

# Assessing the Education and Training Strategy of Selected Colleges Responding to the Needs of Highly Qualified Professional

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## Abstract

The study of *Assessing the education and training strategy of selected colleges responding to the needs of highly qualified professional* conducted during the period from 5/2013 to 10/2015. The research result showed that there were 400 students of Ca Mau Community College (CCC) interviewed and answered nearly 18 questions. The researcher had analyzed KMO test, the result of KMO analysis used for multiple regression analysis. Students' responses were measured through an adapted questionnaire on a 5-point Likert scale. Hard copy and interview students by questionnaire distributed among students of Ca Mau Community College. The regression analysis result showed that there were three factors, which included factors following lecturer, facilities, and programs affecting the education and training quality at Ca Mau Community College with significance level of 5%. In addition, the research result processed from SPSS 20.0 software. The parameters of the model estimated by Least - Squares Method tested for the model assumption with 5% significance level. At the same time, the result was also scientific evidence and important for researchers, and policy makers who apply them for developing the education and training quality at Ca Mau Community College.

**Keywords:** education and training strategy, colleges, needs of highly qualified professional

## 1. Introduction

Ca Mau, which is located in Mekong River Delta, is a coastal province in the southernmost of Vietnam. It lies on Ca Mau Peninsula and shares border with Kien Giang province to the North, Bac Lieu province to the east, the East Sea to the east and the south, the Gulf of Thailand to the west. Ca Mau has a coastline of 254 kilometres long and belongs to the eastern coastal corridor of the Southwestern waters (Bac Lieu, Ganh Hao, Ca Mau, Nam Can). The total value of goods and service retail reached 21,600 billion VND in 2012, and was estimated to reach 28,000 billion VND in 2013, a 30% increase annually. The export turn-over reached US\$ 640 million in 2012, and was estimated to reach US\$ 720 million in 2013. To build a prosperous society, every country should be based on the synergy of the resources inside and outside, in power including the foundation of inner resources that are particularly important and significant human resource decisions. In the trend of globalization, the development of the knowledge economy with modern technology requires human resources to be able to dominate science and high technology can ensure the sustainable development. Training human resources is a strategic task of leading importance in each country. Abundant human resources, but must have the qualifications, competence, new qualities can master all areas, implement national goals and contribute to the international community. Ca Mau also needs to promptly finalize planning for socio-economic development, improve the investment environment to attract enterprises, and boost equalization of businesses as well as combat illegal trafficking, trade fraud and counterfeit goods, he requested. Ca Mau has been urged to exert continuing efforts to renovate and further the quality of reward and emulation activities, aiming to ensure accuracy, timeliness, fairness and objectivity.

## 2. Literature Review

The training quality has been defined in many different ways. However, various researchers have shared their findings regarding trainees' views and concerns about quality and regarding the use of students to measure the quality

of services provided. As Gold (2001) argues, trainees should be considered as primary customers and educational institutions should focus their efforts on improving trainees-centered education. Trainees should be assessed as the product of the institution (Emery et al., 2001).

The effectiveness of a training program may vary as a function of the criteria chosen to measure effectiveness (Arthur, Tubre, et al., 2003). Thus, it is reasonable to ask whether the effectiveness of training - operationalized as effect size - varies systematically as a function of the outcome criterion measure used. For instance, all things being equal, are larger effect sizes obtained for training programs that are evaluated by using learning versus behavioral criteria? It is important to clarify that criterion type is not an independent or causal variable in this study. Our objective is to investigate whether the operationalization of the dependent variable is related to the observed training outcomes (i.e., effectiveness).

The evaluation criteria (i.e., reaction, learning, behavioral, and results) are simply different operationalizations of the effectiveness of training. Consequently, our first research question is this: Are there differences in the effectiveness of training (i.e., the magnitude of the  $d$ s) as a function of the operationalization of the dependent variable.

Fridaus categorized five determinants of service quality in higher education. They are non-academic aspect, academic aspect, reputation, access and program issues.

- Non-academic aspects: This aspect relates to the duties that carried out by non-academic staff.
- Academic aspects: It consists of the items that describe the factor that are solely the responsibilities of academics (instructor).
- Reputation: The factor consists of the item that is important for higher learning institutions in projecting a professional image.
- Access: It includes issues as approachability, ease of contact, availability and convenience of academic and non-academic staffs.
- Program issues: It includes the item related to program flexibility, offering wide range of programs/ specialization, and quality program.

Thus, conducting a systematic needs assessment is a crucial initial step to training design and development and can substantially influence the overall effectiveness of training programs (Goldstein & Ford, 2002; McGehee & Thayer, 1961; Sleezer, 1993; Zemke, 1994).

