of tasks or projects.

3. To help administrators to make decision on the projects or the future of the projects appropriately.

4. To stimulate all relevant sectors to perform their duties or responsibilities effectively.

Therefore, the importance of evaluation is to help making decision in terms of administration so the implementation is improved or changed in better ways and it can still indicate the values or quality of things. In addition, in the exchange in classroom, it can be summarised that the importance of evaluation is being accepted by users of services which is similar to the quality assurance.

3.1.3 Types of evaluation

The type of evaluation can be divided into some types. Scriven proposed type of evaluation into two types which are Formative Evaluation that will bring evaluation results to improve and develop the implementation to make it more effective and Summative Evaluation to show effectiveness of the past implementation in order to use

for making decision about on the future implementation (Somwang Pitiyanuwat, 2008: 64; cited from Scriven, 1967).

Somwang Pitiyanuwat (2008: 93)   divided evaluation into many types depending on the criteria used for division but the most important is three types as the followings.

1. Classification according to objectives of evaluation. The evaluation is divided into two types which are the evaluation to improve development which is called Formative evaluation. It is the evaluation done while the activity or project is still implemented; it can bring evaluation results to improve implementation immediately and another evaluation to make judgment is the evaluation to indicate level of achievement of the tasks in project. It is evaluated after the completion of the project through what is called Summative evaluation.

2. Division is based on the evaluation that can be classified into two types. The evaluation that sticks to the goals of the project or task as criteria is called Goal-based Evaluation. The evaluation is to bring the results of measurement to compare with the quantitative and qualitative targets of the projects. Another type is the evaluation that is free from the target of the project (or Goal-free Evaluation) in which the evaluators do not need to know the target of the evaluated project. The evaluating as a whole will occur as direct and indirect results of the project throughout the evaluation over the impact in negative and positive manners of the projects.

3. Division according to chronological order of evaluation is the evaluation that is divided into three phases which are evaluating before bringing the project into implementation (Intrinsic evaluation) especially on the analysis of appropriateness of implementation plan of the project before proposing to ask for approval for implementation. Such process is called Project Appraisal or Analysis. Phase 2 is the evaluation during the implementation of the project (or On-going Evaluation) in order to see the progress of the project. The evaluation results in this phase maybe useful for improving the implementation and the last phase is evaluation after the completion of the project (Pay–off Evaluation) which is the evaluation of results after the completion

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of the project and after the end of project. The process of evaluation after the completion of the project after some time is called Follow–up Study or Tracer Study.

Ratana Buason (2007: 40-42) identified the type of evaluation into 5 types which are the followings.

1. Division based on the objective of evaluation and the period of project. This evaluation has three types as shown below.

1.1 Evaluation before the implementation of the project or before the project (pre-evaluation program or ex-ante evaluation program) which is the evaluation that has precautionary objectives and qualifications.

1.2 Evaluation while doing the project (formative process, on-going or monitoring evaluation program) is evaluating the project while it is implemented in order to consider about the implementation phases of the project or evaluate it in order to supervise follow-up the implementation that it follows the identification. This type of evaluation is evaluation that is consistent with the objectives of the evaluation.

1.3 Evaluation after the completion of project (post or summative evaluation program) is the evaluation when the project implements and completes the identified duration. It aims to consider the achievement of the project.

2. Division based on the target. In this type of division the evaluation will be composed of two types which are the evaluation that observes the target of the project as the criteria to compare the achievement of the project. It is called the Goal-based Evaluation and the evaluation that does not take the target (or Goal-free Evaluation) into account. This type of evaluation will consider the whole results that come from the project although such results may not follow the planned targets of project.

3. Division based on philosophy or basic belief. This division will be based on the philosophy based or belief on the facts of the values and the methods to get the facts of the values of evaluation. In the past this methods was entitled philosophy on evaluation and values of evaluation. Therefore, the evaluation can be divided into two

types which are evaluation according to the systematic methods or objectivism and evaluation according to the natural methods or subjectivism.

4. Division based on evaluator or responsible organisation that launches the evaluation can be divided into two types which are Internal Evaluation and External Evaluation.

5. Division based on the methods and the data characteristics that are set to be evaluate. It is divided into 3 types.

5.1 Qualitative evaluation

5.2 Quantitative evaluation

5.3 Mixed evaluation

3.1.4 Components of evaluation

The components of evaluation can be classified as the followings.

The evaluation of the study that has the following three components (Somboon Tanya, 2002: 11).

1. The results of measurement will show the facts or conditions of things to evaluate: how much is the amount and what qualification in order to be used as data for consideration.

2. Criteria for judging or drawing conclusion whether something is good, or can be used or not. There must be criteria or standards for making comparison with the things that come from measurement.

3. Decision making is to judge or summarise results to compare between the measurement results and identified criteria for consistency. The good decision making relies on the accurate, fair judgment based on the conditions and appropriateness.

3.2 The development of indicators of education

The one important thing for evaluation is to use indicators or some yardsticks to indicate what to use for considering the evaluation.

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3.2.1 Definition of indicators

Some academics define indicators in the following manners.

Johnstone (1981:2-6) stated that indicators means information that can tell the differences of the variables that are set to measure. It is observable values in terms of quantity and it can explain the condition of something on certain period of time and may change in the future. The explanation may aim to check things to measure in general or to give information in summary without indicating certain conditions or clear condition, and the indicator is considered as the basic unit for theory development.

Sirichai Kanjanawasee (2009: 82) stated that indicators mean variables or observable values that indicate the status or reflect the characters of available resources, implementation or the implementation results.

Ratana Buason (2007: 3 4) indicator means the variables or the characters/ qualifications which are observable and can tell or reflect something which is quite abstract and cannot be observed directly.

Suwimon Tirakanun (2004: 6 4) believed that indicator means something or characters that indicate the incurring phenomenon on the issues that need to be evaluated.

From the definitions of the academics on indicators it can be summarised that the indicator is observable and measurable variable which reflect something that is more abstract to turn it into a more concrete form.

3.2.2 Important characteristics of indicators

The important character of indicators is summarised by Johnstone (1981) into three kinds.

1. Indicator must be identified in term of quantity or in figures and not just only description or statements, and it can be interpreted through the use of numbers or values of indicators for each indicator. It can be compared with the set criteria otherwise it cannot tell if the values or the numbers are high or low, or if it reaches the standards or not.

2. The values or characters that come from indicators are temporary values. It can take a form of variations according to time and place whenever each indicator can reveal the meaning according to the condition of time and place.

3. Indicator is something to tell about the condition of the things to measure in general character or to give the picture in summarised form in general more than giving specific picture in small details.

3.2.3 Types of indicators

Johnstone (1981: 15-17) classified type of indicators into three types.

1. Representative indicator is a single indicator or a variable that reflects a character in educational system. It is widely used in research, administration, and identification of the educational target. For example, the IQ level will be used to explain the complex ability in psychological functions of individuals. The precaution in using this kind of indicator is that in the system that situation is laden with complex variations; therefore, the selection of indicators as representative must be able to explain the complex characters completely or largely.

