A STUDY ON KNOWLEDGE AND ADOPTION OF IMPROVED SERICULTURE PRACTICES AMONG TRAINED WOMEN IN BANGALORE RURAL DISTRICT

NARESH N. T.

Department of Agricultural Extension

UNIVERSITY OF AGRICULTURAL SCIENCES

BANGALORE

1996

A STUDY ON KNOWLEDGE AND ADOPTION OF IMPROVED SERICULTURE PRACTICES AMONG TRAINED WOMEN IN BANGALORE RURAL DISTRICT

NARESH N. T.

Thesis submitted to the
University of Agricultural Sciences, Bangalore
in partial fulfilment of the requirements
for the award of the Degree of

Master of Science (Agriculture)

IN

AGRICULTURAL EXTENSION

BANGALORE FEBRUARY 1996

AFFECTIONATELY DEDICATED TO

MY BELOVED PARENTS

Sri.THIMMAIAH

&

Smt.LINGAMMA

ACKNOWLEDGEMENT

It fills my heart with joy as I attempt to express my deep sense of indebtedness to **Dr.K.Narayana Gowda**, Extension co-ordinator, Extension Education Unit and Chairman of my advisory committee. His valuable suggestions, kind and constant encouragement and constructive criticism throughout the period of investigation.

I am greatly indebted to the advisory committee members **Dr.B.S. Siddaramaiah**, Editor, Communication Centre, **Dr. K.T. Krishne Gowda**, Agronomist, Millet's project, **Dr.H. Khader Khan**, Associate Professor (Entomology), Extension Education Unit, **Mr.Krishnappa**, Assistant Professor of Statistics for thier kind interest, critical comments and valuable suggestions.

I am strongly beholden to my father **Sri.Thimmaiah**, mother **Smt.Lingamma**, brother **Mr.T.Manjesh**, sister **Smt.T.Kalpana**, brother-in-law **Sri.K.Shivaraj** and nephew **Deepak** and **Shamanth** for their affection and encouragement during the period of my study.

I am obliged to my friends **Mr.J.Subashchandra, B.V Jirli, K.Shivaraj, R.Thippeswamy, Prabhakar, Sanjay K.N.**, for their help rendered at different stages of the study.

My thanks are due to **Mallikarjun** and **Manasa** for having typed the thesis neatly.

Bangalore
19th February 1996

N.T.N—k

(N.T. NARESH)

DEPARTMENT OF AGRICULTURAL EXTENSION

UNIVERSITY OF AGRICULTURAL SCIENCES

BANGALORE

CERTIFICATE

This is to certify that the thesis entitled "A STUDY ON KNOWLEDGE AND ADOPTION OF IMPROVED SERICULTURE PRACTICES AMONG TRAINED WOMEN IN BANGALORE RURAL DISTRICT" by Mr.NARESH N.T. for the degree of MASTER OF SCIENCE IN AGRICULTURAL EXTENSION of the university of Agricultural Sciences, Bangalore is a record of research work done by him during the period of his study in the university under my guidance and supervision and the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles.

Bangalore

February 1996

(K. NARAYANA GOWDA)
Extension co-ordinator
Extension Education Unit

APPROVED BY :

CHAIRMAN : _____

(K. NARAYANA GOWDA)

MEMBERS : 1. _____

(B.S. SIDDARAMAIAH)

2. _____

(K.T. KRISHNE GOWDA)

3. _____

(H. KHADER KHAN)

4. _____

(KRISHNAPPA)

CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

INTRODUCTION

Sericulture is an important agrobased industry with huge labour involvement and high income generation potential. India, the second largest silk producer next to china, has a unique position in the world being the only country producing all the commercial types of natural silks, viz., mulberry, tasar, eri, and muga. Mulberry silk production in India is largely confined to the Southern region. Among the southern states, Karnataka has a pride place in mulberry silk production. At present the average yield level of cocoons per 100 disease free layings (dfl's) in Karnataka is 40 kg. Whereas China's it is 80 kg/100 dfl (Anonymous, 1994). The potential average yield level in Karnataka is 60 kg/100 dfl. This enterprise is fairly managed well because of women's participation. According to research evidence the women's participation is 61 per cent in terms of total work force in various operations of mulberry cultivation and silkworm rearing. The productivity per unit of 100 layings could be maximised only when the women participate both physically and mentally.

Training is of paramount importance in educating farm women about the improved sericulture technology for achieving higher production. Farm women training, both institutional and peripatetic, has been accepted as one of the important extension strategies to bring about behavioural changes among them. It is possible to bridge this gap by improving knowledge and skill of farm women through institutional

training because total participation of farm women is possible through training than other extension methods. Since their participation is limited in other extension methods either because of lack of permissible environment in village situation due to the values, norms or the presence of time.

A Sericulture Training School was started in the year 1948 by the then Department of sericulture at Channapatna Taluk of Bangalore Rural District with the objective of giving training to inservice and preservice staff of sericulture Department and also for farmers (Anonymous, 1994). This school at present is conducting eight types of different training programmes for personnel engaged in sericulture. Training for farm women and farm men for one month duration is one among the eight training programmes. Under this programme, the farm women are provided with upto date knowledge of sericulture technology and it imparts appropriate skills through practicals for one month duration. Farm women stay at the training school and are given free boarding, lodging facilities and they are provided with Rs 15/- per day as a stipend. The curriculum is developed after assessing the training needs of the farm women. A great emphasis is laid on practicals and skill teaching.

The huge costs and manpower are involved in each training programmes. This calls for periodic evaluation to determine the effectiveness of the training conducted. At present it is not precisely known whether the training imparted to

sericulture farm women is effective or not. Further, to what extent knowledge and skill acquired by trainees about the improved practices is being put to use. The evaluation of training programme also helps to locate the strong and the weak points in the programme and it helps to give the direction to the continued improvement of training, besides bringing confidence and satisfaction to the trainees regarding the level of training status they have attained.

No empirical investigations are so far carried out critically to assess extent of knowledge and adoption level of trained farm women sericulturists.

It is imperative and appropriate at this stage that these training programmes should be based on scientific findings to make them more efficient and purposeful. More specifically what practices are practiced by majority of trained farm women, practices not at all practiced, practices partially practiced so that training programme could be need based and the training Institute staff can bestow their personal attention while imparting training in such specific areas. with these points in view, an attempt has been made in the present study to find out the knowledge and adoption level of improved sericulture farming practices among women sericulturists in addition to effectiveness of training as perceived by the trainees.

The specific objectives of the present study are as follows:

1. To measure the knowledge and adoption level of trained and untrained farm women sericulturists with regard to improved sericulture practices.
2. To know the opinion of trained farm women sericulturists with regard to different aspects of training.
3. To identify the relationship between socio-psychological characteristics of trained farm women sericulturists in relation to their knowledge and adoption level.

Scope of the study

The present study was confined to investigate the extent of knowledge and adoption level of trained and untrained farm women sericulturists with regard to improved sericulture farming practices besides identifying the socio-psychological characteristics of respondents responsible for change in knowledge and adoption level of trained farm women. The findings of the study would be useful in conducting effective training programmes keeping in view the felt and unfelt needs of the farm women thereby enabling the farm women to acquire higher knowledge and skill. The findings also highlight the specific practices in which the farm women need to be given due emphasis.

Limitations of the study

Since the study was conducted by a student researcher who had limited time and other resources at his disposal, the

study was confined to three taluks in Bangalore rural district viz., Channapatna, Ramanagaram, Kanakapura taluk. Therefore, the findings obtained cannot be generalised to all the areas in the state.

Definition of the terms used in the study

Farm women Sericulturist: A farm women who is engaged in both mulberry cultivation and silkworm rearing.

Pit system: It is a method of planting and raising mulberry crop. Mulberry cuttings are planted in pits with wider spacing in between the pits. The mulberry plants are allowed to grow like bushes. This method is in vogue in most parts of Karnataka state except in Kolar district where row system is in practice.

Disease free layings (dfl's): The eggs of silkmoth which are free from seed borne diseases.

Technical service centre (TSC): It is the operatical level extension wing of Karnataka state Department of sericulture located in one of the cluster villages and it covers surrounding villages. A team of extension functionaries headed by Sericultural Extension Officer provides technical knowhow relating to sericulture and help to solve problems of sericulturists. Each taluk will have three to five such centres.

Knowledge level: knowledge level refers to the level of knowledge possessed about recommended practices of mulberry cultivation and silkworm rearing.

Adoption level: It is the level of adoption of recommended practices of mulberry cultivation and silkworm rearing on the farms of the respondents family.

Presentation of the study :

This study is presented in following chapters. The first chapter deals with introduction, scope and limitations of the study and definition of terms used. This is followed by review of latest literature pertaining to this study. The third chapter is devoted to the material and methods used in the process of investigation and the quantification procedures followed in conducting the study. The results of the study is presented in the fourth chapter. The findings of the study have been discussed in the fifth chapter. Chapter sixth deals with the summary and implications followed by seventh chapter listing the references and lastly appendices.

REVIEW OF LITERATURE

II. REVIEW OF LITERATURE

The present study was designed to know the impact of Institutional training on knowledge and adoption level of women sericulturists with regard to improved sericulture practices.

There are quite a number of studies on farmers training but very few studies are available on farm women training and no studies are reported on women sericulturists. Hence, studies available on farmer's training were also reviewed keeping in view the objectives of the present investigation.

An attempt was made to briefly review the available relevant literature related to the present study and the same is presented on the following lines.

1. Concept of training.
2. Importance of women training.
3. Association between the gain in knowledge and socio-psychological characteristics of farmers.
4. Relationship between extent of adoption and socio-psychological characteristics of farmers.
5. Impact of training on the knowledge level of farmers.
6. Impact of training on the adoption level of farmers.
7. Organising aspects of training.

2.1 Concept of training

Oxford dictionary (1933) defined training as a discipline and instruction directed to the development of power of

formation of character- education, rearing and bringing up. It further states training as a system of instruction and exercise is some art, profession or occupation with a view to proficiency in it.

Planty and Macord(1948) defined training as " A specialised and very practical form of education." Basically it prepares people to do their job well. To accomplish this, it develops the skills that makes for intelligent actions and attitudes that bring willing co-operation with fellow employees and management.

English and English (1959) defined training as " the totality of instructions, planned circumstances and directed activity to which an animal or person is subjected to induce learning."

Taylor (1961) elaborated the meaning of training as follows :

"Training is the means to bring about a continuous improvement in the quality of work performed by the staff and the individual. It should equip the leader with necessary knowledge, skills or abilities and attitude to perform his job."

Lynton and Pareek (1967) described training as " aiming at a lasting improvement on the job." The model of training given by them, based on dynamic development process, contains three phases viz., unfreezing , moving and refreezing.

Rao (1969) defined farmers training as " An intensive learning activity for a group of selected farmers, assisted by competent trainers to understand and practice the skills required in adoption of new technology, at a place where appropriate facilities exist and at a time and duration considered suitable by the farmers."

Dwarakinath and Padmasini (1977) indicated that training would act as a means of transferring the new knowledge and skills in scientific agriculture of an external origin to a local farming system.

Dhama and Bhatnagar (1980) opined that training is meant to educate a person so as to be fitted, qualified and proficient in doing some specific job. For an extension worker, training includes education which aims at bringing a desirable change in behavior of trainee or learner. This change was said to require a change in an extension worker's knowledge, skills, attitudes, values, beliefs and understandings. This would further lead to proficient communication of the desired knowledge to client system.

Singh (1990) defined training as a process by which an individual efficiency and effectiveness in the given context of a job can be maximised. It equip the individual with needed knowledge, attitude and skills with respect to present or expected future roles and responsibilities enabling him to reach a desired level of performance.

MuthuRaman (1995) defined training as a planned and systematic effort to increase knowledge (K), improve skills (S), inculcate appropriate attitudes (A), and develop other attributes (Os). Hence, training is Concerned with KSAOs and may be described as a function(f) of :

$$T = f(K,S,A,Os)$$

Thus, the term training refers to an intensive learning activity for a group of selected farm women sericulturists, assisted by competent trainers to understand and practice the skills required in adoption of improved sericulture farming, at a place where appropriate facilities exists and at a time and duration considered suitable by the farm women sericulturists.

2.2 Importance of women's training

Deshpande et al. (1987) found that in the women training programmes, it is essential to train and motivate adult women in the initial stages as they are the decision makers in the family. Thus, training results in behavioural changes of rural women.

Lalitha (1985) in her study revealed that the overall knowledge level and adoption behaviour of the trained farm women had positive influence on training by the participants on recommended practices of rainfed ragi cultivation. Further, she pleaded Women and youth training extension project (WYTEP) is essentially considered to bear paramount importance in educating about improved technology for achieving higher production.

Manjula (1993) indicated the knowledge and adoption of trained farm women was encouraging regarding groundnut cultivation practices. Further, she felt need for organising as many training programmes as possible for the benefit of large number of farm women in increasing production.

Bhat and Sharmila (1994) found peripatetic training proved to be a highly useful tool for transfer of technology for women sericulturists. Considering the importance of women in sericulture development, this will go a long way in improving the silk productivity at the farmers level.

Gregory(1994) indicated that the training programmes has been successful in equipping women with self confidence and higher self esteem. This would help them in adopting the appropriate sericulture technologies at right time.

Sethu Rao (1994) opined that women take part in management as well as decision responsibilities in sericulture. Therefore, it is necessary that the technical support through training be provided for women in sericulture for: an understanding of totality of sericulture technology, skill competence in the operations as they perform along with the relevant essential knowledge, managerial ability to achieve greater efficiency and economy in the undertaking.

Benchamin (1995) revealed that training inputs must facilitate women to experience a wholesome image of themselves as valuable resource and as an asset to the system and organisation, rather than functioning as mere role

performers. Further, suggestions were made regarding training relevant methodologies to create an atmosphere where assumption, values, belief and perspectives can be explored and understood for participants to discover their own choice and strength through experiences.

2.3 Association between the gain in knowledge and socio-psychological characteristics of farmers.

2.3.1 Education :

Menon and Prema (1978) in their attempt to study the relationship of social and personal characteristics of rural women with their gain and retention of knowledge due to their participation in applied nutrition camps in Kerala, found that the gain and retention of knowledge was significantly related to level of education.

Shashikumar and Bhave (1978) revealed that education of trained farm women had no association with their knowledge with respect to improved practices of ragi. Chandargi (1980), Uma (1980), Lalitha (1985) and Manjula(1993) found similar association between education and knowledge level of trained farm women in relation to improved methods of cultivation.

The studies cited above pointed out contradictory relationship with education level of trained farm women and their knowledge level. Therefore, it would be interesting to gain an insight into the relationship between education and knowledge level of trained women sericulturists.

