Vol. 31 · March 2020
Print ISSN 2244-1573 · Online ISSN 2244-1581
International Peer Reviewed Journal
Journal Metrics: H Index = 2 from Publish or Perish
This journal is included in Thomson Reuters Journal Masterlist
Published by IAMURE Multidisciplinary Research,
an ISO 9001:2008 certified by the AJA Registrars Inc.

Rationalizing the Extension Programs of Abra State Institute of Sciences and Technology

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Gunning Fog Index: 13.37 Originality: 99% Grammar Check: 99%
Flesch Reading Ease: 28.16 Plagiarism: 1%

ABSTRACT

Extension Department has a vital role in extending the programs to the community. Specifically, this study aimed to rationalize the extension programs of the Abra State Institute of Sciences and Technology based on the level of awareness, level of participation and level of satisfaction among the beneficiaries on the implementation of Extension Programs. The study utilized the structured questionnaire as the main data-gathering instrument, interview, and focus group discussions (FGD). The results of the study showed that most of the beneficiaries perceived that the level of awareness in Information and communication services has the highest average mean value of 3.13 described as Moderately aware. The majority of the beneficiaries perceived that the level of participation in Information and communication services recorded the highest average mean value of 2.78 described as Slight participation. Most of the beneficiaries perceived that the level of satisfaction in Information and communication services has the highest average mean value of 2.86 described as Moderately satisfied. Based on the

conclusions, the Extension Department should initiate a method to encourage, motivate and increase the level of awareness, level of participation and the level of satisfaction of the beneficiaries particularly on those program services that were rated low. The Extension Department should innovate and transform more meaningful strategies for better implementation of the program services.

KEYWORDS

Extension Programs, Awareness, Participation, Satisfaction, Implementation, qualitative and quantitative, Philippines

INTRODUCTION

The Abra State Institute of Sciences and Technology (ASIST) started as a lowly industrial school in 1908 by an American educator, Mr. Amos Allen with the vision of integrating the people in the area into the objectives of national development. Five Americans administered the growth of the school until 1917. It was named Lagangilang Farm School in 1911 and was financed by the national government under the Philippine Commission.

Abra State Institute of Sciences and Technology envisions to become a university that produces graduates who are academically competitive, locally responsive and globally sustained. "As for its mission, it states: We are committed to be agents in the development of Abra through enhanced instruction, creative and innovative researches and projects for public and community services towards globally competitive professionals who contribute to the realization of a nation that enjoys strongly rooted comfortable and secure life". The Abra State Institute of Sciences and Technology commits a continual improvement of its system process to ensure effective and efficient delivery of the services towards sustained clientele satisfaction.

The goals of ASIST as an academic institution are the following: 1) To produce quality graduates who are locally and globally competitive. 2) To develop/generate new knowledge and verify client-oriented technologies and other solutions to development problems. 3) To disseminate and showcase client responsive technologies and other solutions to development problems toward an improved welfare of local communities. 4) To engage in viable income-generating projects (IGPs) to augment the finances of the college. 5) To realize ASIST as a dynamic and responsive learning and performing organization efficiently and effectively managing its resources.

The Extension Services has four objectives: (1) to undertake innovative, relevant, and socially accepted extension programs, projects and services for technology dissemination and utilization. (2) To establish, strengthen and sustain linkages and networking with NGA's, LGU's, SUC's and PO's in local, national and international levels for effective resource generation and management. (3) to enhance the capabilities of LGU's in technology promotion, agribusiness and related skills or expertise through advanced and practical human resource development and (4) to develop information, education and communication (IEC) materials and strategies appropriate for target clientele to enhance adoption, utilization, productivity, and profitability, and to develop a decision-support system to better achieve extension programs and improve livelihoods of poor farmers in the province of Abra.

President Gloria Macapagal Arroyo's challenging message during the 14th Annual Convention and General Assembly Meeting of the Philippine Association of Extension Program Implementers, Inc. (PAEPI) held last October 21, 2002 at the University of Southern Philippines, Davao on the Theme "Strengthening Research and Extension Linkages and Policy Advocacy for Extension Sector in The

Task of Empowering People for Sustainable Development" should be taken seriously when she emphasized that: "It is in the area of extension program implementation that our academic institutions have made significant difference in the community.

Extension programs which are rich sources of wisdom and vast frontier for research, where ideas, concepts and formalities can be put to the test and validated in real life situations and scenarios." Another major breakthrough activity of the Philippine Association of Extension Program Implementers, Inc. (PAEPI) was a national conference on "Enhancing Capabilities of Community Extension Implementers" held last May 12-13, 2008 in Cagayan de Oro. The conference highlighted the importance of monitoring and evaluation as a tool for overcoming roadblocks in Community Extension.

Llenares & Deocaris (2017), highlighted in their paper that there are some key development activities which include partnership with local government, training needs assessment through grass roots-level participation and design of practical education-training programs. The paradigm of the study as presented in Figure 1 used independent, dependent and the intervening variables. The independent variables focused on the socio-demographic characteristics of the beneficiaries and the Extension Programs of Abra State Institute of Sciences and Technology.

The dependent variables includes level of awareness, level of participation, level of satisfaction among the beneficiaries and the level of implementation and the level of effectiveness among the implementers. Lastly, the intervening variables include the challenges of the implementers.

OBJECTIVE OF THE STUDY

This study aimed to rationalize the extension programs of Abra State Institute of Sciences and Technology (ASIST).

METHODOLOGY

Research Design

A master plan was designed which specified the methods and procedures for collecting and analyzing needed information. This study utilized qualitative and quantitative research, which is a descriptive-correlational method. Qualitative is a scientific method of observation to gather non-numerical data. This type of research refers to the meanings, concepts definitions, characteristics, metaphors, symbols and description of things and not to their counts or measures. Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, surveys or by manipulating pre-existing statistical data using computational techniques. Descriptivecorrelational method measures two or more relevant variables and assesses a relationship between or among them.

Population and Locale of the Study

The respondents of the study were the recipient/beneficiaries of the existing extension programs of Abra State Institute of Sciences and Technology (ASIST) and program implementers who included the Vice President for Academic Affairs (VPAA), Director for Extension, College Coordinators and Faculty involved in the Extension Programs.

The study was conducted in the province of Abra. It included the selected municipalities of Pidigan, San Juan, Bangued, Lagangilang, Bucay, Dolores, Tayum and Lapaz as shown in Figure 2. These eight (8) municipalities are the existing communities in the province where the extension programs were conducted. The basis for selecting the respondents were the complete list of beneficiaries based on the record of the Extension Department and at least one

(1) year as a recipient. Respondent beneficiaries were selected at random by the use of simple random sampling (SRS).

