

**A STUDY ON TIME UTILISATION, COMMUNICATION
BEHAVIOUR AND OTHER SELECTED FACTORS AS
DETERMINANTS OF JOB EFFECTIVENESS OF VILLAGE
EXTENSION OFFICERS IN T & V SYSTEM OF ANDHRA PRADESH**

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**DEPARTMENT OF AGRICULTURAL EXTENSION
UNIVERSITY OF AGRICULTURAL SCIENCES
BANGALORE
1987**

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

Doctor of Philosophy

in

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BANGALORE

NOVEMBER, 1987

Dedicated to My Parents

Smt. M. Subbamma

and

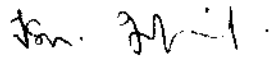
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CERTIFICATE

This is to certify that the thesis entitled
"A STUDY ON TIME UTILISATION, COMMUNICATION BEHAVIOUR AND
OTHER SELECTED FACTORS AS DETERMINANTS OF JOB EFFECTIVENESS
OF VILLAGE EXTENSION OFFICERS IN T AND V SYSTEM OF
ANDHRA PRADESH" submitted by Mr. M. SRINIVASULU REDDY ,
for the degree of DOCTOR OF PHILOSOPHY 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 this University under my
guidance and supervision and thesis has not previously
formed the basis for the award of any degree, diploma,
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BANGALORE
November 12, 1987


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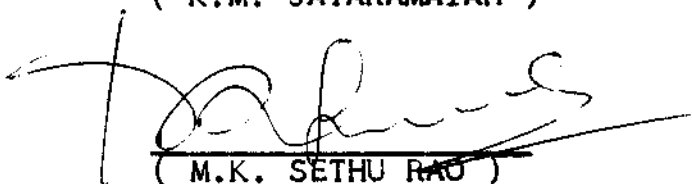
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November 1987.


(M. SRINIVASULU REDDY)

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INTRODUCTION

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CHAPTER 1

I N T R O D U C T I O N

India is predominantly an agricultural country ; in spite of her impressive industrial growth during past two decades, agriculture is contributing 38.1 per cent to the national income. Today, over 70 per cent of the population living in 5,75,000 villages depend on agriculture for their livelihood (Manorama year book, 1986).

Indian agriculture at present is undergoing the process of modernisation. Since the inception of Community Development Programme, many other development programmes like Intensive Agricultural District Programme (IADP), Intensive Agricultural Area Programme (IAAP), High Yielding Varieties Programme (HYVP), Multiple Cropping Programme (MCP), National Demonstration Scheme and Farmers' Training Programmes, have been launched, which ushered in green revolution resulting in a remarkable food production. These programmes were followed by sectoral and target audience-oriented programmes like Drought Prone Area Programme (DPAP), Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers Development Programme (MFAL), Hill Area Development Programme (HAD) and Tribal Area Development Programme (TAD). These are some of the most conspicuous agricultural development programmes launched by the Government of India and these

programmes contributed largely for the increase in the area under cultivation as well as for a remarkable enhancement in the intensity of cropping. According to Rathore (1985) there are 108 programmes in operation in India that have a relevance for agricultural production and rural development ; but each programme has its own merits and demerits. Further fillip to agriculture development in the country was given with the introduction of 'Training and Visit System'- the latest extension methodology in the transfer of technology. This T and V was advocated by Daniel Benor and was introduced in the country with the assistance of World Bank. The T and V system with its remarkable and dependable organisational set up revitalised agricultural extension activities in India and many other developing and under developed countries of the world. The programme impact is being observed in terms of increased yield per unit area of land, technical competence and efficiency of personnel in the organisation.

As extension education bridges the gap between knowledge generation and its practice, the need of the day is therefore, to effectively educate and communicate the information to millions of farmers, who have to adopt the innovations to modernise agriculture. The task of changing the outlook of millions of rural families, acquainting them with new knowledge and orienting them towards the

acceptance of the innovations is indeed a difficult task but it is the responsibility of the extension worker to achieve it.

Under T and V system, for effective transfer of technology the organisational set-up is demarcated into top management, middle management and operational management levels. The success of the T and V system depends on the effective functioning of the operational level management. As at present the Village Extension Officer (VEO) occupies a crucial place in the hierarchy and he is the master key holder of agriculture modernisation, whose action and work efficiency reflect the success and failure of entire agricultural extension system. This is also evident from the several research studies conducted in the past which, identified the Village Extension Officer as the important source of information to farmers. The VEO, being a base level extension worker, is the corner stone in the organisation of the T and V system. Ofcourse, the work of all other extension functionaries in the system, is to make the VEO more effective on his job. The role of the VEO is frequently stressed, as his function is not only persuading farmers to adopt production recommendations, but also to give feed-back to the extension and research services, information on actual farm production conditions, constraints and farmers reactions to recommended practices. It is, therefore, important that his profici-

ency in job effectiveness is raised and maintained at a high level. In this context, it is essential to evaluate objectively, the effectiveness of the VEOs with respect to specific areas of job behaviours.

It is needless to say that the level of effectiveness of VEOs has a significant and crucial role in increasing crop production. Although, enormous definitions have been offered over the past decade, there is no wide spread acceptance of any one definition of 'effectiveness' to-day. According to McGregor (1967), the performance (effectiveness) of an individual at work in an organisation depends on his own personal qualities and the environment where he works. Pfeifer (1976) asserted that behaviour is a function not only of individual but also of environment. Shakuntala Balaraman (1987) stressed that the effectiveness is essential not only for organisational purposes but also for the advancement of behavioural science and that it is possible to define effectiveness in a meaningful way for each managerial level, function and type of technology. She also indicated that an effective manager is an optimiser in utilising all available and potential resources - material, human and financial both within and outside the organisation, towards its sustained long term functioning. To make this definition operational, effective managerial behaviour should be stated in measurable terms; of what the manager does on the job, to effect

optimisation of resources.

The effectiveness is like life energy to an organisation, be it public or private. India's agricultural development organisation, which is the largest of its kind in the world, cannot afford to ignore this fact. If it has to achieve its objective of bringing about socio-economic transformation of India's rural farmers, it has to maintain the effectiveness of different functionaries working, within its frame work at high efficiency level and keep a watch on them.

Under T and V system, the large number of VEOs as well as monopurpose nature of their role, present a unique problem in maintaining a high level of proficiency. But this is the challenge the administrators have to face and overcome. Uptill now, a lot has been done to maintain and raise the level of effectiveness of the VEOs, but what really needed is a scientific and systematic approach to the problem, which may be resolved into a few prominent questions viz., 'What are the critical requirements of VEOs?', 'To what extent they fulfil these requirements?', 'What are the specific areas in which the VEOs are generally deficient?' and 'How can these deficiencies be measured and compared?'. These are the basic questions that are to be answered in an attempt to tackle the problem related to VEOs effectiveness. Only scientific field studies, specifically designed for this purpose can bring out the desired

answers to these questions.

Hence the present study was undertaken to assess the job effectiveness of VEOs as influenced by different variables, such as, their total experience, experience as VEO, training, achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, organisational climate, morale, job satisfaction, job involvement, work facility, communication skill, dependence, sociability, guidance and supervision, as well as self confidence. From the review of past studies it has been hypothesised that all these variables affect the VEOs effectiveness both in terms of qualitative and quantitative, either directly or indirectly through interaction with each other. Further in the T and V system to know the effectiveness of extension functionaries, there is an absolute need to identify those factors which are associated with the individuals' effectiveness in an organisation as well as the organisation factors which have a bearing on the effectiveness of the individual extension worker at the grass root level. This is of paramount importance, in order to plan strategies for increasing the level of effectiveness of each of the potential extension worker, to a greater extent. None of the available studies have specifically looked into this aspect and hence a study on this aspect was considered

to be of practical value to the administrators as well as the professionals, in effective implementation of T and V system. In this background, the present study was designed and undertaken with the following specific objectives :

1.1 SPECIFIC OBJECTIVES

1. To understand the extent of job effectiveness of VEO's in T and V system.
2. To analyse the impact of time utilisation and communication behaviour and other selected variables on the job effectiveness of VEOs.
3. To know the extent of time utilisation by VEOs on educational and other activities in T and V system.
4. To identify the problems encountered by the VEOs in achieving higher effectiveness.

1.2 SCOPE AND LIMITATION OF THE STUDY

This is a pioneering study of its kind, wherein an attempt has been made to measure the level of effectiveness of VEOs and the factors associated with it in T and V system of Andhra Pradesh. The study of this nature about the effectiveness of VEOs seems to have not been attempted in the state of Andhra Pradesh. Hence, it is presumed that the present study would provide some valuable findings for the increase in the effectiveness level of the VEO's. Further it is felt that the results would be helpful to professionals and administrators to formulate various

extension programmes, and to provide the needed organisational atmosphere for raising, and sustaining the higher level of effectiveness of VEOs.

Since this study is a part of the post-graduate degree programme, as usual, the limitations of time, and other resources at the disposal of the researcher, prevailed. Hence, the researcher had to restrict the study to a limited area and sample size. Perhaps the findings have to be viewed in the specific context of the conditions prevailing in the area of study, and cannot be generalised for a wider geographical area. However, these findings will be applicable wherever similar conditions prevail.

Further, the investigation is based on the expressed opinions of the respondents by recall and as such, some personal bias and prejudice might have crept in, with the attendant drawback of collecting data in an 'Ex-post facto' design ; even though every care has been taken in the preparation of the questionnaire.

1.3 PRESENTATION OF THE STUDY

The thesis is divided into eight Chapters. In the first Chapter 'Introduction', the Problem, Objectives, Scope and limitations of the study are discussed. The second Chapter 'Review of Literature' deals with the review of important and related studies in the field of

present investigation. In the third Chapter 'Material and Methods', the research methodology including the locale of the study, research design, selection of respondents, operationalisation and measurement of the variables, conceptual representation of the study, techniques used in the collection of data and statistical tools used for the study are discussed.

In Chapter four the 'Results' are presented in relation to objectives set for the study and in the next Chapter 'Discussion', the results of the study are discussed in detail. In sixth Chapter 'Summary', the investigation details, the major findings and also the implications of the study are given. Finally, Chapters seven and eight deal with 'References' and 'Appendices', respectively .

1.4 DEFINITIONS OF THE TERMS USED IN THE STUDY

Village Extension Officer (VEO): Village Extension Officer is a grass root level extension worker in T and V system and he works with the contact farmers as well as other follower farmers in order to disseminate improved agricultural technology under the guidance of Agricultural Officers and other supervisory functionaries.

Job effectiveness : Job effectiveness has been operationalised as the cumulative efficiency of an Village Extension Officer on quantitative aspects of performance of his job.

Experience : This refers to the total number of years of experience possessed by the individual as VDO and or VEO.

Training : This has been conceptualised as number of times and duration of both pre-service and inservice trainings received by the respondents excluding the fortnightly/weekly trainings received by them.

Achievement motivation : It refers to the value associated with a VEO, which drives him to excel in his activities and thereby attain a sense of personal accomplishment.

Communication behaviour : This refers to the information input behaviour, information processing behaviour and information output behaviour of VEO with regard to agriculture technology.

Organisational commitment : This has been operationalised as the degree of pledge to the organisational goals and objectives by the VEO.

Attitude towards T and V system : This refers to the degree of positive or negative effect associated with the T and V system by the VEO.

Time utilisation : It refers to the quantum of time spent on different activities by Village Extension Officers in a Kharif season, from May to October 1986.

Organisational climate : This has been operationalised as the perception of a VEO about his work place, facilities, Co-workers, leadership etc.

Morale : It has been operationalised as the mental state of VEO with regard to his spirit and confidence.

Job satisfaction : Job satisfaction has been operationalised as the degree of satisfaction or dissatisfaction of VEO towards different aspects of the roles prescribed.

Job involvement : It is the degree to which a person is identified psychologically with his work or the importance of work in his total self-image.

Work facility : This refers to the supply of inputs , equipments and technical information in time in addition to proper supervision and guidance that facilitate better work situation.

Communication skill : Communication skill refers to the degree to which an individual conveys the message to the farmers effectively.

Dependence : Dependence refers to the degree to which an individual holds on superiors for accomplishing the targeted activities.

Sociability : Sociability refers to the degree to which an individual participates in the social situations, within his social world.

Guidance and supervision : This refers to the extent of guidance and directions given to the VEOs' in performing their work as well as motivating them to do a better work by their immediate superiors.

Self confidence : Self confidence refers to the degree to which an individual possess confidence in himself regarding the execution of farming activities.

REVIEW OF LITERATURE

REVIEW OF LITERATURE

An understanding of the latest research results is essential not only to make use of the same to solve the day-to-day human problems, but also to plan and conduct some useful researches. As Fleishman (1967) said "better ways are needed to generalise research findings from laboratory studies to operational settings, from one experimental study to another and from one operational situation to another". This is evident as more researches are conducted and more knowledge is generated.

