
Needs for Developing Sustainable Agricultural Learning Sources in Wangkwang Community, Nam Nao District, Phetchabun Province

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This study aimed to explore socio-economic characteristics of informants and needs for developing sustainable agricultural learning sources in Wangkwang community, Nam Nao district, Phetchabun province. The informants were obtained through purposive sampling and they were school administrator, staff of local administrative organization, community leaders, farmers, and teachers (90 persons). Structured interview schedule was used for data collection and analyzed by using percentage, mean, and standard deviation. Besides, one way Anova and Scheffe test were employed in this study. Results of the study revealed the following:

.1More than one-half(55.56) % (of the informants were male and less than one-half 33.33)% (of the respondents were 51-60 years old. Less than one-half of the informants were elementary school graduates28.89) % (and their occupation was agriculture 43.33)% .(One-half 50.00)% (of the informants had been working in the community for less than 11 years and their annual income was more than 30,000 baht37.78) % .(Most of the informants 68.89)% (used to attend training or join activities related to agriculture.

.2The informants had a high level of needs for developing sustainable agricultural learning sources in Wangkwang community of all aspects. This was based on the following: learning content offered in the learning center; managerial administration; media/equipment used for knowledge transfer and public relations on agricultural knowledge transfer and public relations on agricultural knowledge; style of the agricultural learning center; and form of the agricultural learning center.

.3Regarding the comparison of general conditions of the informants, the following were found:

3.1There was statistically significant difference at 0.05 in terms of their educational attainment and needs for developing agricultural learning sources. That was, educational attainment had statistically significant difference form style and form of the agricultural learning center at 0.05. Based on Scheffe test, however, there was no difference in all aspects.

3.2As a whole, occupation of the informants and the level of their needs for developing agricultural learning sources had statistically significant difference at 0.05. It was found that their occupation had statistically significant difference form needs for developing agricultural learning sources. Based on Scheffe test, however, there was no difference in all aspects.

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3.3 Years of service in the community of the informants and needs for developing agricultural learning sources had statistically significant difference at 0.05. It was found that years of service in the community had statistically significant difference from needs for developing agricultural learning sources of all aspects. Based on Scheffe test, the following were found:

3.3.1 Based on style and learning content of the agricultural learning center, the informants whose years of service in the community was less than 11 years were different from those whose year of services was between 11-20 years and 20 years and above.

3.3.2 Based on style of the agricultural learning centre, there was difference between the informants whose years of service was less than 11 years and those whose years of service was more than 20 years.

3.3.3 Based on managerial administration and media/equipment, the informants whose years of service was more than 20 years were different from those whose years of service was less than 11 year and between 11-20 years.

3.4 As a whole, incomes of the informants and their level of needs for developing agricultural learning sources had statistically significant different at 0.05. It was found that there was statistically significant difference at 0.05 in all aspects. Based on Schefffe test, however, it was that there was no difference in all aspects.

3.5 There was no statistically significant difference between the informants who used to join activities and those who did not.

Key words: Needs, community agricultural learning sources, sustainable development, participation

Introduction

Current rapid change of social, economic, and political aspects results in crisis condition of the Thai society so much. Thus, people in the society as the most important factor for the country development must be promoted and developed in an appropriate direction continually. This can make them be happy and confront these changes without worriness. Besides, they will be able to use these changes as a factor for creative learning and know how to solve problems for their livelihoods, family, community and the society.

Due to the said potential promotion and development, learning can be considered as an important process; particularly on life-long learning which is the learning through actual proactive or experiential learning based on surrounding condition. It is also the solution seeking of problems encountered in work places or livelihoods. Learners can learn what they are interested through the body of knowledge on managerial administration for appropriate way of life management in order to cope with various rapid changes. An important mechanism connecting the internal body of knowledge with the external body of knowledge is a learning center. The learning center is a center for the facilitation of life-long learning activities of everyone in the community. That is, the learning center is a service unit enhancing potential of people in the

community which the government sector must promote and support on the learning center operation. This is in accordance with the intentions in the promotion of a life-long learning source, Section 25 of the 1999 National Education Act. That is, the government must promote the operation and the establishment of a life-long learning source of all forms i.e. library, museum, Arts gallery, zoo, public park, botanical garden, science and technology park, sports and recreation center, information source, and other learning sources (Bureau of Non-formal Education Administration, 2004).

