Anuchai Ramwarungkura

Kasetsart University, Thailand

0800

The Asian Conference on Education 2013

Official Conference Proceedings 2013

Abstract

The objectives of this research were to 1) study states and problems 2) study cooperative factors and 3) determine cooperative strategies in vocational education provision. This research was divided into three phases. The first phase was to study states and problems of education provision for all of 7 vocational colleges. The data were collected from 845 students and 132 teachers by using questionnaire. The statistics used in this phase were mean and standard deviation. The second phase was to study cooperative factors of vocational education provision by using the opinions of 2 groups of executives derived from simple random sampling comprising of 276 government sector executives and 370 private sector executives. The questionnaire was used as a tool for collecting data. For data analysis, t-test and factor analysis, and orthogonal rotation (Varimax), was employed as the statistical tools. The third phase, the cooperative strategies in vocational education provision were to determine from the consensus of a focus group discussion of 37 purposively selected experts.

The research findings revealed that the study of states and problems of vocational education provision of local administrative organizations found that the overall education provision states and problems were in the high level , medium level respectively. 646 executives for government sector and private sector about 20 cooperative factors of vocational education provision by using t-test, were found to be statistically insignificant (p-value > .05). The factors could be classified into four aspects (KMO = .940). And cooperative strategies in the field of vocational education provision of local administrative organizations from focus group discussion. It was found that the cooperative strategies appropriate to the vocational colleges under municipalities comprised of five strategies. Such cooperative strategies would be able to make vocational education management of vocational college become successful in the future.

Keywords: Co – operation strategies, Local Administration Organizations, Vocational education

iafor The International Academic Forum www.iafor.org

Introduction

The Constitution of Thailand B.E. 2550 prescribed the government to decentralize to local administrative organizations to support themselves and make decisions in local activities by themselves especially the education provision in order to have the development in education in the forms of education training and professional training. (Constitution Drafting Commission, Constituent Assembly, 2007) As such, the local administrative organizations entitled to provide education training and professional training as they deemed appropriate and according to the needs in locality. This was consistent with Section 41 of the National Education Act B.E. 2541, amended in B.E. 2545 stating that *local administrative organizations had the right to provide education in any or all levels according to readiness, suitability and requirements within locality*. Education provision of local administrative organizations at all levels must have a state agency which referred to the Department of Local Administration, the Ministry of Interior, to promote, govern and monitor education quality in order to meet the standards. (Office of the National Education Commission, 2003)

A municipality is one form of local administrative organizations. The Municipality Act prescribed the mission of education that could be provided from early childhood through to vocational education. Municipality education provisions were mainly basic education while the vocational education provisions of the municipalities focused on professional development according to the needs of the community (Barlow, 1965; Thomson, J. K. 1973; Evan and Herr, 1978). The consistent of vocational education on creativity development for local people could apply it to career development. (Rakkusol, N, 2013) The three-year local education development plan from the year B.E. 2555 to B.E. 2557 determined 5 strategies to improve vocational education as follows: 1) to foster the links and transfers of formal, non-formal and informal vocational education, 2) to develop the form of vocational education provision, 3) to promote study and experimental research to find methods for vocational education provision, 4) to raise the standard of vocational education provision, and 5) to promote the development of vocational learners image. (Department of Local Administration, 2011)

The establishment of the vocational education colleges under the municipality was performed for the first time in the year B.E. 2549. However, until B.E. 2556, there were only 7 establishments where the two of them were under the city municipalities, which were Nakhonpathom Municipality Vocational College and Omnoi Municipality Vocational College. Five of establishments were under the town municipalities, which are Phraputthabat Municipality Vocational College, Sriracha Vocational College, Nasan Town Municipality Vocational College, Kamphaengphet Town Municipality Vocational College, and Lomsak Municipality Vocational College. It could be regarded that vocational education provision was new in the education at municipality level, which was different from the original mission done in the past in the form of basic education.

Therefore, the creation of cooperation was required for education provision at this level, since the vocational education provision would be efficient if and only if there was a real practice in establishment. From the said reasons, the researcher was interested to study the cooperative strategies of local administrative organizations in order to provide vocational education.