Further the review of the relevant studies reported in regard to the job effectiveness of the Village Extension Officers (VEOs) would help to, generalise the facts and to have certain assumptions underlying job effectiveness of the grass root level workers, and to put these assumptions to test.

An attempt has also been made to review studies related to the selected variables of the study, viz., job effectiveness, total experience, experience as VEO, training, achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, organisational climate, morale, job satisfaction, job involvement, work facility, communication skill,

dependence, sociability, guidance and supervision, as well as self-confidence.

2.1 JOB EFFECTIVENESS

Salvi and Dudhani (1967) study has revealed that the VLWs with a relatively better educational background, larger job training with a rural background tend to be effective in their job.

According Singh et al. (1967) 60 per cent of the VLWs were above average, 30 per cent, average and 10 per cent, below average in job performance.

Patel and Leagans (1968) reported that, parents occupation, age, tenure status as a VLW, extension training, tenure in extension, formal education, tenure outside of extension, marital status were found to have significant relationship with the job effectiveness of VLWs.

Hunter (1970) felt that allocation of more administrative responsibilities as against technical work to extension staff was a real cost to the organisation. Further, he suggested that sooner the extension could get back to its real work, the better would be its performance.

Kherde (1971) identified the relative importance of eight job areas in different rank order. The job areas ranked from highest to lowest importance in this study

were : education, organisation, service, planning, supply, work, supervision and office.

Shetty and Murthy (1971) reported that caste and number of trainings undergone were determining job effectiveness of gramsevaks.

Kherde and Sahay (1972) observed that age, fathers occupation, living with family at head quarters, attitude towards bureaucracy, attitude towards villagers, perception of job were positively correlated with performance.

Chakravarthy and Singh (1974) concluded that the VLWs job was primarily that of an educator, communicator and change agent.

Singh and Singh (1976) said that greater satisfaction and experience combined with an easily manageable jurisdiction contributed to higher performance. Further they indicated that it is not sufficient to look after only one or two aspects of the situation, if the performance is to be raised ; the negative effect of one factor can nullify or pull down the effect of other factors as well.

Dhillon and Sandhu (1977) reported that the variables having significant relationship with job effectiveness as the rural background, attitude towards organisation and job satisfaction. These three variables

accounted for 35.5 per cent of total variation, while age, service, academic achievement, communication skill, resourcefulness, initiativeness had no significant association.

Veerabhadraiah (1980) found significant association between the personal variables like age, education, experience and training in administration and management, and their job performance.

Pareek and Rao (1981) showed the importance of performance appraisal as an effective instrument for helping people to grow and develop in the organisation.

Reddy (1982) indicated that the training and mass media participation were significantly associated with performance; whereas experience was not significantly associated.

Reddy (1983a) revealed that achievement motivation was positively and significantly correlated and all other variables like experience, training, perception of social status of the job and salary were non-significantly and negatively correlated with the job performance of VEOs. Further, he said that there was no significant relationship between the job performance and job satisfaction of VEOs.

Talukdar (1984) revealed that organisational health, supervisory style, general facilities, attitude, job satisfaction, morale, confirmity, communication behaviour and caste together explained about 64 per cent of total variation in productivity of the Agricultural Development Officers. Further, the path analysis showed that job satisfaction had the maximum direct effect and organisational health had the maximum indirect effect.

Heddy (1986) reported that 15 independent variables viz., communication behaviour, facilities and resources, knowledge, attitude towards farmers, organisational climate, perception of work load, communication, attitude towards T and V system, guidance and supervision, achievement motivation, organisational commitment, morale, interpersonal contact, job perception and job satisfaction were significantly correlated with the productivity. These together contributed for 76.50 per cent of variation in the productivity of VEOs. Further, the path analysis revealed that while communication behaviour had the maximum direct effect, job satisfaction had the maximum indirect effect.

In general job satisfaction, attitude towards organisation, achievement motivation, and communication behaviour were seem to be positively and significantly related with the job performance (effectiveness).

2.2 TOTAL EXPERIENCE

It refers to the length of service of the incumbent as VEO as well as any other position held in extension organisation. It was assumed that past experience gained by an individual with respect to a task or problem or activity will have influence on the effectiveness of his task in the subsequent year.

Barrett (1926) found no significant relationship between his criteria of success and length of service, years of employment of agents since leaving college before being appointed as county agents.

Frutchev (1953) reported that experience was not a differential characteristic between more effective and least effective extension workers.

Rahudkar (1962) and Janardhna (1979) identified that the VLWs who had put in more than two years of service in the development block proved to be most effective, whereas VLWs who had less than two years of experience were least effective.

Salvi and Dudhani (1967) and Reddy (1982) revealed that tenure of VLWs in extension was not associated with their job performance.

Patel and Leagans (1968) observed that VLWs who worked for more than five years in extension belonged to more effective VLWs group.

Reddy (1983b) found negative relationship between experience and job performance of VEOs.

Reddy (1986) reported that there was no significant association between experience and productivity of VEOs.

In majority of the studies cited above, it is noted that experience had no influence on job effectiveness of VEOs.

2.3 TRAINING

Vidyarthi (1970) stated that training of extension personnel is now recognised to be an integral part of agricultural production programme and embrace the entire extension agency from Village level to State level, with a view to build up their professional competency.

Nye (1951) observed that training of county agents was positively associated with their job effectiveness.

Hudramurthy (1962) reported that VLWs must be trained to act - independently to able to understand his role and relationship with others and also to plan his work. Further he expressed that VLWs should be trained to face problems, analyse them and suggest remedies.

Sharma and Pisharody (1964) reported that VLWs who received 2 years of integrated training were more suited to their job.

Salvi and Dudhani (1967) revealed that the pre-service training of extension personnel had positive and significant relationship with their job performance.

Patel and Leagans (1968) said that the VLWs with extension training are likely to be more effective than those having no training.

Tripathi et al. (1970) found that 44 per cent of VLWs had dissatisfaction resulted from inadequate and insufficient and faulty trainings.

Kherde (1971) observed significant correlation between inservice training of extension workers with their job performance.

Shresta and Singh (1975) reported that there was no association between the participation in inservice training and level of job satisfaction, with respect to job content of junior technical assistance of Nepal.

Reddy (1982) expressed significant relationship between training and job performance of Agricultural Assistants (AAs).

Reddy (1983a) reported that there was no significant relationship between training received and role performance of VEOs.

Reddy (1986) revealed that there was positive but non-significant relationship between training received and productivity of VEOs.

It can be concluded from reviews that the training has a bearing on the job effectiveness of VEOs.

2.4 ACHIEVEMENT MOTIVATION

Rogers and Svenning (1969) defined achievement motivation as a social value that emphasises a desire for excellence in order to attain a sense of personal accomplishment.

Sarkar and Patnaik (1966) indicated that, the VLWs had ranked opportunity for promotion and salary according to work and achievement as of highest importance.

Hosur (1977) reported that, in general the achievement motivation of gramsevaks was low.

Janardhana (1979) revealed that the achievement motivation of Agricultural Extension Officers was not related with their job performance.

Bharamappa (1981) indicated that the achievement motivation among the Assistant Agricultural Officers was medium.

Reddy (1983a) found the achievement motivation was positively and significantly correlated with the role performance of VEOs.

Reddy (1986) observed that there was positive and highly significant relationship between achievement motivation and productivity of VEOs.

From the above review, it could be pointed out that the achievement motivation was positively and significantly associated with the job effectiveness of the personnel.

2.5 COMMUNICATION BEHAVIOUR

According to Berlo (1960) effective communication with other people in the work environment is one of the most important aspects related to the work of an employee who has the role of communicator also.

Kivlin et al. (1968) ; Singh and Sahay (1973) emphasized that communication behaviour of extension personnel has important role in bringing about social change in India.

Rogers and Shoemaker (1971) considered communication behaviour as the degree to which an individual is willing to seek information and advice. The behaviour of an individual, in broadsense, refers to anything the individual does ; in restricted sense, the activity that can be observed and recorded.

Communication behaviour refers to information input behaviour, information processing behaviour and information output behaviour of VEOs with regard to agricultural technology.

Hussain (1964) observed that the low efficiency of a worker could often be attributed to in-effective communication behaviour.

Kolte (1972) found a positive relationship between communication behaviour and job performance.

Ambastha and Singh (1977) said that information input and output was lower in Assistant Research Officers and Junior Research Officers.

Reddy and Singh (1977) reported that only five communication channels were most commonly used by VLWs; they were : farm and home visits, group meetings, method demonstrations, result demonstrations and farmers training camps.

Talukdar (1984) found positive and significant relationship between communication behaviour and productivity of Agricultural Development Officers in T and V system.

Reddy (1986) reported that there was positive and highly significant association between the communication behaviour and productivity of VEOs. Further the path analysis revealed that the communication behaviour had the maximum direct effect in influencing the productivity of VEOs.

All the above studies reveal, the communication behaviour as an important factor in influencing the job effectiveness of VEOs.

2.6 ORGANISATIONAL COMMITMENT

Sheldone (1971) defined organisational commitment as an attitude or an orientation towards the organisation which links or attaches the identity of the person to the organisations.

Ladhal and Kejner (1965) found no significant relationship between job performance and job involvement. Kitzer and Trice (1969) expressed that organisational commitment was positively related to professional commitment.

Lawler and Hall (1970) found no relationship between involvement and performance, and attributed this to the point that people can be involved in their job for reasons that are not related to performance.

Siegel and Ruh (1973) said that job involvement was be positively related to effectiveness as measured in terms of productivity.

According to Punekar and Haribabu (1976), a committed worker is one who possesses in him the two values namely, the value of performance and the value of discipline. Jauch et al. (1978) reported that those researchers with the strongest professional commitment had higher research productivity, whereas loyalty was found to be unrelated to productivity.

Bartol (1979) postulated that professional commitment factor has significantly and negatively related to turn-over expectancy.

Mowday et al. (1979) stated that a positive relationship existed between organisational commitment and employee performance.

Veerabhadraiah (1980) identified significant association between job involvement and job performance.

Angle and Perry (1981) revealed that organisational commitment was related with organisational adoptability and turn over but not with operating costs of absentism.

Jagirdhar (1986) reported that majority of the subject matter specialists had high level of organisational commitment towards T and V system work.

According to the study conducted by Reddy (1986) there was positive and highly significant relationship between organisational commitment and productivity of VEOs.

Here the findings of most of the studies are in-consistent with regard to its relationship with job effectiveness.

2.7 ATTITUDE TOWARDS T AND V SYSTEM

Zende (1979) observed that VEOs attitude towards the developmental programme was one of the determinants of their job performance.

Ghosh (1978) concluded that 63.34 per cent of the officials had moderate to less favourable attitude and 26 per cent had unfavourable attitude towards T and V system.

Pandey (1979) said that 72 per cent of the VEOs were favourably disposed 20 per cent were neutral, and 8 per cent were unfavourably disposed towards T and V system.

Rao (1979) revealed that 73.33 per cent of the VEOs had moderately favourable, 16.16 per cent had highly favourable and 10 per cent had less favourable attitude towards T and V system.

Sarkar (1979) reported that majority of the VEOs and officials had moderate attitude towards T and V system. The findings were, 63.34 per cent possessed medium attitude, 26.66 per cent low and 10 per cent high attitude towards T and V system.

Kulhari (1980) expressed that majority of the VEOs had favourable to highly favourable attitude towards T and V system; 18 per cent unfavourable and about 2 per cent neutral in their attitude.

Prajapati and Patel (1980) reported that 15 per cent extension workers had unfavourable attitude and 62.50 per cent had neutral attitude and 22.50 per cent had a favourable attitude towards selected components of T and V system.

Rao (1983) concluded that 80 per cent of the VEOs had favourable to highly favourable attitude, 18 per cent unfavourable and 2 per cent neutral in their attitude towards T and V system. Reddy (1986) reported that 63.89 per cent of the VEOs had neutral attitude, 21.67 per cent had unfavourable and only 14.44 per cent had favourable attitude towards T and V system. Further he revealed that the attitude towards T and V system was highly and positively correlated with the productivity of VEOs.

In majority of the studies the VEOs reflected moderate to favourable attitude towards T and V system.

2.8 TIME UTILISATION

According to the county extension workers report (1945), 60 per cent of the working time was spent in the field and 40 per cent in the office; most of the extension workers felt that the time spent in the field was most effective than the time spent in office.

Sabroskey (1956) emphasised that extension agents spent 31.50 per cent of their time in office, 28.40 per cent in the field in the county; 11.60 per cent out of the county but in state, 4.80 per cent out of state, 13.60 per cent travelling and 10.10 per cent in other states.

Taylor (1956) reported that VLWs performed the service functions more than educating farmers on the adoption of new practices.