Data Collection Instruments

This study utilized the structured questionnaire as the main data-gathering instrument with interview and focus group discussions (FGD). After a thorough review of the theories concepts and ideas regarding the rationalizing extension programs of Abra State Institute of Sciences and Technology, a key informant interview was used to find out in-depth information about a community or organization by asking stakeholders for their insights on the Extension programs Focus group discussions which was also used are like group interviews. A facilitator gathers participants, share some common characteristics, such as living in the same rural community or belonging to a similar stakeholder group. Like the interview, a focus group discussion is less structured than a survey. The interactions and discussions among the participants, offered rich insights that would not be obtained from individuals.

Data Collection Procedures

The respondents were divided into two groups the program implementers and the beneficiaries of the Extension Programs. To attain the objectives of the study, the researcher forwarded a letter to the President of Abra State Institute of Sciences and Technology (ASIST) requesting the approval to conduct the study. After he was given permission, the researcher explained the purpose of the study to the respondents. The researcher collected data by means of survey questionnaire that composed of their socio-demographic characteristics, level of awareness, level of participation, extent of implementation, level of effectiveness, level of satisfaction and the challenges to the program implementers of the Extension programs of ASIST. The researcher personally administered the questionnaire from August 2019 to December 2019.

Treatment of the Study

To come up with valid and reliable results, the following Statistical tools were used: frequency counting and percentages, weighted mean, and Pearson Product Moment Correlation Coefficient (PPMCC). Socio-demographic characteristics of the beneficiaries made use of frequency counting and percentages, the level of awareness, level of participation, level of satisfaction, the extent of implementation, level of effectiveness and challenges used of weighted mean.

The relationship between the level of awareness and the level of participation of the beneficiaries, relationship between the levels of participation with the level of satisfaction of the beneficiaries and the relationship between the effectiveness of strategies and the extent of implementation of the Extension Programs of ASIST used the Pearson Product Moment Correlation Coefficient (PPMCC).

RESULTS AND DISCUSSION

Table 1. Level of awareness of the beneficiaries in the implementation of Extension Programs of ASIST

SERVICES	MEAN	DR
Technical assistance and support services		
a. Anti-rabies vaccination/dog vaccination	2.68	MoA
b. Technical Advisory Services/Deworming of Carabao/ Casting down of large animals	2.61	MoA
Average Mean		
Information and communication services	2.65	MoA
a. Nutri –Eskwela Radyo Kabinnulig	3.82	MuA
b. Extension on Air/Radyo program	3.59	MuA
c. Distribution of flyers	1.98	SA
Average Mean		
Training services Cluster 1 (Organic Farming)	3.13	MoA
a. Rehabilitation and protection strategies for sustainable watershed productivity	1.62	LA
b. Production and management of small scale mushroom enterprise	2.02	SA
c. Homemade vegetable gardening sprays and concoction	2.29	SA
d. Formulation and Utilization of fermented organic fertilizer	2.42	SA
e. Weanling production	1.73	LA
f. Training on Animal organic farming	2.07	SA
g. Management practices of cattle and swine	2.01	SA
h. Herbal Management of common health problems	1.79	LA
Average Mean		

Cluster 2 (Food Processing)	2.03	SA
a. Mango fruit, ube, peanut processing	1.84	SA
b. Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos	1.87	SA
c. Siomai making and 10 Kumainments information drive	1.91	SA
d. Training on meat processing (longanisa, embutido and siomai)	1.94	SA
Average Mean	1.89	SA
Cluster 3 (Governance)		
a. Training on parliamentary procedure	1.53	LA
b. Mathematical literacy of out-of-school youths	1.42	LA
c. Orientation on public service through radio communication	1.83	SA
Average Mean	1.59	LA
Techno-transfer Utilization and commercialization services		
a. Goat Dispersal Project	2.69	MoA
b. ASIST Extension Technology Demonstration	2.67	MoA
Average Mean	2.68	MoA

Table 1 shows the level of awareness of the beneficiaries in the implementation of the Extension Programs of the institution. As shown in Table 3, on technical assistance and support services, anti-rabies vaccination has the highest mean of 2.68 described as moderately aware. On information and communication services, Nutri-Eskwela Radio Kabinulig has the highest mean of 3.82 described as Much aware. With regard to the training services, formulation and utilization of fermented organic fertilizer has the highest mean of 2.42 described as Slightly aware while on techno-transfer utilization and commercialization services of goat dispersal project have the highest mean value 2.69 described as Moderately aware.

As a whole, information and communication services have the highest average mean value of 3.13 described as Moderately aware. This indicates that beneficiaries of the extension programs are aware on the implementation of the services and they are listening to the Radio Station of the institution.

Likewise, technical assistance and support services and techno-transfer utilization were available to them. This further indicates that beneficiaries have diverse awareness in the implementation of Extension programs of ASIST. Furthermore, beneficiaries are moderately aware due to limited time in attending

trainings and meetings in the Extension Programs of Abra State Institute of Sciences and Technology.

As a whole Techno-transfer utilization and commercialization services have an average mean value of 2.65 and 2.68 described as Moderately aware respectively. On the other hand, training services have the lowest average mean value for cluster 1, cluster 2 and cluster 3 with an average mean value of 2.03, 1.90 and 1.59 respectively.

Some of the extension services were rated low, such as Rehabilitation and protection strategies for sustainable watershed productivity (1.62), Weanling production (1.73), Herbal Management of common health problems (1.79); Training on parliamentary procedure (1.53) and Mathematical literacy of out-of school youths (1.42), since not all of the programs services were distributed to the beneficiaries. According to the respondents, some of the program services were not fully disseminated. This inferred that the belief of the beneficiaries in the implementation of extension services was not so successful because of the problem in the planning process, particularly the lack of involvement and awareness of the ultimate beneficiaries. This further implies that extension department has limited time to disseminate the programs services of the Abra State Institute of Sciences and Technology to the community.

This conform to the study of Deocaris & Llenares (2018) that there is long-term impact of a 44-month community extension program in the Philippines. The extension program described in this study was implemented between March 2009 and December 2015 to address the capacity-building needs of a low-income community. This paper highlights some key development activities which include partnership with local government, training needs assessment through grassroots level participation and design of practical education-training programs.

This conform with the study of Dilao (2019) that LSU's extension programs have contributed a lot to the partner community on enhancement of the skills and augmentation of the income of the beneficiaries. The respondents also perceived the necessity of improving the community extension programs of La Salle University especially the programs of SHM and College of Education. The trainings must be planned, organized and systematically to be implemented to have an impact to the clienteles and to the community. Needs assessment survey must be done first in order to suit the needs of the clienteles.