2. Disaggregative indicator is the indicator which is separated to be single variables in order to be used for explaining each part of components in educational system which is free from one another. It is appropriate for measuring certain components in an educational system. The explanation must be able to refine each of the variables clearly. If it is explained as a part of the larger complex, it might create erroneous interpretation.

3. Composite indicator is gathering of indicators to be consistent with the number of various variables in the educational system. There is the weight of each variable that then is calculated to reach the total values along with the other indicators. The character of this operation will be similar to calculating the average value. It is considering the weight of each variable. The interpretation will be interpreted as the whole picture. This type of indicator can explain the characteristics or situation of the educational system better than using other types of indicators, but the limitation appears

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in bringing this indicator to use means it will involve very complicated methods and high expenditure.

3.2.4 Process of indicator development

Johnstone (1981: 33) identified the guideline for considering the decision on indicator development into four main issues which are the followings.

1. Selection of method in defining the indicators is giving definition of indicators according to the three concepts which are practical definition, theoretical definition, and empirical definition.

2. The selection of variables which is the component for things to study should select to cover the important variables that are related to the characteristics of the objects to study. It should identify the characters or qualification clearly based on the concepts, theories, and secondary data or the opinion of experts. The variables should not be selected in many numbers but aimed to measure the same characteristics or the variables that are complicated for measurement or interpretation.

3. Identifying the appropriate method to accumulate or gather variables. The methods to gather variables together to create indicators generally have two methods which are Additive and Multiplicative methods. These methods have some basic agreements, differences in usage, and different objectives to pursue.

4. Identification of weight of variables has two methods which are identifying the weight of variable equally (equal weight) and identifying the weight differently (differential weight). In selection of methods to identify the weight researchers have the following choosing methods.

4.1 Expert judgment is allowing the experts to relate to the objects to study and then proposing the weight value of each variable freely which will be then calculated for the weight value by using different methods such as calculation of average values of variables, calculation of the percentage of respondents who answered with the weight of variables, or discussion with the experts on what they agree together.

4.2 Measurement effort required is done by considering the use of time and expenses during the activities related to the variables. If any variable is using time

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or expenses more or less than the other variable, these measurement will be used for identifying the weight of important variables. Nevertheless, the identification must consider the context of educational institute as well.

4.3 Using the Empirical data with the use of statistical analysis to analyse the data to identify the weight of important indicators such as use of Factor analysis, Multiple regression analysis, Discriminant analysis, and Canonical correlation analysis.

The methods to identify the weight of importance of each indicator provide no best methods but it is always depended on the conditions that will be brought as consideration to use certain methods. For example, the nature or characteristics of variables that will be used as indicators, nature of indicators, duration for developing the indicators, and utilisation of indicators.

5. Checking the quality of indicators is composed of two things which are checking the quality under the theoretical conceptual frame and checking through some statistical methods. The importance of checking of quality of indicators relies on the theoretical concept frame and the check through statistical methods as the evidence or empirical data with support the quality of that indicator. And academics named Sirichai Kanjanawasee (2009: 8 4 -8 6) stated that good indicator should have the following qualifications.

5.1 Validity means the indicator must provide the values that indicate the characteristics of the things accurately, showing relationship or direct correlation to the issues and being the representative of the things completely.

5.2 Reliability is indicator that aim to measure reliability or static indicator when it is measured at the same time. It is static in measurement and can tell the characteristics of the things clearly and create the same understanding among evaluators.

5.3 Neutrality is that the indicator shows neutrality without bias over any characteristics of the specific objects.

5.4 Sensitivity is that indicator must be able to sense to the characteristics of the things to measure and can show variations or the differences between the unit which is measured clearly.

5.5 Practically is that the indicator must be used easily or can be implemented according to the objectives easily, and it can collect data easily and interpreted quickly.

3.2.5 Analysis of components

The analysis of components is widely used among researchers and in statistics because the statistical data analyses have academic principles and complex analytical methods. It is the method that has high power and highly useful for research in social science and behavioural science. It is admired to be the queen of statistical data analysis (Nonglak Wiratchai, 2009: 121; cited from Kerlinger, 1973: 659).

Definition of analysing components

Factor Analysis is called in many terms in Thai language like factor analysis or component analysis. Many people define the definition such as the followings.

Kanlaya Vanichbuncha (2009: 1) claims it is the technique that divides the groups of variables into groups or combines the variables that have correlation/ relationship in the same group or in the same factor. The variables that are the same factors will have relationship a lot and the relationship can be in the same direction (Positive Correlations) or in different direction (Negative Correlations) but the variable that is in different groups of factor will not have any correlation or has little correlation. Through the use of Correlation to measure the relationship among variables, the variables used will be quantitative variable (Intervalor Ratio Scale).

Supamas Angsuchoti, Somtawin Wijitwanna and Ratchaneekool Pinyopanuwat (2008: 92) stated that is the statistical methods that help researcher to create the factor/components from many variables by grouping the related variables to be the same groups of factors. The variables in the same factor will be highly correlated. Such relation can be in either negative or positive. The variables in different factor will have

no correlation/relationship or has little relationship. A factor can represent a latent variable which is the qualification that all researchers want to study.

Suchart Prasith-rathsint (2005: 253) stated that it is the technique of analysing of many variables which is widely used when a researcher wants to dissolve the variables to reduce the numbers of variables or when they want to create a measurement related to making category or if the variables are correct or not. Or a research sometimes wants to check the weight of variable.

Yuth Kaiyawan (2008:61) stated that it is a statistical analysis technique in research that aims to reduce the existing variable numbers which can be numerous. Because some variables have quality or character to explain the character of similar data that they have to be omitted or some variables have characteristics or relationship similar to one another that it gathered in a new variable group and it is called a Factor.

Nonglak Wiratchai (1999: 122) stated that it is the data analysis methods in statistics that help researchers to create factors from many variables. The variables that have relationship to one another will be gathered in the same factor groups. And these factors are latent variables and have qualification that the researcher wants to study.

In conclusion, Factor Analysis means the statistical technique to use in gathering the groups of variables that have relationship in the same groups and called factors. The variables in the same factors will have high correlation while the variables in different factors will have little or no correlation at all.

Thus the important concept of factor analysis is some variables that cannot be observed and measured directly or it is maybe called latent or variable factor that cannot be observed or measured directly. It can refer indirectly from the data of the observable variable. The factor analysis is the statistical process for uncovering the existing latent variables through the study of the variations between sets of observable variables (Chatsiri Piyapimonsit http://www.watpon.com/spss/spss11.pdf: 2555 cited from Joreskog and Sorbom, 1989). Through the factor analysis the analysis is done to show that those variables that have no classification of variables are set into Independent Variable and Dependent Variable. But for the variables that have Interdependent

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relationship, most of the factor analysis will be used as the beginning technique for analysing statistical data (Kanlaya Vanichbuncha, 2009: 214).