Fay (1962) narrating the county unit in American extension, stated that an adequate share of county agents time was spent in farm visits apart from making use of group meetings, newspaper contacts, radio, television, office telephone calls and bulletins. He further stated that American extension agent each year made 20 million personal contacts by farm visits, office calls and telephone calls ; contacted 75 million individuals in group meetings, trained one million local leaders, released 0.9 million educational news stories and also distributed 23 million bulletins.

Taylor (1965) reported that VLWs were compelled to devote much time on record keeping when compared to educational activities.

Khosla (1966) in his study on role expectation and performance of VLWs reported that VLWs had devoted too much time for maintaining records and sending reports which affected their field work.

Earnest (1970) reported that on an average an Agricultural Extension Officer devoted 276 hours a month (i.e., 11.6 hours per day) for his work.

Naidu (1974) stated that on an average the Deputy Agricultural Officers (Extension) were working for 484 minutes per day ; out of these, 181 minutes (37.50%) on miscellaneous function, 148 minutes (30.30%) on educating the farmers function, 78 minutes (16%) on maintenance of office and office routine function, 54 minutes (11.50%) on arranging supplies and services function and 23 minutes (4.70%) on supervising the staff function.

Brown (1975) reported about Home Economics Extension Agent spending approximately 45 per cent of their time in the field with 24 per cent of that time spent on travel. The next highest per cent of time was spent in oral communications either face to face or by telephone.

Jalihal et al. (1975) indicated that gramsevaks had utilised 16 days in a month for educational activities and 6 days on the service type activities. The study showed that, large share of their time was used on farm

and home visits and the important educational methods like demonstrations and meetings were not given sufficient time. Further, the study indicated 74 per cent of the gramsevaks were satisfied with the time spent by them on educational activities while, the remaining 26 per cent were not satisfied.

Veerabhadraiah (1980) observed that there was no significant association between time management and job performance of the DDAs and ADAs.

Vittal (1982) revealed that 49 per cent of Agricultural Assistants had spent 2 to 3 hours for rendering individual technical guidance to contact farmers. Apart from this, 33 per cent of the respondents had spent less than 2 hours and 18 per cent had spent more than 3 hours in a day for this purpose. The time spent by 43 per cent of Agricultural Assistants is less than 2 hours, followed by 33 per cent who spent 2 to 3 hours and 24 per cent who spent more than 3 hours for rendering individual technical guidance.

Gunasundar Kumar (1983) reported that the Assistant Horticultural Officers of the Department of Horticulture, Government of Karnataka had spent 48 per cent of their days time in extension education work, advisory including supervision of extension field work and trainings,

20.87 per cent on office work other than reporting, 11.52 per cent on reporting and 10.43 per cent to arrange supplies, 9.18 per cent of their days time on other unforeseen activities like accompanying supervisors and other important persons.

Ramakrishna Rao (1985) found that the Assistant Agricultural Officers had spent 89.71 per cent of their time on essential tasks and 10.29 per cent on supporting duties. Rank ordering of time in respect of different tasks showed that the AAOs, had spent more time on tasks such as guiding and training of Agricultural Assistants and other supervisory works.

Srinath (1987) reported that Deputy Horticultural Officers spent 70 per cent of their total time on essential tasks and remaining 30 per cent on supporting tasks; while the Assistant Directors of Horticulture spent 62 per cent of their total time on essential tasks and remaining 38 per cent on supporting tasks.

Shakuntala Balaraman (1987) reported that production managers spend approximately two-thirds of their time contacting and communicating with their subordinates, superiors, colleagues in other departments and trainees.

From the above reviews it could be concluded that the extension personnel are spending most of their

time on educational activities when compared to other activities.

2.9 ORGANISATIONAL CLIMATE

Prethus (1965) indicated that the bureaucrats situation is not seen in the same way by all its members. While some perceive the organisation as a favourable place in which to assert their carrier claims, others view its system of authority and status as threatening.

Fiedlander and Margulis (1969) identified that maximum satisfaction with different areas of one's work demands different mixes of climate components.

Fiedlander and Greenberg (1971) reported a significant and positive relationship between job performance and organisational climate.

Lyon and Ivancevich (1974) concluded that , different climate dimensions are found to influence individual job satisfaction facets for nurses and administrators and the impact of organisation climate ; satisfaction varies with the climate dimension and the type of satisfaction.

Gavin (1975) revealed that most of the investigators climate perceptions are believed to be a function of the organisation and their interaction.

Scheinder and Snyder (1975) reported that, each individual perceives his organisation in any number of ways, depending upon the context and the set of information about the organisation, which is operative for that individual. Koehler et al. (1976) opined that employees may experience the same climate differently at different times or different employees may perceive the same climate differently depending on seniority, age, position in hierarchy, so that the perception of organisational climate is dynamic and variable.

Ushakumari (1976) reported that a negative relationship existed between organisational climate and some of the self actualization factors.

Ganeshan (1977) indicated that personality orientation was not related to need satisfaction and organisational climate, and that need satisfaction is alone related to organisational climate.

Venkataraman and Anantharaman (1979) reported that correlation between need satisfaction and organisational climate variables, were all negative and it showed that when needs are deprived the perception of organisational climate becomes negative.

Talukdar (1984) showed that organisational health had positive and significant relationship with the productivity of Agricultural Development Officers.

Jhansi (1985) reported no significant relationship between organisational climate and extension productivity of Agricultural scientists.

Jagirdhar (1987) revealed that majority of Subject Matter Specialists were in good climate. Further he said, organisational climate of Subject Matter Specialist was not significantly associated to their job involvement and organisational commitment but organisational climate was significantly associated to job satisfaction.

Reddy (1986) reported that there was positive and highly significant association between organisational climate and productivity of VEOs.

Reviews of above studies points out that organisational climate influence the job effectiveness only to a limited extent.

2.10 MORALE

Towle (1962) defined morale as 'a state of mind and emotions, affecting the attitude and willingness to work which in turn affects individual and organisational objectives'. Though morale and job satisfaction have been treated as the same concept by many others, these

were also studied as two separate concepts. Applewhite (1965) analysed a number of research studies and concluded that though the components of each one are the same, they differed operationally. He further emphasised that the distinction between morale and job satisfaction is the term 'satisfaction' applying to individual and morale to group.

Hence morale is an overt manifestation of the level of motivation, morale measurement provides a proper assessment of motivation in organisational settings.

Khan and Katz (1953) stated that morale comprised 3 dimensions namely, satisfaction with their job, satisfaction with their supervisor and satisfaction with the company.

Davis (1957) pointed out that there was a close relationship between morale and productivity. By morale he meant the collective attitude of individuals and groups towards their working environment. Further he said that the workers with high morale liked their job and organisation and had a drive to work cooperatively.

Mathur (1972) found significant relationship between morale and efficiency of an organisation.

Minocha (1977) reported that morale positively influences the job performance.

Talukdar(1984) revealed that morale had positive and significant relationship with the productivity of Agricultural Development Officers. Further he identified significant relationship with organisational health, attitude, job satisfaction and confirmity.

Reddy (1986) reported that there was highly significant and positive relationship between morale and productivity of VEOs.

The above findings were rather emphetic about the importance of morale in the productivity of employees.

2.11 JOB SATISFACTION

The emphasis on the study of job effectiveness of a worker has not only been on their job performance but also on their job satisfaction. Gilner (1961) defined job satisfaction or dissatisfaction as the result of various attitudes the person holds towards his job, towards related factors and towards life in general.

Vroom (1964) found weak relationship between job satisfaction and job performance of employees. John (1966) in his study established no significant relationship between job satisfaction and job performance of VLWs.

This finding was supported by the findings of Kherde (1971), Rajagopal (1977) and Reddy (1983a).

Programme Evaluation Organisation (1970) reported that more number of VLWs were not satisfied with their service conditions. There were no chances for promotion and facilities like accommodation and education were lacking. Further they stated that they could not ensure supplies and credit for implementation of production plans.

Wanous (1974) concluded that sometimes there was relationship between job satisfaction and job performance scores of workers. He further stated that performance causes intrinsic satisfaction and that extrinsic satisfaction causes performance.

Jalihal et al. (1975) observed that 74 per cent of VLWs were satisfied with the time spent by them on educational activities while, the remaining 26 per cent were not satisfied.

Phyllis (1975) said that a satisfied worker was in general a more flexible, better adjusted person who has come from a superior family environment or who has the capacity to overcome the effects of an inferior environment. He is realistic about his own situation and about his goals.

Singh and Singh (1976) study indicated that there was significant relationship between level of job satisfaction of extension persons and position in the hierarchy of the extension organisation.

Rajagopal (1977) revealed that 50 per cent of the VLWs had more job satisfaction while, the remaining 50 per cent had less job satisfaction.

Sandhu and Singh (1977) studied life related job satisfaction and found that 8.9 per cent of individuals were highly satisfied as compared to 73.3 per cent exhibiting a low level of satisfaction on the job.

Jaiswal et al. (1978) said that many of the old VLWs who were working for the last 15-20 years were not satisfied with the T and V system which made them mono purpose workers. They were also dissatisfied with their pay scales, promotion opportunities and other facilities like residential quarters, conveyance etc.

Zende (1979) reported that job performance of gramsevak was determined by their satisfaction with respect to work.

Kulhari (1980) reported that 68.13 per cent of the VEOs were satisfied, 20 per cent were neutral and the rest 11.87 per cent were dissatisfied with the jobs in T and V system.

Reddy (1982) found that 51.54 per cent of Agricultural Assistants were dissatisfied, whereas 48.46 per cent were satisfied with their jobs in T and V system of Karnataka. He further stated that job satisfaction was not associated with the job performance.

Samantha (1982) said that majority of the VLWs were not satisfied with the allowance like provident fund, service, security and salary etc. Further he revealed that most of them were also not satisfied or some what satisfied about incentives and rewards, service rules, leave facility, work distribution and job authority.

Vittal (1982) reported that 38 per cent of Agricultural Assistants in T and V system had low job satisfaction, 27 per cent had medium and 35 per cent had high job satisfaction.

Pratap and Srivastava (1983) reported that the employees above 35 years of age had shown better job satisfaction than those below 35 years. Further he said, persons holding experience above 12 years and persons in higher income group had shown better job satisfaction.

Rao (1983) expressed that 55 per cent of the VEOs were satisfied, 18 per cent were neutral and 27 per cent were dissatisfied with their jobs in T and V system.

A study concluded by Reddy (1983a) indicated that 57.50 per cent of the VEOs were dissatisfied with their job, whereas, 41.25 per cent were satisfied and only 1.25 per cent were highly dissatisfied.

Susilkumar (1984) revealed that job satisfaction was positively and significantly related with overall performance of Assistant Agricultural Officers.

Reddy (1986) reported that 65.55 per cent of VEOs were medium in their level of satisfaction, 17.78 per cent were highly satisfied and 16.67 per cent were in low job satisfaction. Further he said that job satisfaction had highly significant and positive relationship with the productivity of VEOs.

A large number of studies indicated job satisfaction as an important factor in the job effectiveness.

2.12 JOB INVOLVEMENT

Blaumer (1964) hypothesized that job involvement in work may come from personal control, from association with others and from a sense of purpose. A man who is in control of his immediate work process - regulating the pace, the quality of the product, choosing tools or work techniques, must be relatively immersed in the activity of work.

Bass (1965) stated that job involvement by echoing the feelings that conditions, lead to a strengthening of the variables; (1) the opportunity to make some of the job decisions, (2) the feeling that one is making an important contribution to success, (3) achievement, (4) success, (5) self determination and (6) freedom to set one's own work pace.

Ladhal and Kejner (1965) reported that the measure of job involvement and job satisfaction is as measured by the job description index. Further he said that high job involvement was associated with job satisfaction with the work itself, promotion, supervision and people.

Lawler and Hall (1970) revealed that no relationship existed between involvement and performance, and attributed this to the point that people can be involved in their job for reasons that are not related to performance.

Siegel and Ruh (1973) postulated that job involvement would be positively related to performance as measured in terms of productivity.

Schuler (1975) found no significant relationship between job performance and job involvement.

Veerabhadraiah (1980) reported that there was a significant association between job involvement and job performance of DDAs and ADAs.

An insight into the above cited studies reveal that except in one case the job involvement had no influence on job effectiveness.

2.13 WORK FACILITY

The Programme Evaluation Organisation (1965) emphasized the need for co-ordinated management in supply and services.

Samantha (1982) revealed that the productive efficiency of the gramsevaks is found to suffer for want of adequate supplies and services.

Reddy (1983b) reported that there was no significant association between facilities and resources, and communication behaviour.

Talukdar (1984) reported a significant relationship between several facilities and productivity of Agricultural Development Officers.

Jhansi (1985) found no significant relationship between facilities provided and extension productivity of Agricultural scientists.

Reddy (1986) concluded positive and highly significant relationship between facilities and resources and productivity of VEOs. Further he said that facilities and resources emerged as the dominant variables, influencing the productivity of the VEOs.

The studies showed mixed trend regarding the importance of work facilities.

