COMPARATIVE EFFECTIVENESS OF FAMILY DEVELOPMENT APPROACH AND GROUP BASED APPROACH OF DIPSHIKHA ACTIVITIES

ASMA KHATUN

DEPARTMENT OF AGRICULTURAL EXTENSION AND INFORMATION SYSTEM

SHER-E-BANGLA AGRICULTURAL UNIVERSITY

DHAKA-1207

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ASMA KHATUN

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Approved by:

Prof. Dr. Md. Sekender Ali	**Dr. Mohummed Shofi Ullah Mazumder**
Supervisor	**Co-Supervisor**
Department of Agricultural Extension and Information System	Department of Agricultural Extension and Information System

Dr. Md. Mahbubul Alam
Chairman
Examination Committee
Dept. of Agricultural Extension and Information System

DEPARTMENT OF AGRICULTURAL EXTENSION &
INFORMATION SYSTEM
Sher-e-Bangla Agricultural University
Sher-e-Bangla Nagar, Dhaka-1207

CERTIFICATE

This is to certify that the thesis entitled **"Comparative Effectiveness of Family Development Approach and Group Based Approach of Dipshikha Activities''** submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfilment of the requirements for the degree of **Master of Science** in **Agricultural Extension,** embodies the result of a piece of bonafide research work carried out by **Asma Khatun**, Registration No. **14-06342** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

I further certify that any help or source of information, received during the course of this investigation has duly been acknowledged.

Dated: December, 2015
Dhaka Bangladesh

Prof. Dr. Md. Sekender Ali
Supervisor
Dept. of Agril.Extension & Info.system
Sher-e-Bangla Agricultural University
Sher-e-Bangla Nagar, Dhaka-1207

DEDICATED

TO

MY BELOVED PARENTS

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LIST OF CONTENTS

ACRONYMS AND ABBREVIATIONS

FDA	Family Development Approach
GBA	Group Based Approach
GDP	Gross Domestic Product
ha.	Hectare
SPSS	Statistical Package for Social Science
Tk.	Taka
NGO	Non Government Organization

COMPARATIVE EFFECTIVENESS OF FAMILY DEVELOPMENT APPROACH AND GROUP BASED APPROACH OF DIPSHIKHA ACTIVITIES

ABSTRACT

The purpose of the study was to assess the comparative effectiveness of Family Development Approach (FDA) and Group Based Approach (GBA) of Dipshikha activities. Besides, attempt was made to explore the contribution of the selected characteristics on the effectiveness of Dipshikha activities. The study was conducted at Ghoraghat upazila under Dinajpur district. Data were collected from randomly selected 135 beneficiaries where 88 for Family Development Approach and 47 for Group Based Approach by using an interview schedule. The effectiveness were measured by computing the changes in housing condition, drinking water sources, sanitation conditions, health awareness, medical treatment and family assets of pre and post Dipshikha period under both of the approaches. Full model regression method was administered to determine the contribution of the selected characteristics of Dipshikha activities as perceived by the beneficiaries. The findings revealed that overwhelming majority (84.1%) of the beneficiaries had perceived medium effectiveness of Dipshikha activities under Family Development Approach and 87.3% of the beneficiaries had perceived medium effectiveness under Group Based Approach. The simple t- test showed that there was no significant difference between the effectiveness of FDA and GBA of Dipshika activities. Education, annual family income and training exposure had positive contribution to the effectiveness of FDA of Dipshikha. On the other hand, Education, family savings and training exposure had positive contribution to the effectiveness of GBA of Dipshikha. The findings also revealed the overall effectiveness of Dipshikha activities. Education, training exposure and attitude towards Dipshikha had positive contribution on Dipshikha activities in both FDA and GBA. Other characteristics of Dipshikha beneficiaries had no significant contribution on the effectiveness of Dipshikha activities.

CHAPTER 1

INTRODUCTION

1.1 General Background

Bangladesh is one of the least developed countries in the world. It has a population of nearly 16.10 crore with the current population growth rate of 1.2% with an area of 147570 square km. About 24.8% of its population still lives in poverty line (World Population Report, 2015). The average per Capita income of its population of 1466 US dollar annually as measured by income, consumption and ability to meet basic human needs (Bangladesh Economic Review, 2016).

NGOs are familiar worldwide for their innovative approaches. Many successful models in poverty reduction, microfinance, non-formal education and primary health care are promoted by different NGOs. A large number of NGOs like Dipshikha furnishes different development activities such as demonstration of agricultural technology, income generating activities, child education, health, hygiene and sanitation activities, training exposure, women development activities etc. to the target beneficiaries.

Dipshikha is an NGO, working for the poor people in order to reduce poverty especially in the northern part of Bangladesh. Dipshikha-"Non-formal education, training and research society for village development" was initiated in 1978 by a group of social workers, teachers and youths in the village of Rudrapur under Birol upazila of Dinajpur district. It was registered with the Social Welfare Department in 1984 and Foreign Donation Ordinance in 1985 Dipshikha initiated its works in a simple modest village Rudrapur under Birol upazila of Dinajpur district. Gradually its activities were expanded.

Now it is operating with 8 upazilas of 3 districts in northern parts of Bangladesh about 16640 beneficiary families with envision "A poverty free, just and peaceful society" (Dipshikha Annual Report, 2015).

It has been working through two approaches namely

I) Family Development Approach (FDA) and
II) Group Based Approach (GBA).

Dipshikha select its member families with their target beneficiaries on the following criteria:

- Families with annual income less than Tk. 25,000.00
- Total land owned less than 1.00 acre
- Family members are not associated with other NGOs

Vision of Dipshikha: Dipshikha envision, A poverty free, just, and peaceful society" (Dipshikha Annual Report, 2015)

Dipshikha Mission Statement

Dipshikha a sparkle, commits itself to poverty alleviation, establishment of equal opportunities, peace and justice by ensuring formational education, appropriate agriculture, hygiene, sanitation, skill promotion and supports for income generation adjustable as time requires for the development of the poor, marginalized and the deprived rural, semi urban and urban poor communities in descending priority. Dipshikha with a team of dedicated, skilled and competent workers cherishes and practices the principle of human dignity, ethical values, participation team-work, mutual respect and inter-religious harmony with clearly defined policies.

Essentially Dipshikha believes in firing the sparkle towards capacity building for self-helf and self-reliance of its collaborating families, groups, communities and people (Dipshikha Annual Report 2015)

Similar to other NGO, Dipshikha started their work through Group Based Approach (GBA) which targets mostly the women and one person from each poor family. In Bangladesh women are targeted because they are more available, more likely to repay on time the credit, more flexible and more

patient than men and cheaper to service. In GBA, Dipshikha promoted a group consisting of 20 - 25 poor women in every village to improve unity and solidarity for economic release as well as to get rid of social injustice. Dipshikha has long experience in rural development activities through GBA. To accomplish self-reliance of individual through group activities Dipshikha found that group approach could not respond to develop the entire family of the group members. Ullah and Routray (2003) revealed in their book "NGOs and Development Alleviating Rural poverty in Bangladesh" that today the group based approach seems to limit the magnitude of contribution of the NGO programs has to improve poverty situation. Dipshikha experienced that the whole system is now working on the basis of individual liabilities. Based on field experiences, Dipshikha has established a new approach in 2002 called Family Development Approach (FDA) to progress the livelihood of poor families more intensively and Scientifically Dipshikha thinks that all grown up efficient family members should take part in economic and social development of the family. In FDA, the member families prepare their five years development plan on the basis of their problems, resources and opportunities. Dipshikha make easy for family members to attain their development plan. Moreover, this plan helps the member families to use the support from Dipshikha effectively by fitting person from the family. All members of the family are brought as stakeholders of the development initiatives in this approach. In this system Dipshikha provides loan to their beneficiaries for income generation activities when the individual family able to contribute minimum 20% of the total cost of the proposed activities. Besides, Dipshika make easier to its family members to repay their loan after getting income from that of specific activities.

In this research, the researcher tried to ascertain the extent of effectiveness of development activities initiated by Dipshikha. The findings of the present study may provide valuable direction for the researchers, planners, policy makers and

other Government and Non-Government Organizations for future study and program development for the uplifting of respondents under Dipshikha.

1.2 Statement of the Problem

It was earlier stated that Dipshikha is an NGO which mostly works with resource poor people, the disadvantaged class of rural society especially in the northern part of Bangladesh. A substantial proportion of such people constitute the main target family of Dipshikha activities. In this regard, the study aimed to find out the answer of the following questions:

- What are the effectiveness of Dipshikha activities through FDA and GBA in relation to housing condition, drinking water sources, sanitation condition, receiving medical treatment, health awareness and family assets?
- What are the characteristics of the beneficiaries, who are associated with dipshikha under FDA and GBA?
- What are the contribution of the selected characteristics of the beneficiaries on their extent of effectiveness of Dipshikha activities regarding i) FDA ii) GBA and iii) total of both approaches?

Thus in view of the foregoing discussion, the researcher under look a piece of study entitled as **"Comparative Effectiveness of Family Development Approach and Group Based Approach of Dipshikha Activities".**

1.3 Specific Objectives

- To determine and compare the extent of effectiveness of Family Development Approach and Group Based Approach of Dipshikha activities
- To determine and describe following selected characteristics of Dipshikha beneficiaries
    - Age
    - Level of education
    - Family size
    - Effective farm size
    - Annual family income
    - Family savings
    - Involvement with Dipshikha
    - Credit received
    - Credit repayment behavior
    - Training exposure
    - Attitude towards Dipshikha

- To explore the contribution of the selected characteristics of Dipshikha beneficiaries with the extent of effectiveness of Dipshikha activities regarding i) FDA, ii) GBA and iii) total of both approaches

1.4 Assumption of the Study

An assumption has been defined as the supposition that an apparent fact or principle is true in the light of the available evidences (Good and Hatt, 1952).The following assumptions keeping in mind while undertaking this study.

- The beneficiaries included in the sample were representative part of the population of Dipshikha beneficiaries under family development approach and group based approach in the chosen study areas
- The responses furnished by the respondents were legal and authentic.
- The researcher who acted as interviewer was well-suited to the social environment of the study area. The data collection from the beneficiaries was free from any bias.
- The respondents involved with Dipshikha in both FDA and GBA were able to furnishing proper responses to the questions containd in the interview schedule.
- The selected characteristics of the beneficiaries and effectiveness of Dipshikha activities through FDA and GBA of this study were usually and independently distributed with their respective means and standard deviation.

1.5 Scope and Limitation of the Study

The present study was undertaken to have an understanding about the extent of effectiveness of Dipshikha activities in different development activities through FDA and GBA. Considering the time, money and other necessary capital available to the researcher and to make the study convenient and important from the practical point of view, it has certain limitations that are cited below:

- The study area was confined to Ghoraghat upazila of Dinajpur District.

- There were many poor families in the study areas, but only the rural families who are involved with Dipshikha activities through FDA and GBA were considered for this study.
- Characteristics of the rural women were many and varied, but only 11 characteristics for each approach were selected for exploration in this study.
- The respondents were both male and female. Some initial problems were faced while interviewing the female respondents due to social barriers. However, this problem was later overcome with the assistances of Dipshikha field workers.
- There were different dimensions to assess the extent of effectiveness of Dipshikha activities for the approaches but only six dimensions were chosen for conducting this study.
- Most of the beneficiaries have a lower level of literacy which created difficult to get accurate information as they do not keep written documents in respect to production, income or expenditures.

1.6 Definition of Different Terms

For the purpose of clarity, certain terms were used throughout the manuscript are defined and explained as follows:

Dipshikha is one of the renowned non-governmental organizations emerged in 1984 with a view to reduce poverty, establish a peaceful and just society in the rural area through various activities like agriculture, education for children, health services, different income generating education and training as well as credit services for the poor people. Awareness development on different health and social issues is one of the vital activities of Dipshikha. It mostly works in the northern part of Bangladesh.

Family Development Approach (FDA) is a process of empowering people through involvement of all the members of a family in development process by setting up a five years development plan in order to establish peace, justice and poverty free living condition in the society.

Group Based Approach (GBA) is a development process where the NGOs organize the poor people specially the women into small groups at the village level for carry out their development activities in order to reduce poverty. Dipshikha initiated their work through group based approach.

Involvement with Dipshikha referred to how long a respondent is associated with Dipshikha activities. It was measured by the period of time from his or her joining Dipshikha to the time of interview and expressed in terms of years on the basis of record available.

Respondents referred to the people who involved with Dipshikha either in family development approach and group based approach as a stakeholder and provide family information to the researcher as well as included in the sample.

Age of a respondent defined as the span of his/her life and is measured by the number of years from his/her birth to the time of interviewing.

Educational qualification referred to the development of desirable knowledge, skill and attitude in an individual through the experience of reading, writing, observation and relative activities. It measured by successful year of schooling.

Family size referred to actual number of permanent members in a subject's family who live in a fixed dwelling unit and eat from the same cooking arrangement.

Effective farm size means the total area of land on which a farmer's family carries on farming operations in terms of full benefit to the family.

Annual family income referred to the total annual earnings of all the family members of a respondent from agriculture, livestock and fisheries and other accessible resources.

Family savings referred to the total amount of money, which is accumulated by the members of the family to carry out some activities either in a productive form or in a non –productive form to face the crisis. Savings of the respondent was expressed in terms of thousand taka deposited in mud pot, bamboo pot, Dipshikha or in any other bank or NGOs by the respondents and his or her family members.

Credit received of a respondent referred to the amount money received by his/her as loan from Dipshikha under its specified terms and conditions. It was expressed in thousand taka.

Credit repayment behavior referred to the refund of credit installment to Dipshikha by the beneficiaries under FDA and GBA within the predetermined time.

Training exposure referred to the attending different workshops, campaigning, different development activities any other member from her family organized by Dipshikha or any other organization.

Attitude towards Dipshikha of an individual is used to refer to her beliefs, feelings and action tendencies towards the various aspects of Dipshikha.

Effectiveness means the usefulness or efficiency for the specific initiatives with viewing to specific objectives. It may be defined as the degree to which a group or social system achieves its goal (Scharmerhorn*et al.* 1988). Effectiveness may be defined as the degree to usefulness of socio-economic development program emphasizing on activities. It was measured by the change of selected six dimensions such as housing condition, drinking water sources, sanitation condition, health awareness, treatment behavior and family assets.

Housing condition referred to the number of houses possessed by the family and the materials which is used for construction.

Drinking water sources referred to the means from where the family find water supply for drinking

Sanitation condition referred to those activities through which people as well as her family members keep themselves healthy by using different type of toilet.

Health awereness referred to the conciousness of Dipshikha beneficiaries on different preventive health care in relation with nutrition for children and pregnant mother, personal hygiene, immunization of children etc.

Medical treatment referred to those activities through which people as well as his family members taken treatment from doctor and keep themselves healthy.