A product of the needs assessment is the specification of the training objectives that, in turn, identifies or specifies the skills and tasks to be trained. A number of typologies have been offered for categorizing skills and tasks (e.g., Gagne, Briggs, & Wagner, 1992; Rasmussen, 1986; Schneider & Shiffrin, 1977). Given the fair amount of overlap between them, they can all be summarized into a general typology that classifies both skills and tasks into three broad categories: cognitive, interpersonal, and psychomotor (Farina & Wheaton, 1973; Fleishman & Quaintance, 1984; Goldstein & Ford, 2002). One similar factor i.e. the human resource policy of training and development has been identified by Haywood (1992). He mentioned that too many training programs place emphasis on ease and the purpose behind the design of programs namely learning, skill development and behavioral change, has defeat the original purpose and goals of training are lost. Everything is affected by its surrounding weather directly or indirectly and similarly training effectiveness is also affected by many factors.

Birdi (2005) found that poor managerial support or an unfavorable departmental climate could limit the impact of creativity training with regard to influencing idea implementation. Unfavorable environment affects the training effectiveness. According to him training will be affected negatively if there is less support from department or there is unfavorable condition for training. Fischer & Ronald (2011) stated that open-mindedness is also a significant moderator of training effectiveness. It has been found that training become more successful if the participants and trainer work with open-mindedness. Driskell (2011) concluded in his study that type of training implemented, training content and trainee expertise also affect the training outcomes. Success of a training program always depends on how the training was given, what was the content and who was the trainer.

Haslinda & Mahyuddin (2009) found that lack of support from top management and peers, students' individual attitudes, job-related factors and also the deficiencies in training practice are the main factors which affect the effectiveness of training. If there will be less support from top management and peers, job is not going well or somehow there is problem in job and absence of training practice then there is less chance of effective training program. Beigi & Shirmohammadi (2011) found that emotional training have significant impact on service quality. It

means there is a relationship between behavior and learning, and service industry can be benefitted by emotional training because service industry is basically related to marketing and verbal communication.

Saks & Haccoun (2007) discussed that psychological states of trainees especially motivation, self-efficacy, perceived control and the realities of the organizational context affects the training outcomes. Tai (2006) also concluded about general self-efficacy that it partially arbitrated the relationship between training framing and training motivation and consequently influenced training outcomes. On the other hand Black & Mendenhall (1990) explained that cross-cultural skill development, adjustment and performance are three primary dependent variables of cross culture training effectiveness.

Research model showed that the lectures; equipment and program factors are the independent variables but the quality of the education and training is dependent variable following.

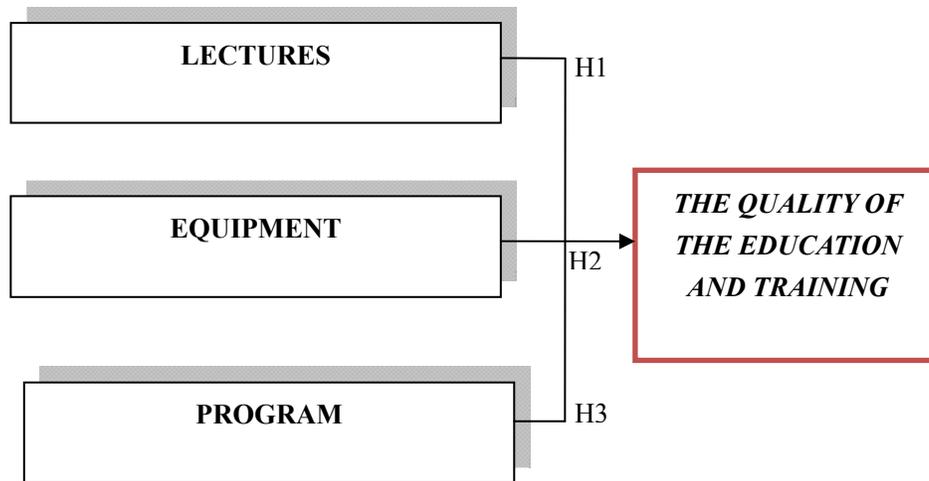


Figure 1. Research model for factors affecting the quality of the education and training

Figure 1 showed that the data collected from the questionnaire survey of 400 students at Ca Mau Community College. It analyses the participant trainees' attitudes and beliefs about the education and training quality at Ca Mau Community College.

#### Hypothesis:

H1: There is a positive relationship between the lectures and the education and training quality.

H2: There is a positive relationship between the equipment and the education and training quality.

H3: There is a positive relationship between the program and the education and training quality.

**Definition of Quality:** Quality has no specific meaning unless related to a specific function and/or object. Quality is a perceptual, conditional and somewhat subjective attribute.