2

Objectives of research

This research has objectives to

- 1) Study and problems of vocational education provision of local administrative organizations,
- 2) Study cooperative factors of vocational education provision of local administrative organizations, and;
- 3) Determine cooperative strategies in vocational education provision of local administrative organizations.

Results of the study

In this research, the results of the research were divided into three phases as shown in Figure 1.

Research Planning

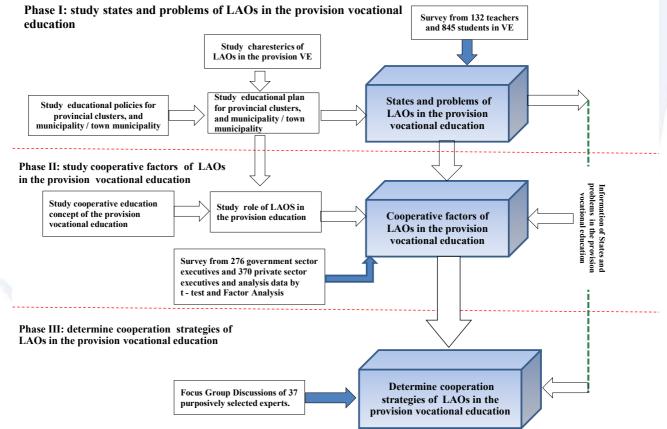


Figure 1: Research planning of the developmental co – operation strategies of local administration organizations in the provision vocational education.

The first phase was to study conditions and problems of vocational education provision of local administrative organizations. The tool used in this phase was 5-rating-scale questionnaire. The content validity for experts was found IOC value in the range of 0.80 to 1.00. The reliability was found by using alpha-coefficient of Cronbach for the questionnaires of both teachers and students and the results were 0.914 and 0.880 respectively. The data was collected from teachers and students, which were 132 out of 159 teachers, or 83.02 percent, and 845 out of 1,385 students, or 61.01 percent. The statistics used in data analysis was descriptive statistics which were mean value and standard deviation.

The researcher studied the states of vocational education provision of local administrative organizations and divided them into three aspects, which were 1) academic matter and learning process, 2) general administration and 3) community network, private sector, and local administrative organizations. The overall results of the questionnaire in all three aspects were in the high level. After analyzing conditions of education provision in each aspect, it was found that the three highest average values in academic matter and learning process aspect were teachers who were experienced and skilled to teach things that could be done in practice, real practice with organizations, and concrete internship system. The three highest average values in general administration aspect were the vision and mission specified by vocational colleges that were consistent with community education provision, concrete personnel promotion and development system from vocational colleges, and systematic recruitment system. In community network, private sector, and local administrative organizations aspect, the last three dimensions in the medium level were the establishment of alumni network to strengthen vocational development, resource center to provide academic services to the community, and resources mobilization for vocational education provision with both domestic and international networks, as shown in Table 1.

Table 1: States of vocational education provision of local administrative organiz	zations in all 7 vocation colle	eges under
	municipalities	(n=997)

1. Academic matter and learning	μ (σ)	Meaning	2. General administration	μ (σ)	Meaning
process					
1.1 Vocational colleges had teachers who	4.01	High	2.1 Vocational colleges determined visions	3.67	High
were experienced and skilled to teach	(.860)		and missions that were consistent with	(.900)	
things that could be done in practice			community education provision.		
1.2 Vocational colleges had real practice	3.88	High	2.2 Vocational colleges had concrete	3.63	High
training rather than internship.	(.878)		promotion and development system for	(.937)	
	, í		vocational educational personnel.		
1.3 Vocational colleges had systematic	3.87	High	2.3 Vocational colleges had systematic	3.59	High
internship system	(.881)	c	recruitment system for vocational	(.958)	C
	· (/		educational personnel.		
1.4 Vocational colleges had competency-	3.78	High	2.4 Vocational colleges had welfare and	3.57	High
based curriculum that was consistent to	(.777)	c	benefit system for personnel and students.	(.934)	C
the needs of locality.					
1.5 Vocational colleges had systematic	3.77	High	2.5 Vocational colleges had efficient	3.55	High
internal quality assurance.	(.915)	C	preparation of budget plan and resources.	(.917)	0
1.6 Vocational colleges had concrete	3.75	High	2.6 Vocational colleges had concrete	3.54	High
extracurricular activities for career	(.899)	c	management monitoring and evaluation	(.898)	C
development.			system.		
1.7 Vocational colleges organized	3.71	High	2.7 Vocational colleges had procurement	3.51	High
consultation that concretely supported	(.851)	C	system for supplies used in vocational	(1.004)	0
students.			education		
1.8 Vocational colleges supported	3.69	High	2.8 Vocational colleges had information	3.50	High
students' innovations and inventions.	(.924)	C	technology system in vocational education	(.883)	0
	, í		management		
1.9 Vocational colleges arranged the	3.57	High	2.9 Vocational colleges had risk management	3.37	Medium
teaching environment to resemble that of	(.946)	-	system within the institutions	(.916)	
actual works.					
Average value for academic matter and	3.78	High	Average value for general administration	3.55	High
learning process aspect	(.614)		aspect	(.652)	