Family assets referred to the no of assets possessed by the family and expressed in thousand taka.

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this Chapter is to review literature having significance to the present study. The study is concerned with the comparative effectiveness of FDA and GBA of Dipshikha activities and related matters. Literature and research work in line with the present study were searched in the relevant libraries, research institutions and websites (Internet). Therefore, an attempt has been made in the present chapter to review some related literature in this aspect. The interlinked reviews conveniently presented on the major objectives of the study as far possible. However, the literatures of available studies have been briefly discussed in this chapter under three sections. The concepts of NGOs activities on various aspects by the target beneficiaries have been discussed in first section. The second section deals with the relationship between the selected characteristics of the beneficiaries with the extent of effectiveness of NGOs activities. The conceptual frame work of this study has been discussed in the third section.

2.1 Concept of NGOs Activities

NGOs organized the poor people into small groups at the village level, arranged adult literacy programs, provide necessary training and arranged regular discussion on different social issues. The NGOs are known worldwide for their innovative approaches. Many successful models in poverty reduction, micro finance, non-formal education and primary health care are developed by different NGOs.

Alam (1990) attempted to evaluate the performance of some Govt. and Non-Govt. organization like RDRS, GB, BRAC, Prosikha and BRDB. The findings concluded that both NGOs and GOs has substantial positive impact to increase income and reduce poverty. Annual income inequality of the poorest section of the rural people. Those organizations made significant positive impact on

education, health, sanitation, family planning and nutritional status of the group members. Both GOs/ NGOs were found to have been successful in developing the skills, economic capabilities, income and productive employment of poor rural women. It concluded that both target oriented NGOs and growth oriented GOs were important for the overall development of the rural society.

Rahman and Khandakar (1995) carried out a study on impact of NGOs activities in respect of employment and income especially for women. The findings indicated that credit program of BRAC, BRDB and GB had been successful in expanding self-employment opportunities among rural women.

Ahmed (2003) conducted in his study that the impact of micro credit has been very positive. The main benefits of micro credit enumerated as follows: (a) has increased family income and quality of life, and as own-represent 90 percent of the borrowers, their contribution is noteworthy; (b) it has promoted savings among poor women borrowers; (c) it has raised awareness and empowered women to various socio economic activities; and (d) it has motivated women to take an active role of political sphere of Bangladesh.

Khan (2006) observed that the income, food consumption, assets, housing condition, use of sanitary latrine and own tube well for drinking water increased significantly after involvement with Grameen Bank micro credit program.

2.2 Relationship between the Selected Characteristics of the Beneficiaries with the Effectiveness of NGOs Activities

2.2.1 Age and Effects of Activities

Begum (1998) in her study concluded that the age of the rural women had no significant relationship with their poverty reduction in ASA activities.

Naher (2000) in her study showed that there was no significant relationship between age and participation in homestead vegetable cultivation, post harvest

practices, poultry raising and goat rearing, while the activities in vegetable cultivation were mostly participated by the younger houses wives.

Samad (2004) concluded that the age of the rural women had no significant relationship with their poverty reduction activities.

Khan (2006) in his study showed that "Impact of Dipshikha Rural Development Activities as Perceived by the Participating Women" that age of the respondents under Dipshikha had no significant relationship with their impact of participation of Dipshikha rural Development activities.

Khan (2006_a) reported in his study that the age of the rural women of Grameen Bank had significant relationship with the impact of Grameen Bank micro credit program.

Khan (2006_b) reported in his study that age of the respondents under dipshikha had no significant relationship with their impact of participation of Dipshikha rural development activities.

Islam (2007) in his study found that the age of the respondents had no contribution to the effectiveness of FDA and GBA.

Hoque (2008) reported that age of the respondents had no significant relationship with the impact of ASA micro-credit program.

Shiraj (2009) in his study found that age of the respondents had not any significant relationship with the impact of TMSS micro-credit program.

Azam (2010) concluded that age of the respondents were significantly related with the effect of GB micro-credit program.

2.2.2 Level of Education and Effects of Activities

Kaur (1998) concluded that education influenced the opinion of the women about the project activity adoption of vegetable gardening, animal husbandry etc.

Begum (1998) in her study on ''Poverty Alleviation of the Rural Women Organized by Association of Social Advancement" showed that education of the rural women had a positive significant relationship with their poverty alleviation owing to participation in ASA activities.

Rahman (2005) stated in his study on "Role of an NGO intervention on poverty alleviation in a selected area of Dinajpur district" an insignificant relationship between education of the rural women and their changes in income but found a significant positive relationship with their changes in food consumption and housing environment.

Islam (2007) concluded that education of the respondents had no contribution to the effectiveness of FDA and GBA.

Hoque (2008) revealed that education of the respondents had significantly relationship with the impact of ASA micro-credit programme.

Shiraj (2009) in his study found that education of the respondents had not any significant relationship with the impact of TMSS micro-credit program.

Azam (2010) concluded that education of the respondents were significantly related with the effect of GB micro-credit program.

2.2.3 Family size and Effects of Activities

Akanda (1994) in his study concluded that family size of the rural women had significant positive relationship with the cultivation of fruit trees.

Islam (2002) found that the number of family members of the respondents had positive significant relationship with their poverty reduction.

Khan (2006) revealed that family size had no significant relationship with the impact of Grameen Bank micro credit program.

Islam (2007) in his study found that family size of the respondents had negative contribution to the effectiveness of FDA of Dipshikha.

Hoque (2008) revealed that the family size of the respondents had significantly relationship with the impact of ASA micro-credit.

Shiraj (2009) found that family size of the respondents had no significant relationship with the impact of TMSS micro-credit programme.

Azam (2010) revealed that family size did not show any significant relationship with the effect of GB micro-credit programme.

2.2.4 Effective Farm Size and Effects of Activities

Basak (1997) observed that homestead size of the rural women under BRAC had a significant relationship with their impact of participation in BRAC rural development activities.

Begume (1998) in her study found that homestead size of the rural women had no significant relation with their poverty reduction due to their participation in ASA development activities.

Sarkar (2002) found a positive significant relationship between farm size of the RDRS beneficiaries and their changes in food consumption in Integrated Aquaculture Development Project, RDRS.

Samad (2004) found that the farm size of the respondents had positive significant relationship with their poverty reduction.

Rahman (2007) the findings revealed that farm size of the respondents had positive significant relationship with their participation in overall Dipshikha activities.

Hoque (2008) revealed that farm size of the respondents had significantly relationship with the impact of ASA micro-credit.

Shiraj (2009) found that farm size of the respondents had positive significant relationship with the impact of TMSS micro-credit programme.

Azam (2010) revealed that farm size did not show any significant relationship with the effect of GB micro-credit program.

2.2.5 Annual family income and Effects of Activities

Khandker et al. (1995) revealed that family income of the rural women had positive significant influence on their improvements of household materials well being.

Khan (2006) observed that the annual income of the respondents under Dipshikha had significant positive relationship with their impact of participation in Dipshikha rural development activities.

Islam (2007) in his study revealed that family annual income of the respondents had positive contribution to the extent of Effectiveness of GBA of Dipshikha.

Shiraj (2009) found that family annual income of the respondents had positive significant relationship with the impact of TMSS micro-credit programme.

Azam (2010) concluded that annual income of the respondents were significantly related with the effect of GB micro-credit program.

2.2.6 Family savings and Effects of Activities

Islam (2001) observed in his study on savings of the family of the landless settlers had significant positive relationship with their poverty reduction through participating in Adrarsha Gram Project.

Ali (2003) concluded that the savings of the family of the participating women in BRAC micro credit program had significant relationship with their impact of micro credit program.

Rahman (2005) observed in his study an insignificant relationship between yearly savings of the family of the rural women and their changes in food consumption but found a significant positive relationship with their changes in income and housing environment. .

Islam (2007) in his study found that family savings of the respondents had positive contribution to the extent of Effectiveness of Dipshikha activities.

2.2.7 Involvement with Dipshikha and Effects of Activities

Alam (2001) in his study observed a significant positive relationship between length of involvement of the respondents with TMSS and their changes in health status.

Samad (2004) stated that involvement with NGO of the rural women had no significant relationship with their poverty reduction.

Rahman (2005) in his study observed a significant relationship between the duration of involvement with TMSS and their changes in food consumption and housing environment.

Khan (2006) in his study reported that involvement with Grameen Bank had no significant relationship with the impact of Grameen Bank micro credit program.

Islam (2007) in his study observed that involvement with Dipshikha had positive contribution to the extent of Effectiveness of Dipshikha activities.

Hoque (2008) revealed that involvement of the respondents had significantly relationship with the impact of ASA micro-credit.

Shiraj (2009) found that involvement of the respondents had positive significant relationship with the impact of TMSS micro-credit program.

2.2 8 Credit received and Effects of Activities

Begum (1995) in her study showed that credit availability of rural women had positive relationship with their income.

Khandker et al. (1995) stated in their study that the role of credit availability improved women's participation in economic activities.

Khan (2006) reported his study stated that credit availability of the respondents under Dipshikha had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Khan (2006) found that the credit availability of the rural women of Grameen Bank had significant positive relationship with the impact of Grameen Bank micro credit program.

Rahman (2007) the findings concluded that the credit availability of the respondents had positive significant relationship with their participation in overall Dipshikha activities.

2.2.9 Credit repayment behavior and Effects of Activities

Stiglitz (1990) observed that the loan recovery rate of micro credit programmes so high due to the group based lending introduces peer pressure and monitoring.

Besley and Coate (1995) reported in their study that group based lending creates social pressure to enforce loan contracts.

Ullah and Routray (2003) reported in their study the highest number of the respondents (23.17%) paid their installment from the principal loan since they had to start paying the installment back from next week of loan disbursement.

2.2.10 Training exposure and Effects of Activities

Samad (2004) found that the agricultural knowledge of the respondents had positive significant relationship with their poverty reduction.

Khan (2006) found his study that training received by the respondents had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Islam (2007) stated that training exposure of the respondents had no contribution to the effectiveness of both FDA and GBA.

2.2.11 Attitude towards Dipshikha and Effects of Activities

Islam (1991) reported that attitude of the farmers towards technology gether influenced their adoption.

Khan (2006) reported in his study stated that attitude of the respondents towards Dipshikha had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Hossain (2006) reported that attitude of the santal women had significant positive relationship with their participation in agricultural income generating activities.

Islam (2007) observed that attitude towards Dipshikha of the respondents had positive contribution to the extent of effectiveness of GBA of Dipshikha but had no contribution to the effectiveness of FDA of Dipshikha.

Hoque (2008) revealed that attitude of the respondents had significantly relationship with the impact of ASA micro-credit program.

Shiraj (2009) found in his study that attitude of the respondents had positive significant relationship with the impact of TMSS micro-credit program.

Azam (2010) concluded that attitude of the respondents did not show any significant relationship with the effect of GB micro-credit program.

2.3 Conceptual Framework of the Study

In scientific research, selection and measurement of variables constitute an important phenomenon. The hypothesis of the research while constructed properly contains at least two important elements i.e. dependent variable and independent variable. A dependent variable is that factor which appears, disappears or varies the independent variable (Townsend,1953). An independent variable is that factor which is manipulated by the experimenter in her attempt to ascertain relationships to an observed phenomenon. It was therefore, assumed that the effectiveness of family development approach and group based approach of Dipshikha activities might have influenced by their various characteristics and the influence may be difference in FDA and GBA. So the conceptual framework of the study was find out how the characteristics of the beneficiaries contribute to the effectiveness of FDA and GBA of Dipshikha activities. The selected characteristics were age, education, family size, effective farm size, family annual income, family savings, involvement with Dipshikha,credit received, credit repayment behavior, training exposure and attitude towards Dipshikha. Based on the above consideration the conceptual framework of the study is shown in the Figure 2.1

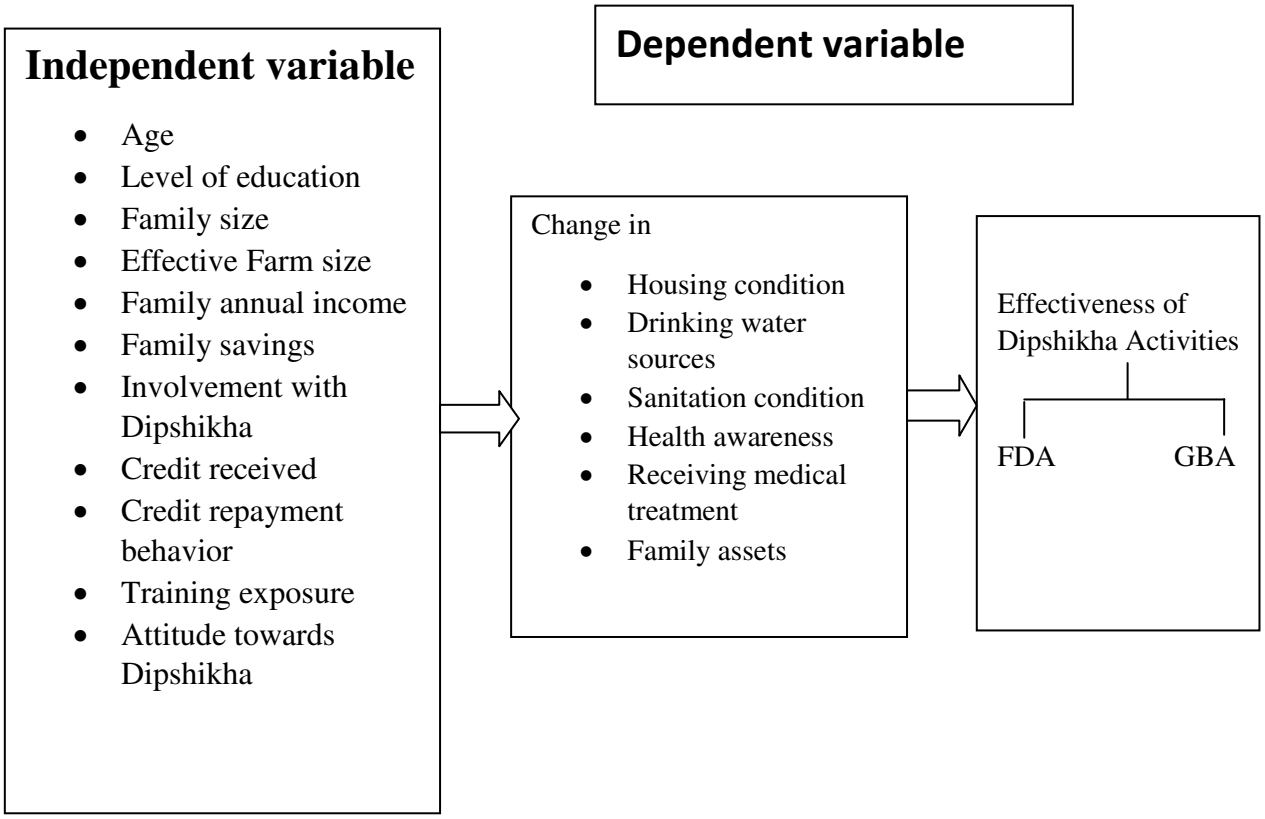

Figure 2.1 A Conceptual framework of the study

CHAPTER 3

METHODOLOGY

Methodology plays an important role in any scientific research. Appropriate methodology enables the researcher to collect valid and reliable information in order to turn up at a meaningful conclusion. This chapter delineates the locale of the study followed by source of data, the research instrument, collection of data, variables of the study, measurement of variables, categorization of data and statistical analysis. The methods and procedures followed in conducting this research work are discussed in this chapter.