In addition Suchart Prasith-rathsint (2005: 233) showed opinion that calling the analysis as factor analysis is considered wrong because factor analysis is only a part of factor analysis. Factor analysis not only is composed of the main analysis of factors but also composed of other analysis techniques which are called together as Common Factor Analysis.

The Observed Variable means the variables that researcher can observe, measure, identify the values clearly such as students' attending the class or submitting the homework. Latent variables are variables that cannot be observed directly but must be observed from measurement of observable variable to explain such as determination to study (latent variable). It will use observable variables such as attending the class or submitting the tasks to help explain of tale about the diligence.
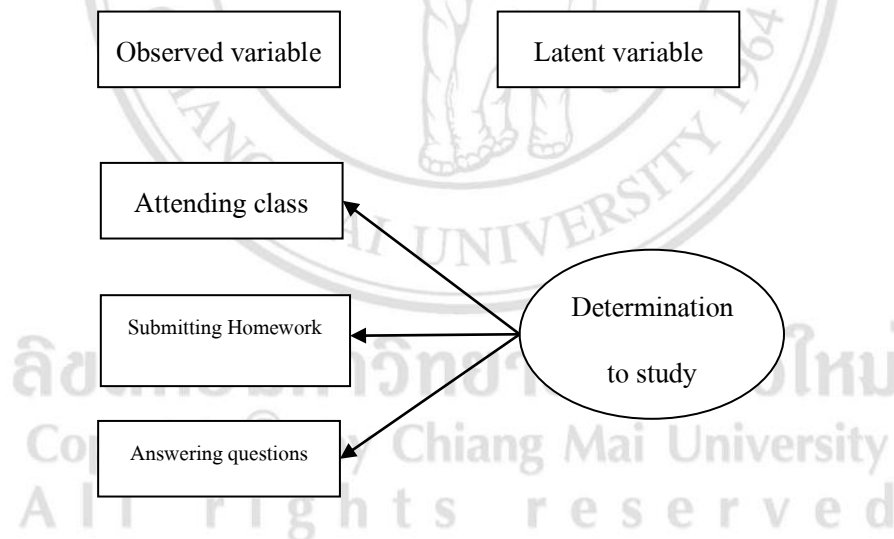

Figure 2.2 Relationship of observable variables and latent variables

The researcher may use factor analysis to check the Construct validity of the variables if they have Constitutive definition structure or not and how it is consistent with the facts and condition (Nonglak Wiratchai, 1999:123).

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Type of factor analysis

The factor analysis can divide the type of analysis into two types which are the followings (Nonglak Wiratchai, 1999: 121).

1. Exploratory Factor Analysis (EFA) is used in case that the researcher has no knowledge and understanding on the relationship structure of variables and wants to know the latent variables that can be explained through the observable variables. For example, the researcher wants to measure leadership but the researcher has no knowledge on the variables to measure leadership which one has more or less relationship or no relationship to leadership. The variables maybe various and the researcher should reduce the number of variables and want to check which variables are in the same factors. In this case the researcher should use the exploratory factor analysis to study the structure of leadership (how many factors it has and what is the good number of important variables).

2. Confirmatory Factor Analysis (CFA) is used in case that the researcher has knowledge on the structure of relationship of variables but it may come from studying documents, concept, theories, and then the researcher creates the relationship structure of variables which should be using the Confirmatory Factor Analysis to confirm the relationship of such variable structure.

For the Data that will be used for factor analysis, it must be quantitative data or if not strict to the measurement principle it can use the ordinal scale or rating scale. But if strictly on academic, the researcher should use the ratio scale because there is the clear range of measurement (Suchart Prasith-rathsint, 2005: 237).

3.3 The evaluation model

3.3.1 Definition of model

Yaowadee Rangchaikul Wiboonsri (2010: 27) stated that the model means the methods through which persons transfer their thought and understanding including imagination towards the phenomenon or a story to expose through the use of media in some forms.

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Sirichai Kanjanawasee (2009: 46) claimed that model means a mimic of the fact or truth or may have theoretical form or it is maybe the linkage of theories to the concrete in practical form.

For Somkid Promjouy (2009: 49) the evaluation model means the conceptual framework of a plan in evaluation that shows the list of things to evaluate or the evaluation process. In any evaluation of a program, this model shows what should be evaluated and how to perform it.

Pitsanu Fongsri (2008: 29) stated that model means things that a person constructs or develops from the concept, theory, experience, imagination, or then transfers it into a phenomenon through simple, concise presentation that it can lead to be the guideline for the practice. There are at least three components or factors which are objectives, variables or main contents, and the systematic relationship between variables.

Therefore, model is something that is created from the concepts and theories including experiences and then transferred into phenomenon to communicate to make it easy to understand and easy for implementation.

3.3.2 Development of evaluation model

The model development depends on the decision on the appropriateness of the selected model. It can be considered from the consistency between philosophies or the concepts of evaluation model and the problem issues of the things that needs to be evaluated. It is consistent with Sirichai Kanjanawasee (2009: 104) who found that in selecting the evaluation model to use and create the highest benefits, the evaluator must not stick to any model (Model-free approach). The evaluator must be able to develop the criteria for judging the consistency between objectives to be evaluated and the evaluation concept according to the principle and the evaluation theories in constructing that evaluation model.

Thiwarak Seriphap (2005: 62; cited from Kendall & Kendell, 1988) presented the step for developing the model as the followings.

1. System analysis means analysing the components/factors of the system, input factors, process, and output of the system.

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2. The system design means designing the component of the system as the input, process, and output to make it the highest value so it is appropriate to the conditions of organisation and environment used in the system.

3. System test means bringing the designed system to test by experimenting to use in mimicked situation or real situation in order to check if the system has quality or not or if there is any flaw in order to make improvement.

3.3.3 Evaluation of evaluation model

Evaluating the evaluation is judging the quality of evaluation. If any evaluation has quality that evaluation must be composed of the quality of identified questions of evaluation, the evaluation methods and outcome/results of evaluation. Evaluating the evaluation is the use of mechanisms to control the quality of evaluation. It can be done through monitoring over evaluation, criticism, and comparison with standardised criteria of implementation of evaluation or repetitive evaluation (Sirichai Kanjanawasee, 2009: 171-177) and can lead to the development of theory that has the following objectives (Sirichai Kanjanawasee, 2009: 174; cited from Smith, 1978).

1. Evaluating the quality, impact, or the results of using the evaluation results

2. Checking and certifying the evaluation report

3. Control or reflection of evaluation

4. Interpret the values or the benefits of new evaluation methods

Criteria in judging the quality of evaluation can be judged from the values of evaluation on three aspects which are the followings.

1. The questions for evaluation are straight to the point and the real need of the project and it is responding to the use of information of relevant people. Therefore analysis refers to the real needs and participation in identifying the evaluation question of the users of information. Therefore, it is important for the quality of evaluation question.