**Definition of Service Quality:** The concept of service quality linked to the concepts of perception and expectations. Service quality perceived by the customers is the result of comparing the expectations about the service they are going to receive and their perceptions of the company's actions (Parasuraman et al., 1988; Gronroos, 1994).

**Quality in Education:** The quality defined by British Standards Institution, 1978 as the totality of features and characteristic of a product or service that bear on its ability to satisfy stated or implicit needs. Quality in Education can be defined as:

The development of intellectual skills and knowledge that will equip graduates to contribute to society through productive and satisfying engineering careers as innovators, decision makers and leaders in the global economy (R. Natrajan, 1999).

**Training program:** Significant long-term training activity which as opposed to a training project comprises of a series of courses, and usually has a flexible time and cost budget.

**The facility:** It is for adult professionals must have flexible and technologically-advanced learning environments that are safe, healthy, comfortable, aesthetically-pleasing, and accessible. It must be able to accommodate the specific space and equipment needs of the training program and curriculum. Support spaces geared toward adult needs, such as a business station that allows students to carry out some business functions during their training sessions, must be seamlessly integrated into the facility as well.

**Lecturer:** Lecturer is someone who stands up in front of a class and gives an organized talk designed to teach you something. There are lots of lecturers at colleges and universities.

Although many professors lecture, in this country the title lecturer usually refers to a teacher who is not a permanent member of the faculty but one of the many college instructors who does not have tenure. The lecturer may even be hired for a single semester or year. The title is used slightly differently in England. There are some professional lecturers - people, like former President Bill Clinton, who make their living by going around the world giving speeches.

### 3. Research Methods

#### 3.1 Methods and Techniques of the Study

The preliminary study for trainees conducted in July 2014, using qualitative methods to interview 30 students to examine the content and meaning of the words used in the scale. Following this, the formal study conducted in July 2014, using qualitative methods to interview 400 students to examine the content and meaning of the words used in the scale. The researcher should select one of these methods of collecting the data taking into consideration the nature of investigation, objective and scope of the inquiry, financial resources, available time and the desired degree of accuracy. However, I should pay attention to all these factors but much depends upon the ability and experience of the researcher.

#### 3.2 Population and Sample of the Study

Population is a complete set of elements (persons or objects) that possess some common characteristic defined by the sampling criteria established by the researcher. The population of this study was all students at Ca Mau Community College that the values of the random variable of interest could possibly be determined. This notion corresponds directly to the frame in sample survey literature.

#### 3.3 Research Instrument

Instruments used to gauge some quality or ability of your subjects. The purpose of the instrument is to elicit the data for your study. The main research method that applied in this study is quantitative research. According to McDonough (1997, cited in Sia, 2011), traditionally, educational researchers prefer the quantitative approach for the field of university choice. Actually, a high number of previous researchers like Joseph and Joseph (1998), Price et al. (2003), and Sia (2011), just a few to name, have successfully applied quantitative method. Qualitative method used to explore any new factors affecting the effectiveness of the companies' training programs. Besides, the questions for interview consisted of several open-ended questions mainly asking whom and what influenced students during the selection of the companies. The findings from qualitative research would add to the input of questionnaire design in the quantitative research. Then the first draft of the questionnaire designed and went through a pilot test to check the comprehensibility and wording of the questions. Next, the quantitative research conducted with the final version of the questionnaire. The quantitative method used to collect data to answer research questions. Investigate each tool below and complete my planning guide if the researcher chooses to use that specific instrumentation in my study. Be sure to specify if the researcher use it qualitatively or quantitatively.

#### 3.4 Data Gathering Procedure

There are different data gathering procedures that I can use for this research. It depends on your convenience and the ease in gathering the required details that you can use for the research results. In any case, we discuss some of the major types of data gathering procedures. The instrument for data collection was a self-administrated questionnaire. The questionnaire designed to ascertain the demographic profile of the students. The factors influence the quality of education and training. Besides, the researcher wanted to get the information, the researcher visited to interview 400 students to answer the survey questionnaire. The actual number of respondents in this research is 400 students at Ca Mau Community College. In addition, the data collected and analyzed using the statistical indicators with data processing software SPSS 20.0. The targets include descriptive statistics, reliability analysis, correlation analysis, explore factor analysis, analyze multiple linear regression.