2.3.2 Land holding :

Shashikumar and Bhave (1978) pointed out farm size of trained farm women had no association with their knowledge. Similar findings was also reported by Uma (1980).

Manjula (1993) in her experimental study, found that there was significant association between knowledge gain and land holding of trained farm women.

2.3.3 Family size :

Joshi and Thorat (1984) found significant association between knowledge index of trained Mahila Mandal members and medium and large sized families with regard to production aspects of nutritious food.

2.3.4 Mass media use :

Menon and Prema (1978) found significant relationship between knowledge level and mass media use by the participants. Similar findings was also reported by Uma (1980).

Chandargi (1980) observed no significant association between knowledge gained and mass media use as a result of training. Similar findings were also reported by Lalitha (1985), Manjula (1993).

2.3.5 Social participation :

Uma (1980) found that there was no significant

association between knowledge gained and social participation of the trained Mahila Mandal members about the modern practices of nutrition. Similar findings were also reported by Chandargi(1980) and Lalitha (1985).

Manjula (1993) indicated that there was significant association between knowledge index and social participation of trained farm women about groundnut cultivation practices.

2.3.6 Extension contact :

Lalitha (1985) in her experimental study, found that there was no significant association exists between the level of family contact with extension agency of respondents and the knowledge level with respect to ragi cultivation practices. Similar observations were also made by Ganesh (1975), Halappanavar(1979), Kantharaj(1980).

2.3.7 Extension participation :

Chandargi (1980) observed no significant association between knowledge index and extension participation by the trained farm women. Similar findings were also reported by Uma (1980), Lalitha(1985), Manjula(1993).

Venkatesh (1995) revealed that significant association between knowledge level and extension participation of trained farm youth about the recommended practices of paddy cultivation.

2.3.8 Innovation proneness :

Venkatesh (1995) found significant association between innovation proneness and knowledge level by the trained farm youth.

2.3.9 Achievement motivation :

Manjula (1993) found that there was non-significant relationship between achievement motivation and gain in knowledge level by the trained farm women. A similar findings was reported by Shreeshailaja (1993).

Venkatesh (1995) opined that there was significant association between achievement motivation and gain in knowledge index by the trained farm youth.

2.3.10 Management orientation :

Gangadharappa (1979) in his study on farmers training, revealed that gain in knowledge had no significant association with management orientation of hybrid jowar growers. A similar findings was also reported by Shilaja (1993).

2.3.11 Decision making ability :

Prameelamma (1990) in her study revealed that knowledge of rural women about cultivation aspects of paddy was found to be significant with extent of participation in decision making about agricultural operations. A similar findings was reported by Manjula(1993) and Venkatesh (1995).

Majority of the studies revealed a positive and significant relationship between socio-psychological variables and the knowledge level of respondents. While , few studies indicated non-significant relationship. This however, needs further confirmation.

2.4 Relationship between extent of adoption and socio-psychological characteristics of farmers.

2.4.1 Education :

Shashikumar and Bhave (1978) reported that the adoption level of trained farm women was not associated with education. A similar findings were also reported by Uma (1980), Lalitha (1985) and Manjula(1993).

Gangadharappa (1979) reported that the trained farmers adoption level was positively associated with education level. Similar was the opinion of Manjunath (1980).

2.4.2 Land holding :

Krishna Alva (1972) pointed out that adoption of plant protection measures by trained paddy farmers was significantly associated with size of land holding. A similar findings were revealed by Patel (1975) and Manjula (1993).

Shashikumar and Bhave (1978) indicated that adoption level of trained farm women was not associated with their farm size.

2.4.3 Family size :

Patel (1975) in his study conducted in Sangli district, found that the family size was significantly associated with adoption level of farmers. A similar findings was also reported by Joshi and Thorat (1984).

2.4.4 Mass media use :

Uma (1980) in her study, pointed out the significant association between the adoption behaviour and mass media participation of the trained farm women.

Lalitha (1985) revealed that there was non-significant association between the adoption and mass media use by the trained farm women about cultivation practices of rainfed ragi. A similar result was also reported by Manjula (1993).

2.4.5 Social participation :

Gangadharappa (1979) indicated that the trained farmers adoption level had a significant association between the extent of social participation. Similar association was also reported by Manjunath (1980).

Uma (1980) in her experimental study indicated that there was non-significant association between the extent of social participation and adoption of farm women. A similar findings were reported by Lalitha(1985) and Manjula (1993).

2.4.6 Extension contact :

Ravikumar (1979) reported that there was a positive and significant association between the extent of extension contact and adoption behaviour of non participant farmers regarding the recommended practices of irrigated wheat cultivation.

Uma (1980) reported that there was a non significant association between the extent of contact and adoption behaviour of trained Mahila Mandal members regarding the nutrition and home gardening aspects. It was also reported by Lalitha (1985).

2.4.7 Extension participation :

Manjunath (1980) reported that adoption level of trained farmers was positively associated with extension participation.

Lalitha (1985) indicated there was non significant association between adoption and extension participation. It was also indicated by Manjula (1993).

2.4.8 Innovation proneness :

Venkatesh (1995) in his experimental study, found that there was significant association between innovation proneness and adoption level by the trained farm youth.

2.4.9 Achievement motivation :

Renukaradhya (1983) revealed that the adoption pattern of trained farmers was found to be significantly correlated with achievement motivation. A similar results were also indicated by Manjula (1993), Venkatesh (1995).

2.4.10 Management orientation :

Gangadharappa(1979) reported that trained farmers adoption level was not associated with management orientation of hybrid jowar growers.

2.4.11 Decision making ability :

Manjula (1993) in her experimental study, indicated that adoption level was significantly related to decision making ability by the trained farm women about groundnut cultivation practices. A similar result was pointed out by Venkatesh (1995).

2.5 Impact of training on the knowledge level of farmers

Krishna (1972) reported that there was association between training and overall knowledge level of farmers about hybrid maize cultivation at one per cent level of significance.

Krishna Alva (1972) observed that there was significant association between training and the total knowledge of farmers about plant protection. The study indicated that 26.67 per cent of trained farmers had high knowledge

regarding plant protection as against only 1.33 per cent of the untrained farmers.

Rao and Dudhani (1972) in a study on the measurement of impact of training of paddy farmers, revealed that there was an apparent gain in knowledge level of participating paddy farmers as a result of training. They concluded that the gain knowledge level was more about general characteristics of high yielding variety of paddy than about fertilizers and plant protection.

Gangadharappa (1979) in his study on farmers of Malaprabha command area of Karnataka reported that trained farmers had higher knowledge score in contrast to untrained farmers regarding cultivation practices of hybrid jowar cultivation.

Neerubala and Sumitaroy (1979) conducted a study on utilisation of household knowledge by farm women in Ludhiana district with 120 trained women and 50 untrained women. The results indicated that trained women had more knowledge level than the control group.

Uma (1980) found that knowledge level of trained Mahila Mandal members was significantly high as a result of training with respect to nutrition and home gardening in Dharwar district.

Joshi and Thorat (1984) conducted study on Mahila Mandal members in Pune district and found that the nutrition

training had positive impact on respondent's knowledge level.

Lalitha (1985) revealed that impact of training was significant with reference to gain in knowledge by the participants in relation to recommended cultivation practices of ragi.

Gangadharappa and Rao (1989) revealed that knowledge levels of the respondents depicted wide differences indicating that trained farmers were well ahead to the untrained farmers regarding hybrid jowar cultivation and soil and water management practices.

Ranganath (1990) reported that there was significant difference between participant and non participant farmers with respect to overall knowledge of recommended practices of groundnut cultivation.

Manjula and Siddaramaiah (1993) revealed that training acts as an invisible input and an important factor in changing the knowledge level of farm women regarding groundnut cultivation practices.

Sengar et al. (1994) found that greater change in knowledge level was noticed due to training regarding grain storage, kitchen garden, fruits and vegetables preservation and balenced diet among the female respondents.

Verma and Rajesh Dahiya (1994) in a study on impact of instructional media packages on knowledge acquisition of rural women regarding post harvest technology indicated that

women have gained significant knowledge regarding storage for wheat, paddy, pulses.

Venkatesh (1995) in his study found that trained farm youth had higher level of overall knowledge score on recommended practices of paddy cultivation as compared to untrained farm youth who had lower level of knowledge.

It could be summarised that training had impact and was more useful to the the farm women and farmers in gaining additional information on different technologies. Hence, it could be interesting to study the gain in knowledge level of the farm women sericulturists regarding improved sericulture practices as a consequence of training.

2.6 Impact of training on the adoption level of farmers

Somasekharappa (1971) in a study on the impact of production-cum-demonstration training of farmers found that there was a significant difference in the adoption quotient of participant and non participant farmers, indicating that participant farmers had higher adoption level about recommended farm practices.

Singh and Narayan (1974) pointed out that farmers training resulted in an increase in the area under improved farm practices and also increase in the productivity of crops.

Ganesh (1975) reported that the training has contributed to the considerable difference in adoption of recommended soil and water management practices as a consequence of training.

Krishna and Jalihal (1976) in their study revealed that trained farmers had higher adoption of hybrid maize cultivation practices than untrained farmers.

Muthaiah et al.(1978) reported that training has influenced the adoption level of farmers to a significant extent in adopting the recommended cultivation practices of paddy.

Bhat(1980) in a study on the impact of farmers training on knowledge and adoption behaviour of farmers in Malaprabha command area revealed that training was positively associated with overall adoption of recommended practices of irrigated wheat.

Uma (1980) indicated that training was positively associated with the overall adoption of recommended practices of nutrition and home gardening.

Renukaradhya (1983) from a study conducted on farmers training programme in selected command areas of Karnataka revealed that trained farmers were superior in adoption pattern than the untrained farmers.

Joshi and Thorat (1984) conducted a study on Mahila Mandal members in Pune district, and found that training had positive impact on respondents with regard to their adoption index.

Lalitha (1985) in a study on the impact of training under WYTEP on farm women reported that the influence of training was significant in relation to adoption of recommended cultivation practices of rainfed ragi.

Ranganath (1990) in his study revealed that there was significant difference between participant and non participant farmers about their adoption recommended practices of groundnut cultivation.

Joshi and Thorat (1992) revealed that the institutional training about nutrition had significant association with adoption level of the respondents.

Manjula and Siddaramaiah (1994) indicated that training is one of the important factors in changing the adoption behaviour of farm women about groundnut cultivation practices.

Venkatesh (1995) in a study found that there was significant difference between trained and untrained farm youth with respect to overall adoption of improved practices of paddy cultivation.

The review of the above studies indicate the trend that, programmes like farmers training and intensive educational

activities on farm production had motivated the participants for higher adoption. Hence, it would be interesting to study the increase in adoption level of farm women sericulturists regarding the improved sericulture practices as a result of training.

2.7 Organising aspects of training

2.7.1 Type and place of training:

Type and place of training play a very important role in increasing the efficiency of training. Some of the studies revealing the importance of type and place of training are as follows:

Kumar and Snehalatha mago (1974) conducted a study on training needs of farm women in Haryana and reported that most of the women preferred village as a place of training followed by institutional training.

Singh (1976), based on a study conducted on training needs of farmers reported that training programme to be organised at village level was likely more popular among the paddy growing farmers and the optimum size of such training group should be of 25 farmers.

Jhondhale and Chole(1989) revealed that 60 per cent of the respondents suggested to organise training at their resident village.

Murthy (1989) in his study on training needs of blackgram growers found that peripatetic training was preferred to

institutional training by majority of farmers.

Shreeshailaja (1993) revealed that a great majority of farm women preferred peripatetic training and the least preferred training was institutional training.

To summarise, most of the farmers and farm women preferred peripatetic training to institutional training.

2.7.2 Season of training :

Season of training refers to the month in which farmers like to undergo training. Some of the findings of studies revealing the importance of the season of training are given below.

Sidhu and Patel (1968) reported that cent percent of farmers and trainees favoured to organise kharif camps in the months of April-May and rabi camps in the months of September-October.

Patil and Kale (1972) reported that 94 per cent of the farmers were in need of vocational training and opined that December to May was suitable for them to attend.

Prasad (1972) in his study found that suitable months for training as perceived by farmers were April-May and September-February.

Dayananda patel (1985) revealed that April-May are the most suited months of training.

Shreeshailaja (1993) reported that 89 per cent of farm women preferred April-May as the most suited months for training. The least preferred months were October- November.

It can be concluded that majority of the farmers opined April-May as the most suitable season to attend training.

2.7.3 Duration of training

Duration of training refers to number of days of training and it determines the participation of farmers in the training programme. Some of the studies revealing the farmers preference on the duration of training are as follows.

Sharma and Murthy (1971) reported that trained progressive farmers wanted upto 30 days duration, whereas small and medium sized farm owners preferred training of 10 days duration.

Patil and Kale (1972) found that 67 per cent of farmers opined that average period of each training course should be nine days.

Kumar and Snehalatha mago (1974) reported that with respect to duration of training about half of the respondents preferred two weeks and others one week training.

Vashistha et al. (1978) reported that majority of the respondents (46 per cent) liked one week training, while 32 per cent liked three days training.

Dayananda patel (1985) revealed that majority of the respondents preferred five days training.

Shreeshailaja (1993) reported that about 32 per cent of farm women preferred three days duration training followed by five days duration by 29 per cent of farm women.

It can be concluded that majority of farmers felt that the duration of training period should be five days to one week, which although varies according to the type of subject matter. Usually institutional type of training will have lengthy period compared to peripatetic type of training.

2.7.4 Method of training :

Method of training refers to the teaching methods used by the trainers to train the trainees. Training methods form the key for effective communication with the participants. Some of the studies reviewed in this area are given below.

Sidhu and patel(1968) concluded that more emphasis should be given on practicals instead of lectures and opportunity to practice should be provided to farmers.

Sharma and Murthy (1971) reported that more emphasis was laid on field trips, visits to result demonstration plots and method demonstration. Practical rather than theoretical presentations were preferred by the participants.

Sinha and Verma (1977) reported that out of the four methods of training, demonstration emerged as the important method followed by film shows, group discussion and lectures by specialists.

Dayananda patel(1985) indicated that lecture plus, group discussion and method demonstration was found to be the most useful method of training.

Shreeshailaja (1993) revealed that majority of farm women preferred a combination of lecture plus group discussion plus method demonstration as the most preferred combination of method of training. The least preferred method was the study tour.

It can be concluded that the trainees in general preferred the method of imparting training by involving the participants in practical exercises followed by demonstration. Some farmers also preferred demonstration and group discussion as the method of training.

REVIEW OF LITERATURE

III MATERIAL AND METHODS

The research study was conducted during 1995 in Bangalore rural district. The material and methods used in the study are presented in this chapter under the following sub headings.

