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## **Satisfaction of High Vocational Certificate Student on Training in Farm Practices of Ubonratchathani College of Agriculture and Technology, Ubonratchathani Province, Thailand**

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The purpose of this study were to: 1) explore satisfaction of higher vocational certificate students with training on farm practice of Ubonratchathani College of Agriculture Technology and 2) compare the satisfaction high vocational certificate students with the training on farm practice among different fields of study. A set of questionnaires was used for the data collection administrated with a simple group of 110 out of 126 students (87.30%). Obtained data were analyzed by using percentage, mean, standard deviation, One way Anova, and Scheffe test. Results of the study were as follows: 1. A number of the male and female respondents were almost the same (50.91 and 49.9%, respectively) and their an average age was 18.44 years. They were tasking up Agro-industry, Animal Science, Fisheries, Pant Science, and Agro-technician (31.82, 22.73, 22.73, 12.73, and 10.00%, respectively).

2. The respondents had a high level of satisfaction with the training on farm practice of the college in the following aspects: 1) training practice of the farm; 2) plant varieties, animal breeds, and materials; 3) water source and water system employed on the farm; 4) personnel and workforce; 5) farm management; 6) area, and location; and 7) tools and form equipment. However, structure and building were found at a moderate level. 3. Regarding the comparison of satisfaction with the training on farm practice of the respondents from various fields of study by using One way Anova, as a whole it was found that there was no statistically significant difference in the satisfaction. For details, there was a statistically significant difference (0.05) in terms of: water source and system used on the farm; structure and building; personnel and workforce; farm management; and training on farm practice. For the comparison based on fields of study by using Scheffe test the following were found that:

1. Based on satisfaction with water source and system used on the farm between Fisheries students and Farm Technician students, there was a statistically significant difference at 0.05. 2. Based on satisfaction with structure and building between Animal Science students and Plant Science students, there was a statistically significance at 0.05. 3. Based on satisfaction with farm personnel and workforce, there was a statistically significant difference at 0.05. 4. Based on satisfaction with farm management between Ago-technician students and Fisheries students,

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there was a statistically significant difference at 0.05. Likewise, there was a statistically significant difference at 0.05 between Plant Science students and Fisheries students.

**Keywords:** satisfaction, farm practice, training on farm practice, high vocational certificate students.

## **Introduction**

Ubonratchathani College of Agriculture and Technology had been offering agricultural field of study for over 37 years (vocational certificate and higher vocational certificate). One important mission is to produce standard and quality graduates and construct networks participating in the facilitation of agricultural teaching/learning (Ubonratchathani College of Agriculture and Technology, 2014). It focuses on farm management for students to practice on the farm based on their field of study before training outside the college. Siriwan (1982) claimed that the farm project in College of Agricultural and Technology is very important. It aims to provide an opportunity for students to practice in the actual situation. That is, they can apply theoretical knowledge to actual practice. Siriwan (2014, p.21) also stated that the facilitation of agricultural education of all levels aims to prepare quality and skillful personnel to work for various agricultural agencies. In order to realize achieve the goal of agricultural education facilitation, it needs to realize on various components of educational management. In fact, the student is an important component in the educational management. They must be knowledgeable and well trained for their future career. The researcher had conducted a study related to satisfaction with training on farm practice of higher vocational certificate students, Ubonratchathani College of Agriculture and Technology in order to use obtained data for planning on the development of farm practice in the college. Besides, it can be an effective tool for the facilitation of agricultural education.

### ***Objectives of the Study***

1. To explore satisfaction of higher vocational certificate students with training on farm practices of Ubonratchathani College of Agriculture and Technology.
2. To compare their satisfaction with the training on farm practices based on different fields of study.