3.1 Locale of the Study

The research work was conducted in Dipshikha working area of Ghoraghat upazila under Dinajpur District. For better understanding, a map of Dinajpur district and map of Ghoraghat upazilla showing the study area are presented in Fig 3.1 and 3.2 respectively.

3.2 Population and sample

A total of 1549 beneficiaries of Dipshikha were the population of the study Out of which 1010 were under FDA and 539 were under GBA .Two updated lists of the beneficiaries of FDA and GBA were collected from Dipshikha head office. Through a simple random sampling method, a representative sample population was selected. In calculating sample size from the following formula, 10% precision level, 50% degree of variability and Z=2.57 at 99% confidence level were chosen. Thus a total 135 beneficiaries were selected randomly as the sample of the study. Where 47 and 88 from each approach were finally retained as respondents of the study.

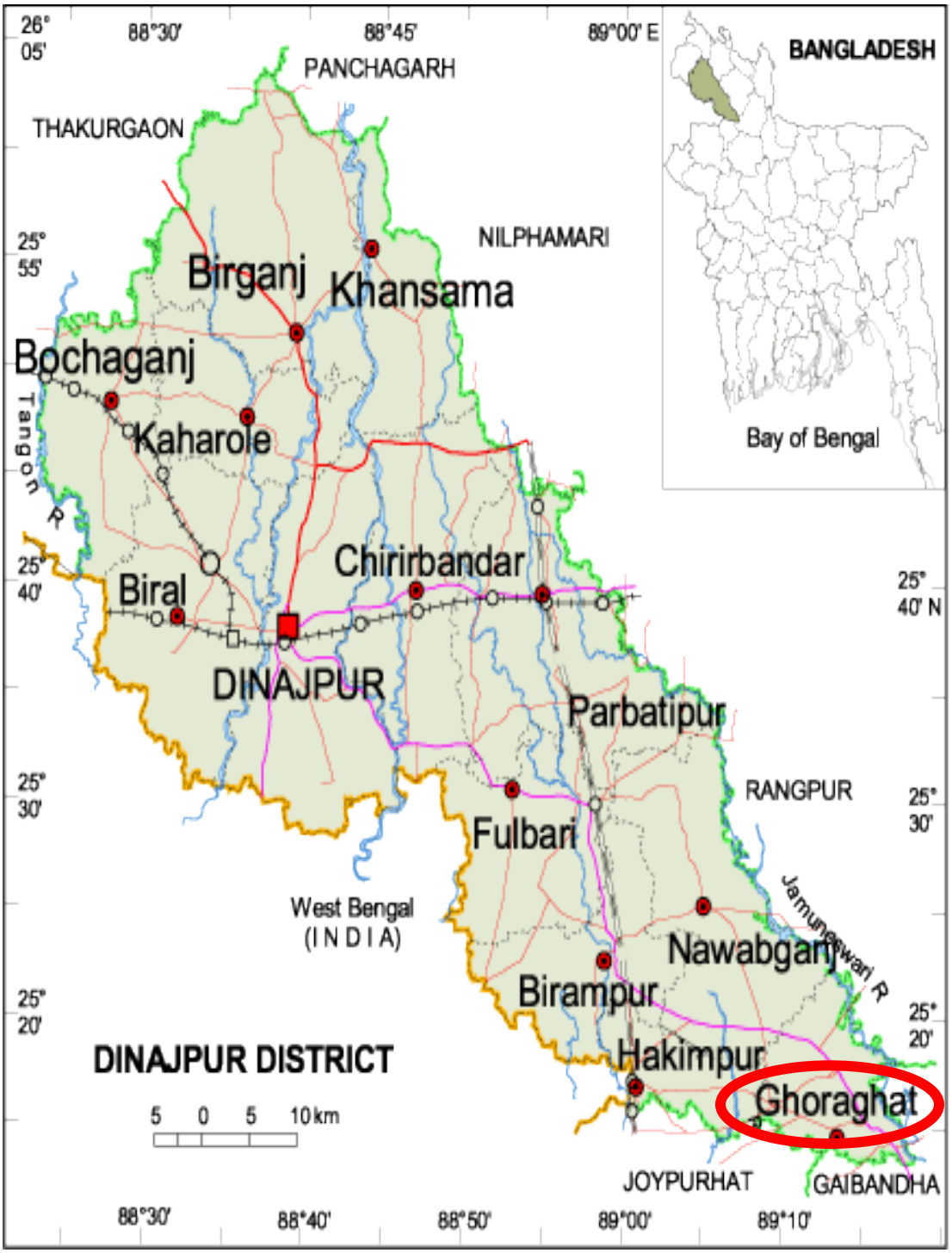

Figure 3.1 A map of Dinajpur district showing the Ghoraghat upazila

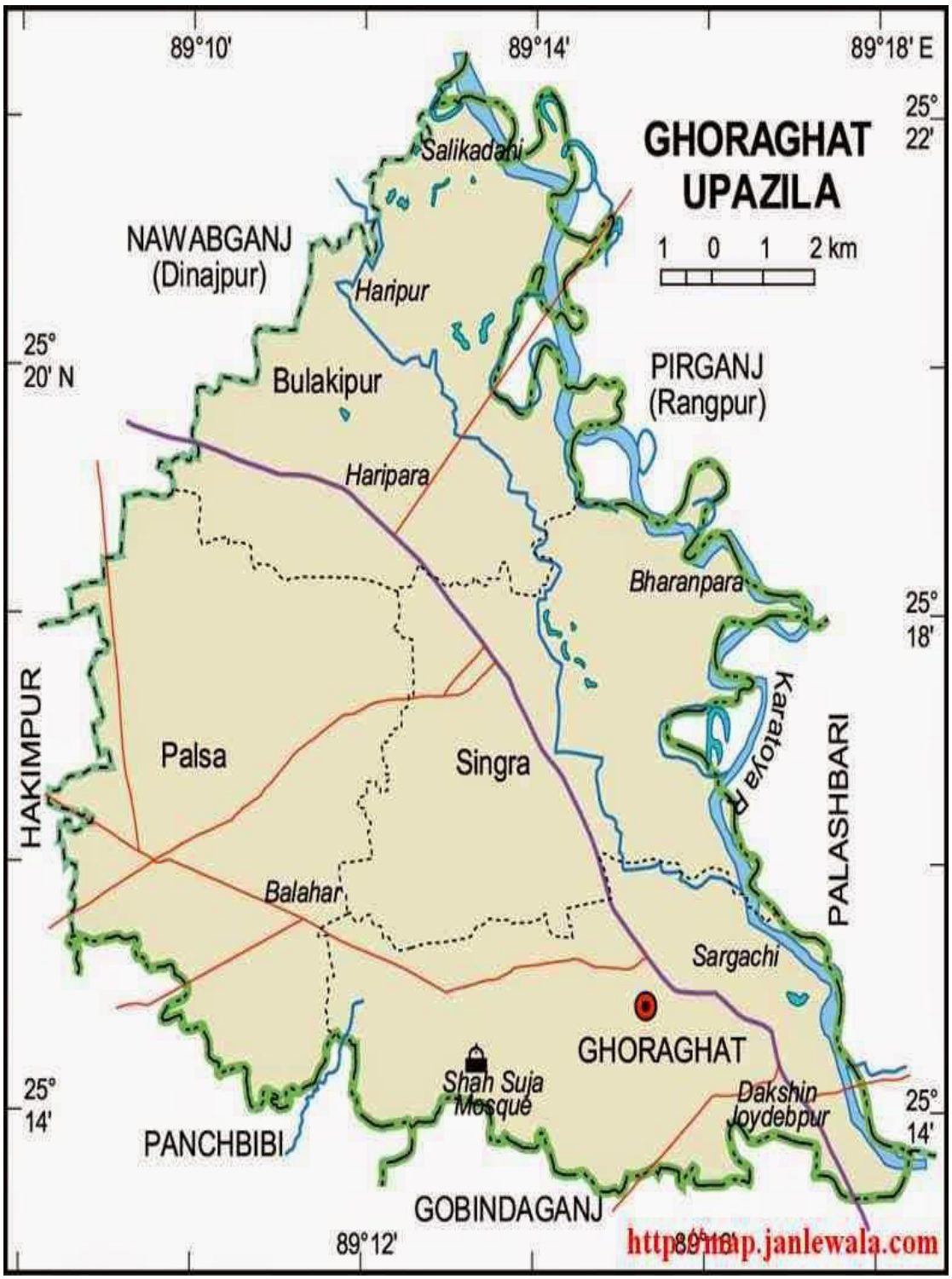

Figure 3.2 A map of Ghoraghat upazila showing the study area

According to Yamane's (1967) formula as given below:

$$n = \frac{Z^2 P(1-P)N}{Z^2 P(1-P) + Ne^2}$$

Where,

n= sample size

N= population size

e= the level of precision

z^2= the value of the standard normal variable given the chosen confidence level

p= the proportion or degree of variability

Out of this 135 beneficiaries 88 and 47 were selected from FDA and GBA respectively by proportionate random method. Fourteen (14) beneficiaries by taking 10 % of the sample of FDA and GBA were also listed in the reserve list in case of any absence of the main sample beneficiaries. The distribution of the respondents' population, sample size and reserve list of FDA and GDA are shown in the Table 3.1

Table 3.1 Distribution of the Respondents' population, sample size and reserve in FDA and GBA

Sl.No.	Area	Approach	Population	Sample size	Reserve list size
1	Ghoraghat	FDA	1010	88	9
2	Ghoraghat	GBA	539	47	5
Total		Both Approaches	1549	135	14

3.3 Data collecting instrument

In order to collect appropriate information from the respondents a draft interview schedule was prepared focusing the objective of the study. Both open and closed form questions were designed to obtain information relating in qualitative variable which was measured by assigning score. The interview schedules were pre-tested by collecting data directly from 20 beneficiaries (10 for each approach) of Dipshikha. Based on the pre-test result, necessary corrections and modifications were made for the purpose of finalization of the interview schedule. An English version of the interview schedule is presented in appendix-A.

3.4 Data collection procedure

Data were collected from the beneficiaries involved with Dipshikha activities using data collecting instrument. Questions were asked systematically and explanations were made whenever necessary. The data for pre-Dipshikha period were collected both for the FDA and GBA mainly from Base line survey documents of Dipshikha and Family Development Card of respondents while, in some cases recalling data also collected through interview schedule. A rapport was established with Dipshikha beneficiaries so that they feel comfortable to answer the questions. The researcher took all possible care to establish rapport with Dipshikha beneficiaries so that they would not feel any indecision while starting the interview. Very well cooperation was obtained from the field supervisors. No serious difficulty was faced by the researcher during the collection of data. The interviews were made individually in the houses of Dipshikha beneficiaries. Questions were asked in different ways so that the respondents could easily understand the questions. Whenever beneficiaries faced difficulty in understanding any questions, care was taken to explain the same clearly with a view to enabling him to answer it properly. Data were collected from early October to early November, 2016.

3.5 Variables of the Study

In a descriptive social research, selection and measurement of the variable is an important assignment. A variable is any characteristics which can assume varying or different values.(Ezekiel and Fox, 1959). An organized research usually contains at least two identical elements i.e. independent and dependent variable. An independent variable is a factor which is manipulated by the researcher in her attempt to ascertain its relationship to an observed phenomenon. A dependent variable is a factor, which appears, disappears or varies as the experimenter introduces, removes or varies the independent variables (Townsend, 1953). According to the consequence of the research area, the researcher selected 11 characteristics of the respondents as the independent variables (e.g. age, education, family size, annual income, farm size, involvement with Dipshikha, family savings, credit received, credit repayment behavior, training exposure, attitude towards Dipshikha. On the other hand, comparative effectiveness of FDA and GBA of Dipshikha activities was the dependent variable regarding in sub-parameter such as change in housing condition, drinking water sources, sanitation, health awareness, treatment behavior, and family assets. The following sections include procedures of measurement of dependent and independent variables of the study.

3.6 Measurement of Variables

3.6.1 Measurement of independent variables

The selected characteristics of the beneficiaries constituted the independent variables of this study. The independent variables were operationalized as follows:

3.6.1.1 Age

Age of a Dipshikha beneficiary was referred to the period of time from her birth to the time of interview. Age was measured in terms of years on the basis of her response. A score of one (1) was assigned for each year of his/her age.

3.6.1.2 Education

Education was measured on the basis of respondents' years of successful schooling in the educational institute. A score of 1 was assigned for each completed year of schooling. If a respondent had 10 years of schooling, her education score was assigned as 10. A beneficiaries who did not attend in school was given the score of 0 while, a score of 0.5 was given to a respondent who only could sign her name.

3.6.1.3 Family size

The family size of a beneficiary was referred to the total number of individuals in her family including herself, her husband, children and other dependents who jointly live and eat together during interview time. It was measured by computing total number of members in the family. A score of 1 was assigned to each member of the family.

3.6.1.4 Effective farm size

Effective farm size of the beneficiaries was measured in terms of actual operating land and it was expressed in hectare

3.6.1.5 Annual family income

The annual family income has been used to refer the total earnings of the beneficiaries and the members of her family both from agricultural and non-agricultural sources during a year. It was expressed in thousand taka.To measure this variable, the total earning in taka of a Dipshikha beneficiary was converted to a score. The method of ascertaining income from agriculture involved two phases .Firstly, the yield of all crops in the preceding year was noted. Secondly, all the yields were converted into cash income according to the prevailing market price. Income from non-agricultural sources like service, business and other sources of the beneficiaries or other members of her family were included. A score of 1 was given for every thousand taka.

3.6.1.6 Family savings

Family savings was referred to the total money which is accumulated by the members of the family to carry out some activities either in a productive form or in a non-productive form to face the crisis. Savings of a beneficiaries was measured in terms of thousand taka on the basis of her and other members of her family's total deposited in mud pot, Dipshikha or in any other bank or NGOs by the respondents and her family members. A score of 1 was given for every thousand taka.

3.6.1.7 Involvement with Dipshikha

Involvement with Dipshikha was referred to how many years of a Dipshikha beneficiary was involved with Dipshikha activities. It was measured by the period of time from her joining at Dipshikha to the time of interview and expressed in terms of years on the basis of record available in Dipshikha. A score of 1 was assigned for each year of her involvement with Dipshikha.