Table 1 (Continued)

3. Community network, private sector, and local administrative organizations	μ (σ)	Meaning
3.1 Vocational colleges cooperated with community,	3.63	High
private sector, and local administrative organizations in	(.936)	C
vocational education provision.		
3.2 Vocational colleges cooperated with the community to	3.62	High
used local wisdom and learning resources.	(.950)	-
3.3 Vocational colleges had cooperative management with	3.61	High
community, locality, and industry.	(.937)	
3.4 Vocational colleges had identity accepted by the	3.57	High
community	(1.004)	C
3.5 Vocational colleges created cooperative network for	3.56	High
vocational education provision with other local	(.955)	C
administrative organizations.		
3.6 Vocational colleges had professional training in the	3.55	High
form of short courses with other local administrative	(.977)	
organizations.		
3.7 Vocational colleges had establishment of alumni	3.33	Medium
network to strengthen vocational development.	(1.092)	
3.8 Vocational colleges had resource center to provide	3.29	Medium
academic services to the community	(1.030)	
3.9 Vocational colleges had resources mobilization for	3.28	Medium
vocational education provision with both domestic and	(1.067)	
international networks	. ,	
Average value for community network, private sector,	3.49	High
and local administrative organizations aspect	(.729)	C

Remark: For reference of meaning, the average of 1.00-1.80 means Lowest, 1.81-2.60 means Low, 2.61-3.40 means Medium, 3.41-4.20 means High, and 4.21-5.00 means Highest.

For the problems of vocational education provision of local administrative organizations, the researcher divided into 4 aspects comprising of teacher aspect, teaching aspect, participation of education institution aspect and administrator and policies of education institution aspect. It was found that in every aspect the respondents were in the medium level. After considering in each aspect, the first problem regarding teacher aspect was that the teacher had too many practical teaching works, and the second was that the teacher had too many descriptive teaching works. For teaching aspect, the first problem is insufficient practicing supplies to the number of students in practical section, and the second was that the size of lecture room did not meet the prescribed standards. For the cooperation creation of education institution aspect, the first problem was the lack of cooperation of education institution with institutes of professional qualifications and the second problem was the lack of establishment of internal cooperation commission. For the administrator and policies of education institution aspect, the first problem was the lack of establishment of concrete alumni in vocational colleges, and the second problem was that administrators did not have joint policies of education management with provinces, as shown in Table 2.

Table 2: Problems of vocational education provision of local administrative organizations in all 7 vocation colleges under municipalities