2. Evaluation method is the process that responds to the objective of evaluation. It is consistent and appropriate to the context of evaluation; therefore, the main components that lead to appropriate evaluation methods is objective and clear as evaluation target, environment of evaluation, experience, values of evaluators and relevant people.

3. Evaluation results have characteristics as the followings. It can bring to use beneficially widely, fairly in judging values. It must collect data holistically and from relevant people from different sectors to have criteria for reasonable judgment, acceptable and able to link the values or things to evaluate under the context that leads to the values of the things in public view. Besides, the results of evaluation should be reliable and reflecting the truth on the value of the things to evaluate correctly and fairly. The reliability may come from reliability of evaluators in form of expertise in evaluation methods, contents, and ethics reasonable in identifying evaluation objectives, design, and the use of reliable evaluation methods.

From above statements, the evaluation of evaluation model that is widely used in educational fields is coming from the committee boards who develop standardised criteria for evaluating documents and educational projects. It is composed of experts on evaluation who propose 30 criteria to be used as norms of evaluation activities. It can be categorised into four issues which are the followings (Sirichai Kanjanawasee, 2009: 178-180; cited from Stufflebeam, 1981).

1. Utility Standards. The evaluation results must be useful and responsive to the needs in the use of information of the relevant people. It is on time and effective to be used.

2. Feasibility Standards. The evaluation is consistent with the real condition appropriate to the situation, practical, acceptable, economise, and worthy.

3. Propriety Standards. Evaluate the propriety according to the rules and regulations, ethics, or Code of Conducts. It is considered the welfare of stakeholders or relevant people and the persons who get impact from evaluation. The agreement of evaluation (MOU) is identified formally to solve possible conflicts with fair

transparency, straightforward report, open and respective to the limitation of evaluation, give importance to the rights to perceive information of the public, individual rights and evaluate with fairness and responsibility to society.

4 . Accuracy Standards. Evaluation must use proper techniques to get summary, information that is sufficient for making judgment on the values or things to be evaluated.

3.3.4 The component of educational evaluation model

The evaluation model at present has many models and has acceptance differently depending on the types or objectives of evaluation in each project. Nevo's model is a model which the researcher thinks as consistent with this research. And there is the guideline for implementation which is clear and responsive to the evaluation model on the readiness of technical colleges in entering ASEAN Community.

Nevo (1 9 8 3) proposed the evaluation frame by identifying the evaluation model that answers ten questions and identifies the conceptual framework in educational evaluation in 10 dimensions which are the details of each component of the evaluation model follows the questions used identifying the educational evaluation frame as the followings.

1. Definition of evaluation

The secondary data study revealed that the definition of evaluation has many guidelines. The definition which is widely used and accepted is the definition of Cronbach who stated that evaluation is seeking the data to use for making decision. The definition of A Joint Committee on Standards for Evaluation stated that the evaluation is the checking system of inner values and outer values of the thing to be evaluated. Besides, the definition which is accepted is the definition of seeking information to help in making decision. Therefore, in developing the evaluation model it needs to define a model and answer the questions that the evaluation model has emphasised evaluation for making decision on the values or aims to evaluate to improve and develop. It has identified the objectives of the developed evaluation model.

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2. The role of evaluation

Evaluation plays many roles such as (1) evaluation on progress to improve, (2) evaluation to draw conclusion in order to select, certify, and show responsibility, (3) evaluation to do duty on psychology or society to promote motivation and increased awareness in improving and developing the work, and (4) evaluation to serve management according to different roles of authority and responsibility, different roles in evaluation that leads to planning different evaluation methods.

3. The things to evaluate

Planning for evaluation is important which needs clear identification on things to be evaluated, answering the questions, this are the things that important in developing the evaluation model because the developer of model must study things to be evaluated truly so he can identify what to evaluate. It will help in identifying types of the data that should be gathered and the methods that will be used for analysing the data. Identifying the targets that aim to evaluate clearly it will help in evaluating the uniqueness. Besides, it helps bring the evaluation results to oppose, suggest the guideline for solving problems and conflicts among stakeholders.

4. Variable that should be checked

In evaluating certain things, questions appear on what variables should be considered. The evaluation must emphasise four components which are (1) the aim or target of objective, (2) strategy and plan, (3) the process that leads to implementation, and (4) the results and impacts of things to evaluate.

5. Criteria used in evaluation

Setting the criteria to use in making judgment on the values on the things to evaluate is one of the most difficult tasks in evaluating education because the evaluation must try to check whether the implementation achieves the identified targets or not. The issues that should be considered in making decisions on value or interpretation on price on the things to evaluation on education is composed of (1) the necessity or the real needs of customers, (2) the values or the concepts which are the values of society, (3) standards of the things which are already acceptable from the identification of experts or

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other relevant group, and (4) the quality of the things that is acceptable to be the best in the field which is evaluated.

6. The evaluation purposes

The evaluation should identify clearly on what purpose the evaluation is going to evaluate and what for. And it also must identify the authority or those who make relevant decision; there are three limitations to consider in identifying the users of evaluation results which are the followings. First, evaluation can have more than one user or evaluation results. Second, the users of evaluation results have different needs. Third, the users of evaluation results are specific. Fourth, the evaluation needs clear identification since the earlier part of the planning for evaluation.

7. What is the evaluation process should be composed of

The process that is used in evaluation maybe different as it is based on the basic concepts or theories which are used in the evaluation, the evaluation methods which are identified, and the activities to check things to evaluate. Whether it is successful or achieve the definition of basic theoretical concepts, the step in evaluation is composed on (1) identifying the target behavior which is the achievement of the thing to be evaluated, (2) developing the model to be used in the evaluation, (3) collecting the data, (4) interpreting the definition of data, and (5) evaluating the values of evaluation.

8. What methods to be used in evaluation

The methods that gain higher reliability more than other methods are designing the experiment or test and natural data collection; however, in general it is know that there are many methods and the use of integrated models increases more in evaluation's accuracy. At present the principle of evaluation that should be considered is that the evaluator should not insistent to certain limited quantitative methods or only qualitative methods. For the complicated evaluation, the selection of implementation methods should consider the best methods and should not limit themselves to certain methods. No certain method is perfect in itself. There should be varieties that the methods can provide answer that is covered and have specification in the answer more than selecting certain methods for answering the whole objectives.

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9. The potential evaluators

The persons who are responsible for evaluation should have various abilities such as ability on techniques, evaluation, understanding the social context and contents of the things to evaluate, human relationship, the important characters of things to be evaluated, and roles and responsibilities of the organisation which is responsible for the projects. The evaluators should have team work because it has important qualification that may not exist in certain individuals. Selecting the people or individuals is done to have appropriate characters and various abilities of the evaluation team on certain things. In evaluation it should be implemented by evaluators or evaluator team who are appropriate to the type of evaluation on certain things. The selection of evaluating persons must be trained to those with the following classification: (1) techniques and research methodology and data analysis, (2) understanding the social environment and the details of things to be evaluated well, (3) ability to hold relationship in appropriate level and create harmony of people or the relevant groups in evaluation, (4) ability to gather opinions to be conceptual frame.