2.14 COMMUNICATION SKILL

The message to popularise an activity needs to be amplified and made understandable to the farmers in the field, through VEOs to achieve the desired results in the field of Agriculture. The communicative task of the VEO has grown immensely over recent years.

Parshad and Sandhu (1974) noticed that 46.53 per cent of VLWs were having medium level of communication skills, 15.97 per cent having low level of communication skills and 37.50 per cent of them having high level of communication skills.

Dhillon and Sandhu (1977) reported non significant relationship between communication skill and job effectiveness of a farm advisory service.

2.15 DEPENDENCE

Dependence refers to the degree to which an individual depends on superiors for accomplishing the targeted activities. Here, mainly this variable deals with the VEOs judgement and actions based on superiors decisions. In general the VEOs although receives the instructions and guidance from their respective officers, while implementing the decisions of superiors, they may look into local feasibility.

2.16 SOCIABILITY

Sociability is said to be the degree to which an individual participates in the social organisations and in informal social situations within his 'social world'. But the present concept, has a wider meaning and includes the day-to-day interactions in the society in addition to his participation in the formal social organisations. It was particularly so since the job of VLW involves such subtle and closer relations with his clients, and his working environment.

Parshad and Sandhu (1974) found a significant and positive relationship between communication skills of VLWs and their sociability.

Reddy (1976) reported that sociability had both direct and indirect positive influence on VLWs communication behaviour.

2.17 GUIDANCE AND SUPERVISION

It is a very important factor in administration of extension organisation. The success of the VLWs may depend upon the regular guidance in technical matters, guidance and supervision in professional growth, timely advice, etc. from the superiors.

Reddy (1976) revealed that there was positive association between guidance and supervision, and communication behaviour of VLWs in community development programme.

Bhaskaram et al. (1979) indicated that the guidance and supervision provided by Assistant Agricultural Officers and Assistant Directors of Agriculture seem to be not quite adequate in T and V system.

Samantha (1982) found that VLWs were satisfied with the guidance given to them in respect of their field work, job responsibility and their professional growth. But 50 per cent of the VLWs were only satisfied with their guidance in technical matter, and timely advice from their superiors.

Talukdar (1984) concluded that positive and significant relationship existed between supervision and productivity of Agricultural Development Officers.

Reddy (1986) revealed that there was positive and highly significant relationship between the guidance and supervision, and productivity of VEOs under T and V system.

Majority of the studies indicated that guidance and supervision as a vital factor in the direction of improving the job effectiveness.

2.18 SELF CONFIDENCE

It refers to the degree to which an individual possess confidence in himself regarding execution of various activities. This variable reflects the perception of VEOs about their capabilities. It includes his confidence about taking a decision, facing a difficult situation, faithfulness towards himself and his concentration to work, also the indicators of self confidence.

2.19 PROBLEMS FACED BY THE VEOS

Sapkal (1960) classified the problems of VLWs which bothered them more in their work under three categories, viz., 1) problems due to short comings in the people i.e., party functions among the people, casteism, vested interests, prejudices and superstitions and local obstructionists elements ; 2) short comings in the department which include lack of coordination, targets beyond capacity, conflicting demands of work, area of operation too wide, too many orders resulting in confusion and lack of timely guidance and supply ; 3) short comings in themselves that include lack of practical training in public health, animal husbandry, agriculture and cooperation.

Murthy (1965) found that insufficient and untimely supply of agricultural inputs such as seeds, fertilizers and insecticides as the main source of frustration. The VLWs also felt that they should work entirely for agricultural development and not as a multipurpose worker.

Reddy and Bhaskaram (1966) noted that inadequacy of material equipment and literature needed for extension work, non-availability of supplies for demonstrations,

inadequate transport facilities, lack of sufficient audio-visual aids in block head quarters and too much office work, as the barriers for effective extension work.

Bhaskaram et al. (1979) concluded that the arrangements for inputs was not quite satisfactory in the T and V system. They further said that VEOs were not satisfied with their pay scales, promotion avenues and other facilities like quarters, conveyance etc. Rao (1983) in a study on T and V system revealed that the problems perceived by VEOs were : rigid visit schedule, lack of control over agricultural inputs, lack of proper mobile facilities, lack of incentives and rewards for good work, lack of opportunity to visit different research stations to get acquaintance with the on going research, poor facilities for persuing higher studies, lack of promotion, lack of sufficient knowledge on crops and subsidiary enterprises and poor training facilities to up-date their knowledge in this order.

Reddy (1983a) reported that the problems as faced by the VEOs were : lack of supply of inputs and credit to the farmers, lack of basic amenities to the VEOs, lack of encouragement, appreciation, recognition and incentives or rewards to the VEOs, non cooperation of contact farmers at fixed place and time, lower pay scales in comparison to

the heavy work involved in T and V system, lack of sufficient number of plant protection equipment, lack of conveyance and conveyance allowance, lack of proper coordination between the interdepartments of Command Area Development, availability of spurious inputs like damaged seeds , adulterated fertilizers and pesticides, lack of 50 per cent subsidy facility to the cultivators for the purchase of plant protection equipment, lack of Village Officers cooperation, lack of supply of literature to the farmers on modern agricultural technology, were the problems expressed by the VEOs in the order of priority.

Bora (1984) identified the difficulties of VLWs as : irregularities in payment of salary, no godown facility, insufficient implements and equipments, lack of repairing works and no residence facility.

Reddy (1986) revealed that lack of inputs in required quantity, lack of teaching aids, non availability of residential quarters and lack of plant protection equipment ; lack of conveyance for the mobility, no medical facilities, no promotional opportunities, no facilities for their children's higher education, and political interference in work, were the problems indicated by the VEOs in that order of priority.

MATERIAL AND METHODS

CHAPTER 111

M A T E R I A L A N D M E T H O D S

This Chapter of Material and Methods is presented under the following heads :

1. Locale of the study
2. Research design
3. Selection of respondents
4. Operationalisation and measurement of the variables
5. Conceptual representation of the study
6. Techniques used in the collection of data
7. Statistical tools used

3.1 LOCALE OF THE STUDY

This study has been conducted in Andhra Pradesh state, primarily since the researcher hails from this state and secondly since the researcher was deputed for higher studies by the Andhra Pradesh Agricultural University.

3.2 RESEARCH DESIGN

The research design used for this study was Ex-post - facto design. The main purpose of this investigation was to measure the job effectiveness of VEOs and to identify the relationship and contribution of some selected independent variables on this dependent variable i.e. job effectiveness of VEOs.

3.3 SELECTION OF RESPONDENTS

The selection of VEOs was confined to Command Area Development Authority (CADA) canal districts, since it was felt that there was enough scope for maximum utilisation of resources by the Agency, resulting in the optimum impact of the programme.

There are 10 districts covered under CADA out of a total of 23 districts in Andhra Pradesh. These 10 districts are distributed under four CADA canal regions

viz : (i) Nagarjunasagar right canal (ii) Nagarjunasagar left canal (iii) Kakateeya canal and (iv) High level canal (Fig. 1).

One canal district from each of the above CADA regions was selected as shown below based on the criteria of the highest area covered under Training and Visit system as well as the area covered in the first phase of the introduction of T and V system.

Nagarjunasagar right canal	-	Guntur District
Nagarjunasagar left canal	-	Nalgonda District
Kakateeya canal	-	Karimnagar District
High level canal	-	Ananthpur District

Later, one division each from these selected districts was selected at random. The particulars of the selected divisions are given below :

<u>District</u>		<u>Division</u>
Guntur	-	Narsaraopet
Nalgonda	-	Miriyalguda
Karimnagar	-	Jagtial
Ananthpur	-	Ananthpur

The list of VEOs working in each of these selected division units was prepared. Then 55 VEOs from Narsaraopet division, 55 VEOs from Miriyalguda division,

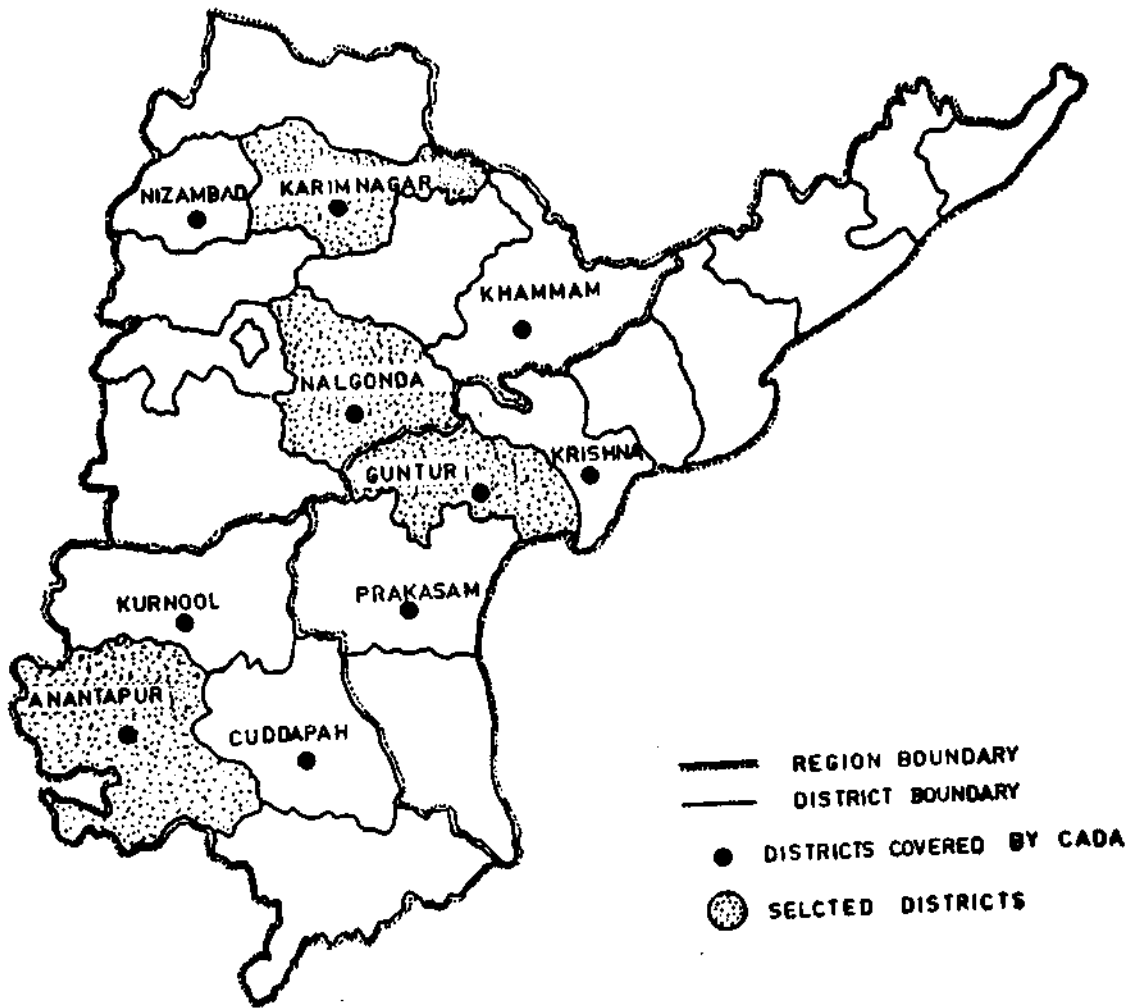


FIG.1: MAP SHOWING THE DISTRICTS SELECTED FOR THE STUDY IN ANDHRA PRADESH.

50 VEOs from Jagtial division and 40 VEOs from Ananthpur division were selected purposively. Thus, making a total sample of 200 VEOs for the purpose of collecting data.

3.4 OPERATIONALISATION AND MEASUREMENT OF THE VARIABLES

The present study is centered on the measurement of job effectiveness and factors influencing the level of job effectiveness of Village Extension Officers in T and V system of Andhra Pradesh. In order to select the suitable variables for this study, besides reviewing the relevant literature, a wide range of discussions were also held with the Extension specialists and the experts at Andhra Pradesh Agricultural University, Hyderabad as well as the personnel of the T and V system of Government of Andhra Pradesh. The variables selected accordingly and tools of measurement utilised are presented here under in a tabular form :

Variables and their emperical measurement

Sl. No.	Variables	Emperical measurement
I	<u>Dependent variable</u>	
1.	Job effectiveness	: Scale developed for the study.
II	<u>Independent variables</u>	
1.	Total experience	: Schedule developed for the study.