3.6.1.8 Credit received

Credit received of Dipshikha beneficiaries was referred to the amount of money received by her/ other members of the family as loan from Dipshikha during last year under its specified terms and conditions. It was expressed in thousand taka. To measure this variable, the total credit received by the beneficiaries was converted into score. A score of 1 was given for every thousand taka received by the beneficiaries as loan.

3.6.1.9 Credit repayment behavior

The repayment of credit was measured by the percent of number of installment repaid to Dipshikha within the pre-determined time. If a member family repaid 100% number of installment within the limited time period was referred to regular repayment and less than 100% was termed as irregular repayment. The member who failed to repay the credit money within the limited time period

was termed as defaulter. The scale for computing the score against repayment of credit of a respondent woman stated below:

1 = Irregular repayment

2 = Regular repayment

3.6.1.10 Training exposure

Training exposure is referred to participation level in training by the beneficiaries or any other member from her family participated in training offered by Dipshikha. The training exposure was measured by the total days of training received by the Dipshikha beneficiaries and any other member from the family. Then the actual number of days was taken as score to measure this variable.

3.6.1.11 Attitude towards Dipshikha

An attitude may be defined as predisposition to act towards an object in a certain manner. Attitude of a respondent towards Dipshikha was used to refer her feeling, belief, emotion and action tendency towards the various aspects of Dipshikha activities.

Likert-type attitude scale was used to measure the attitude towards Dipshikha activities. The variable was measured by constructing an attitude scale of ten statements (five positive and five negative). A statement was considered positive if it possessed an idea favourable towards Dipshikha. On the other hand, a statement was considered negative if it was unfavorable towards Dipshikha. Dipshikha beneficiaries were asked to express their opinions in the form of "strongly agree", 'agree", "no opinion", "disagree" and "strongly disagree". A score of 4 was assign to "strongly agree", 3 to 'agree' 2 to 'no opinion', 1 to 'disagree' and 0 to 'strongly disagree', if the statement was positive. A reverse scoring method was followed in case of statements considered negative. Attitude towards Dipshikha score of a respondent was measured by summing the scores obtained by her/him for all the items in the scale. The possible scores of respondents could range from 0 to 40, while

‘0’indicating highly unfavorable attitude and 40 indicating high favorable attitude towards dipshikha activities.

3.6.2 Measurement of dependent variable

Comparative effectiveness of Dipshikha activities was the dependent variables of this study. This variable was measured on the basis of the extent of change occurred in some selected dimensions of Dipshikha beneficiaries due to participation in Dipshikha activities. So, situation before involvement with Dipshikha and situation after involvement with Dipshikha in selected indicators were considered in both FDA and GBA approaches. The measurements of selected dimension were as follows:

3.6.2.1 Changes in housing condition

The housing condition referred to the nature and number of houses possessed by the family. Score was assigned in the following ways:

House with straw roof and bamboo fencing =1

House with straw roof and mud wall =2

House with tin roof with mud wall=3

House with tin roof and tin wall=4

House with tin roof and brick wall=5

This change score was determined by following formula

SCHC= HCSAID-HCSBID

Where, SCHC= Score for change in housing condition

HCSAID= Housing condition score after involvement in Dipshikha

HCSBID= Housing condition score before involvement in Dipshikha

For measuring total housing condition score of a respondent, number of each type of house multiplied by respective score and then added together.

The observed range of changes housing condition for score of the respondents was 0-3 for both approaches. The respondent beneficiaries classified into four categories according to their observed changes of housing condition score on the following way:

Categorization of respondents	Basis of categorization change (score)
No change	0
Low change	1
Medium change	2
High change	3

3.6.2.2 Changes in drinking water sources

Drinking water source referred to the means from where the family find water supply for drink. The family having own tube well was scored as 4, used others tube well was scored as 3, used pond water was scored as 2, used river water was scored as 1.The changes of drinking water sources score was measured by the increased score between pre and post Dipshikha period.

The observed score for changes in drinking water sources of the respondents 0 to 3 for both approaches. The respondent beneficiaries classified into four categories according to their observed scores of changes of drinking water sources on the following way:

Categorization of respondents	Basis of categorization change(score)
No change	0
Low change	1
Medium change	2
High change	3

3.6.2.3 Change in sanitation condition

In order to decrease water born and contaminated diseases, the sanitation condition of a family plays an important role. To measure sanitation condition scores of 4, 3, 2 and 1 were assigned to pucca latrin, ring/slab, pit, open place. The change in sanitation condition was measured by the increased of scores between pre and post Dipshikha period.

The observed score for changes in sanitation of the respondents was 0 to 3 for both approaches. The respondent beneficiaries was classified into four categories according to their observed changes of sanitation condition on the following way:

Categorization of respondents	**Basis of categorization change (score)**
No change	0
Low change	1
Medium change	2
High change	3

3.6.2.4 Change in health issues

Awareness on health issues include different items which are very related to daily life such as (i) hand washing before eating, (ii) vegetables washing before cutting (iii) Children vaccination (iv) preparation of oral saline (v) nutrition for child and (vi) nutrition for pregnant mother. (vii) using iodize salt and (viii) hand washing after toilet. The beneficiariespracticed items were changed scored as 1, for no practice it was scored as 0 on health issues was measured by the increased scores between pre and post Dipshikha period. The observed score for changes in health awareness of the respondents were 0 to 3 for both approaches. The respondent beneficiaries were classified into four categories according to their observed changes of health awareness on the following way:

Categorization of respondents	Basis of categorization change (score)
No change	0
Low change	1
Medium change	2
High change	3

3.6.2.5 Change in receiving medical treatment

Change in treatment behavior refers to the difference of the condition of treatment behavior of the respondents between before and after involvement with Dipshikha activities. In this study some items were included to determine the medical treatment of the respondents. The scores of 4,3,2,1 and 0 were assigned for taking treatment from specialist doctor, MBBS doctor, palli chikitshok, ojha and no treatment, respectively. The change in treatment behavior was measured by the increased scores between pre and post Dipshikha period.

The observed score for changes in treatment behavior for the respondents was 0 to 3, for both approaches. The respondent beneficiaries were classified into four categories according to their observed changes of treatment behavior on the following way:

Categorization of respondents	Basis of categorization change (score)
No change	0
Low change	1
Medium change	2
High change	3

3.6.2.6 Change in family assets

It refers to the difference between the condition of family assets of Dipshikha beneficiaries' household between before and after involvement with Dipshikha activities. In this study household assets were considered to determine the asset possession of the respondents. Present approximate price of the asset was multiplied by the number of asset. Then total price of the household assets were added together to obtain the family asset. A score of 1 was assigned for every one thousand taka.

The observed score for changes in family assets of the respondents was 0 to 14, for both approaches. The respondent beneficiaries were classified into four categories according to their changes of family assets on the following way:

Categorization of respondents	**Basis of categorization change (score)**
No change	0
Low change	1-4
Medium change	5-1
High change	>10

3.6.2.7 Effectiveness of Dipshikha activities

The changes occurred by the intervention of Dipshikha was determined by summing the changed scores for all the six selected dimensions which was considered as the effectiveness of Dipshikha activities. Thus the possible range of the scores of effectiveness of Dipshikha activities was 0 to 18, where zero (0) indicated "no change" and 18 indicated "highest change.The respondents were classified into three categories to their effectiveness of Dipshikha activities on the following way:

Categorization of respondents	Basis of categorization (score)
Low effectiveness	up to 6
Medium effectiveness	7-12
High effectiveness	13-18

3.7 Hypothesis of the Study

According to Kerlinger (1973), a hypothesis is a conjectural statement of the relation between two or more variables. Hypothesis are always in declarative sentence form and they are related, either generally or specifically, from variables to variables. In broad sense hypotheses are divided into two categories: (a) research hypothesis and (b) null hypothesis.

3.7.1 Research hypothesis

Based on review of literature and development of conceptual framework, the following research hypothesis was formulated:

Each of the 11 selected characteristics, (age, education, family size, effective farm size, annual family income, involvement with Dipshikha, family savings, credit received, credit repayment behavior, training exposure, and attitude towards Dipshikha) of the beneficiaries were related to effectiveness of Dipshikha activities.

3.7.2. Null hypothesis

The following null hypothesis was formulated to explore the contribution of the selected characteristics. Hence, in order to conduct tests, the earlier research hypothesis was converted into null form as follows:

- There is no contribution of each of the selected 11 characteristics (age, education, family size, effective farm size, annual family income, involvement with Dipshikha, family savings, credit received, credit repayment behavior, training exposure, and attitude towards Dipshikha) of the beneficiaries to the effectiveness FDA of Dipshikha activities.

- There is no contribution of each of the selected 11 characteristics (age, education, family size, farm size, annual family income, involvement with Dipshikha family savings, credit received, credit repayment behavior, training exposure and attitude towards Dipshikha) of the beneficiaries to the effectiveness of GBA of Dipshikha activities**.**

- There is no difference between the effectiveness of Dipshikha activities between FDA and GBA. In relation with situation before involvement and after involvement with Dipshikha in both approaches in relation with (i) housing condition (ii) drinking water sources (iii) sanitation conditions (iv) health awareness (v) receiving medical treatment and (vi) family assets and overall

3.8 Data Processing and Analysis

3.8.1 Compilation of data

The collected data were compiled, tabulated and analyzed in accordance with the objectives of the study. To facilitate tabulation, the responses of Dipshikha beneficiaries to the questions in the interview schedule were transferred to a master sheet. Tabulation and cross tabulation were done on the basis of categories developed by the researcher herself.

3.8.2 Categorization of respondents

For describing the various independent and dependent variables the respondents were classified into various categories. In developing categories the researcher was guided by the nature of data and general consideration

prevailing in the social system. The procedures have been discussed while describing the variable in the subsequent sections of next chapter.

3.9 Statistical Technique

Data collected from the respondents were analyzed and interpreted in accordance with the objectives of the study. The analysis of data was performed using statistical treatment with SPSS (Statistical Package for Social Sciences) computer program, version 20. Statistical measures. Such as number, range, mean, standard deviations were used in describing the variables whenever appropriate. In order to estimate the contribution of the selected characteristics of Dipshikha beneficiaries with the extent of effectiveness of Dipshikha activities, full model regression analysis (b) analysis was used. Throughout the study, five percent (0.05) level of significance was used as the basis for rejecting any null hypothesis. To test the comparative effectiveness between FDA and GBA, simple t-test was used.

CHAPETR 4

RESULTE AND DISCUSSION

This Chapter has been designed to describe and discuss the findings of the study. In accordance with the objectives, the result and discussion are presented in three sections. In first section, the selected 11 characteristics of the respondents of Dipshikha beneficiaries under FDA and GBA are discussed. The extent of effectiveness of Dipshikha FDA and GBA are presented in second section. The third section deals with the contribution of selected characteristics of Dipshikha beneficiaries to the extent of effectiveness of i)FDA ii) GBA iii) total of FDA and GBA activities are discussed.

4.1 Selected Characteristics of Dipshikha Beneficiaries

The purpose of this section is to understand the 11 selected characteristics of the respondents under both approaches. A brief summary of the measuring unit and basic statistics of the selected characteristics of the respondents are presented in Table 4.1.

Table 4.1 Selected Characteristics of the Dipshikha Beneficiaries

Sl. No	Characteristics	Units of measurement	Ranges			Mean		SD	
			Possible	Observed					
				FDA	GBA	FDA	GBA	FDA	GBA
1.	Age	No of years	Unknown	28-60	35-60	40.92	44.43	8.78	6.15
2.	Education	Year of schooling	Unknown	0-10	0-9	4.43	3.83	2.37	2.73
3.	Family size	No. of members	Unknown	2-9	3-8	5.31	5.28	1.45	1.21
4.	Effective farm size	Hectare	Unknown	0.02-1.01	0.02-1.01	0.34	0.37	0.27	0.30
5.	Annual Family income	'000'Taka	Unknown	50-150	50-150	99.54	100.21	32.51	36.66
6.	Family Savings	'000'Taka	Unknown	7-30	7-30	14.67	14.95	5.36	5.50
7.	Involvement with Dipshikha	Year	Unknown	3-9	16-19	5.67	17.40	1.45	1.51
8.	Credit received	'000'Taka	Unknown	11-52	12-49	24.62	23.83	10.56	10.62
9.	Credit repayment behavior	Score	1-2	1-2	1-2	1.90	1.60	0.28	0.50
10.	Training exposure	No. of days	Unknown	0-25	1-35	8.63	11.94	7.66	9.34
11.	Attitude towards Dipshikha	Score	0-40	16-39	14-35	24.97	29.80	6.85	7.17

4.1.1 Age

The age of the Dipshikha beneficiaries ranged from 28 to 60 years with a mean of 40.92 years and the standard deviation of 8.78 in FDA while, the age ranged from 35 to 60 years with an average of 44.43 years and the standard deviation of 6.15 in GBA. On the basis of age, Dipshikha beneficiaries were classified into three categories as shown in Table 4.2

Table 4.2 Distribution of the respondents according to their age

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Young aged (≤35)	32	36.4	5	10.6	37	27.4
Middle aged (36-50)	42	47.7	36	76.6	78	57.8
Old aged (>50)	14	15.9	6	12.8	20	14.8
Total	88	100	47	100	135	100

The table 4.2 concluded that in case of FDA the highest proportion i.e. 47.7 percent beneficiaries were middle age compared to 36.4 percent were young aged and 15.9 percent were old aged. On the other hand in case of GBA the majority proportion (76.6%) of the respondents were middle age compared to 10.6 % young aged and 12.8% old aged respectively.

In total of FDA and GBA, the majority proportion (57.8 %) of the beneficiaries were middle age compared 27.4 % young aged and 14.8% old aged. It could be observed that comparative to other categories, middle aged were high involved with Dipshikha intervention. In fact, the middle aged person needs to explore income generation avenues to put up their socio -economic and social lives. To speak the truth, Dipshikha provides training, education and loan to support them involve in income generation activities.

4.1.2 Level of Education

The level of education of the beneficiaries ranged from 0 to 10 and 0 to 9 for FDA and GBA respectively. The average education level was 4.43 with standard deviation of 2.37 in FDA and the average was 3.83 with standard deviation of 2.73 in GBA. Based on the level of education the respondents were classified into four categories

Table 4.3 Distribution of the respondents according to their education

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Illiterate (0)	2	1.1	6	12.8	8	5.9
Can sign only (0.5)	8	4.5	7	14.9	15	11.1
Primary level (1-5)	46	65.9	17	36.1	63	46.7
Secondary level (6-10)	32	28.4	17	36.2	49	36.3
Total	88	100	47	100	135	100

From the Table 4.3, out of total beneficiaries of Dipshikha under FDA, largest proportion (65.4%) had primary level of education while 1.1 percent were illiterate, 4 .5 percent could sign their name only and 28.4 percent completed secondary level of education. On the other hand, in GBA, the majority proportion (48.9%) of the respondents had primary level of education compared to 12.8 percent of the total respondents were illiterate, 14.9 percent could sign their name only and 36.2 percent had completed secondary level of education.