1. Locale of the study
2. Selection of villages and respondents
3. Variables included in the study
4. Methods used for quantifying independent and dependent variables
5. Opinion of trained farm women about training
6. Measurement of yield level of cocoons
7. Instrument for data collection
8. Statistical tools and tests used

3.1 Locale of the study

The study was conducted in three taluks of Bangalore rural district namely, Channapatna, Ramanagaram and Kanakapura during November 1995. The criteria used in the selection of these taluks were :

a. It should be nearer to the training school, Channapatna.
b. Sufficient farm women trainees should have been trained during 93-94 from the taluka.
c. The area under mulberry should be more in the taluka.

3.2 Selection of villages and respondents

It was essential to select a taluk which had sufficient number of trained farm women for the purpose of collecting data. For this purpose, a list of trained farm women sericulturists from the five technical service centres (TSCs) was prepared. Out of this four TSCs from Channapatna taluk Viz., Honganur, Bevoor, Kodambally, Tittamaranahally and TSC of Harohally from Kanakapura taluk were enlisted. Untrained farm women were selected from Ramanagaram since the TSCs were started recently and trained women sericulturists were least in number and this is an adjacent taluk. All the trainees who were trained during the period of 93-94 (1st April 93 to 31st March 94) were selected.

A list of all the farm women who were trained at sericulture training school, Channapatna during one year was collected village wise from TSCs.

From these five TSCs, 60 trained farm women from Channapatna and Kanakapura taluk, 60 untrained farm women from Ramanagaram and Kanakapura taluk were selected randomly for the present investigation.

3.3 Variables included in the study

The dependent variables used in the study were :

1. Knowledge
2. Adoption

BANGALORE DISTRICT

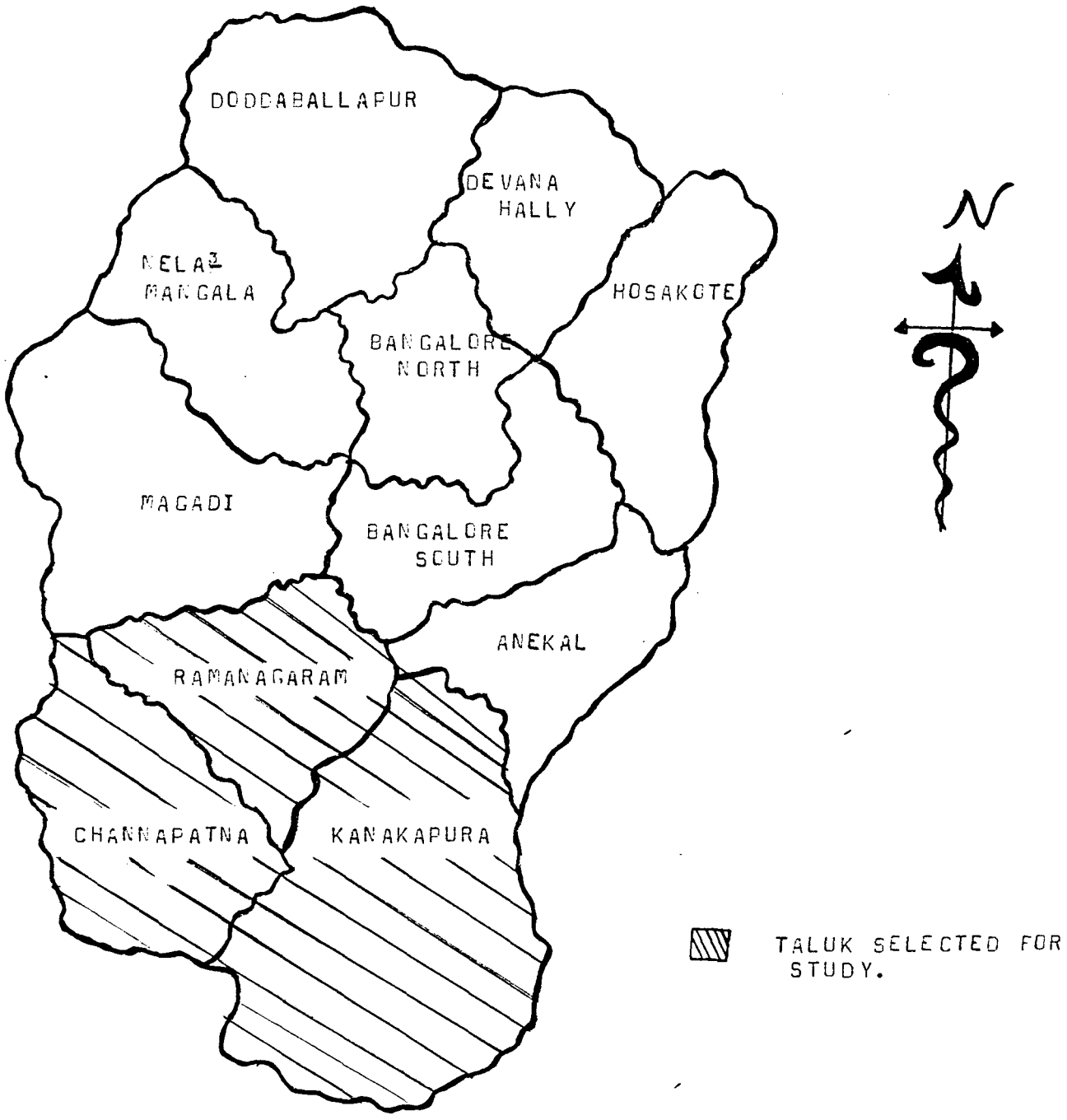

FIG:- 1 MAP SHOWING TALUKS SELECTED FOR THE STUDY

The independent variables used in the study were :

1. Education
2. Land holding
3. Family size
4. Mass media use
5. Social participation
6. Extension contact
7. Extension participation
8. Innovation proneness
9. Achievement motivation
10. Management orientation
11. Decision making ability

3.4.1 Quantification of the dependent variables

3.4.1.1 Knowledge level : The operational measure of knowledge developed by constructing a teacher made knowledge test as suggested by Anastasi (1961) for the purpose of the study was used.

Knowledge test was constructed based on the package of practices for sericulture recommended by the University of Agricultural Sciences(UAS), Bangalore. A list of 44 items were selected for the purpose and each practice was put in the question form to the respondents to obtain the response. The correct response was given a score of`one' and incorrect response was given a score of `zero'. The total knowledge score for each respondent was calculated by summing up the number of items correctly answered by an individual

respondent and the maximum score that one could obtain was 44.

Thus, after computing knowledge level score, the respondents were grouped into low, medium and high categories by taking the mean and standard deviation as a measure of check.

category	score
Low: ($\bar{X}$ - ½ S.D)	< 25.08
Medium: ($\bar{X}$ ± ½ S.D)	25.08 to 30.14
High: ($\bar{X}$ + ½ S.D)	> 30.14

3.4.1.2 **Adoption level:** The partial adoption technique suggested by Sinha and Kolte (1974) was followed with necessary modification for scoring the practices partially adopted by the respondent. The package of practices recommended by the University of Agricultural Sciences (UAS), Bangalore and the suggestions of technical experts were obtained before finalising the items for the study. Score of two, one, zero were assigned for full, partial and non adoption of some recommended practices.

Partial adoption was arrived at taking into cognizance any deviation in the adoption from the recommended practices. Depending on the total scores obtained by each of the respondents, they were grouped into three categories with mean and standard deviation as a measure of check.

Category	Score
Low : ($\bar{X}$ - ½ S.D.)	< 36.87
Medium: ($\bar{X}$ ± ½ S.D.)	36.87 to 42.37
High: ($\bar{X}$ + ½ S.D.)	> 42.37

3.4.2 Quantification of the independent variables

3.4.2.1 Education: It refers to the number of years of formal education acquired by the respondent. In this study, quantification of this variable is done based on the scoring procedure followed by Trivedi(1963). It is as shown below.

Categories	Score
Illiterate	0
Can read & write	1
Primary School	2
Middle School	3
High School	4
College Education	5

3.4.2.2 Land holding : The extent of land holding was recorded in terms of total number of acres of land owned by the respondent's family. Wet and garden lands owned by the respondents were converted into dry land acres, using the guidelines issued by Karnataka Land Reforms Act 38 of 1966 (part B). Based on the standard dry land area owned by the family, the farm family were classified into three groups viz., marginal, small and big.

Category of farmer	Land holding
Marginal	< 2.5 acres of dry land
Small	2.5 to 5 acres of dry land
Big	> 5 acres of dry land

3.4.3.3 **Family size** : Based on the number of members living together, the family size was classified as follows using the norms recommended by Halim and Islam (1973) with slight modification.

Category	Member
Small family	below 8
Big family	8 and above

3.4.3.4 **Mass media use:** This refers to the exposure of an individual to different mass media and the degree of participation in them. The different mass media sources were listed and the respondents were asked to indicate as to how often they participate in each of these activities. The procedure suggested by Byra Reddy(1971) was used in assigning weightages as detailed below.

Sl.No.	Source	Regularly	Occasionally	Neve
1.	Reading news paper	2	1	0
2.	Listening to radio	2	1	0
3.	Listening to rural radio programmes	2	1	0
4.	Reading farm magazines/ leaflets/related literature on agriculture/sericulture	2	1	0

The maximum score that could be obtained by each respondent was eight.

3.4.3.5 **Social participation:** It is the degree of involvement of a respondent from mere membership in organisations and his active participation in the activities of local organizations like Raitha sangha, Mahila Mandal, Village panchayat, Taluk panchayat, Sericulture farmers co-operative society etc. This variable was quantified using the method followed by Trivedi (1963) and weights assigned as below :

a.Membership position	Score
Office bearer in one or more organization	3
Member in more than one organization	2
Member in one organization	1
Not a member in any of the organization	0

b. Participation in the meetings of the organizations	Score
Regularly	2
Occasionally	1
Never	0

Maximum score that could be obtained by each respondent was five.

3.4.3.6 **Extension contact:** To know the extent of extension contact of the respondents, the respondents knowledge and contact with extension agencies were considered, as per the procedure used by Hiriyannaiah (1977). The different items included and respective score assigned to them are as follows:

Items	Score
a. Respondent knowing the name of	
1. Sericulture Demonstrator	1
2. Sericulture Inspector	1
3. Sericulture Extension Officer	1
4. Extension Guide	1
5. Assistant Agricultural Officer	1
6. Agricultural Assistant	1

b. Frequency of contact with the above agencies in a Year

1.	More than three times	2
2.	One to three times	1
3.	No contact	0

The maximum score that could be obtained by each respondent was eight.

3.4.3.7 **Extension participation :** It refers to the extent of participation of the farm women in different extension activities like training programmes, group meetings, field days, demonstration etc., conducted during the last one year in the area.

This variable was quantified by following the procedure suggested by Ravikumar (1979). A list of extension activities was prepared and respondents were asked to indicate their extent of participation under each one of them. The scoring procedure is as detailed below :

Sl.No.	Extension activities	Extent of participation		
		Regular	Occasional	Never
1.	Training programme	2	1	0
2.	Extension group meeting	2	1	0
3.	Exhibition	2	1	0
4.	Krishi mela	2	1	0
5.	Demonstration	2	1	0
6.	Field days and field visit	2	1	0

The maximum score that could be obtained by each respondent was 12.

3.4.3.8 **Innovation proneness :** It is defined as a socio-psychological orientation of an individual to get linked or closely associated with change, adopting innovative idea and practices.

This variable was quantified using the innovation proneness scale of Feaster (1968) with slight modifications. Eight statements were included for the present study with three response categories as "Yes", "Undecided" and "No". For the first four statements a score of "two" was assigned to`yes' response, a score of "one" for `undecided' and "zero" score for `no' response. The scoring procedure was reversed in the case of last four statements. The summation of the score obtained by a farmer for all eight statements indicated the innovation proneness score of each respondent. The total score ranged from zero to 16.

3.4.3.9 **Achievement motivation :** It is the desire to do well not so much for the sake of social recognition or prestige, but to attain an inner feeling of personal accomplishment. In the present study, the achievement motivation is defined as a value associated with an individual which drives him to excel in farming and related fields and thereby attain a sense of personal accomplishment.

The achievement motivation scale developed by Singh (1974) was used in the present study. The scale has six statements in the form of questions. Each question had five alternate answers. The respondent has to check one of the

alternatives to each statements. The scoring was done using the method of summated ratings.

For first, fourth and sixth statements, the scoring pattern was five, four, three, two and one for the alternatives in that order. For remaining statements the reverse scoring pattern was followed. Thus, the score ranges from zero to 30 for an individual.

3.4.3.10 **Management orientation :** It has been operationally defined as the degree to which a farm women is oriented towards scientific farm management comprising of planning, production and marketing functions of her farm enterprise. In order to know the respondents management orientation, the scale developed by Samantha (1977) was used. The scale consisted of 18 statements, six each for planning, production and marketing orientations. In each group, positive and negative statements were mixed retaining at the same time a more or less psychological orders of the statements. The score for each individual in the management orientation scale was obtained by summation of all the score.

3.4.3.11 **Decision making ability :** Based on review of past studies, journals and discussion with professors of Agricultural Extension in the University of Agricultural sciences, Bangalore. 11 areas of decision making in which the farm women are possibly involved in sericulture were identified.

The pattern of decision making identified and utilised in the study were head of the family, wife alone, husband alone and jointly. Based on the extent of participation in decision making responses were expressed in terms of percentage.

3.5 Opinion of trained farm women about training: To obtain the opinion of trained women about training programmes, a list of items were prepared keeping in view guidelines of the training school. The responses were collected on a three point continuum namely " most satisfactory", "satisfactory" and "not satisfactory". The weightages assigned to these were `two', `one' and `zero' respectively. These individual responses were expressed in percentages.

3.6 Measurement of yield level of cocoons : Based on yield level of cocoons obtained by farm women sericulturists per 100 dfl, the average yield obtained was worked out for trained and untrained group separately and it was expressed in Kg/100 dfl.

3.7 Instrument for data collection : A schedule was developed taking into consideration the objectives of the study and the subject matter content on sericulture practices which was taught to farm women in their training. A copy of the interview schedule is endorsed in Appendix-I. Data collection was made during October and November 1995 by personally interviewing the respondents.

3.8 Statistical tools and tests used :

1. Frequency and percentages were used to consolidate the different personal and socio - psychological characteristics of women sericulturists. Besides, mean and standard deviation was computed to categorise the respondents based on some of the personal and socio-psychological characteristics of farm women sericulturists.

2. The correlation co-efficients were computed between knowledge, adoption and other personal and socio-psychological characteristics of farm women sericulturists.

3. Multiple regression analysis was also employed to identify the extent of contribution of independent variables on the variation in the dependent variables under consideration.