### 3.5 Data Processing

The term of data processing is used more specifically in the context of a business or other organization to refer to the class of commercial data processing applications, the data collected by the researcher and be analyzed by SPSS. Before having analyzed, the data screened to delete outliers to secure reliability. Creative Research Systems offers complete data processing services. We provide presentation-quality tables, text reports and graphics. There are more than 2,000 the students of the Ca Mau Community College. The researcher had surveyed 200 students of economic major (Total of population is more than 1000 students). Besides, the researcher had surveyed 200 students of technology major (Total of population is more than 1000 students). After data are collected, reliable scale tested with Cranach's alpha index, and (Exploratory Factor Analysis) draws from the official scale.

## 4. Research Results

Descriptive Statistics for the profile of the quality of the education and training at Ca Mau Community College

Table 1. Factors affecting the quality of the education and training

<b>1. LECTURER</b>	<b>Level of Agreement</b>
LEC1: The lecturers' major, teaching methodology and knowledge are suitable for teaching the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
LEC2: The lecturers applying practical experience, new methods in lessons for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
LEC3: The lecturers were enthusiasm when communicating with the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
LEC4: The lecturers were cheerfulness when teaching the lessons at the colleges and the university in Vietnam	① ② ③ ④ ⑤
LEC5: The lecturers who were politeness when communicating with the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
LEC6: The lecturers supplied many books for reading and presentation for the students to understand lessons at the colleges and the university in Vietnam	① ② ③ ④ ⑤
<b>2. EQUIPMENT</b>	<b>Level of Agreement</b>
EQU1: The equipment is such as room, table that were suitable for the needs of learning for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
EQU2: The equipment is such as projector, computer, micro that were suitable for the needs of teaching for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
EQU3: The books, textbooks and documents are very good for teaching and practicum for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
EQU4: The internet system, computers and others were very good for teaching and practicum for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
EQU5: The library system, practicum place and other equipment for teaching and learning for the students at the colleges and the university in Vietnam	① ② ③ ④ ⑤
<b>3. PROGRAMS</b>	<b>Level of Agreement</b>
PRO1: The training program is suitable for your job after graduating from the colleges and the university in Vietnam	① ② ③ ④ ⑤
PRO2: The training program supplying necessary information for your job after graduating from the colleges and the university in Vietnam	① ② ③ ④ ⑤
PRO3: The training program changing for enterprise demand and social need in next years	① ② ③ ④ ⑤
TPRO4: The training program was very interested, significant for your job and life after graduating from the colleges and the university in Vietnam	① ② ③ ④ ⑤
<b>4. QUALITY OF EDUCATION AND TRAINING</b>	<b>Level of Agreement</b>
QUA1: The facility is modern and training program of the colleges and the university is updated and to meet enterprises' need	① ② ③ ④ ⑤

QUA2: Lecturer quality and teaching method is very suitable for students' job and life after graduating from the colleges and the university in Vietnam	①②③④⑤
QUA3: The knowledge, skills and behavior of students were improved in job and life after graduating from the colleges and the university in Vietnam	①②③④⑤

Source: The researcher

Some measures that are commonly used to describe a data set are measures of central tendency and measures of variability or dispersion. Measures of central tendency include the mean, median and mode, while measures of variability include the standard deviation (or variance), the minimum and maximum values of the variables.

Table 2. Descriptive statistics for the quality of the education and training

Code	N	Minimum	Maximum	Mean	Std. Deviation
LEC1	367	1	5	3.17	.941
LEC2	367	1	5	3.20	.934
LEC3	367	1	5	3.31	.970
LEC4	367	1	5	3.37	.934
LEC5	367	1	5	3.34	.923
LEC6	367	1	5	3.30	.931
EQU1	367	2	5	3.95	.941
EQU2	367	2	5	3.90	.956
EQU3	367	1	5	3.37	1.103
EQU4	367	2	5	3.61	1.290
EQU5	367	1	5	3.32	1.343
PRO1	367	1	5	3.05	1.039
PRO2	367	1	5	3.03	1.013
PRO3	367	1	5	3.03	1.012
PRO4	367	1	5	3.04	1.035
QUA1	367	2	5	3.37	.562
QUA2	367	1	4	2.37	.563
QUA3	367	2	5	4.31	.667
Valid N (listwise)	367				

Source: The researcher's collecting data and SPSS

Table 2 showed that there were 400 students but 367 students processed at Ca Mau Community College. There were minimum value was 1, maximum value was 5. Standard deviations were from 0.562 to 1.343; mean is from 2.37 to 4.31 but mean is around 3.0. This data was very good for regression analysis. We have 18 items and 3 components are independent variables. One component is independent variable.

Table 3. Descriptive statistics for gender situation

	Gender situation	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	151	41.1	41.1	41.1
	Female	216	58.9	58.9	100.0
	Total	367	100.0	100.0	

Source: The researcher's collecting data and SPSS

Table 3 showed that the result of the descriptive statistics from Gender situation had 367 students processed at Ca Mau Community College interviewed from 7/2013 to 10/2014. There were 151 male students with 41.1 % and 216 female students with 58.9 %.