In total of FDA and GBA, the majority proportion (46.7%) had completed primary level of education compared to 5.9 % were illiterate, 11.1% could sign their name only 36.3 % had completed secondary level of education. From the

Table 4.3, it was observed that both the respondent groups had almost primary level of education. Conclusion could be drawn that Dipshikha works its member-society with the people who had low education, low economic support.

4.1.3 Family size

From the Table 4.4 in FDA the number of family members of the beneficiaries ranged from 2 to 9 with an average of 5.31 and a standard deviation of 1.45. In GBA, The number of family members ranged from 3 to 8 with an average of 5.28 and standard deviation of 1.21. On the basis of family size, the respondents of both the approaches were classified into three categories as small, medium and large family.

Table 4.4 Distribution of the respondents according to their family size

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Small (≤ 4)	31	35.2	15	31.9	46	34.4
Medium (5-6)	39	44.3	24	51.1	63	46.3
Large (>6)	18	20.5	8	17.0	26	19.3
Total	88	100	47	100	135	100

Table 4.4 shows that the majority proportion (44.3% and 51.1) of the beneficiaries in both approaches felt under medium family category. In FDA, 35.2 percent and 20.5 percent had small family size and large family size respectively. In GBA, 31.1 % had small size and 17.0 % had large family.

In total of FDA and GBA the highest proportion (46.3%) of the beneficiaries were felt under medium family category compared to 34.4% and 19.3% had small size and large size category respectively. Conclusion could be strained that Dipshikha work its member-society with the people who had medium family members.

4.1.4 Effective farm size

The farm size of Dipshikha beneficiaries ranged from 0 .02 to 1.00 ha under both approaches. In FDA the average farm size was 0.34 hectare with a standard deviation of 0.27 and the average was 0.37 hectare for GBA with a standard deviation of 0.30. Based on farm size, the respondents were classified into two categories as shown in Table 4.5.

Table 4.5 Distribution of the respondents according to their effective farm size

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Marginal (0.02-0.2)	26	29.5	16	34.0	42	31.1
Small (0.21-1.0)	62	70.5	31	66	93	68.9
Total	88	100	47	100	135	100

Table 4.5 shows that majority (70.5%) of the respondents of FDA belonged to small farm size category while 29.5% of the respondents had marginal farm size. In GBA, the majority proportion (66%) of the beneficiaries belonged to small farm size category while 34.0% had marginal farm size.

In total of FDA and GBA, The majority proportion (68.9%) of the beneficiaries were felt under small farm size category compared to 31.1% had marginal farm size which indicates that Dipshikha is working with the people who possessed small farm size.

4.1.5 Annual family income

In FDA, annual income of the Dipshikha beneficiaries ranged from Tk. 50 to Tk. 150 thousand taka with an average of 99.54 and a standard deviation of 32.51. On the other hand, annual income of the beneficiaries ranged from Tk. 50 to 150 thousand taka with an average of 100.21 and a standard deviation of

36.66 for GBA. Based on annual income Dipshikha beneficiaries were classified into three categories (Table 4.6).

Table 4.6 Distribution of the respondents according to their annual family income

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Very Low (Mean-1sd,i.e.<66)	17	19.3	12	25.5	29	21.5
Low (Mean±1sd,i.e, 67-133)	51	58.0	20	42.6	71	52.6
Medium (Mean+1sd,i.e.>133)	20	22.7	15	31.9	35	25.9
Total	88	100	47	100	135	100

Table 4.6 shows that the majority proportion (58.0%) of the beneficiaries had low income whereas very low and medium income family were 19.3 percent and 22.7 percent respectively for FDA. In GBA, the highest proportion (42.6%) of the beneficiaries had low income family followed by very low and medium income family were 25.5 and 31.9 percent, respectively.

In total of FDA and GBA, the highest proportion (52.6%) of the beneficiaries were low family income category compared to very low (21.5%) and (25.9%) medium family income (25.9%) category. Conclusion could be drawn that Dipshikha works with family member who had low income.

4.1.6 Family savings

The savings accumulation of the Dipshikha beneficiaries ranged from 7 to 30 thousand taka and for both FDA and GBA respectively. In FDA, the average savings accumulation was 14.67 thousand with a standard deviation of 5.36 and for GBA the mean and standard deviation were 14.95 and 5.50 respectively.

Based on savings, the beneficiaries were classified into three categories as shown in Table 4.8.

Table 4.7 Distribution of the respondents according to their family savings

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Low (<Mean-1sd,i.e.< 9)	13	14.8	11	23.4	24	17.8
Medium (Mean±1sd,i.e.10-20)	61	69.3	25	53.2	86	63.7
large(>Mean+1sd,i.e.) >20)	14	15.9	11	23.4	25	18.5
Total	88	100	47	100	135	100

Table 4.7 shows that the beneficiaries of FDA and GBA had savings ranged from small to large savings. However, it was encouraged that 69.3 percent respondents of FDA and 53.2 percent respondents of GBA had medium savings, whereas low and high savings categories of respondents for FDA were 14.8 and 15.9 percent respectively. For GBA the highest proportion of the beneficiaries (63.7 percent) had medium savings, while each of low and high savings were 23.4 percent.

In total of FDA and GBA the highest proportion (63.7%) of the beneficiaries had medium savings, followed by 17.8% had low savings and 18.5% had high savings. Generally the poor people live hand to mouth. They had no savings tendency.

4.1.7 Involvement with Dipshikha

The involvement with Dipshikha of the beneficiaries ranged from 3 to 9 years and 16 to 19 years for FDA and GBA, respectively. In FDA, the average involvement with Dipshikha was 5.67 years with a standard deviation of 1.45 and the average was 17.40 years with a standard deviation of 1.51 for

GBA.Based on involvement with Dipshikha beneficiaries were classified into three categories.

Table 4.8 Distribution of the respondents according to their involvement with Dipshikha

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Short-term (< Mean-1sd,i.e, < 4)	15	17.0	0	0	15	11.1
Medium term (Mean±1sd,i.e, 5-7)	61	69.3	0	0	61	45.2
Long-term (>Mean+1sd,i.e, >7)	12	13.6	47	100.0	59	43.7
Total	88	100	47	100	135	100

Table 4.8 showed that the majority proportion i.e, 69.3 percent of the respondents under FDA had medium involvement with Dipshikha while 17 percent and 13.6 percent of the respondent had short-term and long-term involvement. On the other hand, about 100 percent of the respondents had long-term involvement compared to other category under GBA of Dipshikha activities.

In total of FDA and GBA, the largest proportion (45.2%) of the beneficiaries had long-term involvement with Dipshikha compared to 11.1% short-term involvement and 43.7% medium involvement. As the FDA was a new approach, the involvement with Dipshikha of the beneficiaries had low. On the other hand, as the GBA is an old approach almost all the respondents belonged to high involvement category.

4.1.8 Credit received

The credit received of the respondents ranged from 11 to 52 thousand taka and 12 to 49 thousand taka FDA and GBA respectively. The average was being 24.62 and 23.83 with a standard deviation 10.56 and 10.62 for FDA and GBA,

respectively. Based on credit received, the beneficiaries were classified into three categories as shown in table 4.9.

Table 4.9 Distribution of the respondents according to their credit received

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Low (< Mean-1sd,i.e, <14)	11	12.5	6	12.8	17	12.6
Medium (Mean±1sd,i.e,15-34)	62	70.5	33	70.2	95	70.4
High (Mean+1sd,i.e,>34)	15	17.0	8	17.0	23	17.0
Total	88	100.0	47	100.0	135	100.0

Computed data shows that majority proportion (70.5%) of the beneficiaries of FDA were medium credit receiver while 12.5% and 17.0% were low and high credit receiver respectively. On the other hand, in GBA the majority proportion i.e,70.2 percent of the respondents belonged to the medium credit receiver whereas 17% high credit receiver and 12.8 % small credit receiver.

In total of FDA and GBA, the largest proportion (70.4%) of the beneficiaries were medium credit receiver compared to 12.6 % low and 23% high credit receiver. Data pointed that majority of the respondents from FDA and GBA had received more or less the same credit.

4.1.9 Credit repayment behavior

The credit repayment scores of the beneficiaries ranged from 1 to 2 for both FDA and GBA. In FDA, the average credit repayment score was 1.90 with a standard deviation of 0.28 and the average was 1.60 with a standard deviation of 0.50 for GBA. Based on credit repayment, the respondents were classified into two categories as shown in table 4.10.

Table 4.10 Distribution of the respondents according to their credit repayment behavior

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Frequency	Percent
Irregular (1)	8	9.1	19	40.4	27	20.0
Regular (2)	80	90.9	28	59.6	108	80.0
Total	88	100	47	100	135	100

Table 4.10 shows that majority of the respondents (90.9 percent) of FDA repaid their credit regularly while 9.1 percent were irregular. On the other hand 59.6 percent were regular in credit repayment and 40.4 percent of the respondents were irregular in credit repayment for GBA. None of them were defaulter in both approaches.

In total of FDA and GBA, the highest proportion (80%) of the beneficiaries repaid their credit regularly while 20 % repaid their credit irregularly and none of them were defaulter. Conclusion could be drawn that the beneficiaries repaid their credit regularly due to Dipshikha intervention.

4.1.10 Training exposure

Training exposure of Dipshikha beneficiaries in FDA score ranged from 0 to 25 with an average of 8.63 and standard deviation of 7.66. The training exposure ranged from 1 to 38 with an average of 13.57 and standard deviation of 11.47 for GBA. Based on training exposure, the respondents of both the approaches were classified into four categories as shown in Table 4.11.

Table 4.11 Distribution of the respondents according to their training exposure

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
No training (0)	8	9.1	0	0	8	5.9
Short duration (≤3)	27	30.7	17	36.2	44	32.6
Medium duration (4-7)	11	12.5	5	10.6	16	11.9
Long duration (>7)	42	47.7	25	53.2	67	49.6
Total	88	100	47	100	135	100

Table 4.11 shows that majority proportion (47.7%) of the respondent received long training compared to 9.1% received no training 30.7% percent short duration training and 12.5 percent medium training category in FDA. In GBA, majority proportion (53.2) received high training, followed by 36.2 percent had received short training, 10.6% medium training. There was no non trained beneficiary in GBA.

In total of FDA and GBA, about half (49.6%) of the beneficiaries had long duration training compared to 5.9 percent, no training, 32.6 % short duration training and 11.9 percent medium training. Due to the arrangement of different types of training by Dipshikha, the beneficiaries received more training as a result they became more efficient.

4.1.11 Attitude towards Dipshikha

The scores of attitude towards Dipshikha ranged from 16 to 39 for FDA and 18 to 38 for GBA. The average being 24.97 and 29.80 with standard deviation 6.85and 7.17 for FDA and GBA respectively, the respondents of both the

approaches were classified into four categories on the basis of their attitude towards Dipshikha as shown in table 4.12

Table 4.12 Distribution of the respondents according to their attitude towards Dipshikha

Categories	FDA		GBA		Total of FDA & GBA	
	Number	Percent	Number	Percent	Number	Percent
Unfavorable attitude (<20)	22	25.0	8	17.0	30	22.2
Neutral attitude (20)	4	4.5	0	0	4	3.0
Less Favorable attitude (21-30)	32	42.1	9	19.2	46	34.1
Highly favorable attitude (>30)	25	28.4	30	63.8	55	40.7
Total	88	100.0	47	100.0	135	100.0

The data computed in table 4.12 indicated that the largest proportion (42.1%) of the respondents for FDA had less favorable attitude while 28.4 had highly favorable attitude, where as 25 % showed unfavorable attitude and 4.5 % had neutral attitude towards Dipshikha. On the other hand in GBA the highest proportion (63.8%) of respondents had highly favorable attitude towards Dipshikha compared to 19.2 % less favorable and 17% had unfavorable attitude toward Dipshikha. None of them had neutral attitude toward Dipshikha.

In total of FDA & GBA the largest proportion (40.7) of the beneficiaries were highly favorable compared to 34.1 % less favorable attitude, 3.0 % neutral attitude 22.2 % unfavorable attitude and. It was observed that during the collection of data the respondents from GBA had highly satisfied with Dipshikha due to the good behavior of the staff.

4.2 Effectiveness of Dipshikha Activities

For measuring the extent of effectiveness of Dipshikha activities through Family Development Approach and Group Based Approach, the beneficiaries before joining Dipshikha activities were compared to the present conditions in relation with change in housing condition, change in drinking water sources, change in sanitation conditions, change in health awareness, change in receiving medical treatment, change in family assets for both approaches.

4.2.1 Change in housing condition

On the basis of the housing condition the respondents were classified into three categories as shown in Table 4.13. The score of housing condition in FDA ranged from 2 to 7 and the average was 4.52 with a standard deviation of 1.16 in pre Dipshikha period while the score ranged from 3 to 7 and the average was 5.63 with a standard deviation of 1.31 in post Dipshikha. On the other hand, the score of housing condition ranged from 2 to 7 and the average was 4.46 wih a standard deviation of 1.29 in pre Dipshikha period while the score ranged from 3 to 7 and the average was 5.0 with a standard deviation 1.51 in post Dipshikjha period under GBA.

Table 4.13 Distribution of Respondent according to their housing condition of Pre and Post Dipshikha Period under FDA and GBA

Categories	FDA				GBA			
	Pre Dipshikha Period		Post Dipshikha period		Pre Dipshikha period		Post Dipshikha Period	
	No.	%	No.	%	No.	%	No.	%
Small house holders (Up to 3)	19	21.6	11	12.5	14	29.8	12	25.5
Medium house holders (4-6)	63	71.6	51	58.0	32	68.1	26	55.3
Large house holders (above 6)	6	6.8	26	29.5	1	2.1	9	19.1
Total	88	100	88	100	47	100	47	100
Mean	4.52		5.63		4.46		5.0	
SD	1.16		1.31		1.29		1.51	

The data presented in Table 4.13 indicated that the majority proportion of the respondents under both the approaches were medium house holders. The data concluded that the small house holders and medium house holder under FDA reduced from 21.6 to 12.5 and 71.6 percent to 58.0 percent respectively, while the large house holder increased from 6.8 percent to 29.5 percent between pre and post Dipshikha period. On the other hand, in GBA, the percent of small house holders and medium house holders reduced by 29.8 percent to 25.5 and 68.1 to 55.3 percent respectively and the large house holder increased from 2.1 percent to 19.1 percent between pre and post Dipshikha period.