10. What standards to use in judging the evaluation

The standard in making decision on evaluation is developed by The Joint Committee on Standards for Educational Evaluation (1981) that proposed 30 standards which is categorised into four issues: (1) utility standards to be assured that the evaluation is responsive to the application leading to the bringing of evaluation results to use, (2) feasibility standards to be assured that the evaluation is true or the facts covered and visible and applicable in practice, (3) proper standards to make sure that evaluation which implements is correct according to laws, standards, and ethics (code of conducts), and (4) accuracy standard is to be sure that the evaluation utilises the techniques and methods which will give or provide correct/sufficient data to confirm that this evaluation provides information that covers completely the real needs.

3.3.5 The standards in evaluating the model

The standards that are used in evaluating the programs or developed model used as guideline in identifying the quality of the program or the model related to

education. This standard, developed by The Joint Committee on Standards for Education Evaluation and certified by The American National Standards Institute (Ratana Buason, 2007: 235–240), has classified the standard of evaluation in four aspects as the followings.

1. Utility standards

Utility standard has targets to be sure that the model can give information that are useful to the need of users and is composed of following details.

1) Identifying the stakeholders in the evaluation. It should identify the relevant people or persons who are affected by the evaluation clearly.

2) The reliability of evaluators who must have skills in evaluation is certain and they have ability in evaluation so that evaluation results are reliable and get acceptance.

3) The coverage of information. In data gathering it should cover and consistent with the questions of evaluation objectives. The data should respond to the needs and interests of target group and stakeholders.

4) Identifying the values, identifying the perspective, interpretation, evaluation methods, and explaining the reason to use in interpreting the data which is discovered clearly.

5) Reporting the results clearly in reporting the evaluation results should be written clearly started from the starting of the context, targets of evaluation, methods, and discovery of evaluation in order to present the necessary data that are easy to understand.

6) Up-to-date in applying the discovery and reporting of the evaluation. It must be done on time for the application for the persons who are interested to use the information.

7) The impact of evaluation. Evaluation should have a plan, guideline of application, and a report of the results which will be used as a guideline to help stakeholders so they can use it beneficially and continuously.

2. Standards on feasibility

Standard on feasibility standard is the standard that creates confidence or certifies that this evaluation responds to the real situation and possible in term of practice and worthy in values.

1) The method is possible. The method for evaluation must be applicable in reality and not too much complicated.

2) Possible at policy level. The evaluation should have a plan and applicable by considering the differences between different groups and opinion of people and give cooperation in implementing evaluation and to reduce the limitation in using programme in practice or reduce the inappropriate use.

3) Worthy with investment. The evaluation should be worthy in term of no possibility of wasted budget.

3. Propriety standards

Propriety standards have targets to create confidence or certify that the evaluation is legal. It is correct according the laws, ethics, and consistent with public needs.

1) Suggestion for bringing to the evaluators and suggestion for bringing to use. The evaluation should be designed to help to arrange the system to suggest and support for the application to use efficiently.

2) Identify the formal agreement. It should identify the details in evaluating together between relevant people in evaluation such as what to do, how, by who, and when. It should be in written agreement so it can be used as the guideline for implementation.

3) To protect the rights of the persons who get evaluated. The evaluation should be designed and applied by considering acceptance and the protection of individual's rights.

4) Interaction among persons. The evaluator should have accepted the values of human beings and promoted interaction among them with values and

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appropriateness. Therefore the relevant people should not be threatened or hunted from the use of evaluation programme.

5) Have justice and protection completely. The evaluation must write the reports on the strengths and weaknesses. It should promote the strength and give suggestions to correct the weaknesses.

6) Should open for the evaluation results. The details of evaluation results should be exposed. It should not limit the access to data of the data from evaluation. The evaluation results should identify the discovery directly, easily accessible, and fast.

7) Conflict of interests. The management of evaluation should be open, honest, and preventive on the problems that may occur and possible conflicts. The implementation of evaluation and its results should be according to the principles.

8) Responsibility to the expenditures. The evaluators should share the costs from the sponsor sources and should have the reflection process reasonably. The evaluation should be done carefully with responsible to the ethics, and the cost of expenditure for evaluation should be appropriately set.

4. Accuracy standards

Accuracy standard is the standard that creates confidence or certifies that the evaluation is using the sufficient techniques and methods to keep the information appropriate.

1) The project makes clear documents. The project that conducts evaluation must prepare documents or explain them clearly.

2) Analyse the context of the project. In evaluation of any project the context must be studied in details and clearly.

3) Describe the objectives and methods. These must be explained sufficiently.

4) Identify the sources of information technology sources that will be used for evaluation. It should be explained in details and sufficiently so it can evaluate the data correctly.

5) The information technology should be straightforward. The data that is collected should be collated and apply correctly so it is clear and confidence that the interpretation of data that will be true and the application to use usefully and straight to the issues.

6) The information technology has validity. The data collected should be selected and brought to use correctly. It creates confidence that the interpretation of data will bring reliability and stability.

7) The information technology is systematic. The data collected has gone through the processes and reports. It should be analysed systematically and revised for the mistakes found and corrected correctly.

8) Analysis of the quantitative data. It should be analysed appropriately and systematically that the evaluation questions get the right, correct, or efficient answers.

9) Analysis of the qualitative data. The analysis is appropriate and systematic that the evaluation questions get the right and efficient answers.

10) Reasonable summary. The summary should cover evaluation results clearly in giving reasons so the stakeholders can evaluate and bring the results into use.

11) The report making is clear and in written form. The report writing of evaluation results should have the process to protect the protests or bad consequences from individuals and the bias that the evaluation reports can reflect the justice.

12) The meta-evaluation. The evaluation of the evaluation results should be the evaluation both between the implementation and the evaluation of the summary. It is the revision if the revision is responsive to the target or not so there is appropriate and complete guideline.

4. Related literature

In studying the related literature the researcher wrote a study into two issues as what follows.