### ***Scope and Limitation of the study***

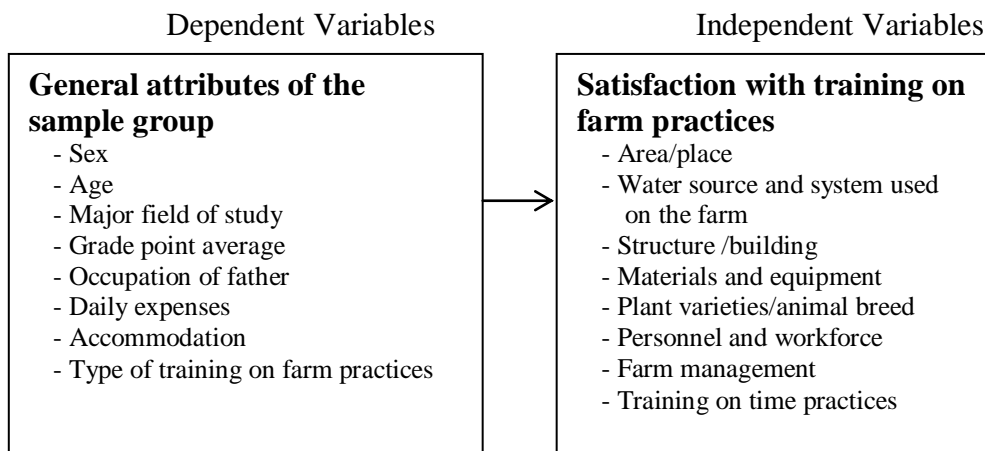
1) The population of this study was 126 higher vocational certificate students of Ubonratchathani College of Agriculture and Technology (Ubonratchathani College of Agriculture and Technology, 2013).

2) Data were collected for one month (September, 2014) and administered with higher vocational certificate students, first semester, academic year 2014.

3) Dependent variables included general attributes of the sample group: sex, age, major field of study, grade point average, occupation of parents, daily expenses, accommodation, and type of training on farm practices.

4) Independent variable was student satisfaction with training on farm practices in terms of area, place, water source and system used on the farm, structure (building) material/equipment, plant varieties, animal breed, farm personnel and workforce, farm management, and training on farm practice.

### ***Conceptual Framework***



1. This study was a survey research. A set of questionnaires was used for data collection administered with 126 higher vocational certificate students. However, data were obtained from 110 students (87.30%) since some of them were training outside the college.

2. A set of questionnaires was the research instrument. It consisted of 3 parts as follows: Part 1: General attributes of the respondents

Part 2: Respondent satisfaction with training on farm practices

Part 3: Suggestions about training on farm practices

The questionnaire was 5 rating scale with the criteria computation below.

$$\frac{\text{Highest criterion} - \text{Lowest criterion}}{5} = \frac{5 - 1}{5}$$

Legend: Scale Limits	Descriptive equivalents of satisfaction
4.21 - 5.00	= Highest
3.41 - 4.00	= High
2.61 - 3.40	= Moderate
1.81 - 2.60	= Low
1.00 - 1.80	= Lowest

3. Data analysis in this study, content analysis and statistical data analysis by using the statistical package were employed. Percentage, mean, standard deviation, t-test, F-test, and Scheffe-test were used for the statistical treatment.

## Results

**Table 1.** General attributes of the respondents

Items	N = 110)	%
<b>Sex</b>		
Male	56	50.91
Female	54	49.09
<b>Age</b>		
18years	62	56.36
19years	48	43.64
(an average age = 18.44 years)		
<b>Year of higher vocational certificate</b>		
First year	62	56.36
Second year	48	43.64
<b>Major field of study</b>		
Animal Science	25	22.73
Plant Science	14	12.73
Agricultural Technician	11	10.00
Agro-industry	35	31.82
Fisheries	25	22.73
<b>Grade point average</b>		
Less than 2.51	8	7.27
3.00-2.51	54	49.09
3.50-3.01	39	35.45
3.51 and above	9	8.18
(min = 2.30 max = 3.95 an average =		

(3.04

<b>Occupation of father</b>		
Government official	4	3.64
Own business	13	11.82
Trading	5	4.55
Agriculture	73	66.36
Hired worker	15	13.64
<b>Occupation of mother</b>		
Own business	8	7.27
Trading	7	6.36
Agriculture	82	74.55
Hired worker	13	11.82
<b>Daily expenses (baht)</b>		
50	29	26.36
60	9	8.18
70	17	15.45
80	16	14.55
100	24	21.82
120	4	3.64
150	8	7.27
200	3	2.73
(an average expenses = 83.09 baht)		
<b>Accommodation</b>		
Private dormitory	36	32.73
College dormitory	74	67.27

**Table 2.** Type of training on farm practice

Items	) N = 110)	%	Rank
- Dairy farm	50	45.45	5
- Cattle farm	51	46.36	4
- Broiler farm	31	28.18	9
- Laying hen farm	36	32.73	8
- Swine farm	66	60.00	2
- Fish farm	86	78.18	1
- Mushroom farm	41	37.27	6
- Vegetables	51	46.46	3
- Orchards	42	38.18	5
- Hydroponics farm	39	35.45	7
- Integrated Farming and New	25	22.73	10