A study on needs for developing sustainable agricultural learning sources in Wangkwang community, Nam Nao district, Phetchabun province is a guideline for the investigation of coordination in the management by concerned personnel in education of all parties. Besides, it is the beginning of the development of diverse learning sources for life-long learning and learners will be able to apply it to their daily life activities.

Objectives

Specifically, this study aimed to:

1. Explore socio-economic attributes of the informants in Wangkwang community, Nam Nao district Phetchabun province;
2. Explore needs for developing sustainable agricultural learning sources in Wangkwang community, Nam Nao district, Phetchabun province; and
3. Compare needs for developing sustainable agricultural learning sources with socio-economic attributes of the respondents.

Hypothesis

1. The groups of informants having different educational attainment have no difference in needs for developing sustainable agricultural learning sources.
2. The groups of informants having different occupation have no difference in needs for developing sustainable agricultural learning sources.
3. The groups of informants having different years of service have no difference in needs for developing sustainable agricultural learning sources.
4. The groups of informants having different income have no difference in needs for developing sustainable agricultural learning sources.

Scope and Delimitation of the Study

1. The informants in this study consisted of 90 people obtained by purposive sampling i.e. school administrators, local administrative organization

personnel, teachers, and youths in Wangkwang sub-district, Nam Nao district, Phetchabun provinces.

2. Variables

2.1 Independent variables in this study were sex, age, educational attainment, occupation, years of service in the community, income, agricultural training/activities.

2.2 Dependent variable in this study was needs for developing sustainable agricultural learning sources in Wangkwang community, Nam Nao district Phetchabun province in terms of 5 aspects: 1) style of the sustainable learning sources; 3) learning content of the sustainable agricultural learning sources; 4) managerial administration of the sustainable agricultural learning sources; and 5) media, materials and equipment of the sustainable agricultural learning sources.

3. Time span for data collection was during June-October, 2015.

Research Methodology

1. Explored needs for developing sustainable agricultural learning sources in Wangkwang community, Nan Nao district, Phetchabun province. This was based on review of principles, theories, data, and related research. The scope and question issues were determined to be consistent with objectives of the study.

2. Research instrument in this study was structured interview schedule passing the inspection by 5 scholars (IOC = 0.86). The interview schedule was in the form of 5 rating scales as follows:

5 = A highest level

4 = A high level

3 = A moderate level

2 = A low level

1 = A lowest level

The assessment criteria were as follows: (Patthiyathani, 1998, pp. 37-53).

4.50-5.00 = A highest level

3.50-4.49 = A high level

2.50-3.49 = A moderate level

1.50-2.49 = A low level

1.00-1.49 = A lowest level

3. The research collected data by him and the in-depth interview was conducted during June-October, 2015.

4. Data analyses include content analysis and statistical treatment by using the Statistical Package i.e. percentage, mean, and standard deviation, Scheffe-test and t-test were also employed.

Results of the Study

Table1 . Socio-economic characteristics of the informants.

Items	n90=	%
Sex		
Male	50	55.56
Female	40	44.44
Age (year)		
Less than 30	11	12.22
40-31	14	15.56
50-41	29	32.22
60-51	30	33.33
More than 60	6	6.67
Educational attainment		
Elementary school	26	28.89
Secondary school	23	25.56
Vocational Certificate	2	2.22
Bachelor's degree	29	32.22
Master's degree	10	11.11
Main occupation		
School administrator	4	4.44
Local administrative organization personnel	4	4.44
Teacher	20	22.22
Farmer	39	43.33
Community leader	10	11.11
Youth	13	14.44
Years of service		
Less than 11 years	45	50.00
20-11 years	21	23.33
More than 20years	24	26.67
Income per month		
Less than 15,000 baht	30	33.33
15,001 – 20,000 baht	9	10.00
20,000 – 25,000 baht	10	11.11
25,000 – 30,000 baht	7	7.78
More than 30,000 baht	34	37.78
Agricultural training/activities		
Already	62	68.89
Never	28	31.11

Table2 . Needs for developing sustainable agricultural learning sources in Wangkwang community.