Table 4.14 Distribution of respondents of Dipshikha according to their change in housing condition

Categories	FDA		GBA		Total of FDA & GBA	
	Number	%	Number	%	Number	%
No change (0)	21	23.9	4	8.5	25	18.5
Low change (1)	29	33.0	17	36.2	46	34.1
Medium change (2)	24	27.3	16	34.0	40	29.6
High change (3)	14	15.9	10	21.3	24	17.8
Total	88	100	47	100	135	100
Mean	1.35		1.68		1.46	
SD	1.01		0.91		0.99	
Value of 't' after running sample t test between FDA & GBA.	-2.05* (P=0.042)					

The respondents were classified into four categories based on changes in housing condition as shown in table 4.14.The average change was 1.35 with a standard deviation of 1.01 under FDA and the average was 1.68 with a standard deviation 0.91 in GBA. In total changes of FDA and GBA the average was 1.46 with standard deviation 0.99.

The data in Table 4.14indicated that one-third (33%) of the respondents had low change in their housing condition under FDA between pre and post Dipshikha period. After involvement with Dipshikha 23.9 percent had no change, 27.3 percent had medium and only 15.9 percent had high change in their housing condition under FDA. In GBA, the highest proportion (36.2 percent) of the respondents had low change whereas only 8.5 percent had no change, 34% and 21.3% had medium change and high change respectively.

In total of FDA and GBA the largest proportion (34.1%) of the respondents had low change compared to 18.5 %, 29.6% and 17.8 % no change, medium change and high changerespectively.

Simple t- test was employed to compare the difference between the changes of housing condition of the respondents under FDA and GBA. As the t-value (-2.05) was significance (P=0.042), there was significant difference between changes of housing condition FDA and GBA. So, the researcher concluded that changing in housing condition was significantly higher in GBA than FDA.

4.2.2 Change in drinking water Sources

On the basis of the drinking water sources the respondents were classified into four categories as shown in Table 4.15. In FDA the score of Drinking water source ranged from 1 to 4 and 3 to 4 in pre and post Dipshikha period respectively. The average was 2.19 with a standard deviation of 0.90 in pre Dipshikha period and the average was 3.61 with a standard deviation of 0.61 in post Dipshikha period for FDA. In GBA, The average score of housing condition was 2.60 with a standard deviation of 0.99 in pre Dipshikha period and the average was 3.74 with a standard deviation of 0.44 in post Dipshikha period.

Table 4.15 Distribution of respondent according to their drinking water sources of pre and post Dipshikha period under FDA and GBA

Categories	FDA				GBA			
	Pre Dipshikha Period		Post Dipshikha period		Pre Dipshikha period		Post Dipshikha Period	
	No.	%	No.	%	No.	%	No.	%
River	20	22.7	0	0	6	12.8	0	0
Pond	39	44.3	10	6.8	18	38.3	0	0
Others tube well	21	23.9	12	25.0	12	25.5	12	25.5
Own tube well	8	9.1	60	68.2	11	23.4	35	74.5
Total	88	100	88	100	47	100	47	100
Mean	2.19		3.61		2.60		3.74	
SD	0.90		0.61		0.99		0.44	

The computed data in table 4.15 concluded that the majority proportion (68.2% and 74.5 %) of the respondents used their own tube well water under both approaches in post Dipshikha period compared to pre Dipshikha period. None of them used river water in post Dipshikha period under both approaches. In order to decrease water born diseases in the rural areas Dipshikha supplied tube-well to its beneficiaries.

Table 4.16 Distribution of respondents according to their Change in Drinking water sources

Categories	FDA		GBA		Total of FDA & GBA	
	Number	%	Number	%	Number	%
No change(0)	12	13.6	15	31.9	27	20.0
Little change(1)	28	31.8	14	29.8	42	31.1
Moderate change(2)	42	47.7	13	27.7	55	40.8
High change (3)	6	6.8	5	10.6	11	8.1
Total	88	100	47	100	135	100
Mean	1.47		1.17		1.37	
SD	0.81		1.00		0.89	
Value of 't' after running sample t test between FDA & GBA	1.917 * (P=0.057)					

The respondents were classified into four categories based on changes in drinking water sources as shown in table 4.16.The average change was 1.47 with a standard deviation of 0.81 under FDA and the average was 1.17 with a standard deviation 1.00 in GBA. In total changes of FDA and GBA the average was 1.37 with standard deviation 0.89.

Table 4.16 revealed that the majority proportion of the respondents (47.7%) had moderate change in their drinking water source under FDA. After involvement with Dipshikha 13.6 % had no change, 31.8% had little change and only 6.8% had high change. In GBA the majority proportion (40.8 %) of the beneficiaries had moderate change, 31.9 % had No change, 29.8 had little change and only 10.6 % had high change.

In total of FDA and GBA, the highest proportion (40.8%) had moderate change compared to 20.0 % had No change, 31.1% had little change and only 8.1%had high change in post Dipshikha period.

Simple t- test was employed to compare the difference between the changes of drinking water source of the beneficiaries under FDA and GBA. As the t-value (1.917) was non-significant (P=0.057), the difference between change of drinking water sources in FDA and GBA was in significance. So the researcher concluded that there was no significant difference between FDA and GBA to changes their drinking water sources.

4.2.3 Changes in sanitation condition

On the basis of the drinking water sources the respondents were classified into four categories as shown in Table 4.17. The score of sanitation condition of Dipshikha beneficiaries ranged from 3 to 4 and the average was 2.05 with a standard deviation of 0.73 in pre Dipshikha period while the score ranged from 0 to 4 and the average was 3.05 with a standard deviation of 0.21 in post Dipshikha period in FDA. In GBA the score of sanitation condition ranged from 1 to 4 and 2 to 4 both pre and post Dipshikha period. The average was 2.47 with a standard deviation of 0.69 in pre Dipshikha period while, the average was 3.51 with a standard deviation of 0.55 in pre Dipshikha period for GBA.

Table 4.17 Distribution of respondents according to their Sanitation condition of pre and post Dipshikha period under FDA and GBA

Categories	FDA				GBA			
	Pre Dipshikha period		Post Dipshikha Period		Pre Dipshikha period		Post Dipshikha Period	
	Number	%	Number	%	Number	%	Number	%
Open place	19	21.6	0	0	1	2.1	0	0
Pit	48	54.5	0	0	27	57.4	1	2.1
Ring/slab	19	21.6	84	95.5	15	31.9	21	44.7
Puccalatrin	2	2.3	4	4.5	4	8.5	25	53.2
Total	88	100	88	100	47	100	47	100
Mean	2.05		3.05		2.47		3.51	
SD	0.73		0.21		0.69		0.55	

Table 4.17 pointed out that user of open place, pit latrine reduced from 21.6 percent to 0 percent, 54.5 percent to 0 percent and the user of ring slab and pucca latrine increased from 21.6 percent to 95.5 percent after involvement with Dipshikha in FDA. On the other hand, user of open place, pit, reduced from 2.1 to 0 %, 57.4 to 2.1%, respectively, while the user of ring slab and puccalatrin increased from 31.9 to 44.7 and 8.5 to 53.2 percent respectively after involvement with Dipshikha under GBA.

Table 4.18 Distribution of respondents according to their Change in sanitation condition

Categories	FDA		GBA		Total of FDA & GBA	
	Number	%	Number	%	Number	%
No change(0)	19	21.6	9	19.1	28	20.7
Little change(1)	50	56.8	27	57.4	77	57.1
Moderate change(2)	14	15.9	7	14.9	21	15.5
High change (3)	5	5.7	4	8.5	9	6.7
Total	88	100	47	100	135	100
Mean	1.05		1.12		1.08	
SD	0.77		0.82		0.79	
Value of 't' after running sample t test between FDA & GBA	-1.121* (P=0.264)					

The respondents were classified into four categories based on changes in sanitation as shown in table 4.18.The average change was 1.05 with a standard deviation of 0.77 under FDA and the average was 1.12 with a standard deviation 0.82 in GBA. In total changes of FDA and GBA the average was 1.08 with standard deviation of 0.79.

Table 4.18 pointed out that the highest proportion (56.8% and 57.4%) of the beneficiaries under both approaches had little change in their sanitation condition after involvement with Dipshikha, while 21.6 percent of the beneficiaries had no change, 15.9 % had moderate change and only 5.7 % had

high change in their sanitation condition after involvement with Dipshikha under FDA. on the other hand 19.1% had no change, 14.1% had moderate change and 8.5 % of the beneficiaries had high change in their sanitation condition after involvement with Dipshikha under GBA.

In total of FDA & GBA the highest proportion (57.1%) of the beneficiaries had little change compared to 20.7%, 15.5% and 6.7% had no change, moderate change and high change respectively.

Simple t- test was employed to compare the difference between the changes of sanitation condition of the beneficiaries under FDA and GBA. As the t-value (-1.121) was non-significant (P=0.264), the difference of changes in sanitation condition in FDA and GBA was in-significance. So, the researcher stated that there was no significant difference between the changes in sanitation condition in FDA and GBA.

4.2.4 Change in health awareness

The respondents were classified into three categories on the basis of their awareness on health as shown in table 4.19 The score of health awareness of the beneficiaries ranged from 0 to 2 and the average was 2.25 with a standard deviation of 1.09 in pre Dipshikha period while the score ranged from 4 to 7 and the average was 3.98 with a standard deviation of 0.99 in pre Dipshikha period in FDA. On the other hand, in GBA the score of awareness on health ranged from 0 to 4 and 2 to 7 in pre and post Dipshikha period respectively and the average was 2.45 with a standard deviation of 0 .95 in pre Dipshikha period while, the average was 3.72 with a standard deviation of 1.02 in pre Dipshikha period.

Table 4.19 Distribution of Respondent according to their health awareness of Pre and Post Dipshikha Period under FDA and GBA

Categories	FDA				GBA			
	Pre Dipshikha Period		Post Dipshikha period		Pre Dipshikha period		Post Dipshikha Period	
	Number	%	Number	%	Number	%	Number	%
Low health awareness (up to 1)	20	22.7	0	0	7	14.9	0	0
Medium health awareness (2-3)	55	62.5	23	26.1	32	68.1	20	42.6
High health awareness (above 3)	13	14.8	65	73.9	8	17.0	27	57.4
Total	88	100	88	100	47	100	47	100
Mean	4.25		3.98		2.45		3.72	
SD	1.09		0.99		0.95		1.02	

Table 4.19 revealed that the majority of the respondents (73.9% and 57.4%) under both approaches had high awareness on health after involvement with Dipshikha compared to before involvement with Dipshikha. The data concluded that the percent of beneficiaries under low awareness and medium awareness category was decrease significantly after involvement with Dipshikha in the both approaches.

Table 4.20 Distribution of Respondents according to their change in health awareness

Categories	FDA		GBA		Total of FDA & GBA	
	Number	%	Number	%	Number	%
No change(0)	19	21.6	17	36.2	36	26.7
Little change(1)	23	26.1	12	25.5	35	25.9
Moderate change(2)	17	19.3	6	12.8	23	17.0
High change (3)	29	33.0	12	25.5	41	30.4
Total	88	100	47	100	135	100
Mean	1.63		1.27		1.51	
SD	1.15		0.82		1.18	
Value of 't' after running sample t test between FDA & GBA	1.69* (P=0.093)					

The respondents were classified into four categories based on changes in health awareness as shown in table 4.20. The average change was 1.63 with a standard deviation of 1.15 under FDA and the average was 1.27 with a standard deviation 0.82 in GBA. In total changes of FDA and GBA the average was 1.51 with standard deviation of 1.18.

The table 4.37 revealed that majority (33.0 percent) of the respondents had high change in health awareness under FDA compared to 21.6 %, 26.1% and 19.3 % had no change , little change and moderate change respectively. In GBA, the highest proportion (36.2%) had high change in GBA followed by 25.5 percent had no change and 12.8 % and 25.5 % had little change and moderate change respectively on their health awareness.

In total of FDA and GBA, the highest proportion (30.4%) of the beneficiaries had high change compared to 26.7%, 25.9%, and 17.0% had no change, little change and moderate change respectively in their change in health awareness.

Simple t- test was employed to compare the difference between the changes of health awareness of the respondents under FDA and GBA. As the t-value (1.69) was non-significant (P=0.093), the difference of changes in health awareness in FDA and GBA was in-significance. So, the researcher stated that there was no significant difference between the changes in health awareness in FDA and GBA.

4.2.5 Change in receiving medical treatment

On the basis of treatment behavior the respondents were classified into five categories as shown in Table 4.21. The score of treatment behavior of the respondents ranged from 0 to 3 and the average was 1.59 with a standard deviation of 1.12 in pre Dipshikha period while the score ranged from 2 to 4 and the average was 2.95 with a standard deviation of 0.30 in post Dipshikha period under FDA. On the other hand, under GBA, the score of treatment behavior ranged from 0 to 4 and 1 to 4 for both pre and post Dipshikha period. The average was 1.36 with a standard deviation of 0.97 in pre Dipshikha period while, the average was 3.17 with a standard deviation of 0.73 in post Dipshikha period under GBA.

Table 4.21 Distribution of Respondent according to their receiving medical treatment of pre and post Dipshikha period under FDA and GBA

Categories	FDA				GBA			
	Pre Dipshikha Period		Post Dipshikha period		Pre Dipshikha period		Post Dipshikha period	
	No.	%	No.	%	No.	%	No.	%
No treatment (0)	19	21.6	0	0	12	25.5	0	0
Treatment from Ojha (1)	23	26.1	0	0	9	19.1	1	2.1
Treatment from PalliChikitsok (2)	21	23.9	6	6.8	24	51.1	6	12.8
Treatment from MBBS(3)	25	28.4	80	90.9	1	2.1	24	51.1
Treatment from Specialist (4)	0	0	2	2.3	1	2.1	16	34.0
Total	88	100	88	100	47	100.0	47	100
Mean	1.59		2.95		1.36		3.17	
SD	1.12		0.30		0.97		0.73	

Table 4.34 pointed out that treatment from ojha, pallichikitsok and no treatment reduced from 26.1 percent to 0 percent, 26.1to 0 percent and 23.9 percent to 6.8 percent respectively while, treatment from MBBS and Specialist increased from 28.4% to 90.9% and 0% to 2.3% after involvement with Dipshikha in FDA. On the other hand, treatment from ojha, pallichikitsok and no treatment reduced from 19.1 to 2.1 percent, 51.1 to 12.8 percent and 25.5 to 0 percent respectively, while treatment from MBBS and Specialist increased from 2.1 percent to 51.1 percent and 2.1 to 34.0 percent respectively after involvement with Dipshikha under GBA.