4. Chi-square test was applied to know the difference between the two categories.

RESULTS

IV. RESULTS

In this chapter, results of the study are presented under the following headings keeping in view the objectives of the study.

1. Knowledge level of trained and untrained farm women sericulturists with reference to improved sericulture practices.

2. Adoption level of trained and untrained farm women sericulturists with reference to improved sericulture practices.

3. Opinion of trained sericulture farm women about selected aspects of training programme.

4. Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their knowledge level.

5. Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their adoption level.

6. Decision making ability of trained and untrained farm women sericulturists.

7. Average yield level of cocoons per 100 dfl among trained and untrained farm women sericulturists.

4.1 Knowledge level of trained and untrained farm women sericulturists with reference to improved sericulture practices:

A perusal of Table-I has brought to focus that there were 37 (61%) trained farm women with `high' knowledge score as against four (7%) untrained farm women in case of improved sericulture practices. Trained farm women, 22 per cent had `medium' level of knowledge and only 17 per cent were in `low' knowledge group. 68 per cent of untrained farm women had `low' knowledge category and only seven per cent in `high' knowledge group. The chi-square analysis indicated a significant difference between the trained and untrained categories with respect to overall knowledge level at one per cent level.

4.1.1 Knowledge about specific improved sericulture practices :

The data regarding specific knowledge of improved sericulture practices among trained and untrained are presented in Table-II. An examination of results revealed that cent per cent of trained as well as untrained farm women had correct knowledge about names of improved varieties of mulberry, symptom for powdery mildew disease, nature of damage by caterpillar, need for separate rearing house, recommended races of silk worm and sources of dfl, kind of leaves for chawki worms, number of times bed cleaning at IV instar, size of leaf at II instar, symptom for diseases

Table -I : Overall knowledge level of improved sericulture practices among trained and untrained farm women sericulturists.

n=120

Sl.No. (n=60)	Knowledge level	Trained women n_1 = 60		Untrained women n_2 = 60		Total	Chi-Square
		No.	Per cent	No.	Per cent	No.	
1.	Low	10	17	41	68	51	
2.	Medium	13	22	15	25	28	45.54
3.	High	37	61	4	7	41	
		60	100	60	100	120	

** Significant at 1 per cent level.

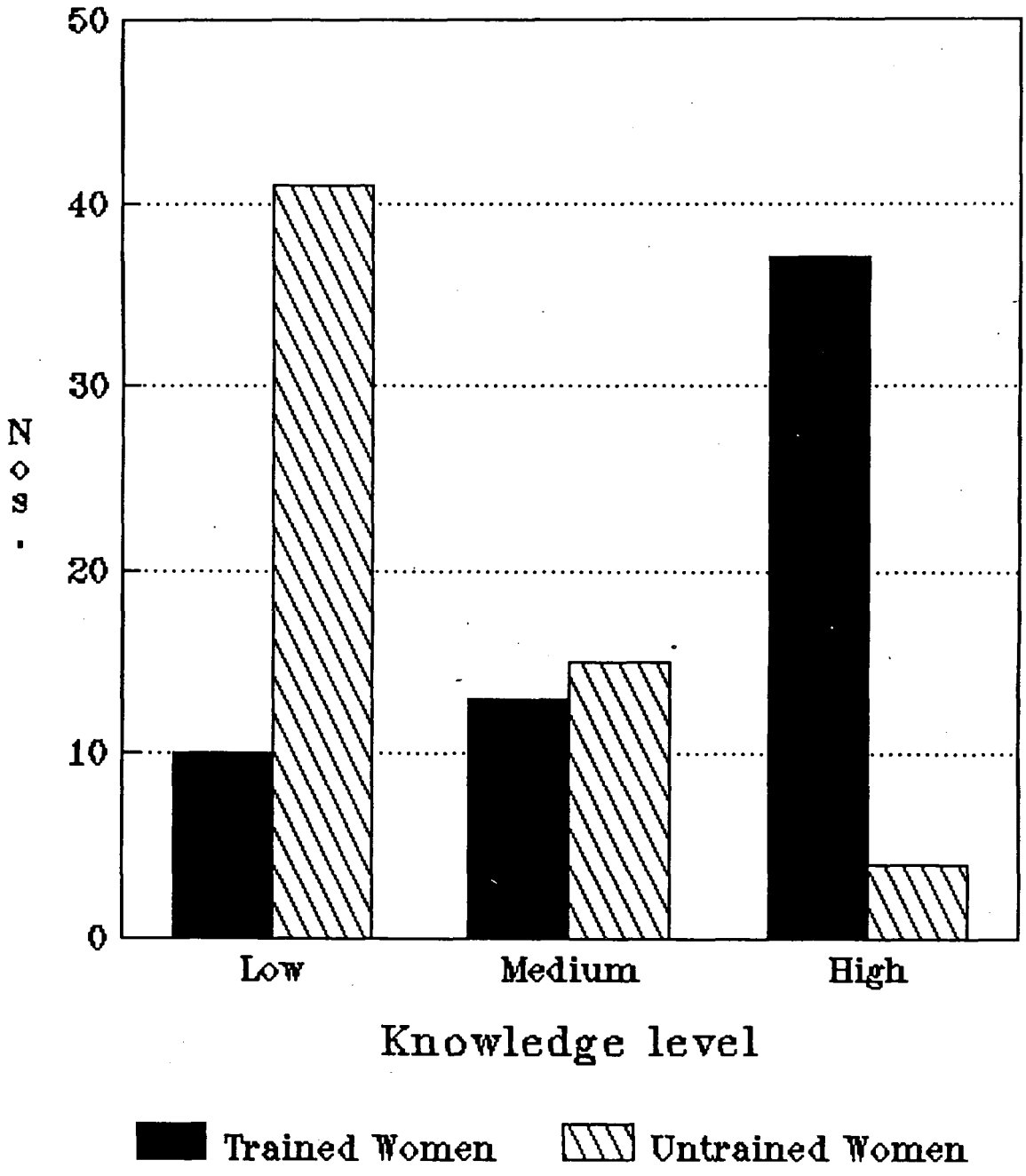

Fig - 2 Overall knowledge level of improved sericulture practicesamongtrained and untrained farm women sericulturists.

such as pebrine and flacherie, nature of damage by uzifly and also control measures for it.

Almost all the trained farm women had correct knowledge of both length of cuttings for planting and spacing required. Untrained farm women had correct knowledge about length of cutting for planting (82%) and spacing required (87%). A great majority of trained farm women (70%) as well as untrained farm women (68 per cent) had correct knowledge of number of buds per cutting.

With regard to FYM application and quantity of fertilizer at planting 70 per cent of trained farm women had correct knowledge of both the practices, whereas untrained farm women had 31 per cent and 33 per cent respectively. In respect of quantity of fertilizer after first crop 45 per cent of trained farm women had correct knowledge, whereas among untrained only ten per cent knew correctly. As regards quantity of fertilizers after second crop, 40 per cent of trained farm women had correct knowledge, whereas untrained farm women accounts only for about 13 per cent.

None of the untrained women had correct knowledge regarding chemicals and dosage required for the control of powdery mildew and caterpillar pest. However, in case of trained farm women fairly good number had correct knowledge regarding chemicals required for the control of powdery mildew disease (43%) and caterpillar pest (58%). Only two per cent of trained group had correct knowledge about the

dosage required.

Regarding knowledge about measures to maintain temperature during summer and winter and materials used at chawki stage to provide temperature and humidity, trained farm women had cent per cent knowledge level. Whereas untrained farm women had 87 and 92 per cent regarding measures to maintain temperature during summer and winter. With respect to materials used at chawki stage to provide temperature and humidity they had 93 and 85 per cent respectively.

Majority of trained farm women had correct knowledge about different practices such as, preservation of eggs (95%), disinfection of dfl-chemical used (87 per cent), percentage used (77%), time of application (72%), number of trays at III instar (48 per cent), quantity of leaf at II instar (83%), density of ripe worms/square feet (52%) and control measures for diseases like pebrine (60%) and flacherie (72%).

In contrast to this, untrained farm women had correct knowledge about practices as follows; preservation of eggs (68%), disinfection of dfl-chemical used (65%) percentage used (18%), time of application (22%), No. of trays at III instar (47%), quantity of leaf at II instar (70%), density of ripe worms per square feet (45%) and for the control measures for the diseases viz., pebrine (22%) and flacherie (30%).

Table-II : Specific knowledge level of improved sericulture practices among trained and untrained farm women sericulturists.

n = 120

Sl.NO.	Practices	Trained women sericulturist $n_1 = 60$ No.	Per cent	Untrained women sericulturists $n_2 = 60$ No.	Per cent
A. Mulberry cultivation					
1.	Names of improved varieties of mulberry	60	100	60	100
2.	Length of cutting for planting	54	90	49	82
3.	Number of buds in cutting	42	70	41	68
4.	Spacing	54	90	52	87
5.	Quantity of FYM application	42	70	19	31
6.	Quantity of fertilizer				
	i. at planting	42	70	20	33
	ii. after I crop	27	45	6	10
	iii. after II crop	24	40	8	13
7.	Disease and pest				
	a. Powdery mildew				
	i. Symptom	60	100	60	100
	ii. Chemicals required	26	43	00	00
	iii. Dosage	1	2	00	00
	b. Caterpillar				
	i. Nature of damage	60	100	60	100
	ii. Chemicals required	35	58	00	00
	iii. Dosage	2	3	00	00
B. Silkworm Rearing					
1.	Separate rearing house	60	100	60	100
2.	Measures to maintain temperature				
	i. Summer	60	100	52	87
	ii. Winter	60	100	55	92
3.	Recommended races of silkworm	60	100	60	100
4.	Recommended sources of dfl	60	100	60	100

Table Contd..

Sl. No.	Practices	Trained women Sericulturist n_1 = 60		Untrained women Sericulturist n_2 = 60	
		No.	Per cent	No.	Per cent
5.	Preservation of eggs	57	95	41	68
6.	Disinfection of dfl				
	i. Chemical used	52	87	39	65
	ii. Percentage used	46	77	11	18
	iii. Time of application	43	72	13	22
7.	Material at chawki stage to provide				
	i. Temperature	60	100	56	93
	ii. Humidity	60	100	51	85
8.	Kind of leaves for chawki worms	60	100	60	100
9.	Number of trays at III instar	29	48	28	47
10.	Number of times bed cleaning at IV instar	60	100	60	100
11.	Quantity of leaves at II instar	50	83	42	70
12.	Size of leaf at II instar	60.	100	60	100
13.	Density of ripe worms /square feet	31	52	27	45
14.	Diseases and pests of silk worm				
	a. Pebrine				
	i. Symptom	60	100	60	10
	ii. Control measures	36	60	13	2
	b. Flacherie				
	i. Symptom	60	100	60	10
	ii. Control measures	43	72	18	3
	c. Uzifly				
	i. Nature of damage	60	100	60	10
	ii. Control measures	60	100	60	10

4.2 Adoption level of trained and untrained farm women sericulturists with reference to improved sericulture practices:

A close observation of Table-III indicated that majority of trained farm women had `high' (52%) and `medium' (38%) percentage of adoption. Contrastingly untrained great majority were `low' category (72%) and `medium' (17%) level of adoption. Only 11 per cent of trained farm women were in `low' level of adoption.

The adoption score were subjected to chi-square test to know the difference between the two categories. The test revealed that there was significant difference between the two categories with respect to overall adoption at one per cent level.

4.2.1 Extent of adoption of specific improved sericulture practices :

Perusal of the results presented in Table-IV points out the details regarding the adoption score of individual improved sericulture practices by the respondents. It can be seen from the Table that cent per cent of both trained as well as untrained farm women had fully adopted the practices such as, variety of mulberry, recommended silk worm race for rearing, source of getting eggs, material to provide temperature during chawki stage, kind of leaves to chawki worms, cleaning bed at III instar and control measures for uzifly.

Table-III : Overall adoption level of improved sericulture practic among trained and untrained women sericulturists

n=120

Sl. No.	Adoption level	Trained women n_1 = 60		Untrained women n_2 = 60		Total No.	Chi-Squar
		No.	Per cent	No.	Per cent		
1.	Low	6	10	43	72	49	
2.	Medium	23	38	10	17	33	48.04
3.	High	31	52	7	11	38	
		60	100	60	100	120	

** Significant at one per cent level

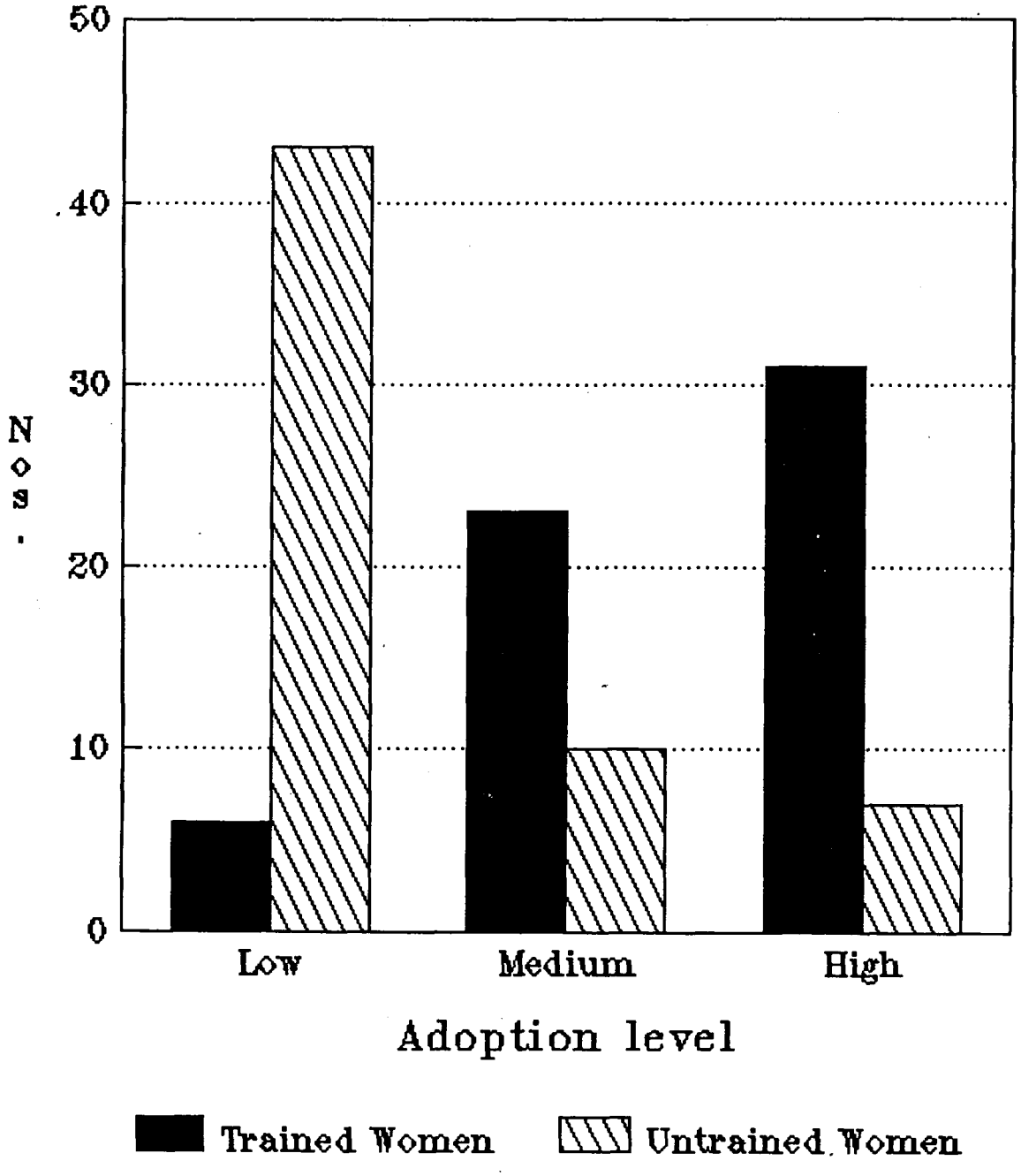

Fig - 3 Overall adoption level of improved sericulture practices among trained and untrained farm women sericulturists.