We had the result of descriptive statistics from age following:

Table 4. Descriptive statistics for age

	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	From 18 to 20 years old	122	33.2	33.2	33.2
	Over 20 years old	245	66.8	66.8	100.0
	Total	367	100.0	100.0	

Source: The researcher's collecting data and SPSS

Table 4 showed that the result of the descriptive statistics from gender had 367 students processed at Ca Mau Community College interviewed from 7/2013 to 10/2014. 122 students are from 18 to 20 years old with 33.2 % and 245 students who are over 20 years old with 66.8 %.

Table 5. Descriptive statistics for the Students information

	Students information	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First year	30	8.2	8.2	8.2
	Second year	88	24.0	24.0	32.2
	Third year	249	67.8	67.8	100.0
	Total	367	100.0	100.0	

Source: The researcher's collecting data and SPSS

Table 5 showed that the result of the descriptive statistics from the Students information had 367 students processed at Ca Mau Community College interviewed from 7/2013 to 10/2014. There were 30 First year students with 8.2 % and 88 Second year students with 24.0 %. Third year had 249 students with 67.8 %.

Table 6. Descriptive statistics for study major

	Study major	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Economic major	119	32.4	32.4	32.4
	Other majors	248	67.6	67.6	100.0
	Total	367	100.0	100.0	

Source: The researcher's collecting data and SPSS

Table 6 showed that the result of the descriptive statistics from Study major had 367 students processed at Ca Mau Community College interviewed from 7/2013 to 10/2014. There were 119 students studying Economic major with 32.4 % and 248 students studying other majors with 67.6 %.

Evaluate the reliability of the scale of the quality of the education and training

Table 7. Results of analysis of Cronbach Alpha coefficients

	Indicators	Average scale if removal variables	Scale variance if the removal variables	The correlation coefficient of the total variations	Cronbach alpha coefficient if the removal variables
LECTURER	LEC1	16.52	15.256	.785	.889
	LEC2	16.49	15.841	.700	.901
	LEC3	16.38	15.281	.750	.894
	LEC4	16.32	15.826	.701	.901

	LEC5	16.36	15.329	.793	.888
	LEC6	16.39	15.408	.771	.891
Alpha = 0.910					
<b>EQUIPMENT</b>	EQU1	14.20	17.573	.905	.908
	EQU2	14.26	17.759	.859	.915
	EQU3	14.79	17.429	.755	.930
	EQU4	14.55	15.456	.836	.917
	EQU5	14.83	15.062	.837	.919
Alpha = 0.933					
<b>PROGRAM</b>	PRO1	9.10	7.892	.749	.907
	PRO2	9.13	7.580	.849	.872
	PRO3	9.12	8.031	.748	.907
	PRO4	9.11	7.384	.868	.864
Alpha = 0.913					
<b>QUALITY OF EDUCATION AND TRAINING</b>	QUA1	6.68	1.342	.931	.867
	QUA2	7.68	1.343	.929	.868
	QUA3	5.74	1.262	.778	.998
Alpha = 0.938					

Source: The researcher's collecting data and SPSS

The above results of the Table 7 revealed that all of components are very good for this research. Continue author analyzed the EFA to assess more accurately the scale, helping the uniform scale in research. Thus, based on the authors EFA analysis will evaluate the homogeneity of the observed variables and can be classified because of specific variables.

KMO and Bartlett's Test for the quality of the education and training

KMO & Bartlett's test play an important role for accepting the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.6. For Factor Analysis recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05.

Table 8. KMO and Bartlett's Test for the quality of the education and training

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.796		
Bartlett's Test of Sphericity		Approx. Chi-Square		5403.535		
		df		105		
		Sig.		.000		
Comp.	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.680	31.202	31.202	4.680	31.202	31.202
2	3.958	26.385	57.587	3.958	26.385	57.587
3	2.763	18.423	76.010	2.763	18.423	76.010
4	.893	5.951	81.962			
5	.619	4.127	86.089			
6	.430	2.869	88.958			
7	.350	2.330	91.288			

8	.313	2.084	93.372
9	.305	2.036	95.408
10	.263	1.757	97.165
11	.165	1.101	98.266
12	.079	.527	98.793
13	.064	.429	99.221
14	.062	.416	99.637
15	.054	.363	100.000

Source: The researcher’s collecting data and SPSS

Table 8 showed that Kaiser-Meyer-Olkin Measure of Sampling Adequacy was statistically significant and high data reliability (KMO = 0.796 > 0.6). This result was very good for data analysis. Table 8 showed that Cumulative percent was statistically significant and high data reliability was 76.010% (> 60 %).