Table 4.22 Distribution of respondents according to their change in receiving medical treatment

Categories	FDA		GBA		Total of FDA & GBA	
	No.	%	No.	%	No.	%
No change(0)	28	31.8	4	8.5	32	23.7
Little change(1)	20	14.6	12	25.5	32	23.7
Medium change(2)	30	40.8	21	44.7	41	30.4
High change (3)	20	12.8	10	21.3	30	22.2
Total	88	100.0	47	100.0	135	100.0
Mean	1.36		1.78		1.51	
SD	1.15		0.88		1.08	
Value of 't' after running sample t test between FDA &GBA	-2.19* (P=0.030)					

The respondents were classified into four categories based on changes in treatment behavior as shown in table 4.22.The average change was 1.63 with a standard deviation of 1.15 under FDA and the average was 1.27 with a standard deviation of 0.82 in GBA. In total changes of FDA and GBA the average was 1.51 with standard deviation of 1.18.

Table 4.22 pointed out that the highest proportion (40.8% and 44.7%) of the respondents under both approaches had medium change in their treatment behavior after involvement with Dipshikha while, 31.8% had no change, 14.6 % had little change and 12.8 % had high change in their treatment behavior after involvement with Dipshikha under FDA.

On the other hand 8.5 % had no change, 25.5 % had little change and 21.3 % had high change in their treatment behavior after involvement with Dipshikha under GBA.

In total of FDA and GBA the largest proportion (30.4%) of the beneficiaries had medium change compared to 23.7 % had low change, 23.7% had little change and 22.2 % had high change in their treatment behavior.

Simple t- test was employed to compare the difference between the changes of sanitation condition of the respondents under FDA and GBA. As the t-value (-2.19) was significance (P=0.030), there was significant difference between changes of treatment behavior in FDA and GBA. So, the researcher concluded that changing in housing condition was significantly higher in GBA than FDA.

4.2.6 Change in family assets

In FDA, the amount of family assets of the respondents ranged from 14 to 47 thousand taka in pre Dipshikha period and 24 to 50 thousand taka in Post Dipshikha period under FDA. The amount of family assets ranged from 24 to 47 thousand taka in pre Dipshikha period while the range was 24 to 48 thousand taka in post Dipshikha period in GBA. The average assets holder was 31.45 with a standard deviation of 7.81 in pre Dipshikha period while it was 38.73 with a standard deviation of 6.15 in post Dipshikha period for FDA. The average family assets in pre Dipshikha period was 30.94 with a standard deviation of 5.65 and in post Dipshikha period and the average was 38.42 with a standard deviation of 5.72 under GBA. The beneficiaries were classified into three categories on the basis of their family assets as shown in table 4.23.

Table 4.23 Distribution of Respondent according to their family assets of Pre and Post Dipshikha Period under FDA and GBA

Categories (Taka in thousand)	FDA				GBA			
	Pre Dipshikha Period		Post Dipshikha period		Pre Dipshikha period		Post Dipshikha Period	
	No.	%	No.	%	No.	%	No.	%
Small asset holders (up to 24)	3	3.4	3	3.4	4	8.5	1	2.1
Medium asset holders (25-39)	63	71.6	63	71.6	41	87.2	29	59.6
Large asset holders (above 39)	22	25.0	22	25.0	2	4.3	17	38.3
Total	88	100	88	100	47	100	47	100
Mean	31.45		38.73		30.94		38.42	
SD	7.81		6.15		5.65		5.72	

The data presented in Table 4.23 pointed out that there was no change in small assets holders, medium assets holders and large assets holder respectively under FDA in pre and post Dipshikha period but in GBA the small asset holder and medium asset holder decreases by 8.5 % to 2.1 % and 87.2 % to 59.6% respectively. On the other hand the large asset holders were increased from 4.3 percent to 38.3% between pre and post Dipshikha period in GBA.

Table 4.24 Distribution of respondents according to their change in family assets

Categories	FDA		GBA		Total of FDA & GBA	
	Number	%	Number	%	Number	%
No change(0)	11	12.5	0	0	11	8.1
Low change (1-4)	8	9.1	15	31.9	23	17.1
Medium change (5-10)	49	55.7	24	51.1	73	54.1
High change (>10)	20	22.7	8	17.0	28	20.7
Total	88	100	47	100	135	100
Mean	7.69		7.44		7.60	
SD	4.17		4.08		4.13	
Value of 't' after running sample t test between FDA & GBA	0.329* (P=0.743)					

The respondents were classified into four categories based on changes in their family assets as shown in Table 4.24.The average change was 7.69 with a standard deviation of 4.17 under FDA and the average was 7.44 with a standard deviation of 4.08 in GBA. In total changes of FDA and GBA the average was 7.60 with standard deviation of 4.13.

Table 4.24 pointed out that the highest proportion (55.7%) of the respondents had medium change in their family assets under FDA between pre and post Dipshikha period. After involvement with Dipshikha 12.5% had no change,

9.1% had low change and 22.7 % had high change in their family assets. In GBA, 0 % had no change, 31.9 % had low change and 17.0 % had high change in their family assets after involvement with Dipshikha.

In total of FDA and CBA the largest proportion 54.1% of the respondents had medium change compared to 8.1%, 17.1% and 20.7% had no change, low change and high change respectively.

Simple t- test was run to compare the difference between the changes of family assets of the respondents under FDA and GBA. As the t-value (0.329) was non-significant (P=0.743), the difference of changes in family assets in FDA and GBA was in-significance. So, the researcher stated that there was no significant difference between FDA and GBA in their changes of family assets.

4.2.7 Overall changes in all dimensions

The effectiveness of Dipshikha activities was measured by the summation of the changes of all the six selected dimensions. According to overall change, i.e. the effectiveness of Dipshikha activities, the beneficiaries were classified into three categories as shown in Table 4.25.

Table 4.25 Distribution of the respondents according to overall effectiveness of Dipshikha

Categories	FDA		GBA		Overall	
	Number	%	Number	%	Number	%
Low effectiveness (up to 6)	10	11.4	5	10.6	15	11.1
Medium effectiveness (7-12)	74	84.1	41	87.3	115	85.2
High effectiveness (13-18)	4	4.5	1	2.1	5	3.7
Total	88	100	47	100	135	100
Mean	8.77		8.89		8.81	
SD	2.13		2.05		2.10	
Value of 't' after running sample t test with FDA & GBA	-0.317* (P= 0.752)					

Table 4.25 pointed out that the overall effectiveness of Dipshikha activities under FDA, the majority proportion (84.1%) of the beneficiaries perceived medium effectiveness compared to 11.4 % and 4.5 % low effectiveness and high effectiveness, respectively. In GBA, the largest proportion (87.3%) of the respondents perceived medium effectiveness compared to 10.6 % and 2.15% low and high effectiveness respectively.

In total of FDA and GBA the highest proportion (85.2%) of the respondents perceived medium effectiveness compared to 11.1 % low effectiveness and 3.7% high effectiveness.

Simple t- test was run to compare the difference between the changes of effectiveness of the respondents under FDA and GBA. As the t- value (-0.317) was non-significant (P=0.725), the difference of effectiveness between FDA and GBA was in-significance. So, the researcher stated that there was no-significant difference between the effectiveness of FDA and the effectiveness of GBA of Dipshikha activities.

4.3 Variables related to Effectiveness of Family Development Approach and Group based Approach of Dipshikha activities

In order to estimate the effectiveness from the independent variables, multiple regression analysis was used which is shown in the Table 4.26.

Table 4.26 Table showing multiple regression analysis with the effectiveness of FDA and GBA of Dipshikha activities

Dependent variable	Independent variable	β	*P*	R^2	Adj. R^2	F	p
Effectiveness of FDA of Dipshikha	Age	.069	.486	.364	. 272	3.956	.000***
	Education	.305	.011**				
	Family size	.043	.662				
	Effective farm size	.003	.980				
	Annual family income	.192	.076*				
	Family savings	-.009	.932				
	Involvement with Dipshikha	-.028	.776				
	Credit received	-.071	.496				
	Credit repayment behavior	-.063	.532				
	Training exposure	.292	.014**				
	Attitude towards Dipshikha	-.027	.785				
Effectiveness of GBA of Dipshikha	Age	-.026	.774	.767	.694	10.495	.000***
	Education	-.453	.001***				
	Family size	-.050	.600				
	Effective farm size	-.058	.578				
	Annual family income	-.110	.286				
	Family savings	.262	.057*				
	Involvement with Dipshikha	-.059	.522				
	Credit received	-.030	.765				
	Credit repayment behavior	-.081	.508				
	Training exposure	.299	.069*				
	Attitude towards Dipshikha	.121	.298				

*** Significant at p<0.01

** Significant at p<0.05

*significant at p<0.1

In order to assess which factors contribute to effectiveness of FDA of Dipshikha activities, multiple regression analysis was used. Table 4.26 shows that there is a positive significant contribution of respondents education (at 5% level of significance), annual family income (at 10% level of significance) and training exposure (at 5% level of significance).

27% (Adj.R^2=0.27) of the variation on the effectiveness of FDA of Dipshikha can be attributed to their (education, annual family income and training exposure) making this an excellent model (Table 4.26).The F value indicates that the model is significance (p<0.000).

In summary the model suggest that the respective authority should consider the respondents' education, annual family income, and training exposure .In this connection some predictive importance has been briefly discussed below:

Enter multiple regressions showed that the education level of Dipshikha beneficiaries had positive contribution on their effectiveness of FDA of Dipshikha. This represens that education level of Dipshikha beneficiaries important factor to their awareness concerning about effectiveness of FDA of Dipshikha.

It was also found that annual family income had positive significant contribution on the effectiveness of FDA of Dipshikha activities. The findings indicate that the respondents having more annual income were likely to have more effectiveness of FDA of Dipshikha activities.This represents that annual family income of the respondents was an important factor in effectiveness of FDA of Dipshikha activities.

It was also found that training exposure had positive significant contribution on the effectivenessof FDA of Dipshikha activities. Training received developes

by the respondent's knowledge, skill and attitude in positive manner. The farmers who have no training cannot gain enough knowledge, skill and practical experience.

In order to assess which factors contribute to effectiveness of GBA of Dipshikha activities, multiple regression analysis was used. Table 4.26 also shows that there is a positive significant contribution of respondent's education (at 1% level of significance), family savings and training exposure (at 10% level of significance).

69% (Adj.R^2=0.694) of the variation on the effectiveness of GBA of Dipshikha can be attributed to their (education, family savings and training exposure) making this an excellent model (Table 4.26).The F value indicates that the model is significance ($p<0.000$).

In summary the model suggest that the respective authority should consider the respondents' education, family savings and training exposure. In this connection some predictive importance has been briefly discussed below:

Enter multiple regressions showed that the education level of Dipshikha beneficiaries had positive contribution on their effectiveness of GBA of Dipshikha. This represents that education level of Dipshikha beneficiaries important factor to their awareness concerning about effectiveness of GBA of Dipshikha.

It was also found that family savings had positive significant contribution on the effectiveness of GBA of Dipshikha activities. The findings indicate that the families having more savings, have more chance to get more credit as per loan condition of GBA and it would lead them to implement more income generation activities. So the effectiveness of GBA of Dipshikha activities depends on savings of the families.

It was also found that training exposure had positive significant contribution on the effectiveness of GBA of Dipshikha activities. Training received developes by the respondent's knowledge, skill and attitude in positive manner. The

farmers who have no training cannot gain enough knowledge, skill and practical experience.

Table 4.27 Showing multiple regression of overall effectiveness of Dipshikha activities

Dependent variable	Independent variable	β	*P*	R^2	Adj. R^2	F	p
	Age	-.066	.339				
Overall Effectiveness of Dipshikha activities	Education	.326	.000***	.502	.457	11.255	.000***
	Family size	-.023	.732				
	Effective farm size	-.016	.808				
	Annual family income	.090	.195				
	Family savings	.064	.358				
	Involvement with Dipshikha	-.038	.629				
	Credit received	.029	.675				
	Credit repayment behavior	-.005	.946				
	Training exposure	.360	.000***				
	Attitude towards Dipshikha	.211	.005***				

Table 4.27 shows that there is a positive significant contribution of respondents education, training exposure and attitude toward Dipshikha (at 1% level of significance).

45 % (Adj.R^2=0.457) of the variation on the effectiveness FDA & GBA can be attributed to their (education, training exposure and attitude towards Dipshikha.) making this an excellent model (Table 4.27). The F value indicates that the model is significant (p<0.000).

The adjusted R-square value penalizes the addition of extraneous predictors in the model, but values of 0.457 still show that the variance in respondents' effectiveness of Dipshikha can be attributed to the predictor variables rather than by chance, and that both are suitable models (Table 4.13). In summary, the models suggest that the respective authority should consider the respondents', education, training exposure and attitude towards Dipshikha annual family income, and in this connection some predictive importance has been briefly discussed below:

Enter multiple regression showed that the education level of Dipshikha beneficiaries had positive contribution on their effectiveness of FDA and GBA. This represents that education level of Dipshikha beneficiaries important factor to their awareness concerning about effectiveness of Dipshikha activities.

From enter multiple regression, it was found that training exposure had positive significant contribution on the effectiveness of Dipshikha activities. Training exposure plays a important role on development of effectiveness of Dipshikha activities. Training received develops by the respondent's knowledge, skill and attitude in positive manner. The farmers who have no training can not gain enough knowledge, skill and practical experience.

From enter multiple regression, it was found that attitude towards Dipshikha had positive significant contribution. The study showed that the members had very positive attitude towards Dipshikha. Dipshikha should keep achieve attitude of the beneficiaries by supporting them in different activities

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CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents summary of findings, conclusions and recommendations of the study.

5.1 Summary of findings

The major findings of the study are summarized below:

5.1.1 Selected characteristics of Dipshikha beneficiaries

Age

The highest proportion i.e. 47.7 percent beneficiaries were middle aged compared to 36.4 % young and15.9% old aged under FDA. In GBA the major proportion (76.6%) of the respondents were middle aged compared to 10.6 % and 12.8% were young aged and old aged respectively. In total of FDA and GBA, the highest proportion (57.8 %) of the beneficiaries were middle aged compared to 27.4 % and 14.8% were young aged and old aged respectively.

Level of education

In FDA the majority of the respondents (65.8%) had completed primary level of education compared to 1.1% respondents were illiterate, 4.5% could sign their name only and 28.4 percent had completed secondary level of education. In GBA the highest proportion of the respondents (36.1%) had primary level of education compared to 12.8 percent of the respondents were illiterate, 14.9 percent could sign their name and 36.2 percent had completed secondary level of education. In total of FDA and GBA, the majority of the respondents (46.7%) had completed primary level of education compared to 5.9 % were illiterate, 11.1% could sign their name only and 36.3 % had completed secondary level of education.

Family size

The highest proportion of the beneficiaries (44.3% and 51.1%) in both approaches felt under medium family category. In FDA, 35.2% and 20.5% had small family size and large family size respectively. In GBA, 31.1 % had small size and 17.0 percent had large family. In total of FDA and GBA, the highest proportion of the beneficiaries (46.3%) was felt under medium family category compared to 34.4% and 19.3 % had small size and large size category respectively.