Table 2. Level of participation of the beneficiaries in the implementation of Extension Programs of ASIST

SERVICES Technical assistance and support services	MEAN	DR
a. Anti-rabies vaccination/dog vaccination	2.60	PP
b. Technical Advisory Services/Deworming of Carabao/Casting down of large animals	2.38	PP
Average Mean Information and communication services	2.49	PP
a. Nutri –Eskwela Radyo Kabinnulig	3.39	SP
b. Extension on Air/Radyo program	3.27	SP
c. Distribution of flyers	1.69	VPP
Average Mean Training services Cluster 1 (Organic Farming)	2.78	SP
a. Rehabilitation and protection strategies for sustainable watershed productivity	1.54	VPP
b. Production and management of small scale mushroom enterprise	1.87	PP
c. Homemade vegetable gardening sprays and concoction	2.05	PP
d. Formulation and Utilization of fermented organic fertilizer	2.34	PP
e. Weanling production	1.72	VPP
f. Training on Animal organic farming	1.99	PP
g. Organic vegetable production focused on organic soil management	2.18	PP
h. Management practices of cattle and swine	1.91	PP
i. Herbal Management of common health problems	1.73	VPP
Average Mean	1.93	PP
Cluster 2 (Food Processing)		
a. Mango fruit, ube, peanut processing	1.66	VPP
b. Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos	1.69	VPP
c. Siomai making and 10 Kumainments information drive	1.81	PP
d. Training on meat processing (longanisa, embutido and siomai)	1.85	PP

Average Mean Cluster 3 (Governance)	1.75	VPP
a. Training on parliamentary procedure	1.47	VPP
b. Mathematical literacy of out-of-school youths	1.39	VPP
c. Orientation on public service through radio communication	1.52	VPP
Average Mean Techno-transfer Utilization and commercialization services	1.46	VPP
a. Goat Dispersal Project	2.36	PP
b. ASIST Extension Technology Demonstration	2.39	PP
Average Mean	2.37	PP

Table 4 shows the level of participation of the beneficiaries on the Extension programs of ASIST. It was observed in Table 4 that technical assistance and support services with anti-rabies vaccination has the highest mean value of 2.60 described as Poor participation. With regard to information and communication services Nutri-Eskwela Radio Kabinulig has the highest mean of 3.39 described as Slight participation.

On the training services, organic vegetable production focused on organic soil management has the highest mean of 2.18 described as Poor participation and with regard to techno-transfer utilization and commercialization ASIST Extension Technology Demonstration has the highest mean of 2.39 described as Poor participation.

As a whole, information and communication services have the highest average mean value of 2.78 described as Slight participation. This indicates that Radio programs of the Extension department have impact on the participation of the beneficiaries in the implementation of the extension programs of the institution. Meanwhile, technical assistance, techno-transfer utilization and commercialization services and training services of cluster 1, cluster 2 and cluster 3 have an average mean value of 2.49, 2.37, 1.93, 1.75 and 1.46 described as Poor participation and Very poor participation respectively. This indicates that beneficiaries have little time to participate in extension services. This further implies that beneficiaries must prioritized their other undertakings and field activities rather than participating in the extension services of the Abra State Institute of Sciences and Technology. Furthermore, beneficiaries committed their services to other works in order to earned and sustain for their everyday expenses. Beneficiaries needs the freedom to speak and be heard, to participate meaningfully in economic and social decisions that affect his life.

Some of the extension services were rated very poor according to the respondents. This includes: Distribution of flyers (1.69), Rehabilitation and protection strategies for sustainable watershed productivity (1.54), Weanling production (1.72), Herbal Management of common health problems (1.73), Mango fruit, ube, peanut processing (1.66), Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos(1.69), Training on parliamentary procedure (1.47), Mathematical literacy of out-of-school youths (1.39), and Orientation on public service through radio communication (1.52). They have poor to slight participation since they prioritized their other field activities rather than attending trainings and workshops.

This conforms to the study of Telayneh (2010) that majority of the farmers were not involved in the training program development. The study also showed that farmers' low participation was determined by synergistic action of multiple obstacles. Institutional factors such as inappropriateness to the needs of farmers, distance of the FTCs, lack of facilities, and incompetent facilitators; sociocultural factors such as farmers' little awareness and low expectations; and structural factors include central planning system and weak local institutional capacity were the major limiting factors included in the study.

From the above findings, it could be concluded that due to the collective influence of these factors, the whole process of the training program development was not participatory. Thus, it is suggested that motivated and competent extension personnel, pre-service and on-job training for facilitators, and a continuous awareness creation are timely essential.

This corroborates with the study of Muhammad et al. (2019) that large proportion of the beneficiaries participated in problem identification (69.3%) and project implementation (80%) in the stages of project development. Women participation in Fadama II project was identified to be low (28.0%). Meanwhile, educational level and membership of cooperative society significantly influenced participation ($P < 0.01$). Household size was a positive factor that significantly influenced participation ($P < 0.05$) in Fadama II project in the study area.

Table 3. Level of satisfaction of the beneficiaries in the implementation of Extension Programs of ASIST

SERVICES	MEAN	DR
Technical assistance and support services		
a. Anti-rabies vaccination/dog vaccination	2.55	MoS
b. Technical Advisory Services/Deworming of Carabao/ Casting down of large animals	2.37	SS
Average Mean	2.46	SS
Information and communication services		
a. Nutri –Eskwela Radyo Kabinnulig	3.47	MuS
b. Extension on Air/Radyo program	3.29	MoS
c. Distribution of flyers	1.80	LS
Average Mean	2.85	MoS
Training services		
Cluster 1 (Organic Farming)		
a. Rehabilitation and protection strategies for sustainable watershed productivity	1.55	LS
b. Production and management of small scale mushroom enterprise	2.01	SS
c. Homemade vegetable gardening sprays and concoction	2.20	SS
d. Formulation and Utilization of fermented organic fertilizer	2.37	SS
e. Weanling production	1.72	LS
f. Training on Animal organic farming	1.98	SS
g. Organic vegetable production focused on organic soil management	2.26	SS
h. Management practices of cattle and swine	1.93	SS
i. Herbal Management of common health problems	1.76	LS
Average Mean	1.98	SS
Cluster 2 (Food Processing)		
a. Mango fruit, ube, peanut processing	1.76	LS
b. Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos	1.80	LS
c. Training on meat processing (longanisa, embutido and siomai)	1.93	SS

Average Mean Cluster 3 (Governance)	1.85	SS
a. Training on parliamentary procedure	1.60	LS
b. Mathematical literacy of out-of-school youths	1.51	LS
c. Orientation on public service through radio communication	1.64	LS
Average Mean Techno-transfer Utilization and commercialization services	1.58	LS
a. Goat Dispersal Project	2.53	SS
b. ASIST Extension Technology Demonstration	2.51	SS
Average Mean	2.52	SS

Table 3 shows the level of satisfaction of the beneficiaries on the extension programs of ASIST. It was observed in Table 5 that technical assistance and support services with anti-rabies vaccination has the highest mean of 2.55 described as Moderately satisfied. With regard to information and communication services, Nutri-Eskwela Radio Kabinulig has the highest mean of 3.47 described as Much satisfied. On the training services organic vegetable production focused on organic soil management has the highest mean of 2.26 described as Slightly satisfied and in techno-transfer utilization and commercialization services, goat dispersal project has the highest mean of 2.53 described as Slightly satisfied. This inferred that belief of the farmers that the implementation of the extension services their needs and aspirations are not fully satisfied. This further implies that beneficiaries have other services to prioritize which is mismatched in the extension services of the Abra State Institute of Sciences and Technology.