(n=997)					
1. Teacher aspect	μ (σ)	Meaning	2. Teaching aspect	μ (σ)	Meaning
1.1 Too many teaching works in practical	3.39	Medium	2. 8 Vocational training plant did not support	3.22	Medium
material for teachers	(.931)		the development of students' skills	(1.027)	
1.2 Too many teaching works in descriptive	3.38	Medium	2. 9 Vocational training plant did not	3.15	Medium
material for teachers	(.975)		provide safety system for students	(1.060)	
1.3 Too many advising works for profession	3.37	Medium	2.10 Libraries in vocational colleges had too	3.06	Medium
project	(.952)		few books.	(1.118)	
1.4 Too many other works for which teachers	3.37	Medium	Average value of teaching aspect	3.23	Medium
were responsible	(1.006)			(1.059)	
1.5 Too many required academic works for	3.29	Medium	3. Cooperation creation of vocational	(-)	Maanina
teachers to do	(.928)		colleges aspect	μ (σ)	Meaning
1.6 Education backgrounds of teachers were not	3.04	Medium	3.1 Vocational colleges were lack of	3.22	Medium
relevant to their field of teaching	(1.264)		cooperation with Thailand Professional	(1.060)	
Average value of teacher aspect	3.30(1.009)	Medium	Qualification Institutes		
2. Teaching aspect	μ (σ)	Meaning	3.2 Vocational colleges were lack of	3.21	Medium
2.1 Insufficient practicing supplies to the number	3.33	Medium	establishment of internal cooperation	(1.046)	
of students in practical section	(1.070)		commission		
2.2 Size of lecture room did not meet the	3.32	Medium	3.3 Vocational colleges were lack of	3.20	Medium
prescribed standards	(1.012)		cooperation with Vocational Education	(1.122)	
2.3 Equipments in students' practicing packages	3.32	Medium	Commission.		
were not current	(1.102)				
2.4 Vocational lab was not sufficient to the	3.27	Medium	3.4 Vocational colleges were lack of	3.19	Medium
number of students	(1.072)		cooperation between municipalities.	(1.119)	
2.5 Competency based curriculum was not in	3.24	Medium	3.5 Vocational colleges were lack of	3.18	Medium
accordance with students' needs	(1.068)		cooperation with Sub-district Administrative	(1.067)	
2.6 Insufficient internship locations for students	3.20(1.051)	Medium	Organization	-	
2.7 Number of students were not proportionately	3.23	Medium	3.6 Vocational colleges were lack of	3.17	Medium
in accordance with the prescribed standards	(1.012)		coordinator to deal with the network concretely.	(1.092)	

3. Cooperation creation of vocational colleges aspect	μ (σ)	Meaning
3.7 Vocational colleges were lack of cooperation with	3.14	Medium
Provincial Administrative Organization	(1.062)	
3.8 Vocational colleges were lack of cooperation with	3.11	Medium
universities	(1.132)	
Average value of cooperation creation of education	3.18	Medium
institution aspect	(1.088)	
4. Administrator and policies of vocational college aspect	μ (σ)	Meaning
4.1 Vocational colleges were lack of establishment of	3.35	Medium
concrete alumni.	(1.104)	
4.2 Administrators did not have joint policies of education	3.23	Medium
management with provinces.	(1.101)	
4.3 Vocational colleges had high student turnover rate.	3.22 (1.080)	Medium
4.4 Vocational colleges were lack of participation in	3.19	Medium
competency-based curriculum development for Students	(1.023)	
4.5 Vocational colleges were not independent in the	3.19	Medium
management of vocational education	(1.151)	
4.6 Vocational colleges had insufficient budget allocation for	3.19	Medium
personnel development.	(1.127)	
4.7 Vocational colleges insufficiently supported the budget	3.16	Medium
for teacher's invention, innovation and creation works	(1.130)	
4.8 Personnel remuneration was not sufficient to the current	3.15	Medium
cost of living	(1.067)	
4.9 Administrators did not create understanding about	3.15	Medium
progress of career path of personnel	(1.102)	
4.10 Personnel remuneration was not appropriate to the	3.14	Medium
amount of designated work.	(1.098)	
4.11 Administrators did not understand the vocational	3.13	Medium
education of Vocational colleges.	(1.173)	

were not in accordance with municipality policies. (1.098)2.96 (1.214) 4.13 High personnel turnover rate in the last year Medium Average value of administrator and policies of education 3.17 Medium institution aspect (1.113)

3.10

Medium

Remark: For reference of meaning, the average of 1.00-1.80 means Lowest, 1.81-2.60 means Low, 2.61-3.40 means Medium, 3.41-4.20 means High, and 4.21-5.00 means Highest.