Effective farm size

The largest proportion of the respondents (70.5 percent) of FDA belongs to small farm size category while, 29.5percent of the respondents had marginal farm size. In GBA, the majority of the beneficiaries (66%) belongs to small farm size category while 34.0 percent had marginal farm size.

In total of FDA and GBA, the majority of the beneficiaries (68.9%) were felt under small size category compared to 31.1% had marginal farm size.

Annual family income

The majority of the beneficiaries (58.0%) had low income where as very low and medium income families were 19.3 percent and 22.7 percent respectively for FDA. In GBA, the highest proportion (42.6%) of the beneficiaries had low family income family compared to 25.5% and 31.9% had very low and medium income family respectively.

In total of FDA and GBA the highest proportion of the beneficiaries (52.6%) were low income category compared to 21.5% very low and 25.9% medium family income category

Family savings

IN FDA, the highest proportion of the beneficiaries (69.3%) had medium savings, while low and high savings were 14.8 and 15.9 percent respectively. In GBA, the highest proportion of the beneficiaries (63.7 percent) had medium savings, while low and high savings were 23.4 percent.

In total of FDA and GBA, the highest proportion of the beneficiaries (63.7%) were medium savings, followed by 17.8% had low savings and 18.5% had high savings.

Involvement with Dipshikha

The majority of the respondents i.e. 69.3% respondents under FDA had medium involvement with Dipshikha while, 17 percent and 13.6 percent of the respondent had low and high involvement. On the other hand, about 100 percent of the respondents had high involvement under GBA of Dipshikha activities. In total of FDA and GBA, the largest proportion of the beneficiaries (45.2%) had high involvement with Dipshikha category compared to 11.1% low involvement and 43.7% medium involvement.

Credit received

The majority of the beneficiaries (70.5%) of FDA were medium credit receiver while 12.5% and 17.0% were low and high credit receiver respectively. On the other hand, in GBA, the majority proportion i.e.70.2 percent of the respondents belongs to the medium credit receiver, where as 17% high credit receiver and 12.8 % small receiver. In total of FDA and GBA, the largest proportions of the beneficiaries (70.4%) were medium credit receiver compared to 12.6 % low and 23% high credit receiver.

Credit repayment behavior

The majority of the respondents (90.9%) of FDA repaid their credit regularly while, 9.1 percent were irregular in FDA. On the other hand 59.6 percent were regular in credit repayment and 40.4 percent of the respondents were irregular in credit repayment for GBA. In total of FDA and GBA, the highest proportion (80%) of the beneficiaries repaid their credit regularly while 20 % repaid their credit irregularly.

Training exposure

In FDA, the majority of the beneficiaries (47.7 percent) received long training compared to 9.1 percent had no training, 30.7 percent had short duration training and 12.5 percent had medium training. In GBA, majority of the respondents (53.2%) received high training followed by 36.2 percent had short training, 10.6 percent had medium training. There was no non trained beneficiary in GBA. In total of FDA and GBA, about half of the beneficiaries (49.6%) had long duration training, compared to 5.9 percent no training, 32.6 % short duration training and 11.9 percent medium training.

Attitude towards Dipshikha

The largest proportion of the respondents (42.1 percent) for FDA had less favorable attitude while 28.4 had highly favorable attitude, where as 25 % showed unfavorable attitude and 4.5 % had neutral attitude towards Dipshikha. In GBA, the highest proportion of respondents (63.8%) had highly favorable attitude towards Dipshikha compared to 19.2% less favorable 17% had unfavorable attitude toward Dipshikha. None of them had neutral attitude toward Dipshikha.

In total of FDA & GBA, the largest proportion of the beneficiaries (40.7%) were highly favorable compared to 34.1 less favorable attitude, 3.0 % neutral attitude and 22.2 % unfavorable attitude Dipshikha.

5.1.2 Effectiveness of FDA and GBA of Dipashikha activities:

In FDA, the majority of the beneficiaries (84.1%) perceived medium effectiveness category compared to 11.4 % and 4.5 % perceived low effectiveness and high effectiveness respectively. In GBA, the largest proportion of the respondents (87.3%) perceived medium effectiveness compared to 10.6 % and 2.15% perceived low and high effectiveness respectively.

In total of FDA and GBA, the highest proportion (85.2%) of the respondents' perceived medium effectiveness compared to 11.1 % low effectiveness and 3.7% high effectiveness.

5.1.3 Contribution of the selected characteristics of the beneficiaries to their effectiveness of Family Development Approach and Group Based Approach of Dipshikha activities

Out of the 11 selected characteristics namely education, annual family income and training exposure of respondents had significant positive contribution in their effectiveness of FDA of Dipshikha activities. Among the 11 selected characteristics namely education, family savings and training exposure of respondents had significant positive contribution in their effectiveness of GBA of Dipshikha activities. In overall, effectiveness of Dipshikha activities there is a positive significant contribution of respondents namely education, training exposure and attitude toward Dipshikha. These three contributory factor combined explained 45% of the total contribution.

5.2 Conclusions

On the basis of the findings of the present study and their logical interpretations, the following conclusions were drawn:

1. The findings stated overwhelming majority (85.2%) of the respondents had perceived medium effectiveness on Dipshikha activities. The findings also revealed that there was no significant difference between the perceived effectiveness of Dipshikha activities of GBA and FDA. Therefore, it may be concluded that there is scope for the improvement of the effectiveness of Dipshikha activities in both GBA and FDA.

2. The findings revealed that the level of education had a significant positive contribution to the perceived effectiveness of the Dipshikha activities under both approaches. Therefore, it may be concluded that the

Dipshikha beneficiaries having more level of education perceived more effectiveness of Dipshikha activities.

3. The findings revealed that the annual income had significant positive contribution to the perceived effectiveness of Dipshikha activities under FDA. Therefore, it may be concluded that the Dipshikha beneficiaries having more annual income perceived more perceived more effectiveness of Dipshikha activities.

4. The findings revealed that training exposure had a positive contribution to the perceived effectiveness of Dipshikha activities under both approaches. Therefore, it may be concluded that the Dipshikha beneficiaries having more training perceived more effectiveness of Dipshikha activities.

5. The findings revealed that family savings had significant positive contribution to the perceived effectiveness of Dipshikha activities under GBA. Therefore, it may be concluded that the Dipshikha benefiviaries having more savings perceived more effectiveness of Dipshikha activities.
6. The findings revealed that Attitude towards Dipshikha had positive contribution to the overall Effectiveness Dipshikha activities. Therefore, it may be concluded that the Dipshikha beneficiaries having more attitude perceived more effectiveness of Dipshikha activities.

5.3 Recommendations

5.3.1 Recommendation for policy implications

1. Overwhelming majority of the beneficiaries perceived medium effectiveness of Dipshikha activities. Therefore, it may be recommended that Dipshikha should take necessary steps to increase the effectiveness of its activities by providing quality extension and advisory services with technical assistance and credit support.

2. Level of of education of the Dipshikha beneficiaries had significant contribution to the perceived effectiveness of Dipshikha activities for both FDA and GBA. Therefore , it may be recommended that attempts should be taken to establish adult learning centre to increase educational level**.**
3. The findings revealed that training exposure had positive significant contribution. Therefore, it may be recommended that, the beneficiaries should be provided more technical assistance with credit for increasing their annual income.
4. The findings revealed that training exposure had positive contribution to the effectiveness of Dipshikha activities under both approaches. Therefore, it may be recommended that the beneficiaries should be provided more training about different income generating activities for increasing the effectiveness of Dipshikha activities.
5. The findings indicate that the family savings had positive significant contribution to the effectiveness of Dipshikha activities under GBA. Therefore, it may be recommended that the beneficiaries should be provided more motivational campaigning for increasing their family savings.
6. Attitude towards Dipshikha activities had positive contribution to the overall effectiveness of Dipshikha activities. Therefore, it may be recommended that motivational campaigning should be arranged for developing favorable attitude towards Dipshikha activities.

5.3.2 Recommendations for further study

1. The study was conducted at Dipshikha project area of Ghoraghat upazila under Dinajpur district. Therefore, Findings of the study should be verified and compared by similar study in other Dipshikha project areas.

2. The finding of the study indicated that there was no significant difference between the effectiveness of FDA and GBA. Therefore, it

may be recommended that research should be continued to identify the most effective approach of Dipshikha activities.

3. To assess the extent of effectiveness of FDA and GBA of Dipshikha activities six dimensions of socio economic conditions have been considered in this research. It is therefore, recommended that further research should be undertaken involving other dimension like changes in annual income, changes in productive and non proactive assets, changes social status, changes in agricultural practices, changes in food deficiency and habit etc.
4. Almost all the NGOs of Bangladesh are working with GBA and Dipshikha also working in both FDA and GBA. It is, therefore, recommended that comparative study should be under taken between FDA and GBA of other NGO in order to gain more meaningful insight of FDA and GBA.

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APPENDIX-A

Department of Agricultural Extension & Information System

Sher-e-Bangla Agricultural University, Dhaka

An interview schedule on

"Comparative Effectiveness of Family Development Approach and Group Based Approach of Dipshikha Activities''

SL. No

Address of the Respondents

Name: …….

Father's /Husband name: ……..

Village: ……**Upazila**…….

District: ……

1. **Age:**

Please mention your age: …….Years

2. Level of Education:

Please mention your level of Education:

a) Do not read or write. ……..

b) Can sign only. …….

c) Passed class. ……

d) I have no formal education, but my level of education is up to class. ……

3. Family size:

Please mention the total number of family members. ……

4. Effective farm size:

Please mention your effective farm size. …….local unit ( )……hac.

5. Annual family income:

Please mention your annual family income in Taka from each of the following sources.

a) Income from agriculture:

1. Crops:

Name of The Product	Total Production	Price/unit (Tk)	Total price (Tk)
Rice			
Wheat			
Jute			
Maize			
Potato			
Vegetables			
Fruits			
Others			
Total			

2. Livestock:

Name of the product	Total production(local unit)	Price/unit (Tk)	Total Price (Tk)
Milk product			
Cow dung			
Goat rearing			
Poultry rearing (chick+duck)			
Eggs			
Others			
Total			

b) Income from non-agriculture:

Name of the Sources	Taka/month	Taka/ Year
Labor		
Van/ Rickshaw		
Small business		
Service		
Others		
Total		

Total annual family income = a (1+2)+b= ……Tk

6. Family savings:

Do you or any of your family members have any savings? Yes/No

If yes, please mention the amount of savings. . ……..Tk

7. Involvement with Dipshikha:

Please mention how long you have been involved with Dipshikha.
……..years

8. Credit received:

Did you take any credit last year? Yes/no

If yes, please mention the amount of credit. …….

9. Credit repayment behavior

Are you paying back regularly the credit installment?

Regular	Irregular

10. Training exposure:

a) Have you/ family member received any training from dipshikha? Yes/No

if Yes, please state participation in training

Sl. no	Subject matter	Duration(day)
1.		
2.		
3.		
4.		

11. Attitude towards Dipshikha:

Please indicate the extent to wich you agree with the following statement:

Sl .no.	statements	Extent of opinion				
(+) 1	I am happy that I am a member of Dipshikha	SA	A	NO	D	SD
(-) 2	Indeed as compared to other NGO, the performance of Dipshikha is not up to the mark					
(+) 3	The Projects operated by Dipshikha are very important for improving socio – economic condition of the rural families					
(-) 4	Knowledge obtained by dipshikha is difficult to apply					
(+) 5	Dipshikha provides different support for IGA ,health , and sanitation etc.					
(-) 6	Though dipshikha workers visit us regularly but they can not support us sufficiently					
(+) 7	Income generating activities of Dipshikha help us to improve our social status.					
(-) 8	Infact, Dipshikha has no any income generating activities.					
(+) 9	Dipshikha has made us more conscious about our social right.					
(-) 10	Female members feel difficulties to participate with Dipshikha due to social barrier					

12. Effectiveness of Dipshikha Activities:

a) Change in housing condition:

Type	Pre-Dip period		Post Dip period	
	number	score	number	score
Straw roof with bamboo fencing				
Straw roof with mud wall				
Tin roof with mud wall				
Tin roof with tin wall				
Tin roof with brick wall				

b) Change in drinking water sources:

Sources	Pre- Dip period	Post Dip period
Own tube well		
Others tube well		
Pond		
River		

c) Change in sanitation condition

Type of Latrine	Pre- Dip period	Post Dip period
Pucca		
Ring/slab		
Pit		
Open air		

d) Change in health awareness:

Issues	Pre- Dip period Yes=1 No=0	Post Dip period Yes=1 N0=0
Washing hand before eating		
Washing vegetables before cutting		
Children vaccination		
Preparation of saline		
Nutrition for child		
Nutrition for pregnant mother		
Taking iodized salt		
Hand washing after toilet		

e) Change in receiving medical treatment:

Treatment	**Pre-Dip period**	**Post Dip period**
No treatment		
Treatment from Ojha		
Treatment from Palli Chikitsok		
Treatment from MBBS		
Treatment from Specialist		

f) Change in family assets:

Items of asset	Pre-Dip period		Post Dip period	
	No .of items	Total price(Tk)	No. of items	Total price(TK)
Chair				
Chowki				
Bench				
Khat				
Radio				
TV				
Bi-Cycle				
Rickshaw				
Goat				
Cow				
Power tiller				
Shallow machine				
plough				
Grand Total				

Signature of the Interviewer

Date……

APPENDIX –B

An Independent Simple t- test

	Leven's Test for equality of variance		t-test for equality of	t-test for equality of means			t-test for Equality Interval of the Difference		
	F	sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% confidence Interval of the Difference	
								Lower	Upper
Change_ housing	1.023	.314	-2.052 -2.118	133 102.922	.042 .037	-.363 -.363	.177 .171	-.712 -.702	-.013 -.023
Change_ drinking	3.051	.083	1.917 1.799	133 78.817	.057 .076	.307 .307	.160 .171	-.010 -.033	.624 .647
Change_sanitation	3.448	.066	-1.121 -1.036	133 75.671	.264 .304	-.149 -.149	.133 .144	-.412 -.435	.114 .137
Change_ health	.075	.785	1.694 1.671	133 90.421	.093 .098	.360 .360	.212 .215	-.060 -.068	.780 .788
Change_treatment	12.480	.001	 -2.192 -2.376	133 116.976	.030 .019	-.424 -.424	.193 .178	-.806 -.777	-.041 -.070
Change _assets	.276	.600	.329 .331	133 95.873	.743 .741	.246 .246	.749 .744	-1.235 -1.230	1.727 1.723
Effect _Dipshikha	.063	.802	-0.317 -.321	133 97.287	.752 .749	-.121 -.121	.381 .377	-.875 -.868	.633 .627