Supanida Chaivit (2003) with the development of indicators for education quality assurance of the College of Dramatic Arts, The Fine Arts Department was using the

Delphi Technique to get nine components, 90 indicators, and classification according to the concept the systematic analysis which is composed of an input factor to get 39 indicators. On the process this researcher gained 45 indicators and on output 6 indicators. The work of Sineerat Yuthakij (2006) on the development of indicators on educational quality on the animal science in the high vocational certificate level college of Agriculture and Technology using the application of Delphi Technique revealed that there were three important factors: the input factor with 4 components, the process factor with 2 components, and the production factors or outcome with 1 component. Nirun Nitisuk (2002) studied the development of indicators in educational quality assurance for Rajamangala Institute of Technology Northeast Campus and got the indicators for educational quality assurance in 9 topics/titles with 16 main components and 22 sub-components. Patcharin Wongchan (2004) wrote the development of total indicators for educational quality of a private vocational education school by using the factor analysis and showed that the total indicators of educational quality of the private vocational education schools have 6 components and 17 indicators. Besides, the component is composed of the component on administration and relationship with communities: the components of the school administration, components on teaching and learning, components on behaviour of teachers, and components on learners. All of the components can explain the educational quality of private vocational education as much as 46 per cent. Chanyongyuth Boonthong (2004) finished the development of total indicators on efficiency on the arrangement of learning process of the instructors under the Office of the Vocational Education Commission, Bangkok. The research findings produced 6 indicators with 81 sub-indicators; all 6 indicators are composed of indicators on identifying the contents, instructional activities arrangement, arrangement of media and learning sources measurement and evaluation, climate arrangement that promotes learning, and participation of communities. In addition, the research of Wanpen Phongkai (2006) on the development of indicator for evaluating the implementation on educational quality assurance of the Office of Educational Service Areas found indicators for evaluating the implementation of personnel in the Office of Vocational Education Service Area with 84 indicators. These are classified into indicators on efficiency of implementation (53 indicators), indicators on implementation process (14

indicators), and indicators on the achievement of implementation (17 indicators). It is consistent with the research of Saijai Kongpechr (2009) entitled "the development of indicators on the quality assurance of the graduates in the major of veterinary science". The research findings showed that the total indicator for the quality assurance of the graduates in veterinarian is composed of three main components: the input factors, factors on the process, and the output factors. It is made of 16 sub-components and 94 indicators.

In summary, most of the research to develop indicators will use the indicator development in the system that brought input factors, processes, and outputs to analyse together in creating components and indicators which the researcher has developed. In addition, the researcher conducts the study on the problem in accepting indicators in evaluating educational quality standards. It showed that Thanet Singsoong (2009) studied the conditions and problems in using indicators according to the standards of vocational education of a private vocational education school in the central region. The findings showed that the use of indicators according to the standards of vocational education as the whole and all standards is in high level. For the problems as the whole picture has problem in a low level, which is consistent with the study of Pichaya Boontosang (2007) on the problem in accepting the indicators for evaluating the education quality of ONESQA at vocational education level. It showed that the problem with indicators for evaluating the educational quality of ONESQA in vocational education level as the whole picture is in a moderate level. But the problem level according to per standard shows that in standard number 1 has problem in indicator at a low level. Standard numbers 3, 5 8 have problem at a moderate level. And standards 2, 4, 6, and 7 have problem in a high level. Most of the problems come from the ratio of budget and the target of indicators that do not correlate or have relationship because the budget is insufficient that it affects the schools' financial ability. The target which is one of the indicators is coming from a number of personnel and the ratio of the students. For the level of acceptance in indicators, as the whole picture is in a moderate level. The level of acceptance per standard showed that in standards number 3, 4, 5 and 7 the acceptance is at a moderate level and standards number 1, 2, 6 and 8 have acceptance in a high level.

Model development

Prasit Pongsiang (2010) developed a model for educational quality assurance in vocational college Phongthong Vocational College, Phongthong District Roy-et Province by conducting a research by using the strategy of workshop, supervision, and usage of the SDLC. This SDLC system has 5 steps which are studying the system, analysing the system, designing the system, bringing the system into use, and maintaining the system. It makes the personnel aware, knowledgeable, and understanding about the system of internal quality assurance in three aspects. The analysis of the system can classify the steps of data collection in the step of information management according to the need, using the system that can bring the new system to use for making inquiry easily and maintenance of the system. Then the analysis develops in circle by using the strategy of supervision in control and quality check, collection, and gathering of data for implementation. It builds awareness, knowledge, understanding, and care among the groups. And the research work of Suwanee Wongsurit (2005) on the development of model and the evaluation criteria of the educational quality assurance system of Chiang Mai University (study on secondary data or documents) upon a sample groups of three groups. They are administrators, practitioners who are responsible on education quality assurance, and the persons who evaluate the system of inner educational quality assurance. The finding showed that the model and the evaluation criteria of the system on the educational quality assurance system of CMU is appropriate with development of the list of quality check of 124 lists of indicators as a checklist and the measurement forms for indicators in 44 indicators.

Gyu-sik Kim (2010: 209-222) studied the guideline for educational management in higher educational level in Thailand that is consistent with the cooperation in the economic development between Thailand and Korea in the next century (2008-2017). The research findings showed the following achievement. First, Thailand has changes and development in the economic system continuously, for example in agricultural sectors that get supports on planting for industrial farming. The other development takes place on business on the production that emphasises production of goods by using high technology such as producing electronic goods, memory-containing gadgets and

computers equipment/supplies, automobile production, production of car spare parts, and the use of alternative energies. Second, development in the industry production such as the electric appliances, electronic supplies, constructions, automobile, spare parts of automobile, machinery and the chip-production, and alternative energies. Third, the need of human force in Thailand on industrial cooperation between Thailand and Korea during the year 2008-2017 shows increasing trend. Fourth, under the trend of commercial extension and investment between Thailand and Korea there is the curriculum on Korea that is brought to use in higher education level. Pairat Kittirojyothin (2003: 62-65) studied the guideline for educational management in metallurgy techniques of Chiang Rai Technical College, Muang District Chiang Rai Province. The findings showed that the guideline for the academic administration of metal technical courses must identify the following parts (1) the plan for administration clearly, (2) academic development plan, (3) the curriculum that is consistent with the present conditions and the need of labour markets. On the supervision there must be monitoring of teaching and learning from time to time. Also the system must create awareness of importance of supervision to the teachers and instructors on the arrangement of curriculum activities. The students should be trained the real experience to increase the skills, knowledge, and ability that they are ready to be the leaders in their occupational fields. On the administration aspect, the courses should identify the roles and responsibility and the person in charge of the personnel in the field of administration of the course clearly and continuously. On the personnel development there should development on knowledge and ability for the teachers who teach in the course regularly.