Sl. No.	Variables	Emperical measurement
2.	Experience as VEO	: Schedule developed for the study.
3.	Training	: Schedule developed for the study.
4.	Achievement motivation	: Scale developed by Reddy (1976).
5.	Communication behaviour	: Scale developed by Reddy (1976).
6.	Organisational commitment	: Scale developed by Porter <u>et al.</u> (1974).
7.	Attitude towards T and V system	: Scale developed by Kulhari (1980).
8.	Time utilisation	: Scale developed for the study.
9.	Organisational climate	: Scale developed for the study.
10.	Morale	: Scale developed by Talukdar (1984).
11.	Job satisfaction	: Scale developed by Laharia (1978).
12.	Job involvement	: Schedule developed for the study.
13.	Work facility	: Schedule developed for the study.
14.	Communication skill	: Schedule developed for the study.
15.	Dependence	: Schedule developed for the study.
16.	Sociability	: Schedule developed for the study.
17.	Guidance and supervision	: Schedule developed for the study.
18.	Self-confidence	: Schedule developed for the study.

3.4.1 Job effectiveness : Lanham (1955) defined the term job as 'a collection of tasks assigned to a worker. Any group of tasks, whether related or not, which are assigned to an individual, constitutes his job'.

Sengupta (1966), the job effectiveness of workers in different industries, firms and organisations has been measured with the help of job performance chart. Hence it is often referred to as job effectiveness. Shakuntala Balaraman (1987) stressed that the job effectiveness is essential not only for organisational purpose but also for the advancement of behavioural science and it is possible to define effectiveness in a meaningful way for each managerial level, function and type of technology.

In the present study, the job effectiveness of a VEO has been operationalised as the cumulative efficiency of an individual on quantitative aspects such as extension activities, farmers participation, HYV's of major crops, NPK fertilizer consumption, inputs distribution, average yield of major crops, etc., on his job performance which infact are the aspects in his jurisdiction.

Efficiency is related with the economy and speed of efforts, on the otherhand effectiveness related to the attainment of established objectives in organisational settings. Prior studies have shown that most of the

researchers had used superior rating, while some of them used self-rating for evaluating the effectiveness of extension personnel. In the present study the level of VEOs effectiveness has been measured by self-rating on quantitative aspects.

3.4.1.1 Measurement of Job effectiveness on quantitative criteria : In the T and V system supported by the World Bank, stress has been given for professional agricultural extension work, exclusively through systematic training and visits, concentration of efforts, best use of available resources and continuous improvement on the job etc. The main objective of this system was to increase the agricultural production per unit of cultivable land by introducing high yielding varieties, critical inputs and through educational activities. In the present study, the quantitative aspects have been selected keeping in view these dimensions.

Development of job effectiveness scale (quantitative)

a) Definition of the Universe : Depending on the aims and objectives of the T and V system and the job chart of the VEOs, the various dimensions covering all quantitative aspects of VEOs job was determined.

b) Collection of Statements and Editing : Based on the researchers wide range of discussions with extension professionals, the review of literature on T and V system and the job chart, 47 statements were delineated under two major areas of activities viz., (1) extension activities carried out and the farmers participation in these activities ; (2) crop production which includes area covered under HYVs, consumption of fertilizers, inputs distributed as well as average yields of major crops pertaining to the period June 1985 to May 1986 in each VEOs jurisdiction. These statements were then edited using the criteria suggested by Likert (1932) and Edwards and Kilpatrick (1948).

c) Selection of scalable statements : Out of these 47 statements, 42 statements were related to 1st category and 5 statements were related to 2nd category. These were then given to 20 extension professional of Andhra Pradesh Agricultural University and University of Agricultural Sciences, Bangalore and also 20 extension personnel of T and V system of Government of Andhra Pradesh for their valuable judgement with regard to the statements relevance and importance on a five point continuum viz., very much relevant (VMR), much relevant (MR), relevant (R), somewhat relevant (SWR), least relevant (LR), carrying weight-ages of 5, 4, 3, 2, 1 respectively in the first part ; and

very important (VI), important (I), some what important (SWI), less important (LI), least important (LSI) with a scoring of 5, 4, 3, 2, 1 respectively in the second part. After getting the responses from these 40 judges, the average scores assigned to each statement was calculated by using the formulae.

$$\text{Overall average} = \frac{\text{Total score on all the items for all the judges}}{\text{Total number of items x total number of judges}}$$

The calculated average value were found to be 3.4 for relevance and 3.5 for importance. After identifying the items with their average values being higher than the one's calculated, 28 statements having an average relevance value of 3.4 and above and the average importance value of 3.5 and above were selected and the same are presented in Appendix - II.

d) Reliability of the scale : The reliability of the scale was determined by split-half method. The scale was administered to 20 VEOs in a non-sample area. The scores for the odd and even numbered items of the same 20 respondents were correlated by using Pearson product moment correlation coefficient which was found to be 0.60. This was corrected by using Spearman's Brown formulae and obtained the reliability coefficient (rtt) of the test. The rtt was 0.75 which indicated reliability of the scale.

- e) Validity of the scale: The validity was inbuilt in the scale itself as greatest care was taken to include all the related items to represent the Universe of contents, at the time of preparation of scale itself.
- f) Administration and scoring: The data on job effectiveness aspects were acquired directly from VEOs using the structured questionnaire. Because the questionnaire was distributed in group meetings, the researcher took advantage of the situation and explained in detail the significance and importance of this investigation to the VEOs. Equal weightage was given to two major aspects viz., (1) extension activities carried out as well as the farmers participation in these activities, and (2) crop production which includes area covered under HYVs, fertilizer consumption, inputs distribution as well as average yields of major crops. The scores were calculated separately for each aspect and then combined to obtain the job effectiveness score. The scoring pattern followed for the components of the scale are detailed below:

For the first aspect extension activities as well as the farmers participation was taken into consideration while scoring. It was ascertained by discussion that the Extension Workers normally attend to 17 items of Extension Activities in their work, such as farm visits, field visits, demonstrations etc. The number of times each one of these activities organised during the year was taken as the basis for computing the score on Extension Activities (EA). For example, if an Extension Worker has organised 30 field days he could get a score of 0.3 and a total of 100 of different such activities, the scoring was 1.

The farmers participation score was computed on the basis of the number of farmers actually participated in each of the 7 Extension Activities of farmers participation (FP). The scoring was on the lines of 1 score for 100 farmers participation. The cumulative score was obtained on the total number of farmers actually participated in the Extension Activities organised. For example if 150 farmers participated in Field Days and another 100 farmers participated in group meetings the score obtained was 2.5. The Extension Activity and Farmer's participation score (EAFP) was thus obtained by using the formulae.

$$\text{EAFP} = \text{EA} + \text{FP}$$

where,

EA = Extension Activity

FP = Farmers Participation

Thus the sum of the scores on all items formed half of the value assigned to the job effectiveness of VEOs.

The second major job activity included in measuring the job effectiveness was crop production aspect which includes four major sub-job activities viz; area covered under HYVs (acres), quantum of fertiliser consumption (qtls.) inputs distributed (qtls.) and average yields (qtls.) obtained for major crops. The differential scoring pattern was followed to quantify the crop production aspect. For the area covered under HYV, quantum of fertilizer consumption and inputs distributed, a score of one for every 100 units was assigned. Irrespective of the type of the sub-activity equal weightage was given for each one of them keeping in

view the efforts of the Extension Worker. Also, the scoring procedure followed for the average yield of the major crop was one score for every one quintal of crop yield; this procedure was adopted since all the VEOs are working on more than one major crop.

Then the obtained score on these four sub-activities of second aspect were combined to get the crop production score value as detailed below:

$$CP = HYV + FC + IP + CY$$

where, CP = Crop Production

HYV = High Yielding Varieties

FC = Quantity of Fertilizer Consumption

IP = Quantity of Inputs Distributed

CY = Yields of major Crops

Thus the crop production score obtained was the score on area covered under high yielding varieties, quantity of fertilizer consumption, quantity of inputs distributed and yields of major crops.

The job effectiveness (JE) score was obtained by summing the scores on EAFP and CP detailed as $JE = EAFP + CP$

Then the respondents were categorised into three job effectiveness categories based on the mean and standard deviation of the index scores as a measure of change.

High (Mean + 1 S.D) : Above 188.09

Medium (Mean \pm 1 S.D) : 83.73 - 188.09

Low (Mean - 1 S.D) : Below 83.73

3.4.2 Total Experience : It has been operationalised as the number of completed years of service in the Department of Agriculture. A score of one was assigned to each year of experience/service. Then the respondents were categorised into three groups based on mean and standard deviation of the experience scores as detailed below :

High (Mean + 1 S.D) : Above 21.80

Medium (Mean \pm 1 S.D) : 6.47 - 21.80

Low (Mean - 1 S.D) : Below 6.47

3.4.3 Experience as VEO : Experience as VEO was worked out as the number of completed years of service in Training and Visit system. A score of one was assigned to each year of experience/service. Then the respondents were grouped into three categories based on mean and standard deviation as given below.

High (Mean + 1 S.D) : Above 8.94

Medium (Mean \pm 1 S.D) : 2.74 - 8.94

Low (Mean - 1 S.D) : Below 2.74

3.4.4 Training : It contains both pre-service and in-service trainings and was performed as a number of weeks of training received by the respondents. A score of one was assigned to each week of training received. Then the respondents were grouped into two categories based on mean as a measure of check.

High : Above 33.84

Low : Below 33.84

3.4.5 Achievement Motivation : This emphasises the value associated with an individual which drives him to excel in his activities and thereby attain a sense of personal accomplishment. This variable was measured by adopting the scale developed by Reddy (1976). The scale consisted of 7 statements and the possible score ranged from 5 to 35. The respondents were grouped into three categories based on mean and standard deviation as mentioned below.

High (Mean + 1 S.D) : Above 32.49

Medium (Mean \pm 1 S.D) : 25.53 - 32.49

Low (Mean - 1 S.D) : Below 25.53

3.4.6 Communication Behaviour : Communication behaviour relates to three aspects namely information input behaviour, information processing behaviour and information output behaviour of VEOs with regard to agricultural technology and was measured with the aid of a scale developed by Reddy (1976) with necessary modifications. The respondents were grouped into three categories based on mean and standard deviation as given below :

High (Mean + 1 S.D) : Above 299.83

Medium (Mean \pm 1 S.D) : 158.82 - 299.83

Low (Mean - 1 S.D) : Below 158.82

3.4.7 Organisational Commitment : Organisational commitment was operationalised as the degree to which an individual is committed to organisational goals and objectives. This variable was measured by using the scale developed by Porter et al. (1974) with slight modifications. The scale consists of 14 statements and the possible score ranged from 14 to 70. The respondents were grouped into 3 categories based on mean and standard deviation as detailed below :

High (Mean + 1 S.D) : Above 57.19
 Medium (Mean \pm 1 S.D) : 44.89 - 57.19
 Low (Mean - 1 S.D) : Below 44.89

3.4.8 Attitude towards T and V system : It is the degree of positive or negative affect associated with some psychological object. Psychological object may be a particular job, organisation etc. Attitude of respondents towards T and V system was measured by adopting the scale developed by Kulhari (1980) with slight modifications. This scale consists of 17 statements and the score varied from 17 to 85. The VEOs were categorised into 3 groups based on mean and standard deviation and are as follows :

Favourable (Mean + 1 S.D) : Above 65.23
 Neutral (Mean \pm 1 S.D) : 53.73 - 65.23
 Lessfavourable (Mean - 1 S.D) : Below 53.73

3.4.9 Time Utilisation : Flumer (1976) stated that time is a unique and valuable resource. It can be managed wisely or misused, because every individual enjoys control over personal use of time. Westbrook and Lifer (1976) observed that time is an unused commodity. One cannot have it ; one cannot borrow it ; one cannot lend it ; one cannot leave it ; one cannot take it. One can do only two things with it - use it or lose it. These authors further stated that time is an economic resource and it is highly perishable. For extension professionals, time is probably a most valuable resource.

In the present study, the time utilisation of a VEO has been operationalised as the cumulative spending of time by an individual on various activities like education, planning, services and office work. The different investigators have used different scales in the measurement of time utilisation of extension personnel. The earlier studies show that most of the investigators had used self rating and interview methods. In the present study, the time utilisation was measured by self rating.

3.4.9.1 Measurement of time utilisation by VEOs : Jalihal et al. (1975) collected the information as written in the monthly diaries of gramsevaks by personal interview method with the help of pre-tested schedule which was prepared on the basis of the job chart of gramsevaks.

Vittal (1982) studied as to how the assistants were spending their time on education, supervision of extension field work and training by questionnaire method (self-rating).

Srinath (1987) measured this variable for studying how ADHs and DHOs spent their time on essential tasks and supporting tasks by using questionnaire method only (self-rating).

The above description indicated that time utilisation evaluation of agricultural extension personnel has been done mostly on specific job areas as such, but with the introduction of T and V system some organisational as well as job related changes have taken place at the grass root level. Ofcourse, Benor and Harrison (1977) have outlined that in the T and V system the extension personnel should devote all their time to professional agricultural extension work exclusively. Hence in the present study while selecting the time utilisation, the dimensions that have been emphasised in this system have also been taken into consideration.