As a whole, information and communication services has the highest average mean value of 2.86 described as Moderately satisfied. This indicates that beneficiaries are Moderately satisfied in the implementation of extension programs through Radio programs aired on the Radio Station 99.9 FM of the institution. On the other hand, it was noticed techno-transfer utilization and commercialization services, technical assistance and support services and training services cluster 1, 2 & 3 which have an average mean value of 2.52, 2.46, 1.98, 1.85 and 1.58 respectively. This implies that beneficiaries know that there are radio programs being aired. Generally, radio programming as a mass method of disseminating ideas and technologies. So there are beneficiaries who could avail the service. However, the result of the study shows that only few are listening. Furthermore, beneficiaries seldom in attending meetings and trainings due to field activities.

Some of the program services were rated low. This includes Distribution of flyers (1.80), Rehabilitation and protection strategies for sustainable watershed productivity (1.55), Weanling production (1.72), Herbal Management of common health problems (1.76), Mango fruit, ube, peanut processing (1.76), Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos (1.80), Training on parliamentary procedure (1.60), Mathematical literacy of out-of-school youths (1.51), Orientation on public service through radio communication (1.64). The reason is that not all of the services were acquired by the beneficiaries. According to the beneficiaries they are slightly satisfied, due to limited distribution of farm implements and equipment and supplemental pesticides and insecticides.

This conforms to the study of Yasunobu & Ishida (2015) which showed in their findings that about 55 percentage of the interviewees were satisfied whereas 45 percentage of them were dissatisfied with the extension services, implying that the program has still a lot of improvement.

The empirical result based on ordered logit model revealed that perceived economic return, regular extension contact, family size and off-farm income were driving for farmers' satisfaction. On the other hand, limited technology choices, high price of inputs, inconvenient loan system and undefined boundary between the extension services and the local politics were among the reasons given by dissatisfied farmers.

Thus, from a policy perspective, the findings suggest a need to develop demand-driven extension service instead of the existing supply-driven one. Such service should aim to enhance the rewards from farming to maintain participation and farmers` satisfaction, which influences the sustainability of the extension program.

This findings negates the study of Mwamakimbula (2014) that most farmers are motivated to attend extension education training to learn new ways of doing things to improve production, and farmers prefer to "learn by doing" through demonstration. Despite the eagerness that farmers have for learning new ways of farming, most farmers are discouraged with the poor organization and coordination of extension training programs in their areas. Most farmers know the importance of extension services in improving their production, but they are not satisfied with the way these services are being implemented.

The other factor that the study identified is the lack of a participatory approach among extension agents, which leads to the inability to meet farmers' needs. Additionally, the study found that poor support by the government for

the extension sector also lowers the effectiveness of the extension agent. In most cases, extension agents live far from their assigned villages due to lack of housing. There is also a lack of transport for extension agents, which is another reason for not helping farmers in their work stations.

This conforms to the study of Adeogun & Agwu (2019), which stated that respondents perceived that the type of personnel used for the program operations ($\bar{x}$ = 2.55), the farmers' sensitization process in preparation for the program ($\bar{x}$ =2.25) and use of mobile phone in disseminating information on the program activities ($\bar{x}$ =2.18) were effective in the program implementation. Participants were satisfied with the method of information dissemination on the WAAPP activities ($\bar{x}$ =2.22) as well as the farmers sensitization processes on the program activities ($\bar{x}$ =2.12). The major constraints militating against effective implementation /utilization of WAAPP program were insufficient credit facilities ($\bar{x}$=2.62) and inadequate funding attached to each package of the project ($\bar{x}$=2.59). The study recommends that government should increase farmers' involvement in the planning and implementation of future projects.

Table 4. Correlation analysis between the level of awareness and the level of participation

VARIABLES	r_{XY}	PROB.	DECISION
Level of awareness x Level of participation	0.875**	0.000	Reject Ho

** Highly significant at 0.01 level

Table 4 shows the correlation coefficient between the level of awareness and the level of participation. It was observed in table 6 that there is a highly significant relationship between the level of awareness and level of participation with a correlational value of r = 0.875. This implies that the higher the awareness of the beneficiaries, the higher is the level of participation in the program services of the Abra State Institute of Sciences and Technology. It further implies that, if they were aware on information, they could act correspondingly.

The study confirms the output of Egwuonwu (2018), who stated that the higher is the level of awareness, the higher is the level of participation of women in the agroforestry project in Imo State of Nigeria. Likewise, the low level of awareness follows the low level of participation in the agroforestry.

The study confirms the finding of Alusen & Tun (2018) that there is relationship between the level of awareness and the level of engagement and relationship between the level of engagement and attitude. This means the higher the awareness, the higher is the engagement, and the higher the engagement, the more positive attitude the beneficiaries have towards ISR programs. Similarly, there were significant differences in level of awareness when respondents were grouped according to participation in any ISR activities (Institutional or CBA).

Table 5. Correlation analysis between the level of participation and the level of satisfaction

VARIABLES	r_{XY}	PROB.	DECISION
Level of participation x Level of Satisfaction	0.913**	0.000	Reject Ho

** Highly significant at 0.01 level

Table 5 shows the correlation coefficient between the level of participation and the level of satisfaction. It was found out that there is a highly significant relationship between the level of participation and the level of satisfaction with a correlational value of r = 0.913. This indicates that the high level of participation of the beneficiaries, the more they are satisfied in the program services of Abra State Institute of Sciences and Technology.

The study confirms the study of Golrang, Lai, & Mohammad (2012), which stated that the level of the participation of Water Management Operations (WMO) is Moderate and there is a significant and Positive correlation between farmers' satisfaction of prior watershed management operations. However based on the findings, the level of economic participation of people are more than the social and environmental participation. Moreover, the results indicated that the level of the respondents' satisfaction of prior Water Management Operations (WMO) is from Moderate to High. This study also proved that participation in Water Management Operations (WMO) is positively and significantly correlated with satisfaction of prior Water Management Operations (WMO).