Related literature on ASEAN

Arporn Kaenwong (2011: 29) studied the analysis of educational management of the higher education institute in East-West Economic Corridor to response the gathering of ASEAN Community in 2015. The findings showed that the present situation for educational management in the higher educational institute on East-West Economic Corridor. The educational management is diversified based on the potential and the mission of each institute and it can response to the needs of

the community level, local, country, region, and international levels. The higher educational institute has the strategy/policy/active work plan in response to the gathering of ASEAN Community in 2015. One of the problems and obstacles in educational management of the higher education institute that is on West-West Economic Corridor is lack of instructors in terms of quality and quantity, degrees and academic positions (under the criteria of Office of the Higher Educational Commission). The other problem is the low potential of instructor that is not recognised internationally. The other troubles are burdensome and monotonous curriculum, limited learners and tendency of reduction of the quality beyond expectation, the academic affairs and research that lacking quality. The limited budget insufficient for active development, and lack of database system for decision making of administrators are also additional obstacles. For Sunthorn Boonkaew, Pavit Tansakul, Paweena Kayapan and Pakaporn Kongkeaw (2011: article) that studied the development potential of the graduates of the ASEAN Community from the project for tourism promotion and the service of Office of Academic and Management, Bureau of Business Management. The results of survey in 2010 of Department of Employment, Ministry of Labour revealed that 0.55 percent of the population of student-aged of Thailand know this data, which is considered very little compared to the level of awareness on preparing the readiness of people in the countries of ASEAN Community. Population in other countries in the ASEAN Community accelerates the potential of their people in their countries to compete with other members of other countries. In the near future the competition in the labour market will be stronger because students must compete with people from all countries in ASEAN. The gathering of ASEAN Economic Community will affect the socio-economic system in Thailand inevitable. The educational institutes in government and private sectors in Thailand must be aware and accelerate to create the potential for the students.

It is considered that the expansion of authority or decentralisation from the centre is the main trend of ASEAN at present. Some countries are used to deliver some changes during the interval of the guideline for ASEAN educational reform. It has tendency of implementation into two manners which are expanding education truly and enhancing quality levels of education through the different weights and balanced. The

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enhancement of educational quality level as the common point of ASEAN Members can be divided into five areas.

1) Aim to reach learning-based societies.

2) The target of enhancing educational quality level into international level.

3) Response to the socio-economic development in the country level and local levels.

4) Educational is the guideline to enhance the potential levels and abilities in economic competition.

5) The study to develop the holistic human capital.

The suggestion on the roles of Thailand in the ASEAN Cooperation on educational can be divided into two which are the followings. First, Thailand should put the enhancement level of cooperation on international education among ASEAN Members to response to the ASEAN Vision and the implementation plan. Second, the content in implementation on cooperation in education of ASEAN is to be the knowledge-based community and leadership. The communities are to create the knowledge based on research and development that is appropriate to identities of ASEAN Members. This character building should be done through the character of support and enhanced level of educational development that is clear and responsive to the changes on socio-economic in the 21st century. This needs extension of opportunity and enhancement of education quality level at Mathayom Suksa level. It is an important factor and it is the best for sending students to pursue studies at higher levels. The enhancement of quality levels in universities that emphasises on instruction and enhancement of quality level of university mean the university as research cooperation in many terms. These are policy, learning, research, development in enhancement of educational standard levels at different levels among related organisations in Ministries of Education. This aspect includes promotion on development of schools in both basic education level and in higher education levels.

The urgent necessities that are considered to be priority and should be arranged in a short term plan and medium plan of the region are the followings.

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1) Cooperation in accelerating to enhance the vocational education level and the informal education that is community-based in terms of quality and quality with the weight that is parallel to the attempt on Education for All for the schools in the basic education system and in higher education. There should be awareness on the regional standards that is parallel to international levels. It will be used at the base to send the cooperation to make Mutual Recognition Arrangement which is very challenging and cannot be avoided in the regional level, international level, under the WTA and making the Bilateral Free Trade Area (BFTA) with other developed and developing countries.

2) Expansion of opportunity on the brain in the local and national levels through the appropriate connection between the education in the system and outside of the system.

1. Literature on readiness for joining the ASEAN Community

Noppadon Sutantivanichkul (2011: 56) conducted a research on readiness of the vocational educational schools in Thailand in response to being ASEAN Community. The findings showed that the preparation of the vocational education schools in Thailand on the curriculum arrangement for the instruction from three levels: from high, low, and not ready or not open (the course. The majority on the curriculum would be at a low level except the curriculum of vocational certificate and high vocational certificate. These last two will spend time or on the readiness on identifying policy and the strategic plan of the vocational educational school in Thailand on preparing the readiness to produce skilled labour. This preparation is mostly done in low level because the vocational education schools in Thailand have policy that emphasises on producing skilled labour in quality and quantity since 2007. Therefore, it is not consistent with the needs of ASEAN Economic Community that emphasises the specialist levels among labourers in specialist level which will be produced in the higher education institutes or in the universities only.

Korakot Anchaleenukul (Theera Nuchpiam, 2014: 133-153) studied the preparation on readiness of the vocational education institutes in Thailand on the commerce in response to welcome ASEAN Economic Community. The analysis results are divided into two characters which are readiness and unreadiness on potential persons which are

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students and teachers and readiness unreadiness on policy. The readiness and unreadiness that should develop in short term is readiness and unreadiness on policy. The readiness and unreadiness that should spend long time in developing are to prepare the readiness to be part of ASEAN Economic Community. It means that the readiness and unreadiness on the majority of potential of personnel on the English language among vocational study students is at a low level. And the potential on the language use, the readiness of instructor, and the majority of people are also in a low level. In addition, it showed that students and their class instructors from private educational institutes have readiness on the potential on the English language more than the students and teacher from instructors from the vocational education institutes under government sectors. Therefore, the preparation of readiness to join ASEAN Community should push appropriate to create the development of the learning and developing the vocational education colleges to be ready both curriculum and the learning major, personnel force and facilities on learning such as textbooks, academic documents, service of libraries, and supervision to students. Under the vocational education institutes in the country, the system can respond to the openness and educational competition. The countries that have potential and readiness on this can become the educational centre and learning for the people in the region which in the long term will have positive outcome in increasing efficiency in producing competitiveness and other cooperation in the region.

Noppadon Sutantivanichkul (Theera Nuchpiam, 2014: 1 5 5 -1 6 5) studied the readiness in technology of the Thai vocational education institutes in response to being part of ASEAN Economy. The readiness of the Thai vocational education institutes is in majority at a low level in all aspects. The causes are coming from Thai vocational education institutes which have policy that emphasises on production of the skill levels in terms of quality and quantity. To be consistent with the labour market, the socio-economic conditions, culture, technology, and environment, the practitioners, heads or the manufacturers, and the free occupation build strategic frame of strategy identified inconsistently with the needs of ASEAN Economic Community that emphasises labour at special levels of skill. In summary, the Thai vocation education institutes have readiness at a low level. The majority is in production or enhancing the skill labour levels into specialist levels according to the needs of ASEAN Economic Community.

Office of the Vocational Education Commission (2014: 1-2) prepared materials on morality, ethics, values, and desirable characters of the graduates according to the levels of vocational education degrees. These duties are mentioned in the introduction that the Office of the Vocational Education Commission is the organisation that has main mission in arranging vocational educational and holding the occupational training. The arrangement must be consistent with the standard frame of the national vocational education degree and the standards on vocational education degree in each level. As a result, the quality of the persons who complete the education at all levels, types of subject, and the major courses cover at least three aspects which are the followings.

1) Desirable characters which are morality, ethics, professional code of conduct, behaviour, habits, and intelligence skills.

2) On main competencies and general competencies which are knowledge and skills in communication using information technology development of learning and implementation on practices, teamwork, using scientific stories, application of figures, management and work development.