A great majority of trained farm women had adopted the following practices fully viz., length of cuttings for planting (90%), spacing (90%), FYM application (52%), quantity of fertilizer after first pruning (32%), separate house for rearing (88%), preservation of eggs (93%), disinfection of dfl (73%), number of trays for 100 dfl at II instar (42%), quantity of leaves at III instar for 100 dfl (63%), size of leaf at II instar (60%), density of ripe worms on chandrike (47%) and control measures for the diseases - pebrine (33%) and flacherie (50%).

In relation to this, the practices fully adopted by untrained farm women were as follows; length of cuttings for planting (80%), spacing (82%), FYM application (12%), quantity of fertilizer after first pruning (7%), separate house for rearing (35%), preservation of eggs (70%), disinfection of dfl (18%), material in maintaining humidity during chawki stage (70%), number of trays for 100 dfl at II instar (22%), quantity of leaf at III instar for 100 dfl (32%), size of leaf at III instar (52%), density of ripe worms on chandrike (35%), control measures for the diseases - pebrine (12%) and flacherie (20%).

The adoption score of individual practices were subjected to chi-square test to know the significant difference between the two categories. The practices which were significant at One per cent level were, FYM application, quantity of fertilizer after first pruning, separate house for rearing, preservation of eggs, disinfection of dfl,

Table-IV : Adoption level of specific improved sericulture practices among trained and untrained farm women sericulturi

n = 120

Sl.No.	Improved Sericulture farming practices	Adoption level of women sericulturists Trained n_1 = 60 No.	%	Untrained n_2 = 60 No.	%	Chi-square Values
I.	Mulberry cultivation					
1.	Variety of mulberry					
	Adopted	60	100	60	100	
	not adopted	-	-	-	-	NS
2.	Length of cutting for planting					
	Full adoption	54	90	48	80	
	partial adoption	6	10	12	20	2.34NS
3.	Spacing					
	Full adoption	54	90	49	82	
	partial adoption	6	10	11	18	1.7NS
4.	FYM application					
	Full adoption	31	52	7	12	
	partial adoption	29	48	53	88	22**
5.	Quantity of fertilizer after I pruning (kg of NPK/Acre)					
	Full adoption	19	32	4	7	
	partial adoption	39	65	48	80	14.3**
	non adoption	2	3	8	13	
6.	Plant protection measures					
	adopted	2	3	00	00	
	not adopted	58	97	60	100	2.32NS
II.	Silk worm rearing					
1.	Separate House for rearing					
	Adopted	53	88	21	35	
	not adopted	7	12	39	65	36.06**
2.	Recommended silk worm race rearing					
	adopted	60	100	60	100	
	not adopted	-	-	-	-	NS
3.	Recommended source of getting eggs					
	adopted	60	100	60	100	
	not adopted	-	-	-	-	NS
4.	Preservation of eggs					
	adopting	56	93	42	70	
	not adopting	4	7	18	30	10.9**

Sl.No.	Improved sericulture farming practices	Adoption level of women sericulturists: Trained $n_1 = 60$ No.	%	Untrained $n_2 = 60$ No.	%	Chi-square Values
5.	Disinfection of dfl					
	adopting	44	73	11	18	
	not adopting	16	27	49	82	36.54**
6.	Material to provide temp. during chawki stage					
	adopting	60	100	60	100	
	not adopting	-	-	-	-	NS
7.	Material in maintaining humidity during chawki stage					
	adopting	60	100	42	70	
	not adopting	-	-	18	30	21.16*
8.	Kind of leaves to chawki worms					
	adopting	60	100	60	100	
	not adopting	-	-	-	-	NS
9.	Number of trays for 100 dfl's at II instar					
	full adoption	25	42	13	22	
	partial adoption	35	58	47	78	5.52
10.	Cleaning bed at III instar					
	adopting	60	100	60	100	
	not adopting	-	-	-	-	NS
11.	Quantity of leaf at IV instar for 100 dfl					
	full adoption	38	63	19	32	
	partial adoption	22	37	41	68	12.0
12.	Size of leaf at III instar					
	full adoption	36	60	31	52	
	partial adoption	24	40	29	48	0.84
13.	Density of ripe worms on chandrike					
	full adoption	28	47	21	35	
	partial adoption	32	53	39	65	1.68
14.	Control measures for diseases and pests					
	a. pebrine					
	adopting	20	33	7	12	
	not adopting	40	67	53	88	8.04
	b. Flacherie					
	adopting	30	50	12	20	
	not adopting	30	50	48	80	11.84
	c. Uzi fly					
	adopting	60	100	60	100	
	not adopting	-	-	-	-	NS

* Significant at 5% level
** Significant at 1% level
NS not significant

material in maintaining the humidity during the chawki stage, quantity of leaf at III instar for 100 dfl, control measures for the diseases - pebrine and flacherie.

4.3 Opinion of trained sericulture farm women about selected aspects of training programme :

The results in respect of the opinion of trained farm women about selected aspects of training programme are presented in Table- V. A great majority of the trained farm women expressed that training programmes was most satisfactory regarding the coverage of contents of training programme (78%), teaching materials used (57%), duration of training (60%), lodging (82%), boarding facilities (78%).

With regard to provision for skill practice and feeling of homeliness 70 per cent of them expressed it was satisfactory. In addition to that trained farm women expressed training programme was satisfactory regarding effectiveness of teaching (62%) and recreation facilities (72%).

All the trained farm women opined that follow up was not satisfactory.

4.4 Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their knowledge level :

Mass media use and decision making ability by husband

Table-V: Opinion of trained sericulture farm women about selected aspects of training programme:

n=60

Aspects of training Programme	opinion					
	Most satisfactory		Satisfactory		Not satisfactory	
	No.	Per cent	No.	per cent	No.	per cent
A. Effectiveness of training						
1. Contents of training programme	47	78	13	22	-	-
2. Teaching materials used	34	57	26	43	-	-
3. Provision for skill practice	18	30	42	70	-	-
4. Duration of training	36	60	24	40	-	-
5. Effectiveness of teaching	23	38	37	62	-	-
B. Physical facilities						
1. Lodging	49	82	11	18	-	-
2. Boarding	47	78	13	22	-	-
3. Recreation facilities	10	16	43	72	7	12
4. Feeling of homeliness	17	28	43	70	1	2
C. Follow up	-	-	-	-	60	100

were significantly related to knowledge level of trained farm women. Other characteristics viz., education, land holding, family size, social participation, extension contact, extension participation, innovation proneness, achievement motivation, management orientation, decision making ability by the head of the family, myself, jointly were not related to their knowledge level (Table-VI).

In case of untrained farm women education, land holding, family size, mass media use, social participation, innovation proneness, achievement motivation and management orientation were significantly related to their knowledge level. Other characteristics such as extension contact, extension participation and decision making ability were not related to their knowledge level (Table-VI).

Multiple regression analysis revealed the contribution of the different independent variables on knowledge level of farm women sericulturists. The results of this analysis are given in Table -VII. The data revealed that all the 11 variables fitted together in the regression model explained 41 per cent of the variation in the knowledge level of trained farm women. The calculated `t' value for each of the partial b values are presented in Table-VII.

In contrast to this, in case of untrained farm women the results of the analysis revealed that all the 11 variables fitted together explained 57 per cent of the variation in their knowledge level.

Table-VI : Correlation between selected personal and socio-psychological characteristics of trained and untrained farm wom sericulturists and their knowledge level of improv sericulture practices.

n=120

Sl.No.	Characteristics	Trained farm women $n_1 = 60$ 'r' value	Untrained farm women $n_2 = 60$ 'r' value
1.	Education	0.1396 NS	0.3267 *
2.	Land holding	-0.1606 NS	0.3072 *
3.	Family size	0.0326 NS	0.4211 **
4.	Mass media use	0.3321 **	0.4555 **
5.	Social participation	0.1358 NS	0.4380 **
6.	Extension contact	-0.1240 NS	0.1736 NS
7.	Extension participation	-0.1800 NS	-0.0731 NS
8.	Innovation proneness	0.1893 NS	0.5677 **
9.	Achievement motivation	-0.1046 NS	0.3083 *
10.	Management orientation	-0.0197 NS	0.3456 **
11.	Decision making ability		
	i. Head of the family	0.0504 NS	0.2022 NS
	ii. Husband	0.2795 *	0.1399 NS
	iii. Myself	-0.2942 NS	-0.2341 NS
	iv. Jointly	0.1485 NS	0.0528 NS

* significant at 5% level
** significant ar 1% level
NS not significant

Table-VII: Regression analysis of knowledge level of trained and untrained farm women sericulturists with their personal and socio-psychological characteristics

n=120

Sl.No.	Characteristics	Trained farm women $n_1 = 60$ `r'value	`t'value	R^2	Untrained farm women $n_2 = 60$ `r' value	`t' value	R^2
1.	Education	1.1522	1.4501		-0.2183	-0.5822	
2.	Land holding	-1.1178	-2.1495		-0.0371	-0.1285	
3.	Family size	4.8436	2.1216		0.3391	1.8583	
4.	Mass media use	0.0517	0.1311		0.4697	0.9152	
5.	Social participation	1.4527	1.3415		- 0.2542	-0.6735	
				0.4150			0.5727
6.	Extension contact	0.5682	0.8453		0.3088	1.1942	
7.	Extension participation	-0.2209	-0.4641		-0.4647	-1.0090	
8.	Innovation proneness	-0.0821	-0.1178		0.7525	3.3231	
9.	Achievement motivation	0.5725	1.6579		0.5439	2.4922	
10.	Management orientation	-0.2329	-0.9159		-0.0285	-0.0962	
11.	Decision making ability						
	a. Head of the family	0.5522	1.0241		-2.6138	-1.9506	
	b. Husband	0.2444	0.3341		-2.5220	-1.9022	
	c. Myself	0.9953	1.3693		-2.7790	-2.1143	
	d. Jointly	0.0983	0.2032		-3.0180	-2.2154	

4.5 Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their adoption level :

Mass media use and decision making ability by husband were significantly related to their adoption level of trained farm women. Other characteristics namely education, land holding, family size, social participation, extension contact, extension participation, innovation proneness, achievement motivation, management orientation and decision making ability by head of the family, myself and jointly were not related to their adoption level (Table-VIII).

In case of untrained women; social participation, innovation proneness and decision making ability by the head of the family were significantly related to their adoption level. Education, land holding, family size, mass media use, extension contact, extension participation, achievement motivation, management orientation were not related to their adoption level.

Multiple regression analysis revealed the contribution of different independent variables on adoption level of farm women. The results of this analysis are presented in Table-IX. The data revealed that all the 11 independent variables fitted in the regression model explained 49 per cent of the variation in the adoption level of trained farm women. The calculated `t' value for each of the partial `b' values are presented in Table-IX.

Table-VIII : Correlation between selected personal and socio-Psychological characteristics of trained and untrained farm women sericulturists and their adoption level of improved sericulture practices.

n=120

Sl.No.	Characteristics	Trained farm women $n_1 = 60$ `r' value	Untrained farm women $n_2 = 60$ `r' value
1.	Education	-0.0345 NS	0.0881 NS
2.	Land holding	-0.1350 NS	0.2287 NS
3.	Family size	-0.1395 NS	0.1651 NS
4.	Mass media use	0.3361 **	0.2113 NS
5.	Social participation	-0.0874 NS	0.2847 *
6.	Extension contact	-0.3414 NS	-0.1671 NS
7.	Extension participation	-0.2058 NS	0.0189 NS
8.	Innovation proneness	-0.0369 NS	0.4101 **
9.	Achievement motivation	-0.3479 NS	0.1493 NS
10.	Management orientation	-0.3467 NS	0.1090 NS
11.	Decision Making ability		
	i. Head of the family	-0.1089 NS	0.6071 **
	ii. Husband	0.3861 **	-0.2609 NS
	iii. Myself	-0.2712 NS	-0.1175 NS
	iv. Jointly	0.2127 NS	-0.0794 NS

* Significant at 5% level
** Significant at 1% level
NS not significant

Table-IX: Regression analysis of adoption level of trained and untrained farm women sericulturists with their personal and socio-psychological characteristics.

n=120

Sl.No.	Characteristics	Trained farm women $n_1 = 60$			Untrained farm women $n_2 = 60$		
		`r' value	`t' value	R^2	`r' value	`t' value	R^2
1.	Education	1.2805	1.6316		-0.7104	-1.4328	
2.	Land holding	0.5360	1.0435		-0.1625	-0.4261	
3.	Family size	-0.0413	-0.0183		0.0202	0.0839	
4.	Mass media use	-0.2475	-0.6350		0.7959	1.1727	
5.	Social participation	1.5245	1.4253		0.1053	0.2110	
6.	Extension contact	0.0337	0.0508		-0.2266	-0.6625	
7.	Extension participation	-0.8194	-1.7428		-0.7643	-1.2548	
				0.4885			0.5220
8.	Innovation proneness	0.1337	0.1941		0.5061	1.6900	
9.	Achievement motivation	0.2389	0.7000		0.1088	0.3768	
10.	Management orientation	-0.6411	-2.5529		-0.2257	-0.5767	
11.	Decision making ability						
	a. head of the family	-0.1794	-0.3368		1.3360	0.7539	
	b. husband	-1.5286	-2.1158		-0.0608	-0.0346	
	c. myself	-0.2043	-0.2846		0.1625	0.0935	
	d. jointly	-0.8527	-1.7850		0.1682	0.0934	

However, in case of untrained farm women the results of regression analysis revealed that all the 11 independent variables together contributed 52 per cent of the variation in their adoption level (Table-IX).