This conforms to the finding of Kroncke (2006) which seeks correlations between several aspects of faculty satisfaction and students' satisfaction within a university setting. In this environment, faculty members are employees of the organization and students may be viewed as customers. Each group derives satisfaction from different aspects of what occurs at the university, yet the

satisfaction experienced by one group is expected to affect their performance, and thus the satisfaction experienced by the other group. For example, a faculty member who is happy with his or her colleagues may be motivated to do more team-teaching and enhance the learning experience (and thus satisfaction) of students.

Table 6. Level of effectiveness of strategies in the implementation of the Extension Programs

SERVICES/STRATEGIES	MEAN	DR
Technical assistance and support services		
1. Establish demonstration projects	4.14	MuE
2. Conduct trainings	4.33	VME
3. Conduct of radio programs	3.96	MuE
4. Used of printed materials	4.15	MuE
5. Conduct exhibit	3.82	MuE
6. Makes visits to farmers and farms	4.17	MuE
7. Conduct group meetings	4.18	MuE
8. Distribution of inputs (Fertilizers, seeds, etc.)	4.13	MuE
9. Conduct field trips	3.72	MuE
Average Mean	4.07	MuE
Information and communication services		
1. Conduct radio programs	4.08	MuE
2. Distribution of flyers/brochure	4.03	MuE
3. Distribution of handouts	4.13	MuE
4. Tarpaulin/use of LCD	4.24	VME
Average Mean	4.12	MuE
Training services		
1. Conduct Lecture Discussion	4.49	VME
2. After the discussion/Workshop	4.51	VME
3. Return Demo	4.46	VME
Average Mean	4.49	VME
Techno-transfer Utilization and commercialization services		
1. Conduct of radio programs	4.13	MuE
2. Making visits to farmers	4.19	MuE

3. Training (Livelihood, Processing, etc.)		4.42	VME
4. Adopt a barangay school		4.28	VME
5. Farmer's Field Day		3.88	MuE
	Average Mean	4.18	MuE

Table 6 shows the level of effectiveness of strategies in the implementation of the Extension Programs of ASIST. Noticeably, training services have the highest average mean value of 4.49 described as Very much effective. This implies that the use of lecture, workshop and return demo were effective strategies in the implementation of Extension Programs of the Abra State Institute of Sciences and Technology.

According to the program implementers, they claim that the program services were Much implemented. However, program beneficiaries have moderate awareness, participation and satisfaction in the implementation of the extension services of ASIST due to limited distribution of farm implements, low supplemental of pesticides and insecticides.

Comia (2017) stated in her findings that majority of the respondents are married adults and master's degree graduates with education as their area of specialization. They are permanent in status and have considerable years in the University serving as research or extension officers. Research of SUs have common research thrusts in terms of environment and natural resources management but differ in their own respective agenda; similarly the SUs share common extension thrusts and concerns but differ in their programs, activities and projects related to community services. Commonly encountered problems concern inadequate funds and inability to access the available technology. Officers utilized educational innovations on research and extension to a moderate extent but software and hardware were utilized to a great extent; likewise internet-based communication was utilized to a great extent for research but used moderately for extension. This implies that compared to research, most of the extension functions do not require the use of internet-based communication. From the results of the study, it was recommended that review of the existing allocation of funds for technology development may be done to improve the existing hardware, software and communication facilities.

This conform to the study of Magulod (2016) that there exists a strong positive relationship between school effectiveness and school performance. The factorial analysis revealed that among all the correlates of school effectiveness, school leadership competency and professional collaboration influenced the

performance of both schools. Recommendations of the study can help the government and school officials to plan appropriate strategies in improving the quality of effectiveness of schools.

This study conform to the study of Babua et al. (2013) that Agricultural Extension in India has undergone several changes since their independence. Yet, a large number of smallholder farmers and other vulnerable groups remain unreached by the public extension system. A number of organizational performance issues hinder the effectiveness and efficiency of public extension system. These include inadequate staff numbers, low partnerships, and continued top-down linear focus to extension. This paper has presented a critical review of the current state of agricultural extension reforms in India and based on the field case studies in four states —Bihar, Himachal Pradesh, Maharashtra, and Tamil Nadu —has identified policy priorities and strategic options for further refining the on-going reform process and effective implementation of the public agricultural extension system.

Table 7. Extent of implementation of the program implementers on the Extension Programs

SERVICES	MEAN	DR
Technical assistance and support services		
a. Anti-rabies vaccination/dog vaccination	3.39	MuI
b. Technical Advisory Services/Deworming of Carabao/ Casting down of large animals	3.53	MuI
Average Mean	3.46	MuI
Information and communication services		
a. Nutri –Eskwela Radyo Kabinnulig	4.08	MuI
b. Extension on Air/Radyo program	4.04	MuI
c. Distribution of flyers	3.83	MuI
Average Mean	3.98	MuI
Training services		
Cluster 1 (Organic Farming)		
a. Rehabilitation and protection strategies for sustainable watershed productivity	3.65	MuI
b. Production and management of small scale mushroom enterprise	3.64	MuI
c. Homemade vegetable gardening sprays and concoction	3.69	MuI

d. Weanling production	3.64	MuI
e. Training on Animal organic farming	3.65	MuI
f. Organic vegetable production focused on organic soil management	3.68	MuI
g. Management practices of cattle and swine	3.57	MuI
h. Herbal Management of common health problems	3.69	MuI
Average Mean Cluster 2 (Food Processing)	3.64	MuI
a. Mango fruit, ube, peanut processing	3.47	MuI
b. Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos	3.50	MuI
c. Siomai making and 10 Kumainments information drive	3.61	MuI
d. Training on meat processing (longanisa, embutido and siomai)	3.83	MuI
Average Mean Cluster 3 (Governance)	3.60	MuI
a. Training on parliamentary procedure	3.49	MuI
b. Mathematical literacy of out-of-school youths	3.67	MuI
c. Orientation on public service through radio communication	3.67	MuI
Average Mean Techno-transfer Utilization and commercialization services	3.61	MuI
a. Goat Dispersal Project	3.56	MuI
b. ASIST Extension Technology Demonstration	3.89	MuI
Average Mean	3.72	MuI

Table 7 shows the extent of implementation of the Extension Programs of ASIST. It was shown in the table that technical assistance and support services with Technical advisory services and Anti-rabies vaccination/dog vaccination with a mean value of 3.53 and 3.39 described as Much Implemented On information and communication services, Nutri-Eskwela Radio Kabinulig, Extension on air/ radio program and Distribution of flyers with a mean value of 4.08, 4.04 and 3.83 described as Much Implemented respectively. This implies that implementers claims that extension programs of ASIST are much implemented. This further implies that implementers are committed in attaining the goals and objectives of

the extension department.