3) On occupational competencies which are ability to apply knowledge and skills on the occupation to the real practice including application to occupation.

Chalermlarp Thong-ard (2012: 107-118) divided that challenges to the education into two groups which are (1) the context on the challenges on the targets and the principles of educational management. The most important targets of education being ASEAN Community and World Community, the development should be in the way that develops Thai people to be complete human beings. Complete means they have awareness, critical thinking and intelligence to think to be creative and to catch up with things, and can control behaviour and behave oneself. All these will lead to the target of life with the appropriate methods. They become useful for the whole part more than just individuals and they consider the mixed important principles which education will create awareness and values in democracy system.

2. Context of challenges on arranging curriculum and instructions

2.1   The development on ability to use foreign languages. The problem in the instruction of English can be classified into two aspects which are (1) on teaching and learning (The majority emphasises on teaching the grammar and rotting words by lacks climate outside the classroom that facilitates the learners to use English in the real communication) and (2) problem on instructors. (It is revealed that teachers have insufficient ability to use English.) For the higher education levels it shows that the obstacles in developing ability in the use of foreign languages for Thai learners are students' unfamiliarity with communicating in English. In the cooperation they have limited vocabulary, lack of continuity, and lack of opportunity of training using English.

2.2   Development of curriculum in ASEAN Studies. The curriculum development and responses to the establishment of ASEAN Community are divided into two models which are the ASEAN Study curricula that are segregated and isolated. The contents are about ASEAN and another model is the integration of data or the knowledge on each issue of ASEAN including the social aspects, culture, and environment in the integrated curricula in each subject of the school.

2.3   Development of character, competencies, and values for the Thai people who will lead as ASEAN citizens. If considered from the frame of competency development of the world population in the new century of the Partnership for 2 1 st Century Skills (2011), it should be composed of the followings.

1) Knowledge on the core causes and the issues in the 21st century. The learners must have basic knowledge on the core cause which is the basic such as English the second foreign language, Arts, mathematics, economics, science, geography, history, and sociology.

2) Learning and innovation skills are the skills that learners must use in working in the new economic system (Learning and innovation skills).

3) Information media and technology skill are the necessary skills to respond to the changes of information and technology which occur very fast.

4) Life and career skills. Working and living at present are very competitive and need adjustment all the time.

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┌─────────────────────────┐     ┌─────────────────────────┐     ┌─────────────────────────┐     ┌─────────────────────────┐
│ Components and indicators│     │ Draft a evaluation model│     │ Quality of evaluation   │     │ Test the evaluation on  │
│ on readiness of technical│ ──> │ on readiness to enter   │ ──> │ model on readiness to   │ ──> │ readiness to enter ASEAN│
│ colleges in entering     │     │ ASEAN Community         │     │ enter ASEAN Community   │     │ Community               │
│ ASEAN Community          │     │                         │     │                         │     │                         │
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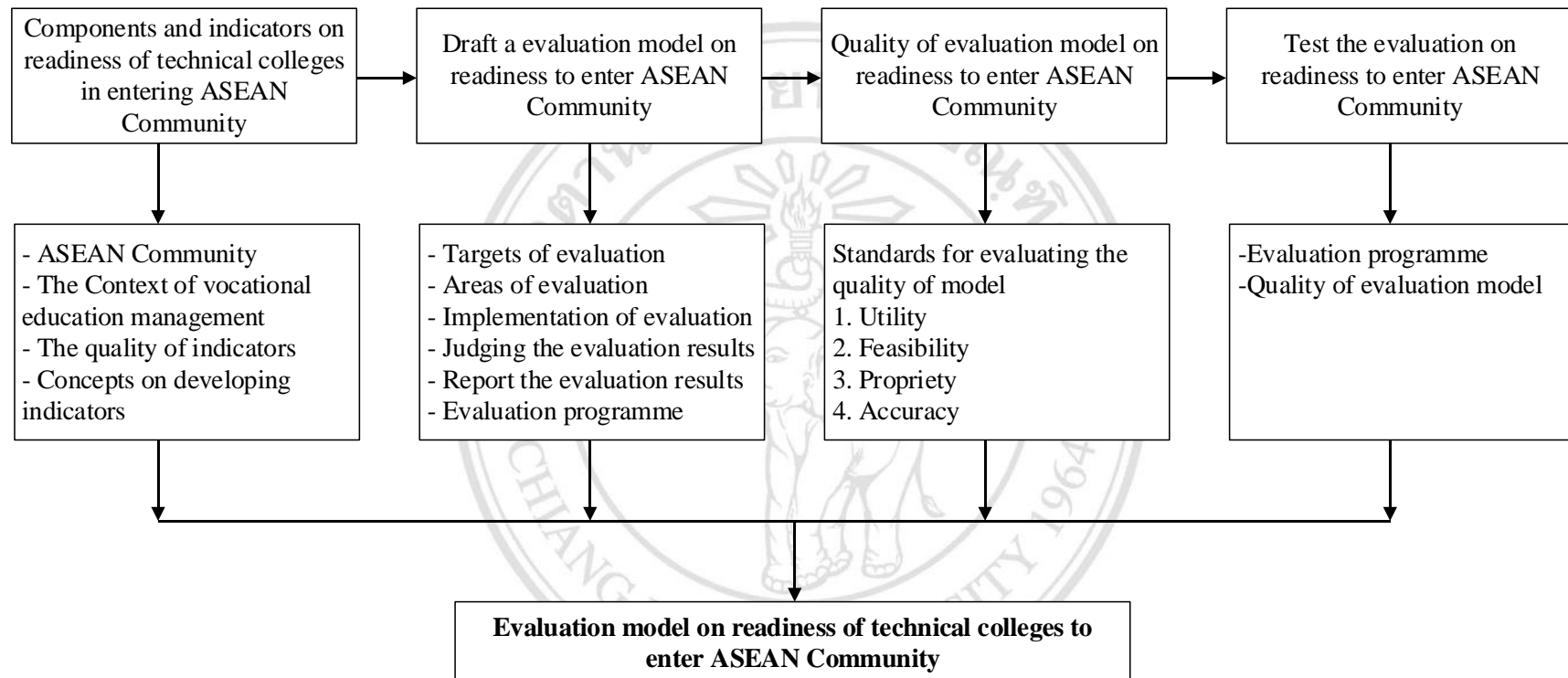| - ASEAN Community | - Targets of evaluation | Standards for evaluating the quality of model | -Evaluation programme |
- The Context of vocational education management	- Areas of evaluation	1. Utility	-Quality of evaluation model
- The quality of indicators	- Implementation of evaluation	2. Feasibility	
- Concepts on developing indicators	- Judging the evaluation results	3. Propriety	
	- Report the evaluation results	4. Accuracy	
	- Evaluation programme		

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Evaluation model on readiness of technical colleges to enter ASEAN Community

Figure 2.3 Research conceptual framework