4.6 Decision making ability of trained and untrained farm women sericulturists :

This section projects an idea about the decision making ability by the trained and untrained farm women sericulturists. A cursory glance at the Table-X indicates the decision taken by the head of the family, husband, myself and jointly regarding ten items of sericulture.

Trained farm women expressed that head of the family was the decision maker on items such as taking loan (65%), construction of rearing house (68%), buying of inputs (58%). Husband was the decision maker for selection of the race (33%), selling the cocoon (33%), buying of inputs (24%). Farm women herself was decision maker for items which are as follows : Care of worms at chawki stage and finding the time of feeding (75%), deciding on number of dfl's to rear (19%). The decision taken by jointly on the items which were as follows : Deciding on number of dfl's to rear (78%), spending income from sericulture (72%).

In contrast to the above mentioned, untrained farm women expressed that, for taking loan head of the family was the decision maker which accounts to 23 per cent, buying of inputs (18%), selection of the race (17%). Husband was the decision maker for items such as, selection of the race

Table-X: Decision making ability of trained and untrained farm women sericulturists.

n=120

Sl.No.	Items	Trained farm women $n_1 = 60$					Untrained farm women $n_2 = 60$				
		Head of the family(%)	Husband (%)	Herself (%)	jointly (%)	Total (%)	Head of the family(%)	Husband (%)	Herself (%)	jointly (%)	Total (%)
1.	Taking loan	65	17	18	00	100	23	58	15	04	100
2.	Selection of the race	49	33	18	00	100	17	70	12	01	100
3.	Selling the cocoon	48	33	17	02	100	12	65	20	03	100
4.	Spending income from Sericulture	05	07	16	72	100	00	06	16	68	100
5.	Care of worms at chawki Stage	00	03	75	22	100	00	02	91	07	100
6.	Buying of inputs	58	24	18	00	100	18	40	22	20	100
7.	Finding the time of feeding	03	10	75	12	100	02	01	85	12	100
8.	Investment on Sericulture	35	06	18	41	100	10	03	19	68	100
9.	Deciding on No. of dfl's to rear	03	00	19	78	100	00	00	19	81	100
10.	Construction of rearing house	68	10	17	05	100	12	08	18	62	100

(70%), selling the cocoon (65%), taking loan (58%). Women herself was the decision maker for items, care of worms at chawki stage (91%), finding the time of feeding (85%), selling the cocoon (20%). Decision taken jointly were as follows: Spending income from sericulture and investment on sericulture (68%), deciding on number of dfl's to rear (81%), construction of rearing house (62%).

4.7 Average yield level of cocoons per 100 dfl among trained and untrained farm women sericulturists:

A close observation of Table-XI indicates the average yield level of cocoons per 100 dfl among trained and untrained farm women sericulturists. The average yield level of cocoons per 100 dfl among the trained farm women sericulturists is 51 kg. Whereas, in contrast this the untrained farm women the average yield level is 40 kg.

Table-XI : Average yield level of cocoons per 100 dfl among trained untrained farm women sericulturists.

n=120

Farm women sericulturist	Average yield level (kg/100 dfl)
Trained farm women (n_1 = 60)	51
Untrained farm women (n_2 = 60)	40

DISCUSSION

V. DISCUSSION

In this chapter, the results of the present investigation are discussed under the following headings.

1. Knowledge level of trained and untrained farm women sericulturists with reference to improved sericulture practices.
2. Adoption level of trained and untrained farm women sericulturists with reference to improved sericulture practices.
3. Opinion of trained sericulture farm women about selected aspects of training programme.
4. Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their knowledge level.
5. Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their adoption level.
6. Decision making ability of trained and untrained farm women sericulturists.
7. Average yield level of cocoons per 100 dfl among trained and untrained farm women sericulturists.

5.1 Knowledge level of trained and untrained farm women sericulturists with reference to improved sericulture practices.

It is observed from the Table-I that the 61 per cent of trained farm women had `high' level of knowledge on improved

sericulture farming and considerable percentage of them possessed `medium' (27%) knowledge level. While only 17 per cent of them were in `low' knowledge category. In contrast, 68 per cent of untrained farm women belongs to `low' knowledge level category and only seven per cent of them had `high' knowledge level. This data indicates that trained farm women have superceded untrained farm women in their overall knowledge level. The findings of this study has indicated that training had a significant effect on the knowledge level of the respondents with respect to improved sericulture farming.

The fact that the trained farm women have a higher knowledge score about improved sericulture farming than untrained farm women suggests that when intensive educational efforts by way of training is conducted, it is possible to increase knowledge level of farm women on improved sericulture farming. The main reason in this regard might be due to the appropriateness of the subject matter covered during the training programme.

The other possible reason is that, the training environment in which the trained farm women were exposed to the content is structured with different teaching aids in addition to lectures, specimens, conducted tours, group discussion, method demonstration were employed. Yet another possible reason is that the ideal environment might have enabled them to acquire the more information and the farm women in their own village situation are not freely permitted

to interact with the Government officials but when they are in the training school such restrictions will not prevail resulting in better acquisition of knowledge and skills about the subject matter.

These findings were in conformity with the results reported by all the past researchers namely ; Krishna (1972), Krishna Alva (1972), Rao and Dudhani (1972), Gangadharappa (1979), Neerubala and Sumita Roy (1979), Uma (1980), Joshi and Thorat (1984), Lalitha (1984), Ranganath (1990), Manjula and Siddaramaiah (1994), Venkatesh (1995).

5.1.1 Knowledge about specific improved sericulture practices :

The data presented in Table-II revealed that majority of the respondents in both the groups had correct knowledge about names of improved varieties of mulberry, symptom for powdery mildew disease, nature of damage by caterpillar pest kind of leaves for chawki worms, symptom for diseases of pebrine and Flacherie, nature of damage by uzifly and control measures for uzifly. The difference in the knowledge level between these two categories were seen in items like FYM application, quantity of fertilizer at planting and after first and second crop, preservation of eggs, disinfection of dfl-chemical used, percentage used and time of application, density of ripe worms per square feet and control measures for diseases pebrine and flacherie.

This trend evidently shows that the practices which are simple and of less technical nature are known to all farm women sericulturists irrespective of whether they were trained or untrained due to the fact that the sericulture is practiced by them over several decades. One more possible reason is that the continuous educational efforts by the University and Karnataka State Department of Sericulture field functionaries. The technologies are reaching to all the farm women but the technologies which are more complex are not easily understood by farm women since majority are either low educated or illiterates. On the other hand the practices which are complex and more of technical nature are known to trained farm women only due to the repeated exposure of farm women during their training period and such an opportunity is not available to the untrained farm women sericulturists.

5.2 Adoption level of trained and untrained farm women sericulturists with reference to improved sericulture practices:

The information furnished in Table-III has brought to light interesting facts relating to the over all adoption behaviour of the respondents. Majority of the trained farm women had `high' (52%) adoption level followed by fewer farm women `medium' (38%) and very less under `low' (10%) adoption level. Whereas a great majority of untrained farm women had `low' (72%) adoption level and only 11 per cent of them were under `high' adoption category. Chi-square analysis on this

data indicated that difference in the adoption level between trained and untrained farm women group was significant.

The reasons for this type of behaviour might be that the trained farm women has an unique opportunity of contrieved as well as direct purposeful experiences during the training session. The other reason might be that the interaction with the other farm women who have successfully taken up sericulture during the training session might have influenced the increased adoption and possibly acted as a group persuasion effect. Another reason might be that that the increased exposure to training situation leads to dissonance conditions with the farm women and they try to attain a consonance by way of adopting improved sericulture farming while low level of adoption by untrained farm women was obviously due to lack of exposure to training which would have helped them in gaining knowledge, consequently motivating them to adopt.

The findings are consistent with the results reported by Somasekharappa (1971), Singh and Narayan (1974), Ganesh (1975), Krishna and Jalihal (1976), Muthaiah et al. (1978), Bhat (1980), Uma (1980), Renukaradhya (1983), Joshi and Thorat (1984), Lalitha (1985), Manjula and Siddaramaiah (1993), Venkatesh (1995).

5.2.1 Extent of adoption of specific improved sericulture practices:

The significant differences in adoption of specific

improved sericulture practices by trained and untrained farm women is presented in Table-IV. It is evident from this Table that a great majority of trained farm women were placed either in full adoption or partial adoption level.

The practices which are significant at one percent level are;FYM application, quantity of fertilizer after first pruning, separate house for rearing, preservation of eggs, disinfection of dfl, material in maintaining humidity during chawki stage, quantity of leaf at III instar for 100 dfl, control measures for the diseases pebrine and flacherie.

The significant difference is due to the fact that the trainees have a clear cut knowledge about the practices and they have got freedom to adopt the technology and it is also appreciated by the elder members of the family. The trainees after undergoing the training have realised the importance of these practices.

A great majority of untrained farm women are not adopting the recommended fertilizer application, FYM application, disinfection of dfl, control measures for pebrine and flacherie diseases due to the fact that they are lacking in knowledge about these practices which is prerequisite for adoption. The reason might be due to non availability of inputs, economic conditions of an individual and complexity in adopting the technologies.

Further majority of trained and untrained were not adopting the plant protection for mulberry and also control

measures for diseases pebrine and flacherie. The possible reason for not taking up plant protection and control measures is due to lack of complete knowledge about the chemicals, their concentration and also non availability of chemicals. Besides, plant protection technology is still considered to be a complex technology and therefore, unable to comprehend and adopt this technology.

5.3 Opinion of trained sericulture farm women about selected aspects of training programme :

The findings in Table-V shows that majority of the trained farm women expressed that training programme was most satisfactory regarding contents of the training programme, teaching materials used, duration of training, lodging and boarding facilities arranged. These findings were in accordance with the earlier findings of Patel and Kale (1972), Dayananda Patel (1985), Shreeshailaja (1993), Venkatesh (1995).

Seventy per cent of the trainees opined that provision for skill practice was satisfactory. However, the trainees revealed that the training school should make provision in such a way that trainees themselves should be involved in rearing of silk worm by adopting all the improved practices to enable them to adopt the improved technologies during training and adopting the recommended practices subsequently on their farm to a greater extent confidently thereafter.

A great majority (72%) of trainees expressed that the recreation facilities was satisfactory. The training school may plan for organising conducted tours, film show and video films which might also include improved sericulture farming. So that recreation cum exposure to improved sericulture farming is possible.

Seventy per cent of them opined that the feeling of homeliness was satisfactory in their stay through out the period. In the first few days of training programme the trainees may be exposed to case studies of successful farm women through films/video cassettes /exhibition. This enables trainees to develop a favourable attitude towards training and feel homely for the remaining part of the stay.

All the trainees expressed that the follow up was not satisfactory since Karnataka State Department of Sericulture has not taken a follow up work after their return to their respective places. This would have given more information on certain technologies, clarification and might have enabled them to adopt more practices.

5.4 Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their knowledge level :

An appraisal of Table-VI indicates that characteristics like mass media use and decision making ability by husband of trained farm women had significant relationship with their knowledge level. Whereas in case of untrained farm women

education, landholding, family size, mass media use, social participation, innovation proneness, achievement motivation and management orientation were significantly associated with their knowledge level. However, other characteristics were found to have no relationship with a knowledge level of trained and untrained farm women sericulturists.

The possible reason for significant relationship between knowledge level and mass media use of trained farm women is that, the use of mass media Radio, Doordarshan provided an opportunity for getting the information and also help as reinforcement in gaining more knowledge about improved sericulture farming. Mass media is enabling them to clarify their doubts and also enrich their knowledge. The findings of the study are in agreement with the findings reported by Menon and Prema (1978) and Uma (1980).

Decision making ability by the husband of trained farm women is significantly associated with their knowledge level. Husband is decision maker in most of the family and also husband is the head of the family. For taking any decision husband is going to think critically about the aspects of improved sericulture farming which might have contributed to the knowledge of farm women. The findings of the study are in accordance with the findings reported by Prameelamma (1980), Manjula (1993) and Venkatesh (1995).

As revealed from results in Table-VII the eleven independent variables selected for the study explained about

41 per cent of variability in knowledge level of farm women. In contrast to this in case of untrained farm women the eleven independent variables selected for the study explained about 57 per cent of variability in knowledge level.

5.5 Relationship between personal and socio-psychological characteristics of trained and untrained farm women sericulturists and their adoption level :

An appraisal of Table-VIII reveals that the characteristics like mass media use and decision making ability by the husband of trained farm women had significant relationship with their adoption level. Whereas in case of untrained farm women social participation, innovation proneness, decision making ability by head of the family is significantly associated with their adoption level. However other characteristics were found to have no relationship with the adoption level of trained and untrained farm women.

Mass media use of trained farm women is significantly related to their adoption level is due to the fact that mass media provides an opportunity for them to expose to improved sericulture practices. The exposure to training also provided them to acquire knowledge. This knowledge enabled them to adopt the practices. The findings of the study are in confirmity with the findings of Lalitha (1985) but in contradiction with the findings reported by Uma(1980).

Decision making ability by husband of trained farm women is significantly associated with their adoption level of

improved sericulture practices. Husband is the decision maker in the family. He is taking decision critically and analysing the issues. He is also having knowledge about improved practice. This enabled the trained women to adopt the improved practices. The findings of the study are in confirmity with the findings reported by Manjula (1993), Venkatesh (1995).

As revealed from results in Table-IX the eleven independent variables selected for the study explained about 49 per cent of variability in adoption level of trained farm women. In contrast to this, eleven independent variables selected for the study explained about 52 per cent of variability in adoption of untrained farm women.

5.6 Decision making ability of trained farm women sericulturists :

Table-X points out the details regarding decision making ability of trained farm women sericulturists.

Head of the family is the decision maker for taking loan, buying of inputs and construction of rearing house. He is more concerned with the items which involves money transactions and outside doing jobs and management oriented aspects. If head of the family is not there then husband is the decision maker on these items and husband will take care of these aspects.

Farm women herself is decision maker in the operations

which can be carried out with in the house such as managing the garden and worms. Farm women is provided with freedom on all these aspects. According to research evidence her participation is about 61 per cent.

The decision which are taken jointly on the following items are as follows : Spending income from sericulture, deciding on number of dfl's to rear. For these aspects the decision should be taken in consultation with other family members since sericulture is a enterprise which involves all the family members in mulberry production and silk worm rearing.

5.7 Average yield level of cocoons per 100 dfl among trained and untrained farm women sericulturists :

A cursory glance at Table-XI indicates the average yield level of cocoons per 100 dfl obtained among trained and untrained farm women sericulturists.