On training services (Organic Farming); Rehabilitation and protection strategies for sustainable watershed productivity, Production and management of small scale mushroom enterprise, Homemade vegetable gardening sprays and concoction, Formulation and utilization of fermented organic fertilizer, Weanling production, Training on animal organic farming, organic vegetable production focused on organic soil management, Management practices of cattle and swine and herbal management of common health problems with a mean value of 3.65, 3.64, 3.69, 3.67, 3.64, 3.65, 3.68, 3.57, 3.69 described as Much Implemented respectively.

On training services (Food Processing); Mango fruit, ube, peanut processing, Tamarind champoy, veggie balls training and formulation drive on the nutritional guidelines for Filipinos, Siomai making and 10 Kumainments information drive and Training on meat processing (longanisa, embutido and siomai) with a mean value of 3.47, 3.50, 3.61, 3.83 described as Much Implemented respectively.

On training services (Governance); Training on parliamentary procedure, Mathematical literacy of out-of-school youths and Orientation on public service through radio communication with a mean value of 3.49, 3.67, and 3.67 described as Much Implemented. On Techno-transfer Utilization and commercialization services; Goat Dispersal Project and ASIST Extension Technology Demonstration with a mean value of 3.56, 3.89 described as Much Implemented. This implies that implementers and extension staffs were well involved in the implementation of the extension programs of ASIST. This further implies that one of the function of ASIST is to help the needs and in the development of the community.

Bidad & Campiseno (2010) conform in their study that extension program of SUCs was well-implemented. Faculty and students were well involved. However, there was no significant difference on the ratings of the implementers and beneficiaries along education, livelihood generation, health and nutrition, good governance and environmental awareness implementation. No significant difference existed on the perceptions of the implementers and beneficiaries on their involvement in the extension programs on education, livelihood generation and good governance. However, there was a significant difference in their involvement on the program on health and nutrition and environmental management. Therefore, the extension programs should continue to reach out to the beneficiaries for the sustainable development of the community.

This conform with the study of Mojares (2015) that 58% of the respondents are female; 54% are contractual; 1-10 years in service; 1-5 years in doing

extension with 1-5 extension involvement commonly gift-giving and clean- up drive; gender is related to extension involvement: There is a substantial positive relationship between employment status and extension involvement; only 41% of the variance in extension involvement can be attributed to the combined effect of years in service and years in doing extension; nature of extension is service; the purpose of extension is formative; and the level of engagement is already engaged. Based on the obtained results, the study concluded that there are more female contractual faculty members involved in extension activities; gender, employment status, years in service and years in doing extension are related to number of extension involvement of faculty members; the construct of extension is perceived as HEIs' function to help the needs and in the development of the community since extension is still on the nature of service with formative purpose. Yet, they agree that university extension is already engaged.

Table 8. Correlation analysis between the level of effectiveness and the extent of implementation

VARIABLES	r_{XY}	PROB.	DECISION
Level of participation x Extent of Implementation	0.533**	0.000	Reject Ho

** Highly significant at 0.01 level

Table 8 shows the correlation coefficient between the level of effectiveness and the extent of implementation. It was observed in table 10 that there is a significant relationship between the effectiveness of strategies and the extent of implementation of extension services of Abra State Institute of Sciences and Technology with a correlational value of 0.533. This indicates that the higher the level of effectiveness, the extent of implementation of the programs services is also high.

This conforms to the study of Tacbas et al. (2010) which stated that "high" level of administrative capability of the University of Northern Philippines (UNP) Extension Services Office in terms of executive leadership, personnel capability, and financial capability; the extent of participation of the development partners in extension services; of the extent of implementation of the extension programs of the University of Northern Philippines (UNP) Extension Services Office in terms of mission, goals and objectives and execution of the criteria in the selection of service area for Extension Services Program (Adopt-a-Community and

School Program); of program outputs of the University of Northern Philippines (UNP) Extension Services Office in terms of Skills Training, Information Drive, Medical/Dental Mission and Livelihood Organizations should still be sustained or improved. The economic and social impacts of the programs of the University of Northern Philippines (UNP) Extension Services should also be improved.

This conforms to the study of Cabardo (2016) which aimed to evaluate the levels of participation of the school stakeholders to the different school-initiated activities and the implementation of school-based management (SBM) in selected schools in the Division of Davao del Sur for the school year 2014-2015 using a descriptive-correlational survey research design. A researcher-restructured questionnaire was answered by the 13 school heads, 56 teachers, and 50 stakeholders who formed part as respondents of this study. The data were statistically analyzed using mean, analysis of variance (F test), t-test for independent sample, Pearson r and t-test for the significance of r as statistical tools.

In terms of the level of participation of the school stakeholders to the different school initiated activities, a moderate descriptive rating was found. The level of SBM implementation was found to be at Exceeding the Minimum Standard. The level of participation of the school stakeholders to the different school-initiated activities was significantly affected by the level of SBM implementation.

This conforms to the study of Chilenski et al. (2015) that community collaborative prevention work should consider the collaborative nature of the technical assistance provider – prevention community team relationship when designing and conducting technical assistance activities, thus it is important to continually assess these dynamics to support high quality implementation.

Table 9. Challenges in the implementation of the Extension Programs

CHALLENGES	MEAN	DR
Financial		
1. Limited allocation of funds	3.90	MS
2. Delayed release of funds	3.76	MS
3. Inappropriate use of funds	3.78	MS
4. Inadequate finance	3.58	MS
5. High cost of adoption of technology	3.89	MS
6. Agency insufficiency of funds	3.63	MS
7. Lack of budget for monitoring/evaluating of projects	3.71	MS
Average Mean	3.75	MS

Human Resources		
1. Cooperation of other personnel/faculty/staff.	3.63	MS
2. Exposure and technical knowhow of the implementers	3.57	MS
3. High turnover of extension staff	3.61	MS
4. Inefficient services rendered by extension staff	3.21	QS
5. Lack of mobility for extension staff to deliver service	3.47	MS
6. Inadequate knowledge and skills in monitoring/evaluating extension projects.	3.36	QS
Average Mean	3.47	MS
Physical		
1. Lack of logistics and accessibility	3.38	QS
2. Outdated technology to used	3.67	MS
3. Delayed purchase of supplies, equipment materials	3.57	NS
4. Unavailability of facilities to use	3.57	MS
5. Lack of training facilities dissemination for technology	3.44	MS
Average Mean	3.53	MS
Political		
1. Influence/control of politicians	3.58	MS
2. Government inference	3.51	MS
3. Bureaucracy in government	3.56	MS
4. Political system	3.56	MS
Average Mean	3.55	MS
Environmental		
1. Strong/severe typhoon	3.65	MS
2. Unpredictable earthquake	3.22	QS
3. Improper solid waste disposal/management	3.68	MS
4. Uncertainty of weather due to climate change.	3.66	MS
Average Mean	3.55	MS

Table 9 shows the challenges in the implementation of the Extension Programs of Abra State Institute of Sciences and Technology (ASIST). On financial challenges; limited allocation of funds, delayed release of funds, inappropriate use of funds, inadequate finance, high cost of adoption of technology, agency insufficiency of funds and lack of budget for monitoring and evaluation of projects with a computed mean of 3.90, 3.76, 3.78, 3.58, 3.89,

3.63, 3.71 respectively described as moderately serious.