Theory			
- Ornamental flowering farm	1	0.91	12
- Others	19	17.27	11

**Table 3.** An average mean score, standard deviation and levels of satisfaction with training on farm practices

Items	Satisfaction		
	$\bar{x}$	S.D.	Level
<b>.1Area / place</b>			
1.1Current farm location	3.65	0.89	High
1.2Safe and clean boundary	3.92	0.75	High
1.3Appropriate area and convenience for practice	3.60	0.93	High
1.4Clean and tidy area	3.10	1.04	Moderate
<b>Total</b>	<b>3.56</b>	<b>0.42</b>	<b>High</b>
<b>.2Water Source and system used on the farm</b>			
2.1An enough amount of water	4.10	0.85	High
2.2Cleanliness of water	3.56	0.73	High
2.3A convenience water using system	3.53	0.84	High
<b>Total</b>	<b>3.73</b>	<b>0.58</b>	<b>High</b>
<b>.3Structure (building)</b>			
3.1Enough	4.04	0.75	High
3.2Good quality suitable for operation	2.97	0.92	Moderate
3.3Cleanliness/sanitary	3.29	0.85	Moderate
3.4Enough light	3.85	0.97	High
<b>Total</b>	<b>3.23</b>	<b>0.42</b>	<b>Moderate</b>
<b>.4Materials/equipment used on the farm</b>			
4.1Enough for operation	3.49	0.72	High
4.2Appropriateness /no damage	3.24	0.88	Moderate
4.3Systematic storage	3.68	0.88	High
4.5Modern materials/equipment	3.31	0.94	Moderate
4.6Convenience for using	3.36	0.81	Moderate
<b>Total</b>	<b>3.41</b>	<b>0.38</b>	<b>High</b>
<b>.5Plant varieties, animal breeds, and materials</b>			
5.1Enough plant varieties and animal breeds	4.19	0.71	High
5.2Good quality and appropriateness of	3.81	0.56	High

plant varieties and animal breeds			
5.3 Enough materials and chemical supplies	4.08	0.69	High
5.4 Good quality and appropriateness of materials and chemical	4.06	0.63	High
<b>Total</b>	<b>4.03</b>	<b>0.29</b>	<b>High</b>
<b>.6 Farm personnel/workforce</b>			
6.1 Teachers responsible for farm care-taking	3.84	0.56	High
6.2 Adequate farm personnel/workforce	2.84	0.93	Moderate
6.3 Appropriate farm personnel/workforce	3.86	0.74	High
6.4 Farm personnel an skillful and knowledgeable	4.08	0.74	High
6.5 Farm personnel/workforce and friendly	3.44	0.87	High
<b>Total</b>	<b>3.61</b>	<b>0.38</b>	<b>High</b>
<b>.7 Farm Management</b>			
7.1 Satisfaction with the system of farm management	3.40	0.79	Moderate
7.2 Farm sanitary management	3.29	0.92	Moderate
7.3 Statistical filling e.g. varieties/breed background and incomes expenses	3.87	0.80	High
7.4 Operational recording	3.83	0.71	High
<b>Total</b>	<b>3.59</b>	<b>0.49</b>	<b>High</b>
<b>.8 Training on farm practices</b>			
8.1 Systematic training	3.87	0.90	High
8.2 Preparation of training on farm practices	4.22	0.69	Highest
8.3 Process of training on practices	4.22	0.51	Highest
8.4 Assessment of training on farm practice	4.17	0.66	High
8.5 Satisfaction with skills obtained from training on farm practices	4.39	0.70	Highest
8.6 Experience gained from training on farm practice	4.36	0.60	Highest
8.7 Application of experience gained from training on farm practices	4.16	0.51	High
8.8 Training on farm practices meets needs of the students	4.36	0.53	Highest

8.9 Training on farm practices can be done thoroughly	4.34	0.66	Highest
8.10 Monitoring of training on farm practices	3.95	0.54	High
<b>Total</b>	<b>4.20</b>	<b>0.19</b>	<b>High</b>
<b>Net total</b>	<b>3.67</b>	<b>0.16</b>	<b>High</b>