4.12 Education institution's education provision policies

The second phase was to study cooperative factors of vocational education provision of local administrative organizations. The tool used in this phase was 5rating-scale questionnaire. The content validity for experts was found IOC value in the range of 0.80 to 1.00. The reliability was found by using alpha-coefficient of Cronbach for the questionnaires of both teachers and students and the results were 0.903. The data was collected from executives of 7 provinces that were the location of vocational colleges under municipalities by using simple random sampling. The samples included 276 government sector executives and 370 private sector executives from the total of 28,500 persons (Yamane, 1967) Data analysis in this phase adopted Independent Sample t-test and factor analysis by using Varimax perpendicular rotation axis was performed. According to table 3, it could be seen that after surveying both government sector executives and private sector executives for 646 executives about cooperative factors of vocational education provision by using Independent Sample t-test, were found to be statistically insignificant in 20 factors (p-value > .05). After that, the factors were grouped by using factor analysis, Principal Component Analysis and orthogonal rotation (Varimax) where the conditions of factor analysis required measure of sampling adequacy by using Kaiser-Meyer-Olkin value and the relationship was tested by using Bartlette's test. Tested KMO value was equal to .950 and higher than .5 and the relationship was significant at .000 less than .05. This meant that each factor was related between each other and was appropriate for factor analysis. After analyzing factors by using orthogonal rotation (Varimax) of 20 factors, it was found than the researcher can group cooperation factors into 4 aspects. The first aspect was the cooperation of vocational colleges with outside agencies, with Eigenvalues equal to 10.747 and Factor Loading in a range of .794 -.494. The second aspect was the cooperation of municipalities with private sector and local administrative organizations, with Eigenvalues equal to 1.761 and Factor Loading in a range of .788-.494. The third aspect was the ability of educational institution administrators, with Eigenvalues equal to 1.357 and Factor Loading in a range of .848-.726. The fourth aspect was the promotion of education provision policy, with Eigenvalues equal to 1.021 and Factor Loading in a range of .830-.757.

The third phase was to determine cooperative strategies in vocational education provision of local administrative organizations. The data was collected by using focus group of 37 experts derived by purposive sampling, involving mayors, mayor clerks, directors of the Department of Education, representatives from private sector, directors of vocational colleges under municipalities, and assistant directors of vocational colleges under municipalities, and assistant directors of vocational colleges under municipalities. The tool used in this phase was focus group and content analysis was used to analyze the data. The focus group determined cooperative strategies in vocational education provision of local administrative organizations for 5 strategies as shown in **Table 3**.

The first strategy was the development of academic matter / profession of teacher and educational personnel. This strategy focused on the development of education institution's personnel, especially the urgent development of creativity, innovation or invention in the form of Memorandum of Understanding (MOU) with universities to develop project-based learning and MOU in the characteristics of mentoring system with vocational colleges under the Vocational Education Commission to create vocational education project.

The second strategy was the development of vocational education curriculum for the vocational colleges under municipalities that adhered to the vocational

9

education provision as per Vocational Education Act. There must be a strategy for **formal** vocational education provision in the form of competency-based curriculum development. The cooperation must be made with vocational colleges under the Vocational Education Commission in the form of Memorandum of Understanding (MOU). For **informal** vocational education, the education should be provided in accordance with community's needs by arranging short courses for career with the community and provide a career learning center for the community. Such cooperation should be in the form of network associate and Memorandum of Understanding (MOU) done with the community.

The third strategy was the development of educational quality assurance system. As the internal educational quality assurance system had no clear indication from the Department of Local Administration, vocational colleges under municipalities should cooperate with vocational colleges under the Vocational Education Commission or private vocational colleges in the form of Memorandum of Understanding (MOU) in mentoring system. The objective of this strategy was to study the indicator of vocational education of both types of vocational colleges to create educational quality assurance system within the Vocational colleges to allow external quality assessment.

The fourth strategy was the development of students. This strategy focused on developing students to have competency that was in accordance with the demand of labor market. From the research, the results showed that vocational colleges under municipalities should cooperate with private companies in order to provide internship location for students. And there should be cooperation with vocational college in the area to develop students' profession projects or inventions through network associated and Memorandum of Understanding (MOU). Furthermore, the vocational colleges should cooperate with the community to find additional learning resources for students as well.