This implies that implementers felt that funds was really a limiting factor in the implementation of extension programs of Abra State Institute of Sciences and Technology.

The result indicates that implementers feel a more challenges on the release of funds that caused a not successful implementation of extension programs.

On human resources challenges; cooperation of other personnel/faculty/staff, exposure and technical knowhow of the of the implementers, high turnover of extension staff, Inefficient services rendered by extension staff, lack of mobility for extension staff to deliver service, and inadequate knowledge and skills in monitoring/evaluating extension projects with a computed mean value of 3.63, 3.57, 3.61, 3.21, 3.47, 3.36 described as moderately serious and quite serious respectively. This indicates that it is moderately serious with the human resources challenges as perceived by the implementers. This further implies that due to political intervention, staff are not properly selected.

On physical challenges; lack of logistics and accessibility, outdated technology to used, delayed purchase of supplies, materials and equipment, unavailability of facilities to use, lack of training facilities for technology dissemination with a computed mean value of 3.38, 3.67, 3.57, 3.57, 3.44 described as quite serious and moderately serious respectively.

This implies that the problem on the purchase of supplies needed for their implementation was due to the lack or insufficiency of funds. This further implies that implementers are aware on the problem on transportation, especially to the highland municipalities and barangays that few vehicles are available in the institution.

On political challenges; influence/control of politicians, government inference, and bureaucracy in government, political system with a computed mean of 3.58, 3.51, 3.56, and 3.56 described as moderately serious respectively. This implies that it is a normal problem with the political intervention as perceived by the implementers. This further implies that this culture in the province of Abra is very common especially in deploying applicants.

On environmental challenges; strong/severe typhoon, unpredictable earthquake, improper solid waste disposal/management, uncertainty of weather due to climate change with a computed mean value of 3.65, 3.22, 3.68, 3.66 described as moderately serious and quite serious respectively. This indicates that it is moderately serious (normal) with the environmental factors as perceived by the implementers. This further implies that climate could affect their

implementation of the extension programs of Abra State Institute of Sciences and Technology especially when strong typhoon arises.

As a whole, it was shown in the table that Financial problem has the highest mean value of 3.75 with a descriptive equivalent as Moderately serious, followed by Environmental, Political, Physical and Human Resources with a mean value of 3.56, 3.55, 3.53 and 3.47 respectively with a descriptive equivalent of Moderately serious. The results of this endeavor conforms with the study of Ammakiw (2013) which revealed that the extension programs and services of the Kalinga Apayao State College were "continuing" as supported by the obtained total average weighted mean of 2.22. It also disclosed that the impact of extension programs and services of the Kalinga-Apayao State College as to political, social, economic, ecological, and cultural was "high" with a total average weighted mean of 2.41 when the responses of both respondents were taken as a whole. The study further disclosed that there was a significant difference between the responses of the program implementers and the clientele beneficiaries on the impact of extension programs and services of the Kalinga-Apayao State College.

It further revealed that the extent of utilization of monitoring and evaluation of extension programs and services of the Kalinga-Apayao State College was "seldom utilized" as supported by the obtained total average weighted mean of 2.18. However, it shows that the impact is "high." Likewise, the results showed that the two groups of respondents have significant difference perception on the impact of the implementation of the monitoring and evaluation instruments of the extension program.

On the problems encountered, this study revealed that the responses on the problems encountered in monitoring and evaluation of extension programs and services of the Kalinga-Apayao State College program implementers were "quite serious problems." Based on the findings of this study, the following recommendations were offered. Program implementers should come up with a very comprehensive and detailed benchmark data as pre-requisites in piloting and adopting a barangay; The college should establish monitoring and evaluation team to formulate evaluation system and feedback mechanism for extension programs and services; There is a need for the extension program implementers to use the format on monitoring and evaluation tool as a model; clientele beneficiaries' participation in the monitoring and evaluation process to motivate them to plan and manage activities in a sustainable manner; There is a need to integrate extension services to one adopted barangay in order to sustain the impact that will change the way of life of the stakeholders; Research Thrust and

Agenda should be anchored on technology development and commercialization to serve as materials for extension programs and services; and There is a need for extension activities to generate income to sustain the continuity of the programmed; The College should review its policies on de-loading extension and research coordinators to give them.

This conforms to the dissertation finding of Semwenda (2016) that extension system has identified challenges which include low level of participation of stakeholders in the design and implementation of policy, deficit and delays of extension funds, shortage of human resources, and low sense of accountability and as a result farmers' opinions have shown unsatisfactory performance of extension. District Government has to focus on the above challenges so as to improve the performance of extension. Increased involvement of private extension providers, diversification of funding sources and timely supply of funds to the district, deployment of Agricultural Officers and Livestock Officers to the village level and strengthening accountability system will overcome the challenges.

Nwarieji et al. (2016) pointed out in their study that Administrative constraints include inadequate market for disposing farm produce, poor coordination of activities of farmers, inadequate training of extension staff; Financial constraints include high cost of adoption of technology, inadequate finance; and Logistics constraints include low level of education, use of traditional implements were the challenges associated with implementation of UAES program. Based on the findings of the study, conclusions were drawn and recommendations were made which include among others the need for adequate provision of agricultural inputs at a subsidized rate and training of extension agents for effective implementation of UAES program to sustain agricultural production in Imo State, Nigeria. According to the program implementers, there were some solutions to satisfy the challenges like proper allocation of funds and strong linkages to other funding agencies. This implies that the institution was looking for immediate solutions particularly in environmental in order that the implementation of the extension programs to the beneficiaries which will lead to more effective and efficient extension programs.

According to Babu & Sah (2019) achieve extension programs strengthen both public and private actors with pro-active policies and program interventions for functional participation and linkages. Such strengthening will require the involvement of diverse R and D actors in the planning, monitoring and sharing of resources, incentives and recognition. Government organizations commitment to promote agricultural R and D by enabling policies, funding and

capacity building which are vital for sustainable impacts. Implementation of the recommendations reform and strengthen research and extension systems and promote linkages among actors, service providers and key stakeholders.