Development of time utilisation scale

a) Definition of the Universe : Instead of using certain criteria or job chart as such, an attempt was made to prepare as many related statements as possible, covering the time utilised for all aspects of VEOs job.

b) Collection of statements and editing : Initially 47 statements were prepared based on the job chart, review of literature and consultations with the extension specialists. Then the statements were edited using the criteria suggested by Likert (1932) Edwards and Kilpatrick (1948).

c) Selection of scalable statements : These 47 statements were then circulated among the 20 extension specialists of Andhra Pradesh Agricultural University and University of Agriculture Sciences, in addition to 20 extension personnel of T and V system of Andhra Pradesh, for their valuable judgement with regard to the statements, relevance and importance respectively on a five point continuum viz. Very Much Relevant (VMR), Much Relevant (MR), Relevant (R), Somewhat Relevant (SWR), Less Relevant (LR) for the relevance part and Very Important (VI), Important (I), Somewhat Important (SWI), Less Important (LI) and Least Important (LSI) for the importance part. After getting the responses from 40 judges, the average scores assigned to each statement was calculated by using the formulae :

$$\text{Overall average} = \frac{\text{Total score on all items for all the judges}}{\text{Total number of items} \times \text{Total number of judges}}$$

Based on the average value of relevance, 23 items with 3.5 and above score were selected ; then, based on the average value of importance, 24 items with a score of 3.6 and above were identified. But at the time of final selection of scale items, one item which met the criteria of importance but not the criteria of relevance was deleted as it was not considered relevant to study. Thus the selected items fell between much relevant (4) and relevant (3) as well as, important (4) and some what important (3). Accordingly, 23 statements were retained, for the study and the same are presented in Appendix-II.

d) Reliability of the scale : The scale was tested for reliability by split-half method. The scale was administered to 20 VEOs in a non-sample area. The scores for the odd and even numbered items of the same 20 respondents were correlated by using Pearson product moment correlation coefficient which was found to be 0.75. This was corrected by using Spearman Brown formulae and obtained the reliability coefficient (rtt) of the test. This rtt was 0.86 which indicated high reliability of the scale.

e) Validity of the scale : The Validity was inbuilt in the scale itself, as greatest care was taken to include all the related items to represent the universe of contents at the time of preparation of scale itself.

f) Administration and scoring : The data on time utilisation aspects were acquired directly from VEOs using the structured questionnaire with open columns to get the information. Because the questionnaire was distributed in fortnightly meetings, the researcher took advantage of the opportunity to explain in detail the significance and importance of this research to the VEOs. Equal weightage was given to all the activities. While computing the total score all the 23 activities were divided into 4 sub-areas viz., education with 13 activities, planning with 7 activities, service with two items and finally office work with a single activity. The above four sub-area scores were calculated separately and then combined to obtain the time utilisation score. Later, one score was assigned for each day for the time expended on any activity. This cumulative score formed the total time utilisation by VEOs. This time utilisation was measured with respect to Kharif season 1986-87. Then, the respondents were grouped into three categories based on the mean and standard deviation as a measure of check as detailed below :

High (Mean + 1 S.D)	:	Above 147.74
Medium (Mean \pm 1 S.D)	:	93.94 - 147.74
Low (Mean - 1 S.D)	:	Below 93.94

3.4.10 Organisational climate : Katz and Kahn (1966) defined organisational climate as a conglomerate of the organisations taboos, folkways and other cultural factors. The climate or the culture of the system reflects both the norms and the values of the formal system and their interpretation of the informal system.

Litwin and Stringer (1968) defined organisational climate as a set of measurable properties of work environment perceived directly or indirectly by the people who live and work in this environment and assumed to influence their motivation and behaviour. Upadhyay (1983) defined organisational climate 'as those external and internal environmental conditions in which an organisation exists and grows, and in which people of the organisation work for the achievement of the goals'. In the present study the organisational climate has been operationalised as the overall climate of an individual on qualitative aspects of climate viz., atmosphere freedom, efficiency, confidence, trust ; abilities utilisation, accountability, line of command, constant supervision, communication towards contact farmers, job security, etc., in his job.

A perusal of the earlier studies showed that most of the researchers had used self-rating for evaluating the organisational climate. In the present study also the level of organisational climate has been measured on qualitative aspects, using self-rating method.

3.4.10.1 Measurement of organisational climate scale : The different investigators used different types of scales in the measurement of the organisational climate. Some of these are outlined here in order to get a better understanding of the organisational climate.

Fiedlander and Margulis (1969) evaluated the climate and indicated that the maximum satisfaction with different areas of over work demands different mixes of climate components. Pareek (1974) evaluated the climate on 11 dimensions viz., general orientation, interpersonal relationship, supervision, communication, decision making, trust, managing problems, managing mistakes, managing conflicts, managing rewards and risk taking. Each dimension possessed 6 statements representing one of the following six types of climates viz., (1) Achievement oriented climate (2) Affiliation oriented climate (3) Extension oriented climate (4) Dependency oriented climate (5) Control oriented climate and (6) Power oriented climate. Reddy (1986) evaluated the VEOs climate on 6 types of climates which was used by Pareek (1974) with slight modification. The above description suggests that organisational climate evaluation of agricultural extension personnel has been done mostly on specific job areas as such with the introduction of T and V system some organisational as well as job related changes have taken

place at the base level. Hence in the present study while selecting the qualitative criteria those dimensions that have been emphasised in this T and V system have also been taken into consideration.

Development of the Organisational climate scale

- a) Definition of the Universe : Instead of using certain criteria or job chart as such, an attempt was made to prepare as many related statements as possible to cover the organisational climate aspects in relation to VEOs job.
- b) Collection of statements and editing : Initially 44 statements were prepared based on the job chart, review of literature and consultation with the extension specialists. Then using the criteria suggested by Likert (1932) and others, the statements were edited.
- c) Selection of scalable statements : These 44 statements were then circulated among 20 extension specialists of Andhra Pradesh Agricultural University and University of Agricultural Sciences and 20 extension personnel of the T and V system for rating. Especially, these judges were requested to rate the statements for their relevance and importance in measuring the organisational climate in relation to VEOs job, on a five point continuum, viz., Very much Relevant, Much Relevant, Relevant, Somewhat Relevant and Less Relevant in the relevance part while,

Very Important, Important, Somewhat Important, Less Important and Least Important in the importance part. After getting the responses from 40 judges, the average scores assigned to each statement was calculated by using the formulae.

$$\text{Overall average} = \frac{\text{Total score of all the items for all the judges}}{\text{Total number of items} \times \text{Total number of judges}}$$

The average relevance value was 3.2 and the average importance value was 3.4. Based on these average values 27 and 31 items were identified under relevance and importance dimension respectively. But at the time of final selection of scale items, those items which satisfied both the criteria of relevance and importance were selected. The selected items lay between much relevant (4) and relevant (3); and important (4) and somewhat important(3). Finally out of 44 statements, 27 statements were retained based on the above criteria for the study and the same are presented in Appendix - II.

d) Reliability of the scale : The scale was determined by split-half method. The scale was administered to 20 VEOs in a non-sample area. The scores for the odd and even numbered items of the same 20 respondents were correlated by using pearson product moment. Correlation coefficient was found to be 0.79. This was corrected by using

Spearman Brown formulae and obtained the reliability coefficient (rtt) of the test. This rtt was 0.88 which indicated high reliability of the scale.

e) Validity of the scale : The validity was inbuilt in the scale itself as greatest care has been taken to include all the related items to represent the universe at the time of preparation of statements itself.

f) Administration and scoring : The data on organisational climate aspects were acquired directly from VEOs using the structured questionnaire. The respondents were requested to rate each statement on a five point continuum viz., Almost always, usually, sometimes, rarely, almost never. Because these questionnaire were distributed in fortnightly meetings, the researcher took advantage of the situation and explained in detail the significance and importance of this research to the VEOs. Equal weightage was given to all the 27 activities listed and taken into consideration while scoring. The sum of all the scores on all activities formed the organisational climate score.

Then the respondents were grouped into three categories based on the mean and standard deviation as detailed below :

Highly facilitating (Mean + 1 S.D) : Above 127.58
 Facilitating (Mean \pm 1 S.D) : 107.45 - 127.58
 Less facilitating (Mean - 1 S.D) : Below 107.45

3.4.11 Morale : Morale was operationalised as the mental state with regard to spirit and confidence. This was measured by adopting the scale developed by Talukdar (1984) with little modifications. The scale consists of 14 statements and the possible score varied from 14 to 70. Depending on the scores obtained, the VEOs were classified into three classes using the mean and S.D as detailed below:

High (Mean + 1 S.D) : Above 65.22
 Medium (Mean \pm 1 S.D) : 53.85 - 65.22
 Low (Mean - 1 S.D) : Below 53.85

3.4.12 Job satisfaction : Job satisfaction observes whether an individual was satisfied or dissatisfied with different aspects of his job. This was measured by adopting the scale developed by Laharia (1978) with little modifications. The scale consisted of 12 statements and the possible score ranged from 12 to 60. Then the VEOs were formed into 3 categories based on mean and Standard Deviation as shown below :

High (Mean + 1 S.D) : Above 45.81
 Medium (Mean \pm 1 S.D) : 33.09 - 45.81
 Low (Mean - 1 S.D) : Below 33.09

3.4.13 Job involvement : The variable was operationalised as the degree to which a person is identified psychologically with his work or the importance of work in his total self-image. This variable was measured by using the schedule developed for the study. The schedule consists of 12 statements and the possible score ranged from 12 to 60. Then the respondents were categorised into 3 groups based on mean and S.D as listed below :

High (Mean + 1 S.D) : Above 49.67
 Medium (Mean \pm 1 S.D) : 40.62 - 49.67
 Low (Mean - 1 S.D) : Below 40.62

3.4.14 Work facility : This refers to sufficient provision of facilities to the VEOs for effective functioning in their job activities. This was measured by using the schedule developed for the study. This schedule consisted of 7 statements, with the first statement having 3 sub item the possible score ranged from 9 to 27. Later the respondents were classified into 3 classes based on mean and S.D as given below :

High (Mean + 1 S.D) : Above 23.04
 Medium (Mean \pm 1 S.D) : 14.13 - 23.04
 Low (Mean - 1 S.D) : Below 14.13

3.4.15 Communication skill : This relates to the blood stream of an organisation. Effective communication skill within and to the clientele and also hierarchial levels in an organisation is the fundamental element for job effectiveness. This variable was measured with the help of schedule prepared for this study. This particular variable is having 6 statements and the possible score varied from 6 to 18. As usual the respondents were categorised into three groups based on mean and S.D as shown below :

High (Mean + 1 S.D) : Above 17.96
 Medium (Mean \pm 1 S.D) : 14.03 - 17.96
 Low (Mean - 1 S.D) : Below 14.03

3.4.16 Dependence : It directs to the degree to which the VEO dependence on his superior for guidance and help in the organisation. This variable was measured with the help of schedule developed for this study. This variable had 9 statements and the possible score varied from 9 to 18. The respondents were classified into 3 classes based on mean and S.D as shown below :

High (Mean + 1 S.D) : Above 17.58
 Medium (Mean \pm 1 S.D) : 15.01 - 17.58
 Low (Mean - 1 S.D) : Below 15.01

3.4.17 Sociability : This variable was operationalised taking into consideration his social relations with people in the community he lives. This variable was measured by with the help of schedule developed for this study. In this case the VEO was asked to rate himself against each statement and his responses were scored on the basis of weightages indicated for each response. The schedule consisted of 6 statements and the possible score varied from 6 to 18. The total score on sociability of VEO was calculated by summing up the scores obtained. Then the respondents were categorised into 3 groups based on mean and Standard Deviation as given below :

High (Mean + 1 S.D) : Above 17.83
 Medium (Mean \pm 1 S.D) : 12.62 - 17.83
 Low (Mean - 1 S.D) : Below 12.62

3.4.18 Guidance and supervision : It pertains to the extent of guidance and directions given to the VEOs in performing their work as well as motivating them to do a better work by their immediate superiors. This variable was measured with the help of schedule developed for the study. This schedule consists of 13 statements and the possible score varied from 13 to 39. Guidance and supervision of VEO was calculated by summing up the scores obtained. Then the respondents were divided into 3 groups based on mean and S.D as mentioned below :

High (Mean + 1 S.D) : Above 38.73
 Medium (Mean \pm 1 S.D) : 32.05 - 38.73
 Low (Mean - 1 S.D) : Below 32.05

3.4.19 Self confidence : Self confidence variable relate to the degree to which an individual was confident enough to undertake or execute different activities of his job. This variable was measured with the help of schedule developed for the study. This consisted of 10 statements and the possible score varied from 10 to 20. The total score on self-confidence of VEO was calculated by summing up the scores on all items. Then the respondents were categorised into 3 groups based on the mean and S.D as given below :

High (Mean + 1 S.D) : Above 17.82
 Medium (Mean \pm 1 S.D) : 14.60 - 17.82
 Low (Mean - 1 S.D) : Below 14.60

3.5 CONCEPTUAL REPRESENTATION OF THE STUDY

The present study was conducted with the chief intention of measuring the job effectiveness of village extension officers and for identifying the factors influencing their effectiveness levels. According to Oxford dictionary (1973), effect means what is produced by a cause, or something that follows as a consequence, while effectiveness refers to a productive, efficient, having a

desired effect. Effectiveness is 'having an effect, coming into operation, actual, existing'. (The concise Oxford dictionary, 1986).