The last strategy was the development of dual system of vocational education. This was the education provision that emphasized on real practices with organizations. Vocational colleges under municipalities had cooperation with vocational colleges under the Vocational Education Commission in the form of mentoring system or with private sectors to meet the needs of manpower of industries in the form of Memorandum of Understanding (MOU) or contract done with organizations.

All 5 cooperative strategies in vocational education provision of vocational colleges under municipalities had objectives to develop the provision of teaching of educational system which were formal, informal and dual system. The agencies that had cooperation with colleges in vocational education provision were the vocational colleges under the Vocational Education Commission, universities, organizations, Department of Local Administration and communities. Most cooperation was in the form of Memorandum of Understanding (MOU), network associates, and so on.

10

	Independent Sample t-test (n = 646)				
Factor analysis		SD	t	p – Value	- Factor Loading
Factor I : Cooperation of vocational colleges with outside agencies					
1.1 Vocational colleges had academic cooperation with private sector and other vocational colleges to develop personnel.	3.20	1.065	1.726	.085	.794
1.2 Vocational colleges received funding for research, creation, innovation or invention of teachers and students from the private sector and local administrative organizations.	3.03	1.099	1.639	.102	792
1.3 Vocational colleges had collaboration with the foreign network to produce the curriculum to support ASEAN Community (AC)	3.09	1.110	1.313	.190	.776
1.4 Vocational colleges produced curriculum with the private sector, their own municipality and local administrative organizations.	3.26	1.077	-1.588	.113	.727
1.5 Vocational colleges received funding to improve facilities, training plant and lab from private sector and local administrative organizations	2.95	1.125	.992	.321	.726
1.6 Municipalities formed a committee of vocational education at municipality level with vocational colleges.	2.93	1.188	825	.410	.624
1.7 Vocational colleges formed a committee in collaboration with the private sector and local administrative organizations to determine the direction of the vocational education in the future.	3.31	.903	1.574	.116	618
1.8 Vocational colleges administrators well understood the management context of local administrative organizations of vocational education provision.	3.21	.933	.562	.574	.494
Eigenvalues					10.747
Variance (percent)					53.734
Factor II: Cooperation of municipalities with private sector and local administrative					
organizations	• • • •				-00
2.1 Municipalities had collaboration with other local administrative organizations regarding the vocational education provision	3.06	1.071	1.644	.101	.788
2.2 Municipalities were involved in supervision and monitored the operation of vocational colleges.	3.10	1.119	.314	.753	.764
2.3 Municipalities planned manpower plan in collaboration with vocational colleges to match	3.06	1.119	1.218	.224	.672
workload.	5.00	1.114	1.210	.227	.072
2.4 Municipalities had cooperation with private sector in the provision of media support and learning resources for vocational colleges.	3.33	.976	1.451	.148	.633

Table 3: Cooperative factors of factor analysis by using Principal Component Analysis and orthogonal rotation (Varimax)

Table 3 (Continued)

	Independent Sample t-test (n = 646)				
Factor analysis	Ā	SD	t	p – Value	- Factor Loading
2.5 Vocational colleges were funded vocational education teaching media from private sector and	3.16	1.077	1.224	.221	.494
other local administrative organizations					
Eigenvalues					1.761
Variance (percent)					8.803
Factor III: Ability of educational institution administrators					
3.1 Vocational colleges administrators had knowledge about the management of vocational education in line with the participation of local administrative organizations.	3.36	.959	1.449	.148	.848
3.2 Vocational colleges administrators had policies to manage vocational education in accordance with the development plan of their municipality.	3.20	.956	.502	.616	.805
3.3 Vocational colleges administrators created the vocational education network associates of private sector and local administrative organizations.	3.40	.884	1.053	.293	.792
3.4 Vocational colleges administrators can work in participation with local administrative organizations relating to vocational education provision.	3.36	.872	1.689	.092	.726
Eigenvalues					1.357
Variance (percent)					6.786
Factor IV: Promotion of education provision policy	6				
4.1 Municipalities were involved in the promotion of academic affair in the personnel development of Vocational colleges.	3.07	1.069	.943	.346	.830
4.2 Department of Local Administration had a clear policy for vocational education according to decentralization plan.	3.19	1.010	304	.762	.829
4.3 Department of Local Administration established the vocational education committees in conjunction with public and private sector to formulate policies for vocational education of local administrative organizations	3.13	1.051	1.372	.171	.757
Eigenvalues					1.021
Variance (percent)					5.105
KMO and Bartlett's Test					
Kaiser- Meyer – Olkin Measure of Sampling Adequcy .940 Bartlett's Test of Sphericity :		imation C	^C hi – Squa	,	
	df			190	
	Sig.			.00	U