Items	Needs		
	\bar{x}	S.D.	Description
.1Style of the sustainable agricultural learning center			
1.1clear area/boundary	4.14	0.90	High
1.2Having fence to prevent encroachment	3.87	1.19	High
1.3Collection of diverse agricultural knowledge	3.97	1.09	High
1.4The center components must have all concerned parties to participate in development especially the community	4.13	1.00	High
1.5The committee manage the learning center systematically for sustainability	4.04	1.01	High
1.6Having appropriate electrical system/convenience facilities	4.15	0.95	High
.2Form of the sustainable agricultural learning center			
2.1Size or area of the learning center should not be too big.	3.83	1.00	High
2.2The area is sorted properly.	4.12	0.93	High
2.3There is as activity court for learning activities.	4.03	1.04	High
2.4There is a path for convenient activities in the learning center.	4.06	0.99	High
2.5Having tidy plant or crop growing plots.	4.04	0.95	High
2.6Having appropriate housing for various types of animal domestication for educational purpose.	4.05	1.10	High
2.7 The area is decorated beautifully	3.94	1.03	High
2.8 There are commercial plant/crop cultivation and animal domestication	4.04	1.11	High
2.9 There is the collection and conservation of local plants and animal	4.16	0.92	High
2.10 There are signboards showing various data/information related to the learning center	4.13	0.99	High
2.11 There is website disseminating or connecting data retrieval from the learning center for many channels	3.93	1.21	High
.3Learning content provided by the learning center			
3.1It covers crop cultivation, animal domestication, fisheries, and concerned local wisdoms/culture.	4.16	0.91	High
3.2It is consistent with needs of the community and local educational management.	4.17	0.94	High
3.3It is consistent with local condition.	4.17	0.96	High
3.4Enhancing the community to perceive benefits and values of local wisdoms and agricultural culture.	4.24	0.79	High
3.5Able to apply knowledge and experience gained from the learning center to daily life activities.	4.31	0.94	High
3.6The community and youths participate in the preparation, utilization, and maintenance for sustainability.	4.25	0.90	High

Table2 . Continued

Items	Needs		
	\bar{X}	S.D.	Description
3.7There is the collection of bodies of knowledge, agricultural culture of the community, and historical background of the community.	4.12	0.95	High
3.8The learning content is consistent with the current age.	4.14	0.88	High
4. Managerial administration			
4.1Support from all concerned parties	4.20	0.90	High
4.2Local administrative organization, community leaders, local scholars, village committee, teachers, and student representatives are operational committee	4.23	0.83	High
4.3The community participates in the learning center operation and development	4.15	1.05	High
4.4The youth/students participate in the learning center operation	4.16	0.89	High
.5Media/materials/equipment used for knowledge transfer and public relations on agricultural knowledge			
5.1Media are consistent with learning content of the learning center	4.08	0.93	High
5.2All concerned parties participate in the preparation, provision of media/material/equipment for knowledge transfer and public relations	4.16	0.87	High
5.3There are diverse media/equipment which are consistent with the current age.	4.11	0.84	High
5.4There are enough tools/equipment for agricultural practice	4.15	0.88	High
5.5There is a place for systematic keeping tools/equipment together with an appropriate utilization.	4.12	0.95	High

Table 3. Needs for developing a sustainable agricultural learning center in Nongkwang community.