Semwenda (2016) reveals in his study cited several problems the: 1) lack of farmer participation; lack of funding; unavailability of a cross-sector extension forum; lack of skills to work with agents from other organizations; and unavailability of extension tools. Assess the training needs of extension agents in implementing the new approach. Almost 95.2% (n=120) expressed the need for in service training to enhance their job performance. The most needed areas of training were: a) the use of new media/information technology (cited by 75.40% respondents, n=95); marketing of agricultural products (65.87%, n=83), and appropriate agricultural technology (64.29%, n=81). Lastly, Objective 5 assessed the need for Communication for Development (C4D) in strengthening extension in Indonesia. The study revealed a need for training on: 1) contemporary issues of development and communication (such as integrated rural development, participatory extension; a system view of extension, and integrated communication media); and 2) communication skills (such as listening, supervision, lobbying, grant writing and fund raising, leadership, and ICT operation/social media). A general conclusion is that the new extension system is not working as effectively as it should be due to communication problems. Therefore, the study concluded that a C4D strategy framework will provide extension agents with the communication skills they need in mobilizing farmers for participatory decision-making. Thus, the researcher recommends incorporating C4D methodology in Indonesia's extension system.

Cabrera (1999) stated in his study that included production functions, linear programming, and extension programming. Production functions for seven geographical zones were generated based upon multiple regression of cotton yield as a function of fertilization and environmental factors. Linear programming was used to simulate and better understand the current situation of individual households. Following statistical validation, a projection of future production, income, and consumption was undertaken at the household level. These simulation models are "interactive working models." Based upon the survey, production functions, linear programming, and secondary data a list of nine extension programs were proposed. These programs were based upon priority needs as identified by small farmers.

Program implementers were also benefited in conducting extension. Based on the interviews conducted, most of the program implementers benefited from

Individual Performance Commitment Review (IPCR) and National Budget Circulation (NBC 461). This implies further that program implementers conduct extension programs to extend their expertise to the rural communities in the province of Abra.

Rubio et al. (2016) stated in their study the benefits of extension programs that students can expect outcome that will help them grow to a more productive and efficient students and member of the community. Moreover, there are also some expected problems in joining this kind of activity like funds, location and the logistics. The extension programs may continue to reach out for the sustainable development of the students and community.

Llenares & Deocaris (2018) pointed out that based on the framework of community empowerment, the researchers measured the long-term impact of a 44month community extension program in the Philippines. The extension program described in this study was implemented between March 2009 and December 2015 to address the capacity-building needs of a low-income community. This paper highlights some key development activities which includes partnership with local government, training needs assessment through grassroots-level participation and design of practical education-training programs.

Program implementers have best practices in the implementation of extension services in the community. On the interviews conducted by the researcher the best practices in the implementation of the Extension Programs of ASIST were research based Extension Programs and Radio Programs to extend new technologies to farmers. This indicates that program implementers of the Abra State Institute of Sciences and Technology prioritize to extend the new technologies that had been undertaken through research.

Duerden & Witt (2012) stated in their study that simply assessing program impact without a clear understanding of the degree to which a program was actually implemented can result in inaccurate findings. The effective evaluation of both program impacts and evaluation can provide Extension educators with a more holistic perspective of their programs and an increased ability to identify and disseminate best program practices.

Suvedi (2016) pointed in his study that farmer engagement and empowerment are direct advantages of these monitoring and training systems. Evaluators also can benefit from farmers' adoption and use of these technologies. Ultimately, data collected regularly through such methods can be used as baseline data for comparative evaluations as well as used as partial sources for other types of evaluation. Farmers who have become familiar and comfortable with using

technology increasingly will be able to respond effectively and in a timely manner to technology-based surveys and other evaluation tools. Additionally, because program evaluation expertise tends to originate from international aid agencies and organizations, there is a need to develop evaluation capacity at the national level in many countries. Extension organizations should identify and train staff to serve as national leaders for program evaluation. International aid agencies may contribute to the development of a network of evaluators so evaluation practitioners can share empirical studies to benefit each other. Building national in-country and local capacity is a major step toward sustainability of extension services.

CONCLUSIONS

In the light of the findings, the following conclusions were derived:

1. Most of the beneficiaries perceived level of awareness in Information and communication services.
2. Majority of the beneficiaries perceived level of participation in Information and communication services.
3. Most of the beneficiaries perceived level of satisfaction in Information and communication services.
4. The null hypothesis is rejected since there is a significant relationship between the level of awareness and level of participation among the beneficiaries in the implementation of extension programs.
5. The null hypothesis is rejected since there is a significant relationship between the level of participation and the level of satisfaction among the beneficiaries in the implementation of extension programs.
6. Most of the program implementers perceived the level of effectiveness of strategies in training services.
7. Most of the program implementers perceived the extent of implementation in Information and communication services.
8. The null hypothesis is rejected since there is a significant relationship between the effectiveness of strategies and the extent of implementation of extension services among the program implementers of Abra State Institute of Sciences and Technology.
9. Program implementers perceived that most of the enumerated financial challenges were moderately serious to affect their extension programs.

RECOMMENDATIONS

Some recommendations arising from the conclusions are offered for the improvement of the Extension Services of Abra State Institute of Sciences and Technology:

1. The Extension Department should initiate a method to encourage, motivate and increase the level of awareness, level of participation and the level of satisfaction of the beneficiaries particularly on those program services that were rated low.
2. The Extension Department should innovate and transform more meaningful strategies for better implementation of the program services 3. The Extension Department should strengthen their services to achieve and sustain the vision, mission, goals and objectives of the institution and the department.
4. The Extension Department should conduct quarterly assessment and evaluation to verify and check whether the program services that are being extended to the community have impact or improve the quality of life of the beneficiaries.
5. There is a need for a closer contact with the beneficiaries to foster better understanding and active participation. The program implementers should be more visible in the area of responsibility so that they would know from primary information the needs of the beneficiaries/clientele, and to show their concern to them.
6. Program implementers should look for more linkages from the different agencies and organizations such as local, national and international arena.
7. From the shortcomings of the implementers as being analyzed from the study, it is hoped that these should not be taken negatively, but rather should serve as a basis for reliable assessment and evaluation for the improvement of the implementation process.
8. A region wide study will be conducted to give more insights on the existing condition of Extension Programs, and to test the validity of the findings. 9. To rationalize the Extension Services of the Abra State Institute of Sciences and Technology the following model may be adopt. The ASENSO, which is an Ilocano word/term means “PROGRESSIVE/ DEVELOPING”. For every letter of the word, there is a corresponding definition; Action, Service-oriented, Effective-efficient, Noble,

Sustainable, and Opportunities. The meaning of every letter of the word ASENSO, will lead to a progressive institution and better implementation of the Extension Programs of Abra State Institute of Sciences and Technology.

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