The performance (effectiveness) of an individual at work in an organisation depends on his own personal qualities and the environment where he works. According to McGregor (1967), this environmental situation may be the nature of ones job, rewards associated with his performance and the leadership provided to him. This can be extended to the job effectiveness of VEO's. The effectiveness of VEO is a function of various activities on different factors and the environment where he works. Shakuntala Balaraman (1987) stressed that the effectiveness is essential not only for organisational purposes but also for the advancement of behavioural sciences.

Independent variables :

The independent variables covered in the study were: total experience, experience as VEO, training, achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, organisational climate, morale, job satisfaction, job involvement, work facility, communication skill, dependence, sociability, guidance and supervision, as well as self confidence.

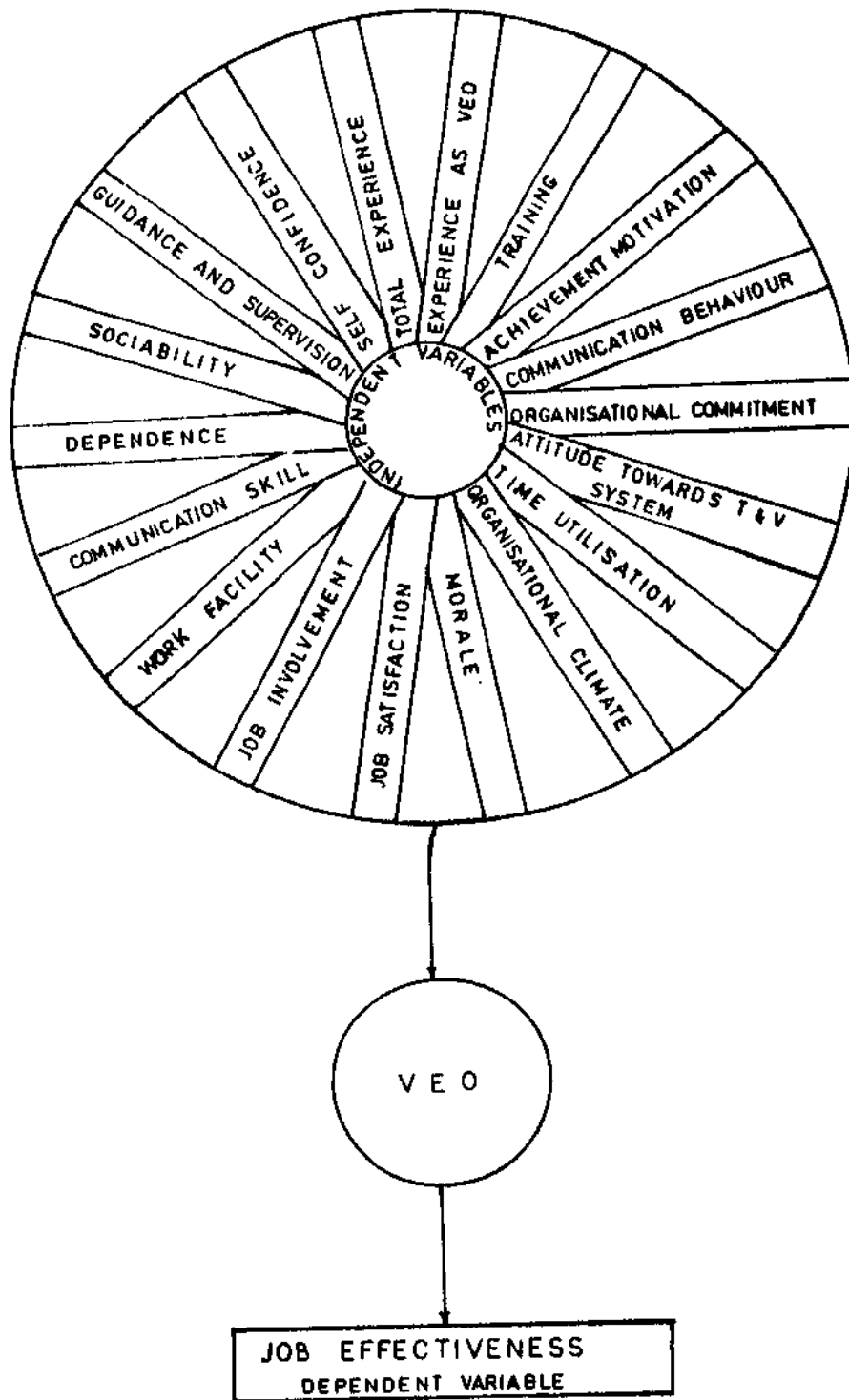


FIG. 2: CONCEPTUAL REPRESENTATION OF THE STUDY

Dependent variable :

The dependent variable included was the job effectiveness of the VEOs.

It is undertaken here that all these variables associated with the individual and the organisation affect the VEOs job effectiveness. They may influence either directly or indirectly. The diagrammatic representation of the conceptual frame work with which the present study has been formulated is depicted in figure 2.

3.6 TECHNIQUES USED IN THE COLLECTION OF DATA

3.6.1 Development of questionnaire : The questionnaire developed initially for the collection of data consisted of different scales and schedule items. The questionnaire was pretested by administering the same to 20 VEOs who were not included in the sample. The final questionnaire was arrived at by making necessary modifications, deletions, additions based on this pretesting. The questionnaire used for the study is given in Appendix - II.

3.6.2 Administration of the questionnaire: The questionnaire was administered in the selected divisions of Narsaraopet, Miriyalguda, Jagtial and Ananthpur by the investigator personally to the VEOs in small groups of 6-18 at the time of their weekly/fortnightly trainings. The doubts raised by the VEOs while filling up the questionnaire were cleared by the researcher.

3.7 STATISTICAL TOOLS

3.7.1 Coefficient of variation (cv): Because coefficient of variation is independent of units, it is useful for comparison of any two series with different units. Coefficient of variation is the percentage ratio of Standard Deviation to mean. Smaller the coefficient of variation, the more homogeneous in nature it is.

$$\text{Coefficient of variation} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

3.7.2 Coefficient of correlation (r) : Coefficients of correlation were reckoned to find out the relationships between each of the independent variable and the dependent variable. The formulae used was as follows :

$$r = \frac{\sum XY - n\bar{X}\bar{Y}}{\sqrt{(\sum X^2 - n\bar{X}^2)(\sum Y^2 - n\bar{Y}^2)}}$$

where,

r = Correlation coefficient between X and Y

X = Value of first variable

Y = Value of second variable

n = Size of sample.

Then the correlated value of 'r' was tested for its significance using the table value at (n-2) degrees of freedom. When the computed value was equal to or more than

the table value, then the relationship between the selected variables was considered as significant.

3.7.3 Techniques for testing the equality of means : The objective of identifying the differences in the pattern of time utilisation—education, planning, service and office work of VEOs would involve the testing of equality of more than two means. For this the following procedure was adopted. The hypothesis of equality of more than two population means was tested by applying analysis of variance test, suggested by Wonnacott and Wonnacott (1977).

The null hypothesis for the purpose is :

$$H_0 : \mu_1 = \mu_2 \dots \dots \mu_4 ,$$

against the alternative hypothesis

$$H_A : H_0 \text{ is not true.}$$

Where μ_i 's are the population means of the characteristic measured for different groups 1, 2,.....,4 respectively, i.e.,

1 = Education	3 = Service
2 = Planning	4 = Office work

The test statistic is :

$$F[(K-1), K(n-1)] = \frac{\left[\left(\frac{N}{K-1} \right) \sum_{i=1}^K (\bar{X}_i - \bar{X})^2 \right]}{\left[\frac{1}{K(n-1)} \sum_{i=1}^K \sum_{j=1}^n (X_{ij} - \bar{X}_j)^2 \right]}$$

where,

\bar{X}_i = Mean of the characteristic measured under i^{th} group.

\bar{X} = Grand Mean.

X_{ij} = Characteristic measured under i^{th} group of j^{th} respondent.

K = Number of groups.

n = Number of observations in each group.

N = nk Total number of respondents.

The resulting F -computed values are compared with $F[(K-1) K(n-1)]$ critical values at reasonable level of significance to test the H_0 .

If the H_0 is rejected the cause for the rejection of the H_0 is analysed by least significant difference (L.S.D) (Snedecor and Cochran, 1967). That is, we propose to know whether the rejection of the H_0 is because of significant differences between $\mu_1 \mu_2$ or $\mu_1 \mu_3 \dots \mu_1 \mu_4$.

The L.S.D is estimated by using

$$\text{L.S.D} = t\alpha \sqrt{\text{E.M.S}\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

where,

t = Table t value

α = Level of significance

α = is chosen level of significance

E.M.S = Error mean sum of

n_1 = Size of sample 1

n_2 = Size of sample 2

The resulting L.S.D values are compared with differences in the means, for the characteristics measured for the different groups under two groups, separately. If the computed value is smaller than the difference in the mean value of the characteristics, then H_0 is rejected in favour of alternative hypothesis (H.A).

3.7.4 Path analysis : It was carried out to identify the direct and indirect effects of significant independent variables on the job effectiveness of VEOs as well as to know the nature of influence extended on the dependent variables.

Path coefficient technique is the ratio of the standard deviation of the effect due to a given cause of the total standard deviation of the effect. Path effects were obtained by solving the simultaneous equations set up for the purpose using the correlation matrix. As per Singh and Choudary (1977) considering X_i as independent variables to be influencing the dependent variable Y the job effectiveness, the simultaneous equation can be written as :

$$r_{yx_i} = P_{yx_i} + \sum_{j=1}^k r_{x_i x_j} P_{yx_j}$$

where,

r_{yx_i} is the correlation coefficient of x_i with y .

P_{yx_i} is the direct effect and each of the other terms in the equation is an indirect effect.

3.7.5 Principal Component Analysis : The principal component analysis is a method for separating the total variation of variables into orthogonal sub-sets.

Principal component analysis is a method for reducing correlated measurement variables (P) to a smaller set of statistically independent linear combinations having

certain unique properties with regard to characterising individual differences (Overall and Klett, 1972). The first principal component is that weighted combination of the several original variables which accounts for a maximum amount of the total variation. The second principal component is that weighted combination of the several original variables uncorrelated with the first principal component and which accounts for a maximum amount of the remaining variation or individual differences. Similarly, the r^{th} principal component is that weighted combination, independent of the first $(r-1)$ and which accounts for a maximum amount of the remaining variation among individuals in terms of their original score values. The properties of statistical orthogonality (independence) and maximization of variance uniquely define principal components.

Principal components analysis was developed by Hottelling in mid 1930's. This method of analysis is extensively used in plant breeding, but its use in the field of agricultural extension research has been rather limited. The main objective of principal component analysis is to economise the number of variables under consideration. Principal components of a matrix of covariances or inter correlations among 'P' variables represent new composite variables which account for or describe a maximum

amount of the total variability among individual variables on all the original measurements. For details see Overall and Klett (1972).

The analysis was carried out on a set of 12 variables in the present study. The variables included were :

- X_4 = Achievement motivation
- X_5 = Communication behaviour
- X_6 = Organisational commitment
- X_7 = Attitude towards T and V system.
- X_8 = Time utilisation
- X_{10} = Morale
- X_{11} = Job satisfaction
- X_{14} = Communication skill
- X_{15} = Dependence
- X_{16} = Sociability
- X_{17} = Guidance and supervision
- X_{19} = Job effectiveness

RESULTS

CHAPTER IV

R E S U L T S

The results of the study are presented in this Chapter, under the following sub-heads :

1. Levels of job effectiveness of VEOs.
2. Distribution of VEOs under each characteristic category.
3. Relationship between the independent variables and job effectiveness of VEOs.
4. Direct and indirect effects of significantly correlated independent variables on the job effectiveness of VEOs.
5. Principal components of job effectiveness of VEOs.
6. Problems encountered by VEOs in achieving higher effectiveness.

4.1 LEVELS OF JOB EFFECTIVENESS OF VEOs

An examination of table 1, reveals that a large majority of VEOs were grouped under the category of medium level of job effectiveness. The percentage of VEOs grouped under high and low categories of job effectiveness was equal.

Table 1. Distribution of VEOs depending on their job effectiveness :

Categories	Frequency	Percentage
High	25	12.50
Medium	150	75.00
Low	25	12.50
Total	: 200	100.00

Mean = 135.91 S.D = 52.18 C.V = 38.39

The computed coefficient of variation (38.39) indicates that there is considerable variation in the job effectiveness scores of VEOs.