Items	Needs		
	\bar{X}	S.D.	Description
.1Style of the sustainable agricultural learning center in the community	4.05	0.88	High
.2Form of the sustainable agricultural learning center	4.03	0.87	High
.3Learning content of the sustainable agricultural learning center	4.20	0.83	High
4. Managerial administration of the sustainable agricultural learning center	4.18	0.85	High
.5Media/equipment used for agricultural knowledge transfer and public relations	4.12	0.83	High
Total	4.12	0.78	High

Table4 . A comparisons of needs for developing a sustainable agricultural learning center in the Wangkwang community of the sample group having different educational attainment.

Item	Elementary	Secondary	Vocation	Bachelor	Master	F	Sig	Scheffe
.1Style of the center	4.00	3.57	4.50	4.45	4.01	3.73	0.00*	Not different
.2Form of the center	3.86	3.60	4.59	4.42	4.20	3.77	0.00*	Not different
.3Learning content	4.12	3.82	4.56	4.41	4.57	2.43	0.05	Not different
4. Managerial administration	4.12	3.96	4.62	4.35	4.30	0.86	0.48	Not different
.5Media/equipment	4.04	3.80	4.60	4.34	4.36	1.80	0.13	Not different
Total (Average)	4.03	3.75	4.57	4.39	4.29	2.67	0.03*	Not different

* Statistically significant difference at 0.05

Table 5. A comparisons of needs for developing a sustainable agricultural learning center in Wangkwang community of the sample group having different occupation.

Items	Director	Personnel of local admin organization	Teacher	Farmer	Community	Other	F	Sig	Scheffe
.1Style of the learning center	4.20	4.12	4.70	3.69	3.91	4.17	4.28	*0.00	Not different
.2Form of learning center	4.52	4.18	4.63	3.56	3.90	4.41	6.49	*0.00	Not different
.3Learning content of the learning center	4.68	4.00	4.76	3.77	4.30	4.44	5.62	0.00*	Not different
4. Managerial administration	4.62	4.75	4.53	3.80	4.37	4.36	3.47	*0.00	Not different
.5Media/equipment for agricultural knowledge transfer and public	4.75	4.15	4.58	3.73	4.30	4.27	4.07	*0.00	Not different
Total (Average)	4.55	4.24	4.64	3.71	4.16	4.33	5.37	*0.00	Not different

* Statistically significant difference at 0.05

Table6 . A comparison of needs for a sustainable agricultural center in Wangkwang community of the sample group having different year of service.

Item	Less than 11 years	11-20 years	More than 20 years	F	Sig	Scheffe
.1 Style of the learning center	3.75	4.36	4.34	5.56	*0.00	Less than 11 years*, 11-20 years, Less than 11 years*, more than 20 years
.2 Form of learning center	3.77	4.21	4.36	4.53	*0.01	Less than 11 years*, more than 20 years
.3 Learning content of the learning center	3.92	4.48	4.46	5.35	*0.00	Less than 11 years*, 11-20 years, Less than 11 years*, more than 20 years
4. Managerial administration	3.92	4.38	4.51	4.72	*0.01	More than 20 years*, Less than 11 years*, more than 20 years, 11-20 years.
.5 Media/equipment for agricultural knowledge transfer and public	3.85	4.24	4.53	5.99	*0.00	More than 20 years*, Less than 11 years*, more than 20 years, 11-20 years.
Total (Average)	3.84	4.33	4.44	6.12	*0.00	More than 20 years*, Less than 11 years*, more than 20 years, 11-20 years.

* Statistically significant difference at 0.05

Table7 . A comparisons of needs for a sustainable agricultural learning center in Wangkwang community of the sample group having different monthly income.