The average yield level of cocoons per 100 dfl obtained by the trained farm women sericulturists is 51 kg whereas, in contrast to this among untrained farm women obtained an average yield of 40kg and an yield gap of 11 kg is noticed.

The trained farm women are getting higher average yield due to the fact that trained women have acquired knowledge and adopted majority of the practices of improved sericulture farming as a result of training.

According to research station evidence the maximum potential yield one can obtain is 60 kg per 100 dfl. It is evident from the present investigation that it is possible to increase the yield level even among trainees by providing timely follow up guidance by the field functionaries of Sericulture Department.

Thereafter, such successful and trained farm women could be utilised to influence the untrained farm women also, in the process the yield level of untrained farm women can also be increased.

SUMMARY

VI. SUMMARY

Sericulture, being a family enterprise in rural area, the participation of women in terms of quantum of work they share and the extent of time they devote on this enterprise is substantial. Yet, the participation and contribution lacks visibility to the outsiders. Recognising this fact, the Government of Karnataka considered the year 1994 as "Year of Women in Sericulture" and organised several programmes to sensitise them as well as outsiders and their contribution in sericulture.

Farm women contributes for more than 61 per cent of the total sericulture operations according to research evidence. Therefore, the scientific training is essential to keep abreast about the recent improvements and in turn make them more productive resulting in increased productivity in the enterprise. With this background in view, the Training school organises separate institutional training for the farm women also.

Farm women training, both institutional and peripatetic, has been accepted as one of the important extension strategies to bring about change among them. Sericulture Training school, in Channapatna taluk of Bangalore rural district is conducting training programme for farm women and farm men of one month duration. Under this programme the farm women are provided with upto date knowledge of sericulture technology and impart appropriate

skills through practical training. The Technical Service Centres (TSCs) located in each taluk will select and depute the farm women for one month training programme.

The huge costs and efforts involved in these training programmes call for periodic evaluation to determine the effectiveness of training. It is not precisely known whether the training imparted to the farm women is effective or not. If effective to what extent trainees acquire knowledge and skill about improved practices and put them to use. Therefore, there is a need for empirically verifying the utility of the training programme conducted. With this background in view, this study was conducted with the following specific objectives.

1. To measure the knowledge and adoption level of trained and untrained farm women sericulturists with regard to improved sericulture practices.

2. To know the opinion of trained farm women sericulturists with regard to different aspects of training.

3. To identify the relationship between personal and socio-psychological characteristics of trained women sericulturists in relation to their knowledge and adoption level.

The study was conducted in Channapatna, Ramanagaram and Kanakapura Taluks of Bangalore rural district, during November 1995. Four TSCs from Channapatna namely Honganur,

Bevoor, Kodambally, Tittamaranahally and a TSCs of Harohally from Kanakapura taluk, from these five TSCs 60 trained farm women were selected. 60 untrained farm women were randomly selected from Ramanagaram and Kanakapura taluk for the investigation.

Eleven characteristics of farm women (independent variables) viz., Education, land holding, family size, mass media use, social participation, extension contact, extension participation, innovation proneness, achievement motivation, management orientation and decision making ability were selected for studying their relationship with their knowledge and adoption level(dependent variables). These variables were measured by using appropriate scales and scoring procedure.

The data were collected through a structured schedule by personal interview method and analysed by using statistical tools like percentage, mean, standard deviation, correlation and regression, Chi-square test and `t'-test of significance.

The findings of the study are summarised and presented below :

1. Majority of trained farm women (61 per cent) had higher level of overall knowledge on improved sericulture practices as compared to untrained farm women who had lower level of knowledge.

2. Cent percent of both trained and untrained farm women had knowledge about symptom for powdery mildew disease

and nature of damage by caterpillar pest, recommended races of silk worm and sources of dfl, symptom for the pebrine and flacherie diseases and nature of damage and control measures for uzi fly.

3. Majority of trained and untrained farm women had low knowledge about quantity of fertilizer- at planting, after I crop, after II crop, plant protection measures for the powdery mildew disease and for caterpillar pest .

4. There was significant difference between trained and untrained farm women with respect to overall adoption of improved sericulture practices at one per cent level.

5. Majority of trained farm women expressed that training programme was most satisfactory regarding contents of training programme, duration of training, lodging and boarding facilities.

6. With respect to provision for skill practice, recreation facilities, feeling of homeliness majority of trained farm women expressed it was satisfactory. All the trained farm women opined that follow up was not satisfactory.

7. Knowledge level of the respondents was found to be associated with mass media use and decision making ability by husband of trained farm women. Whereas, in case of untrained farm women, knowledge level is related with education, land holding, family size, mass media

use, social participation, innovation proneness, achievement motivation, management orientation.

8. With respect to the relationship between the adoption level and their personal and socio-psychological characteristics of trained farm women, mass media use and decision making ability by husband were found to have significant relationship.

   In case of untrained farm women social participation and decision making ability by head of the family was significantly related with adoption level.

9. Eleven independent variables fitted together in the regression model explained 41 per cent of the variation in the knowledge level of trained farm women. Whereas, in case of untrained farm women it is 57 per cent.

10. Multiple regression analysis revealed that all the eleven independent variables fitted in the regression model explained 49 per cent of the variation in the adoption level of trained farm women. Whereas, in case of untrained farm women it is 52 per cent.

11. In case of trained farm women head of the family was the decision maker for taking loan and construction of rearing house. Husband was the decision maker for selection of the race and selling the cocoon. Women her self was decision maker for care of worms at chawki stage and finding the time of feeding. The decision is taken

by jointly on items such as spending income from sericulture and deciding on number of dfl's to rear.

12. Majority of the trained farm women were getting higher cocoon yields as compared to that of untrained farm women sericulturists.

Implications and Recommendations :

The higher knowledge level of trained farm women over that of untrained farm women, with respect to improved sericulture farming, implied that the increase in knowledge may be attributed to training imparted. Thus, there is a need for increasing the number of training institutes and also organising through other training centres such as Farmers Training Centres (FTC's), Krishi Vignana Kendras (KVK's), Non Government Organisations (NGO's) and Training Institutes (TI's).

The findings showed that adoption score of the trained farm women was significantly higher than that of untrained farm women. This findings further, strengthens the necessity of organising training for the farm women, as training leads to higher adoption of the technology.

The findings also indicated that the knowledge and adoption of trained farm women was not very encouraging in respect of quantity of fertilizer application and plant protection measures. Hence, there is a need to give special emphasis in training of farm women on these aspects and to

make necessary arrangements for the timely availability of these inputs to the farm women in their own locality, in order to promote the adoption of the same.

The follow up work on imparting technical knowledge is essential to improve the adoption level of recommended practices by the farm women. It is possible to provide more specific information keeping in view individual situation into consideration. Therefore, it is strongly recommended that the trainees be contacted and guided by the field staff of Sericulture Department regularly till they adopt such appropriate technologies.

On the whole, the findings point out that training of farm women could be considered as a useful extension strategy for the promotion of improved sericulture practices among the rural people.

Future line of work :

The study suggests the need for similar research studies to be taken up in predominant traditional sericulture belts which would help for greater generalisations.

There is a need for conducting a research on reasons for adopting or not adopting each of the recommended practices of sericulture practices.

REFERENCES

VII. REFERENCES

Anastasi, A., 1961,Psychological Testing, Macmillan and co., NewYork, P. 428-436.

Anonymous, 1933, The Oxford English Dictionary, Vol. XI, Claredon Press,Oxford: 239.

Anonymous, 1994, Annual Report on Sericulture, Department of Sericulture, Tumkur District, Karnataka State.

Anonymous, 1994,Report On Sericulture Training School, Channapatna, Bangalore Rural District.

Benchamin, K.V., 1995,Training of Women in Sericulture, Indian Silk, 33(9):29-32.

Bhat, D.V. and Sharmila, K.K., 1994, Peripatetic Training: A Useful tool for Training Women Sericulturists, Indian Silk, 32(11): 61-63.

Bhat, N.D., 1980, A Study on the impact of the farmers training on knowledge and adoption behaviour of farmers in Malaprabha Command area of Karnataka State. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Byra Reddy, H.N., 1971, A Study on differential characteristics of adopters and non-adopters of fertilizer to rainfed ragi in Bangalore north Taluk M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Chandargi, A.M., 1980, An experimental Study on the impact of training on Knowledge and adoption behaviour of farm women in Dharwar, Belgaum and Karwar districts of Karnataka state. M.Sc.(Agri.) Thesis (Unpubl.) Univ. Agric. Sci., Bangalore.

Dayananda Patel, G.P., 1985, A Study on Knowledge level and training needs of Sericulturists. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Deshpande, W.R., Trifle, M.S. and Sheela,D., 1987, Behavioural change of rural women through training, Maharashtra J. Extn. Edn., 6: 215-218.

Dhama, O.P. and Bhatnagar, O.P., 1980, Training principles and practices: Education and Communication for development. Oxford and IBH co., New Delhi.

Dwarakinath, R. and Padmasini, 1977, Strategy of training farmers, Karnataka State Department of Agriculture, Bangalore.

English, H.B. and English, A.C., 1959, A Comprehensive Dictionary of Psychological and Psycho-analytical terms: Longmans, Green and Co., New York.

Ganesh, T.D., 1975, Impact of training on knowledge and adoption of recommended practices of soil and Water management and hybrid jowar cultivation of Malaprabha project command area farmers, Karnataka State. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Gangadharappa, N.R., 1979, A critical analysis of knowledge level and adoption behaviour of trained and untrained farmers in Malaprabha command area of Karantaka State. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Gangadharappa, N.R. and Rao, M.K.S., 1989, Impact of Training on knowledge level with respect to recommended practices of Soil and Water management and hybrid jowar cultivation, Current research., 18(8): 116-118.

Gregory, S., 1994, Transfer of technology through training, Indian Silk, 32(11) : 51-54.

Halappanavar, R.B., 1979, An experimental Study on the impact of training on knowledge and adoption behaviour of Varalaxmi cotton cultivars in Malaprabha command area of Karnataka State. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Jhondale, S.G. and Chole, R.R., 1989, Training needs of dairy farmers, Maharashtra J. Extn. Edn. 8: 157-160.

Joshi, Y.B. and Thorat, D.R., 1984, Effectiveness of institutional training on the adoption of production practices by the Mahila Mandal members of Pune District, Maharashtra J. Extn. Edn., 3:55-59.

Joshi, Y.B. and Thorat, D.R., 1992, Effectiveness of institutional training on adoption of consumption practices by the Mahila Mandal members of Pune District, Maharashtra J. Extn. Edn., 11: 118-123.

Kantharaj, J., 1980, A Study of knowledge, extent of adoption and appropriatness of Sunflower technology among growers. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Krishna Alva, H., 1972, Some aspects of plant protection adoption by paddy farmers of Mysore State with particular reference to training. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Krishna, K.S., 1972, A Study on knowledge and adoption of hybrid maize cultivation by trained and untrained farmers in Bangalore District. M.Sc.(Agri.) Thesis (Unpubl.), Univ. Agric. Sci.,Bangalore.

Krishna, K.S. and Jalihal, K.A., 1976, Impact of farmers training camps on the adoption of improved practices of hybrid maize, Indian J. Extn. Edn., 12 (1 & 2): 62-64.

Kumar, K. and Snehalatha Mago, 1974, Training needs of farm women in Haryana, Indian J. Adult Edn., 35(9) : 72-76.

Lalitha, K.C., 1985, A Study on the impact of training under WYTEP on knowledge and adoption level of farm women in Bangalore District of Karnataka State. M.Sc.(Agri.) Thesis (unpubl.), Univ. Agric. Sci., Bangalore.

Lynton, R. and Pareek, U., 1967, Training for development, Richard, D., Irwin Inc. and the Dorsey Press, Homewood.

Manjula, N., 1993, Impact of training on knowledge and adoption behaviour of trained farm womwen. M.Sc.(Agri.) Thesis (unpubl.), Univ. Agric. Sci., Bangalore.

Manjula, N. and Siddaramaiah, B.S., 1994, Impact of training on farm women, Journal Extn. Edn.,5(2): 854-857.

Manjunatha, L., 1980, A comparative study on the knowledge level and adoption behaviour of trained and untrained farmers in Ghataprabha command area, Karnataka State. M.Sc.(Agri.) Thesis (unpubl.), Univ. Agric. Sci., Bangalore.

Menon, A.G.G. and prema, L., 1978, Retention of knowledge on human nutrition by rural women as related to their socio-economic groups, Indian J. Home Sci., 12:107-110.

Murthy, R., 1989, Training needs of blackgram growers, J. Res.,17(1):164-168.

Muthaiah, M., Perumal, G. and Somasundaram, S., 1978, Influence of Peripatetic training programme on the adoption of recommended farm practices, Indian J. Extn. Edn., 14 (3 & 4) : 62-64.

MuthuRaman, P., 1995, Agricultural extension Training : An effective mechanism for technology transfer, Employment News, 20: 1-2.

Neerubala and Sumita Roy, 1979, Utilization of household knowledge by farm women, Indian J. Extn. Edn., 15(3 & 4): 22-26.

Patel, S.K., 1975, A comparative study of agricultural adoption prevailing among trained and untrained farmers in Walwa Taluk, District Sangli. M.Sc.(Agri.) Thesis (Unpubl.), Mahatma Phule Krishi VidyaPeeth,Rahuri, Maharashtra.

Patil, S.O. and Kale, J. V., 1972, Vocational training needs of farmers with a Special reference to the contents and type of training, Indian J. Extn. Edn., 8(3 & 4) : 18-25.

Planty, E. G. and Macord, C.A., 1948, Training Employees and Managers for production work, Ronald Press company, New York.

Prameelamma, V., 1990 A Study on Knowledge and participation of Rural women in agricultural operations with respect to paddy crop in Kurnool District in Andhra pradesh. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Prasad, G., 1972, Study of training needs of farmers. M.Sc. Thesis (Unpubl.), Agra Univ., Uttar Pradesh.

Ranganath, K.H., 1990, A Study on the impact of groundnut demonstrations conducted under National Oilseed development Project. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Rao, M.K.S., 1969, A critical analysis of farmers training in I.A.D.P. and I.A.A.P. Districts in relation to high yielding varieties programme. Ph.D. Thesis, (Unpubl.), Indian Agricultural Research Institute, New Delhi.

Rao, M.K.S. and Dudhani, C.M., 1972, Measurement of impact of training on participating farmers, Modern Agric., 3:17-19.

Ravikumar, B., 1979, Impact of National demonstration on knowledge and adoption behaviour of participant and non participant farmers of Dharwar District of Karnataka State. M.Sc. (Agri.) Thesis (Unpubl.), Univ.Agric. Sci., Bangalore.