Osaka, Japan

Discussion

According to the results of the development of cooperative strategies of local administrative organizations in vocational education provision, the researcher had three issues of discussions as follows.

1) The conditions of vocational education provision of vocational colleges under municipalities were in the high level especially with the condition of academic matter and learning process that the colleges had experienced and skilled teachers to teach to create real practices. This was consistent with Prosser (1974) which stated that vocational education will be effective in proportion as the instructor has had successful experience in the of the skills and knowledge to the operations and processes he undertakes to teach such as business administration and technical education. Mobilization of resources for vocational education provision with both domestic and international networks in the future was necessary for career development in the community.

2) The cooperative factors of vocational education provision comprised of 4 aspects. The first aspect was the cooperation of Vocational colleges with outside agencies. The second aspect was the cooperation of municipalities with private sector and local administrative organizations. The third aspect was the ability of educational institution administrators. The fourth aspect was the promotion of education provision policy. These factors were the education provision of municipalities could be driven by the cooperation within municipality, between municipalities, between provinces and between communities. (Auewong, K, 2010)

3) The cooperative strategies in vocational education provision were determined to have five strategies which were 1) the development of profession of teacher and educational personnel 2) the development of vocational education curriculum 3) the development of educational quality assurance system 4) the development of students and 5) the development of dual system of vocational education provision was still regarded as a new matter in education provision of municipalities. They were consistent with Barlow (1974) showed vocational education that it is planned and conducted in close cooperation with business and industry.

Conclusion

The author of this study the cooperative strategies appropriate to the vocational colleges under municipalities from Prosser's sixteen theorems as a basis for sound and successful programs which have made a substantial contribution to the administration and instruction of vocational education. And cooperative strategies, business and industry, would be able to make vocational education management of vocational college become successful in the future.

References

Auewong, K, 2010. Evaluation of Municipalities Education Provision. Bangkok: Prikwan Graphic Co., Ltd.

Barlow, M. L. 1974. The Philosophy for Quality Vocational Education. Washington D.C.:

The American Vocational Association Inc.

Calhoun, C.C. and A.V. Finch . 1976. Vocational and Career Education . California: Wadsworth Publish Inc.

Constitution Drafting Commission, Constituent Assembly. 2007. Constitution of The Kingdom of Thailand, B.E. 2550 (2007). Bangkok: Bureau of Printing

Services, The

Secretariat of the House of Representatives.

- Department of Local Administration. 2011. The three-year local education development plan (B.E. 2555 - 2557). Bangkok: Plan and Budget of Local Education
- Evan, R.N. and E.LHerr. 1978. Foundation of Vocational Education. Ohio: Merrill Publishing Company.

Finch, C. R. and J. R. Crunkilton. 1993. Curriculum Development in Vocational and Technical Education Planning, Content, and Implement. 4th ed. Massachusetts:

Allyn and Bacon Inc.

Office of the National Education Commission. 2003. National Education Act B.E. 2542 (1999) and Amendments (Second National Educational Act B.E. 2545 (2002)). Bangkok : Pimdeekarnpim Co., Ltd.

Prosser, C.A. and T.A. Quigley. 1949. Vocational Education in a Democracy. Chicago:

American Technical Society. pp 217 – 232.

Rakkusol, Nalinrat. 2013. Trend in vocational education provision of municipalities in Thailand. Bangkok: Kasetsart University.

Thomson, J. K. 1973. Foundations of Vocational Education. New Jersey: Prentice – Hall Inc.

Yamane, Taro. 1967. Statistics, An Introductory Analysis, 2nd Ed., New York: Harper and

Row.