Item	Less than 15,000 baht	15,001-20,000 baht	20,000-25,000 baht	25,000-30,000 baht	More than 30,000 baht	F	Sig	Scheffe
.1 Style of the learning center	3.52	3.85	4.06	4.40	4.50	6.47	*0.00	Not different
.2 Form of learning center	3.60	3.75	4.13	4.22	4.41	4.29	0.00*	Not different
.3 Learning content of the learning center	3.74	2.88	4.38	4.53	4.55	5.39	0.00*	Not different
4. Managerial administration	3.71	3.88	4.22	4.46	4.61	6.04	0.00*	Not different
.5 Media/equipment for agricultural knowledge transfer and public	3.67	3.95	4.04	4.45	4.53	5.58	0.00*	Not different
Total (Average)	3.65	3.88	4.17	4.41	4.52	6.72	0.00*	Not different

* Statistically significant difference at 0.05

Conclusions and Discussions

1. There is a high level of needs for a sustainable agricultural learning center in Wangkwnag community, Nam Nao district, Phetchabun province in all aspects ($\bar{x} = 4.12$). This might be because people there aware of the importance of sustainable learning of people in the community, particularly on agriculture. Importantly, the community participation in educational management is very beneficial to local people. This conforms to Thanapanyaratchawong (1988) who cited about the community participation in educational management that local people should participate in educational management especially in agriculture because it copes with occupations of local people. Thus, agricultural teaching/learning facilitation should be participated by the community in order to find a guideline, needs, and consistency with the local context. Besides, it helps create, love, relationships, ownership, and willingness the school.

2. There is statistically significant difference at 0.05 between the informants' years of service and needs for developing an agricultural learning center. Based on Scheffe test, it is found that the informants having more than 20 years of service have different needs for developing an agricultural learning center from those having less than 11 years and between 11-20 years of service.

2.1 Regarding style and learning content of the sustainable agricultural learning center, it is found that the informants having less than 11 years of service have different needs from those having 11-20 year and more than 20 years of service. This might be because people in the community have been working in the community for a long time so they have gained knowledge, experience, and skills when enable them to develop their occupation. This results in their wide vision, carefulness and they wish to participate in the agricultural learning center development. This conforms to Jongpipatsuk (2003) who claimed about a guideline for educational management in Section 22 (6) that learning management can occur anytime and place which there is the coordination among parents, guardians, and all concerned parties in order to develop learners based on their potential.

2.2 Regarding form of the sustainable agricultural learning center, it is found that the informants having less than 11 years of service have different needs form those having 20 year of service. This might be because of the difference in age for more than 10 years of the informant makes them make use of their visions, ideas, goals, work experience, etc. to apply to their occupation and be able to live in the community happily.

2.3 Regarding the managerial administration and media/equipment for agricultural knowledge transfer and public relations, it is found that the

informants having more than 20 years of service have different needs from those having less than 11 years and between 11-20 years of service. This might be because managerial administration has an effect on smooth, successful, systematic operation and eventually achieve the goals as set. Besides, media and equipment are effective tools used for knowledge transfer and public relations and it helps the agricultural learning center be sustainable and able to provide services for the community. This conforms to a study of Rasri et.al. (2015) which found that the informants e.g. local scholars, school committee, farmers, local party, etc. support and place the importance on participation of all parties in the rehabilitation of local natural conservation. This focuses on the educational administration and management in the community, awareness of sustainable natural conservation, and the construction of the participatory learning process. This will lead to the rehabilitation of ecology system of the watershed area which can be connected with knowledge management of the community.

Suggestions

Based on results of the study on needs for developing a sustainable agricultural learning center in Wangkwang community, Nam Nao district, Phetchabun province, the following are suggestions:

1. Results of the study revealed that there is a high level of needs for developing a sustainable agricultural learning center in all aspects. Thus, it should have the establishment and development of the agricultural learning center and it must be coordinated by all concerned parties. Importantly, the local administrative organization must be a key agency for the establishment of the agricultural learning center as a learning source of the community.
2. An investigation on an appropriate agricultural learning center based on local context should be conducted. This can be done by holding a civil society venue providing an opportunity for interested persons and various organizations to express ideas and have knowledge/experience exchange for the establishment of a sustainable agricultural learning center in the community.

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