Renukaradhya, B.N., 1983, A critical study on farmers training programme in selected command areas of Karnartaka State. Ph.D. Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Sengar, R.S., Sharma,P.N. and Sharma, M.L., 1994, Usefulness of the training imparted to female Charcha Mandal members in their Agriculture, Maharashtra J. Extn. Edn., 13 : 271-272.

Sethu Rao, M.K., 1994, Sericulture extension and women in Sericulture, Indian Silk, 33(4) : 34-39.

Shete, N.B., 1978, Agricultural needs of tribal farmers in Maharashtra, Indian J. Extn. Edn., 14 (3 & 4) : 65-68.

Sharma, K.A.L.N. and Murthy, A.S.,1971, Training needs as perceived by farmers, Kurukshetra, 19(15) : 7-11.

Shashikumar, M.K. and Bhave, A.M., 1978, A Study on the impact of farm women's training in Bangalore District of Karnataka State. M.Sc. (Agri.) Thesis (Unpubl.), Andhra Pradesh Agricultural university, Hyderabad.

Shilaja, S., 1993, Role of women in mixed farming, Ph.D. Thesis (Unpubl.), Univ. Agric. Sci. Bangalore.

ShreeShailaja, K.T., 1993, Dairy farm women - Their knowledge level, adoption pattern and training needs. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci.,Bangalore.

Sidhu, P.S. and Patel A.V., 1968, A study of the opinion of trained farmers and concerned officials on the Organisation of farmers training camps at village level, Indian J. Extn. Edn., 34 (3 & 4) : 49-51.

Singh, A.K., 1976, Training needs of farmers, Rural India, 40(4) : 78-79.

Singh, D. and Narayan, R., 1974, Farmers training as an instrument of planned agricultural change, Indian J. adult Edn., 35 (1 & 2) : 84-86.

*Singh, R.P., 1990, Modernising agriculture, Agric. Extn. Rev., 12: 14-20.

Sinha, N.K. and Verma, N.C., 1977, An evaluation of training programme for farmers, Indian J. Extn. Edn., 13 (1 & 2) : 81-83.

Somasekharappa, G., 1971, Impact of production - cum - demonstration training sessions on the adoption of improved farm practices and on the knowledge of farmers in Bangalore District. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Srinivas, M.N., 1993, Forward women in development, DSS-2, Indian Pub. and Distributors, New Delhi: 3-5.

Taylor, M.H., 1961, Training of trainers, Kurukshetra, 9 : 19-22.

*Trivedi, G., 1963, Measurement and analysis of socio-economic status of Rural families. Ph.D. Thesis (Unpubl.), Indian Agricultural Reaserch Institute, New Delhi.

Uma, S.G., 1980, A critical analysis of the impact of training on Mahila Mandal members with reference to nutrition and home gardening aspects in Dharwar District of Karnataka State. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Vashistha, S.B., Kumar, K. and Chitra, S.B., 1978, Training needs of orchardists, Indian J. Extn. Edn., 14 (3 & 4) : 68-71.

Venkatesh, K.R., 1995, A Study on impact of training under WYTEP on farm youth in Bangalore Rural District. M.Sc. (Agri.) Thesis (Unpubl.), Univ. Agric. Sci., Bangalore.

Verma, T. and Rajesh Dahiya, 1994, Impact of post harvest technology on Rural women, Maharashtra J. Extn. Edn., 13: 35-38.

* Original not seen.

APPENDIX

APPENDIX

INTERVIEW SCHEDULE

PART - I Respondent No._____

i. Name of the farm women :

ii. Village :

iii. Taluk :

iv. District :

1. Education :

Illiteratate/can read and write/primary school/Middle school/High school/College education but below Graduation/Graduation and above.

2. Land holding (in acres) :

	Dry	Wet	Garden	Total
2.1 Area cultivated	_____	_____	_____	_____
2.2 Area under mulberry	_____	_____	_____	_____

3. Family size :

3.1 Men :
3.2 Women :
3.3 Children above 12 years :

4. Mass media use :

Indicate the extent to which you participate in the following mass media.

Media	Regular/Occasional/Never
4.1 Reading Newspaper :	
4.2 Listening to Radio :	
4.3 Listening to Rural Radio Programmes :	
4.4 Do you read farm magazines/ leaflets and other related literature on agriculture/ sericulture :	

5. Social participation :

Are you a member or office bearer of the following organisation ? Yes/No

If Yes, indicate your membership/office bearership and participation in the following organisations.

	Organisation	Office bearer/ member	Participation in meetings Regular/Occasional/Never
5.1	Raitha sangha	:	
5.2	Mahila Mandal	:	
5.3	Village Panchayat	:	
5.4	Taluk Panchayat	:	
5.5	Sericulture farmers co-operative society	:	
5.6	Primary co-operative agricultural & rural development Bank	:	
5.7	Milk producers co-operative society	:	
5.8	Cocoon regulated market committy	:	
5.9	Any others specify		
	a.	:	
	b.	:	

6. Extension contact :

Indicate extent of contact you had with the following extension workers during the last one year.

	Extension Worker	Know the name	Donot know the name	How many times you consulted hi or he contacted you in a year		
				Nil	1-3 times	Above 3 times
6.1	Sericulture Demonstrator	:				
6.2	Sericulture Inspector	:				
6.3	S.E.O.	:				
6.4	Extension Guide	:				
6.5	A.A.O.	:				
6.6	A.A.	:				
6.7	Any others specify					
	a.	:				
	b.	:				

7. Extension participation :

Indicate the extent to which you participate in the following extension activities.

	Extension activity	Regular/Occasionally/Never
7.1	Training Programme	:
7.2	Extension group meeting	:
7.3	Exhibition	:
7.4	Krishi Mela	:
7.5	Demonstration	:
7.6	Field days & field visit	:
7.7	Any others specify	
	i.	:
	ii.	:

8. Innovation proneness :

Indicate your response for each statement.

Statement		Response
		Yes/Undecided/No
8.1	Do you want to learn new ways of sericulture farming ?	
8.2	If the Sericulture extension workers give a talk on improved cultivation aspects, would you participate ?	
8.3	If the Govt. would help you to establish a mulberry garden elsewhere, would you move ?	
8.4	Do you want a change in your way of life ?	
8.5	A farm women should try to farm the way her parent did ?	
8.6	Do you want your sons to be farmers ?	
8.7	It is better to enjoy today and let tommorrow take care of itself.	
8.8	A man's fortune is in the hands of God.	

9. Achievement motivation :

Check any one of the alternatives given under each statement.

9.1 Success brings relief for further determination and not just pleasent feeling.

Strongly agree/agree/undecided/disagree/strongly disagree

9.2 How true it is to say that your efforts are directed towards a goal ?

Quite natural/not very true/not sure/fairly true/quite true

9.3 How often do you seek opportunity to excel (success) ?

Hardly ever/seldom/about half the time/frequently/nearly always

9.4 Would you hesitate to undertake something that enlight head to your failing ?

Hardly ever/seldom/about half the time/frequently/nearly always

9.5 How many situations do you avoid in which may be expected to evaluation ?

Most/many/some/few/very few

9.6 In how many sphere, do you think you will succeed in doing as well as you can ?

Most/many/some/few/very few

10. Management orientation :

Please indicate your agreement and disagreement about each of the following statements.

Sl. No.	Statement	Agree/disagree
10.1	**Planning orientation :**	
10.1.1	Each year one should think afresh about the crops to be cultivated in each type of land.	
10.1.2	It is not necessary to make prior decisions about the variety of crops to be cultivated in the land.	
10.1.3	The amount of cuttings, fertilizers and plant protection chemicals needed should be accessed before cultivation.	
10.1.4	It is not necessary to think ahead the cost involved in raising a crop.	
10.1.5	One need not consult an agricultural expert for crop planning.	
10.1.6	It is possible to increase the yield through farm production plan.	
10.2	**Production orientation :**	
10.2.1	Timely planting of a cutting can ensure a good yield.	

Sl. No.	Statement	Agree/disagree
10.2.2	One should use as much fertilizer as he likes.	
10.2.3	Determining fertilizer quantities by soil testing saves money.	
10.2.4	Cuttings number should be used as recommended by the specialist.	
10.2.5	For timely weed control, one should use suitable herbicides.	
10.2.6	With low water rates, one should use as much irrigation water available.	

10.3 Marketing orientation :

10.3.1	Market news is not so useful to a farm women.	
10.3.2	A farm women can get good price by grading her produce.	
10.3.3	Co-operatives can help the farmers to get better price for their produce.	
10.3.4	One should sell her produce to the nearest market irrespective of price.	
10.3.5	One should purchase the inputs from shop where her other relatives purchase.	
10.3.6	One should grow these races which have more market demand.	

11. Decision making ability :

Who will take major decisions for the following Sericulture aspects ?

Items	Head of the family	Husband	Herself	Jointly
11.1 Taking loan				
11.2 Selection of the race				
11.3 Selling the cocoon				
11.4 Spending income from sericulture				
11.5 Care of worms at chawki stage				
11.6 Buying of inputs				
11.7 Finding the time of feeding				
11.8 Investment on sericulture				
11.9 Deciding on number of dfl's to rear				
11.10 Costruction of rearing house.				

PART - II

I. **Knowledge level of improved practices of mulberry cultivation and silk worm rearing.**

A. **Mulberry cultivation :**

1. Name the improved varieties of mulberry.
   i) Kanva -2/M-5 ii) S-54 iii) Mysore local

2. What is the length of the cutting for planting ?
   i) 10-15cm ii) 20-25cm iii) 30-35 cm

3. How many number of buds to be present in each cutting ?
   i) 3-4 buds ii) 5-6 buds iii) 6-7 buds

4. What is the spacing recommended for row system _____

5. What is the quantity of FYM required for 1 acre of mulberry garden ?

   i) 3.2-4 tonnes ii) 6-8 tonnes iii) 8-10 tonnes

6. What is the quantity of fertilizer required for one acre of mulberry at planting _____.

	Quantity of fertilizers (Kgs NPK/acre)
i) After first crop	
ii) After second crop	

7. What are symptom chemical required and dosage for the following disease and pests ?

Diseases/pest	Symptom/ nature of damage	Chemical required	Dosage
Caterpillar			
Powdery mildew			

B. **Silk worm rearing :**

1. For rearing, rearing house should be :

   i) Separate house ii) Dwelling house iii)Dwelling house with separate room.

2. What are the measures required to maintain temperature for worms during summer and winter season ?

Summer : i) Open all the windows and doors. Winter : i) Close the windows and doors.

ii) Sprinkle water on floor.
iii) Donot know any practice

ii) Use of heater
iii) Donot know any practice.

3. Which are all the recommended race of silk worm for your area ?

i) Local ii) Crossbred iii) Bivoltine

4. Which are all the recommended sources of dfl ?
i) Govt. grainage ii) Licensed pvt. grainage iii) Donot know

5. After procuring eggs, how to preserve them ?

i) Egg papers are rolled & tied to stand.
ii) Egg papers are spread out in a single layer in rearing trays and covered with either paraffin paper or ordinary news paper in incubation period.
iii) Donot know.

6. Disinfection for dfl

Chemical used	Percentage used	Time of application
_____	_____	_____
_____	_____	_____

7. What is the material required to provide temperature during chawki stage ?

i) Rubber foam ii) Wet cloth iii) Wet gunny cloth

8. What is the material required to maintain humidity during chawki stage ?

i) Paraffin paper ii) Ordinary newspaper iii) Cloth

9. What kind of leaves required to be fed to the chawki worms ?

i) 2 & 3 leaves from top ii) Bottom leaves
iii) Hapazardly picked leaves.

10. Number of trays required for 100 dfl's at third instar _____.

11. Number of times bed cleaning required at fourth instar _____.

12. Quantity of leaf and size required at second instar _____ Kg/100 dfl and _____ cm^2 respectively.

13. What is the density of ripe worms required on Chandrike per Sq.ft.
i) 100 ii) 75 iii) 50

14. Diseases and pests of silk worm

Diseases	Symptoms/nature of damage	control measures
Pebrine		
Flacherie		
Uzifly		

Adoption level of improved practices of mulberry cultivation and silkworm rearing.

A. Mulberry cultivation :

1. Which variety of mulberry you are growing ?
   i) M-5/Kanva-2 ii) S-54 iii) Mysore local

2. What is the length of the cutting for planting you have followed.
   i) 10-15 cms ii) 20-25 cms iii) 30-35 cms

3. What is the spacing you have followed ?
   Pit system _____

4. Quantity of FYM applied/acre _____ tonnes.

5. Quantity of fertilizer you have applied after I pruning _____ Kg of NPK/acre.

6. Have you used any plant protection chemicals on the mulberry crop to control pests and diseases ? YES/NO
   If Yes,

Disease & pest	Chemical used	Dosage
Powdery mildew		
Caterpillar		

B. Silkworm rearing :

1. Are you using separate house for rearing ? YES/NO

2. Which is the silk worm race you are rearing _____

3. From which source you are getting eggs _____

4. After procuring eggs how you are preserving them ?
   i) Egg papers are rolled and tied to stand
   ii) Egg papers are spread out in a single layer in rearing trays and covered with either paraffin paper or ordinary news paper in the incubation period.
   iii) Donot adopting.

5. Are you following disinfection for dfl ? YES/NO
   If yes,

Chemical used	Percentage used	Time of application

6. What is the material required to provide temperature during chawki stage ?
   i) Rubber foam ii) Wet cloth iii) Wet gunny cloth

7. What material you have used in maintaining humidity during chawki stage ?
   i) Paraffin paper ii) Ordinary news paper iii) Cloth

8. What kind of leaves you fed to the chawki worms ?
   i) 2 & 3 leaves from top ii) Bottom leaves
   iii) Hapazardly picked leaves.

9. Number of trays you have used for 100 dfl's at second instar _____.

10. Number of times you are cleaning the bed at third instar _____.

11. Quantity of leaf and size used at third instar _____ Kg/100 dfl and _____ cm^2 respectively.

12. What is the density of ripe worms you have provided on chandrike per square feet ?
    i) 100 ii) 75 iii) 50

13. Diseases and pests of silk worm observed

Disease	Symptom/nature of damage	Control measures
Pebrine		
Flacherie		
Uzi fly		

14. Yield obtained per 100 dfl _____ Kgs.

PART - III

What is your opinion about different aspects of training ?

Aspects	Most satis-factory	Satis-factory	Not satis-factory
a. Effectiveness of training			
1. Content of the training			
2. Teaching aids used			
3. Skill teaching			
4. Duration of training			
5. Effectiveness of teaching			
b. Physical facilities			
1. Lodging			
2. Boarding			
3. Recreation facilities			
4. Feeling of homeliness			
c. Follow up			