**Tables 4.** Comparison of student satisfaction with training on farm practices based on their field of study

Farm factors	Animal science )A(	Plant science )B(	Agri-technician )C(	Agro-industry )D(	Fishes )E(		Sig.	Scheffe
1. Area/place	3.49	3.41	3.70	3.60	3.63			
2. Water source/system	3.89	3.76	4.09	3.65	3.49	2.897	0.025 *	E*C
3. Structure (building)	3.00	3.53	3.36	3.24	3.22	4.476	0.002 *	A*B
4. Far materials/equipment	3.26	3.41	3.47	3.52	3.40	1.682	0.160	Not different
5. Plant varieties/animal breeds/materials	4.04	4.14	3.90	4.02	4.04	0.963	0.431	Not different
6. Farm personnel/workforce	3.70	3.30	3.85	3.58	3.62	4.260	0.003 *	B*A C
7. Farm management	3.61	3.39	3.31	3.55	3.89	4.213	0.003 *	C*E, B*E
8. Training on farm practices	4.28	4.19	4.30	4.12	4.20	3.637	0.008 *	Not different
<b>total</b>	<b>3.66</b>	<b>3.64</b>	<b>3.75</b>	<b>3.66</b>	<b>3.68</b>	<b>0.844</b>	<b>0.500</b>	Not different

\*Statistically significant level at 0.05



## Discussion

According to results of the study, the following were found and discussed: Parents of most the respondents were farmers and this might encourage them to be enrolled in Ubonratchathani College of Agriculture and Technology. Most of the respondents (78.18%) chose training on farm practice on fish culture and followed by pig farm, dairy cattle farm, beef cattle farm and vegetable farm (60.00, 45.45, 46.36, and 46.46, respectively). Few of the respondents chose others i.e. meat-type chicken farm, egg-type chicken farm, and hydroponic plant farm. This might be because most of the respondents took Animal Science and Fisheries as their major field of study whereas only 12.73 percent took Plant Science as their major field of study. Besides, the college focused on small and big animal husbandry and most of the respondents must practice on the college's farm.

Regarding the comparison of the respondent satisfaction with training on farm practices based on their different field of study (Animal Science, Plant Science, Agricultural Technician, Agro-industry, and Fisheries), it was found that there was no statistically significant difference in satisfaction with training on farm practices among the respondents taking up different major field of study. This might be because they must attend to the training based on their major field of study as fixed by major of study program.

Results of the study revealed that there was statistically significant difference in the respondent satisfaction with water source and system used on the farm, structure (building), farm personnel/workforce, farm management, and training on farm practices. Satisfaction with water source and system of the Fisheries respondents was different from the Agricultural Technician respondents. This might be because the latter supported and maintain farm machinery. Meanwhile, the former needs to water for fish culture and they had many subjects related to water resource. Besides, they had experience in the drought problem in the day season. For structure (building), there was difference in satisfaction between animal Science respondents and Plant Science respondents. This was because most farm tasks of the Animal Science respondents were engaged in the farm building e.g. pig pen and chicken coop. Thus, they had more experience related to the farm building than the Plant Science respondents. For farm personnel/workforce, there was the difference in satisfaction between the Animal Science respondents and the agricultural technician respondents. This was because part of the former stayed on the animal farm so they were surely familiar with the farm personnel/workforce. For the farm management, there was the difference in satisfaction between the Agricultural Technician respondents and the Fisheries respondents. This was because the former also supported and maintained farm machinery so they had

less experience in farm management than others. Meanwhile, the fisheries respondents had an opportunity on a complete farm management. Also, there was the difference in satisfaction between the Plant Science respondents and Fisheries respondents. This might be because the former was separated into various types of plant production so it might make them have less understanding about integrated farm production system.

### **Suggestions**

Based on results of the study, the following were suggestions:

1. According to results of the data analysis on each aspect of satisfaction, it was found that an average means score satisfaction with structure (building) and farm materials/equipment were less than other aspects. The following were suggestions;

2. Results of the study revealed that there was a low average mean score of satisfaction with training on farm practices in terms of a member of farm personnel /workforce ( $\bar{x} = 2.08$ ) and cleanliness ( $\bar{x}=3.10$ ). Thus, all concerned personnel must improve it e.g. the management of operational system and allocation of farm personnel/workforce in order to be consistent with farm standard.

### **References**

- Siriwan, N. (2014). Thai agricultural education miscellaneous: Review of important content. 2<sup>nd</sup> edition. Bangkok: Mean Service Supply, 198 pages. (1989). Important strategies of agricultural Education. Bangkok: Pollachai Printing center. 206 pages.
- Ubonratchathani College of Agriculture and Technology (2013). Student data in academic year 2013. Registrar section, Ubonratchathani College of Agriculture and Technology.
- Ubonratchathani College of Agriculture and Technology (2014). Quality education development plan (20 August, 2017) <http://www.uboncat.ac.th/plandevlop/>.