Structure Matrix for factors of the quality of the education and training

Table 9. Structure Matrix for factors for the quality of the education and training

Code	Component		
	1	2	3
LEC5	.865		
LEC1	.856		
LEC6	.852		
LEC3	.830		
LEC4	.793		
LEC2	.788		
EQU1		.959	
EQU2		.928	
EQU5		.895	
EQU4		.881	
EQU3		.832	
PRO4			.933
PRO2			.912
PRO1			.867
PRO3			.850

Source: The researcher’s collecting data and SPSS

Table 9 showed that Structure Matrix for the factors affecting the quality of the education and training at Ca Mau Community College had 3 Components. Component 1 (X1) was Lecturer, Component 2 (X2) was Facilities, Component 3 (X3) was program.

Table 10. Structure Matrix for the quality of the education and training

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.689				
Approx. Chi-Square		2071.591				
Bartlett's Test of Sphericity	df	3				
	Sig.	.000				
Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.704	90.145	90.145	2.704	90.145	90.145
2	.291	9.711	99.857			
3	.004	.143	100.000			

Extraction Method: Principal Component Analysis.

<b>Component Matrix<sup>a</sup></b>	
Code	Component
	1
QUA1	.978
QUA2	.977
QUA3	.891

Source: The researcher’s collecting data and SPSS

Table 10 showed that KMO and Bartlett's Test for the quality of the education and training at Ca Mau Community Collegeshowed that Kaiser-Meyer-Olkin Measure of Sampling Adequacy was statistically significantandhigh data reliability (KMO = 0.689> 0.6). This result was very good for data analysis. the quality of the education and training at Ca Mau Community Collegeshowed that Cumulative percent was statistically significantandhigh data reliabilitywas 90.145% (> 60 %). Note: the quality of the education and training (Y) is dependent variable.

Regression analysis for factors affecting the quality of the education and trainingat Ca Mau Community College

Table 11. Testingfor factors affecting the quality of the education and training

<b>Model Summary<sup>b</sup></b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.697 <sup>a</sup>	.485	.481	.72050781	1.723

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	177.555	3	59.185	114.008	.000 <sup>b</sup>
1	Residual	188.445	363	.519		
	Total	366.000	366			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X1, X2

<b>Coefficients<sup>a</sup></b>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-2.767E-016	.038		.000	1.000		
X1	.550	.038	.550	14.537	.000	.992	1.008
X2	.455	.039	.455	11.795	.000	.953	1.050
X3	.080	.038	.080	2.073	.039	.960	1.042

a. Dependent Variable: Y

Source: The researcher’s collecting data and SPSS

Table 11 showed that Adjusted R Square was statistically significantandhigh data reliability. In addition, Adjusted R Squarereached48.1 %.Resultsshowed that all t value >2was statistically significantandhigh data reliability. Besides, theregression coefficientswere positive. This showed thattheeffectsof independent variablesin the same directionwith the quality of the education and training at Ca Mau Community College.

Component 1 (X1):Lecturerfactor affecting onthe quality of the education and training at Ca Mau Community College with significance level of 5%.

Component 2(X2):Facilitiesfactor affecting on the quality of the education and training at Ca Mau Community College with significance level of 5%.

Component 3 (X3): Program factor affecting on the quality of the education and training at Ca Mau Community College with significance level 5 %.

Variance Inflation Factor (VIF) and Tolerance are two measures that can guide a researcher in identifying MC. Before developing the concepts, it should be noted that the variance of the OLS estimator for a typical regression coefficient shown to be the following  $VIF < 10$ . ( $1 < VIF < 10$ ). This showed that there was not Multicollinearity.

The test results  $F = 114.008$  value and  $Sig. = 0.000 < 0.05$  shows the building model is consistent with the data set and the variables included in the model which are related to the dependent variable. Generally, regression analysis with selected reliability is 99%, corresponding to the selected variables are statistically significant at the  $p < 0.01$ ; the results show that all variables are satisfying the demand. Verification of conformity of the model shows multicollinearity phenomenon does not violate ( $VIF < 10$ ).

The results of regression analysis show that factors presenting the priority as follows: (1) Component 1 (X1): Lecturer:  $\beta = 0.550$ ; (2) Component 2 (X2): Facilities:  $\beta = 0.455$ ; (3) Component 3 (X3): Program:  $\beta = 0.080$ . This is standardized coefficients of beta.

Model summary analysis for factors affecting the quality of the education and training at Ca Mau Community College

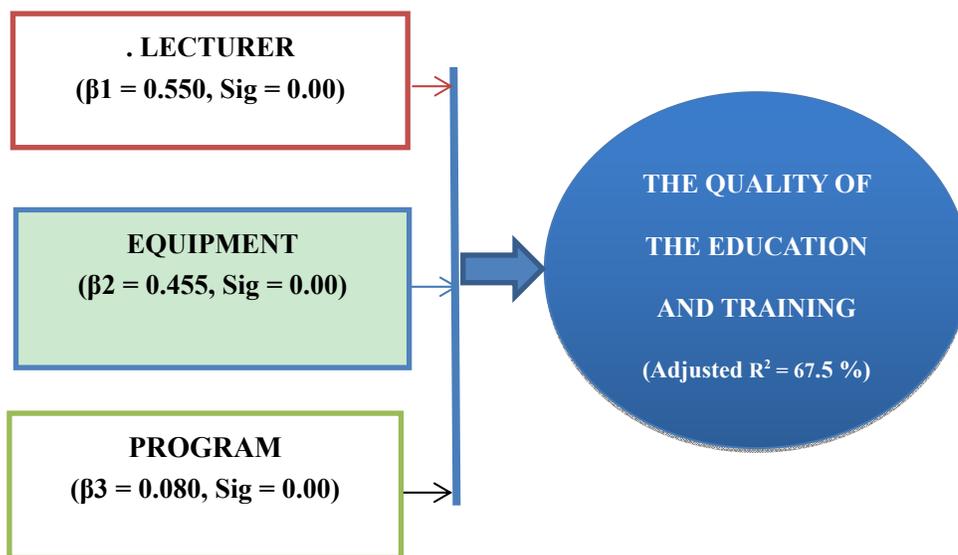


Figure 2. The Result of the Regression for factors affecting the quality of the education and training at Ca Mau Community College

Figure 2 showed that the regression coefficients were positive. This showed that the effects of independent variables are in the same direction to the quality of the education and training at Ca Mau Community College with significance level of 5%.

The Result of the Regression Standardized Residual for the quality of the education and training at Ca Mau Community College

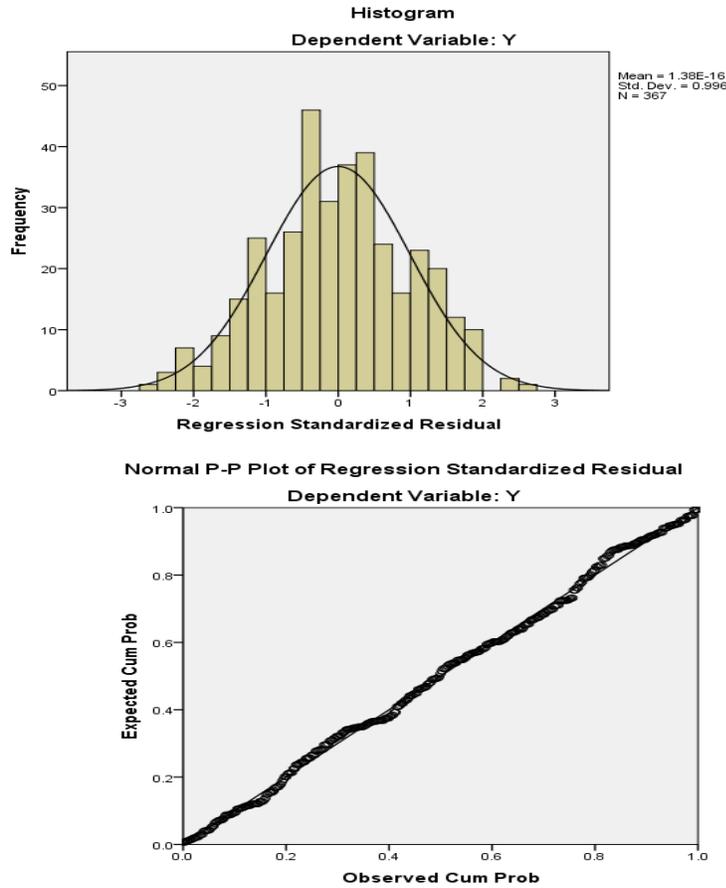


Figure 3. The Result of the RegressionStandardizedResidualof the quality of the education and training

Figure 3 showed that the standardized residual of the quality of the education and trainingwas normal distribution (Standard deviation = 0.995, nearly = 1).

Table 12. Bootstrap results based on 1000 bootstrap for the quality of the education and training

<b>Bootstrap for Model Summary</b>					
Model	Durbin-Watson	Bootstrap <sup>a</sup>			
		Bias	Std. Error	95% Confidence Interval	
				Lower	Upper
1	1.723	-.564	.085	.995	1.333

a. Unless otherwise noted, bootstrap results are based on 1500 bootstrap samples

<b>Bootstrap for Coefficients</b>						
Model	B	Bootstrap <sup>a</sup>				
		Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval	
					Lower	Upper
(Constant)	-2.767E-016	-.001	.039	1.000	-.077	.074
X1	.550	-.001	.034	.001	.488	.618
X2	.455	-.001	.037	.001	.380	.522
X3	.080	.003	.038	.037	.007	.159

a. Unless otherwise noted, bootstrap results are based on 1500 bootstrap samples

Source: The researcher’s collecting data and SPSS

Table 12 showed that Bootstrap is an alternative to asymptotic approximation for carrying out inference. This showed that there were the same results of the regression for the quality of the education and training at Ca Mau Community College with significance level of 5 %. Table 12 showed that Sig value was statistically significant and Significance value is 0.000 ( $< 0.05$ ). The results presented with the observed  $t$ -value, the degrees of freedom, and the statistical significance of the one-sample  $t$ -test or Sig  $< 0.05$ . Therefore, it concluded that the population means are statistically significantly different. If Sig  $> 0.05$ . There was the difference between the sample-estimated population mean. Therefore, this result showed that there was no the difference between the sample-estimated population mean with significance level of 5 %.

Table 13. Analysis of Variance (ANOVA) about gender situation

Gender	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.245	1	1.245	1.245	.265
Within Groups	364.755	365	.999		
Total	366.000	366			

Source: The researcher's collecting data and SPSS

Table 13 showed that Analysis of Variance (ANOVA) about Gender situation showed that  $F = 1.245$  was statistically significant and Significance value was 0.265 ( $> 0.05$ ). Therefore, we reject  $H_1$  and accept  $H_0$ . This showed that there was no different from Gender situation for the assessing about the quality of the education and training at Ca Mau Community College with significance level of 5 %.

Table 14. Analysis of Variance (ANOVA) about age

Age	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.012	1	.012	.012	.912
Within Groups	365.988	365	1.003		
Total	366.000	366			

Source: The researcher's collecting data and SPSS

Table 14 showed that Analysis of Variance (ANOVA) about Age showed that  $F = 0.012$  was statistically significant and Significance value was 0.912 ( $> 0.05$ ). Therefore, we reject  $H_1$  and accept  $H_0$ . This showed that there was no different from Age for the assessing about the quality of the education and training at Ca Mau Community College with significance level of 5 %.

Table 15. Analysis of Variance (ANOVA) about students information

Students information	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.253	2	2.127	2.140	.119
Within Groups	361.747	364	.994		
Total	366.000	366			

Source: The researcher's collecting data and SPSS

Table 15 showed that Analysis of Variance (ANOVA) about Students information showed that  $F = 2.140$  was statistically significant and Significance value was 0.119 ( $> 0.05$ ). Therefore, we reject  $H_1$  and accept  $H_0$ . This showed that there was no different from Students information for the assessing about the quality of the education and training at Ca Mau Community College with significance level of 5 %.

Table 16. Analysis of Variance (ANOVA) about the Study major

The Study major	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.575	1	.575	.575	.449

Within Groups	365.425	365	1.001
Total	366.000	366	

Source: The researcher's collecting data and SPSS

Table 16 showed that Analysis of Variance (ANOVA) about the Study major showed that  $F = 0.575$  was statistically significant and Significance value was  $0.449 (> 0.05)$ . Therefore, we reject  $H_1$  and accept  $H_0$ . This showed that there was no different from the Study major for the assessing about the quality of the education and training at Ca Mau Community College with significance level of 5 %.

## 5. Conclusions

Improving the quality of education and training is one of the most important tasks to ensure success progress fundamental and comprehensive change education in Vietnam under General Assembly Resolution XI the National Party. To improve the quality of training requires cognitive perspective, strategy development suitable and reasonable solutions.

The research results showed that there were 400 students belong to Ca Mau Community College who to be interviewed and answered nearly 18 questions. The researcher had analyzed KMO test, the result of KMO analysis used for multiple regression analysis. Students are responses measured through an adapted questionnaire on a 5-point Likert scale. Hard copy and interview students by questionnaire distributed among students of Ca Mau Community College. The regression analysis result showed that there were three factors, which included of factors following lecturer, equipment and programs affecting the education and training quality at Ca Mau Community College with significance level of 5 %. In addition, the research result processed from SPSS 20.0 software. The parameters of the model estimated by Least - Squares Method tested for the model assumption with 5% significance level. At the same time, the result was also scientific evidence and important for researchers, and policy makers who apply them for improving the education and training quality and developing human resource management in both Ca Mau province and other provinces.

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