4.2 DISTRIBUTION OF VEOs UNDER EACH CHARACTERISTIC CATEGORY

4.2.1 Total experience : It is clear from the table 2, that a large majority of VEOs were grouped under medium experience in the Department of Agriculture, while a relatively high percentage of VEOs grouped under high experience category as opposed to low experienced group.

Table 2. Distribution of VEOs based on their total experience :

Categories	Frequency	Per cent
High	39	19.50
Medium	140	70.00
Low	21	10.50
Total	: 200	100.00

Mean = 14.14 S.D = 7.66 C.V = 54.17

The value of coefficient of variation (54.17) indicates that there is considerable variation in the total experience scores of VEOs.

4.2.2 Experience as VEO : As seen from the table 3, a majority of the VEOs fell in the medium category in terms of their total experience as VEO, in T and V system.

Table 3. Distribution of VEOs as per their levels of experience as VEO :

Categories	Frequency	Per cent
High	52	26.00
Medium	125	62.00
Low	23	11.50
Total	: 200	100.00

Mean = 5.84 S.D = 3.10 C.V = 53.08

Comparatively large percentage of respondents fell under high experienced group of respondents. The coefficient of variation calculated (53.08) indicated that greater variation in the experience scores of VEOs.

4.2.3 Training : It is clear from table 4, that a large number of respondents had low training, and only seven per cent had high training.

Table 4. Distribution of VEOs depending on the duration of training :

Categories	Frequency	Per cent
High	14	7.00
Low	186	93.00
Total	: 200	100.00

Mean = 13.14 S.D = 20.71 C.V = 157.61

Here the respondents were grouped into two categories as the standard deviation was greater than the mean. Further the large value of coefficient of variation (157.61) showed higher variation among the VEOs with respect to their training scores.

4.2.4 Achievement motivation : An insight into table 5, showed that a majority of the VEOs were in the category of medium achievement motivation group.

Table 5. Distribution of VEOs on their levels of achievement motivation :

Categories	Frequency	Per cent
High	31	15.50
Medium	137	68.50
Low	32	16.00
Total	: 200	100.00

Mean = 29.01 S.D = 3.48 C.V = 11.99

The percentage of VEOs both in high and low categories of achievement motivation level was seen to be almost equal. The computed coefficient of variation was only (11.99) which clearly proves their equality in quantum of achievement motivation.

4.2.5 Communication behaviour : An examination of table 6, revealed that more number of VEOs identified themselves under the category of medium group with respect to their communication behaviour.

Table 6. Distribution of VEOs based on their communication behaviour :

Categories	Frequency	Per cent
High	27	13.50
Medium	137	68.50
Low	36	18.00
Total	: 200	100.00

Mean = 229.33 S.D = 70.50 C.V = 30.74

Whereas relatively a less number of the VEOs (13.50%) fell under the category of high group, 18.00 per cent of them grouped under the low group. The coefficient of variation (30.74) suggests that there is considerable variation in the communication behaviour scores of VEOs.

4.2.6 Organisational commitment : A look at the table 7, reveals that three fourth of the VEOs were grouped under medium organisational commitment.

Table 7. Distribution of VEOs on their levels of organisational commitment :

Categories	Frequency	Per cent
High	26	13.00
Medium	150	75.00
Low	24	12.00
Total	: 200	100.00

Mean = 51.04 S.D = 6.15 C.V = 12.05

The percentage of VEOs having high and low organisational commitments was seem to be more or less equal. The coefficient of variation (12.05) was found to be low, indicating least variability in the organisational commitment scores of VEOs.

4.2.7 Attitude towards T and V system : A perusal of the table 8, reveals an unexpected trend in which 3 out of every 4 VEOs remained uncommitted in their attitude towards

T and V system ; while only fourteen per cent of them depicted a favourable attitude towards this system the rest of them of course, showed less favourable attitude towards the agency in which they are a part.

Table 8. Distribution of VEOs based on their attitude towards T and V system :

Categories	Frequency	Per cent
Favourable	28	14.00
Neutral	152	76.00
Less favourable	20	10.00
Total	: 200	100.00

Mean = 59.48 S.D = 5.75 C.V = 9.67

The coefficient of variation (9.67) was found to be low, indicating least variability in the attitude towards T and V system scores of VEOs.

4.2.8 Time utilisation : An examination of table 9, reveals that a larger majority of VEOs were in the category of medium group with respect to their time utilisation on various activities of their job.

Table 9. Distribution of VEOs according to their time utilisation :

Categories	Frequency	Per cent
High	37	18.50
Medium	128	64.00
Low	35	17.50
Total	: 200	100.00

Mean = 120.84 S.D = 26.90 C.V = 22.26

There was more or less equal distribution of VEOs on the other two categories-high and low with respect to their pattern of time utilisation. The calculated coefficient of variation (22.26) indicates that there is less variation in the time utilisation scores of VEOs.

4.2.8.1 VEOs time spent on major areas : The table 10, and fig 3 depict the time utilisation for VEOs on the four major area of their job.

Table 10. Time utilisation of VEOs for four major activities :

Major areas	Total in days	Mean	Per cent
Education	16638	83.19	68.84
Planning	4964	24.82	20.54
Service	2045	10.23	8.46
Office work	521	2.61	2.16
Total	:24168	120.84	100.00

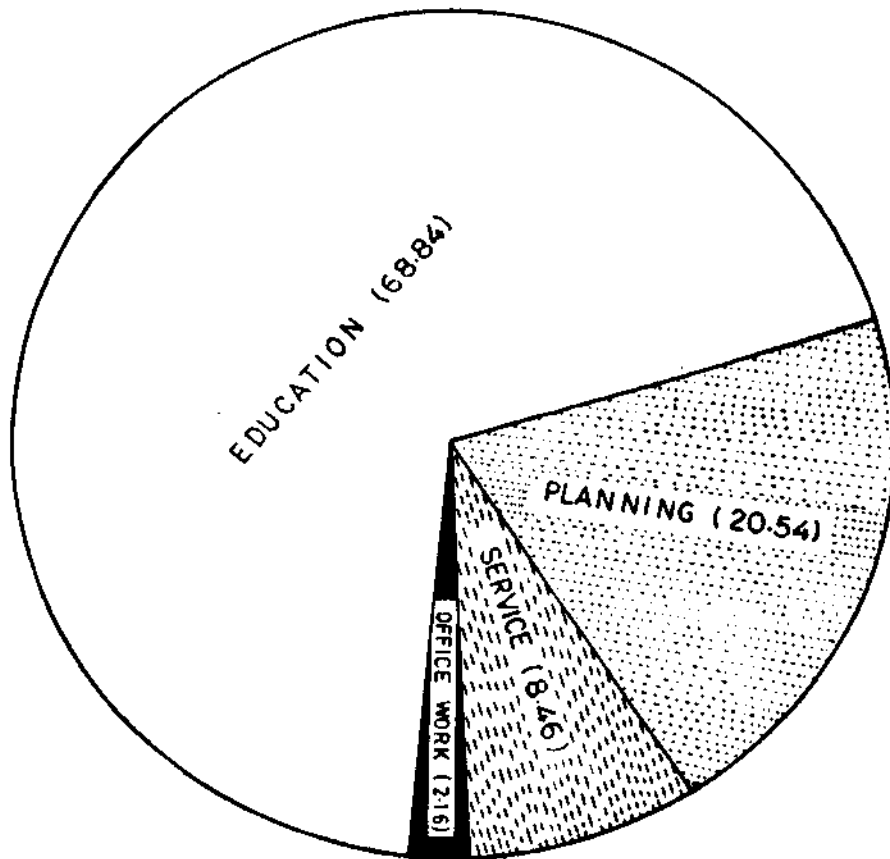


FIG.3: PIE DIAGRAM SHOWING PERCENTAGES OF TIME UTILISATION BY VEOS

The data revealed that the VEOs were spending more time on educational activities and this followed by planning, service and office work in that order. Each VEO had spent on an average 83 days (68.84%) on educational activities, 25 days (20.54%) on planning, 10 days on service and only 3 days on office work. Further the table reveals that each VEO is spending on an average 121 days on the above said major areas during Kharif seasons which covers a period of 165 days. Thus the data clearly indicated that about 75 per cent of the time in the Kharif season is being spent on these 4 important job activities, while the rest 25 per cent is being spent on some miscellaneous activities that goes with the job:

4.2.8.2 Analysis of variance of time utilisation : An analysis of variance was carried out with the independent variable-time utilisation, which consisted of four major areas viz., education, planning, service and office work.

Table 11. ANOVA for time utilisation by VEOs :

Source	d.f	s.s	m.s.s	f.ratio
Major areas of time utilisation	3	799473.8	266491.30	1805.91
Error	796	117463.0	147.57	
tss	799	916936.8	1147.61	

The scrutiny of the results of analysis of variance presented in table 11, revealed that the time utilisation for education, planning, service and office work varied significantly among the various groups of VEOs. This is indicated by highly significant 'F' ratio.

4.2.9 Organisational climate : The table 12, indicated that a more number of VEOs were identified in the category of 'facilitating' group with regard to their perception of organisational climate.

Table 12. Distribution of VEOs based on their perception of organisational climate :

Categories	Frequency	Per cent
Highly facilitating	28	14.00
Facilitating	141	70.50
Less facilitating	31	15.50

Mean = 117.52 S.D = 10.07 C.V = 8.57

The rest were distributed almost equally as highly and less facilitating with regard to their perception of organisational climate. The calculated coefficient of variation (8.57) clearly shows that there is less variation in organisational climate.

4.2.10 Morale : It is clear from the table 13, that a large majority of VEOs were in the category of medium group with respect to their level of morale.

Table 13. Distribution of VEOs on their levels of morale :

Categories	Frequency	Per cent
High	34	17.00
Medium	139	69.50
Low	27	13.50
Total :	200	100.00

Mean = 59.54 S.D = 5.69 C.V = 9.56

But only 17.00 per cent of respondents were having high level of morale. The coefficient of variation (9.56) reveals that there is less gap in the morale scores of VEOs.

4.2.11 Job satisfaction : A large majority of VEOs were found to be in the medium category of in their level of job satisfaction.

Table 14. Distribution of VEOs according to their levels of job satisfaction :

Categories	Frequency	Per cent
High	32	16.00
Medium	135	67.50
Low	33	16.50
Total	: 200	100.00

Mean = 39.45 S.D = 6.36 C.V = 16.12

However, the low and high groups were seem to be almost equal in their level of job satisfaction. The coefficient of variation (16.12) shows that there is not much difference in the job satisfaction scores of the respondents.

4.2.12 Job involvement : Table 15, revealed that a majority of the VEOs had the medium job involvement. The number of VEOs having higher job involvement were marginally more than the one's with low job involvement.

Table 15. Distribution of VEOs depending on their levels of job involvement :

Categories	Frequency	Per cent
High	28	14.00
Medium	146	73.00
Low	26	13.00
Total	: 200	100.00

Mean = 45.15 S.D = 4.53 C.V = 10.03

The calculated coefficient of variation (10.03) indicates that the job involvement scores of VEOs were homogeneous on this account.

4.2.13 Work facility : Table 16, showed that a majority of the VEOs were under the medium category in terms of their level of satisfaction with regard to facilities provided by the organisation.

Table 16. Distribution of VEOs based on their satisfaction with work facilities :

Categories	Frequency	Per cent
High	27	13.50
Medium	132	66.00
Low	41	20.50
Total	: 200	100.00

Mean = 18.59 S.D = 4.46 C.V = 23.99

This was followed by 13.50 per cent of the VEO's having grouped under high satisfaction and a little over one-fifth of the VEOs having low work facilities, at the local level. Further the coefficient of variation (23.99) revealed more variation in the work facility scores of the respondents.

4.2.14 Communication skill : It is clear from the table 17, that a little more than half of the respondents were in the category of medium with regard to the variable communication skill.

Table 17. Distribution of VEOs at various levels of their communication skill :

Categories	Frequency	Per cent
High	54	27.00
Medium	107	53.50
Low	39	19.50
Total :	200	100.00

Mean = 16.00 S.D = 1.97 C.V = 12.31

A little over onefourth of the VEOs were having high communication skill and only 19.50 per cent of them were in the low communication skill group. The calculated coefficient of variation (12.31) reveals that the communication skill scores of VEOs were almost similar.

4.2.15 Dependence : More number of respondents were found to be in the category of medium in their level of dependence.

Table 18. Distribution of VEOs as per their levels of dependence :

Categories	Frequency	Per cent
High	34	17.00
Medium	117	58.50
Low	49	24.50
Total :	200	100.00

Mean = 16.30 S.D = 1.29 C.V = 7.91

However, one-fourth of the respondents were under low dependence category, whereas 17.00 per cent of the VEOs were under high dependence category. The coefficient of variation (7.91) shows the dependence scores of VEOs were not much different from each other.

4.2.16 Sociability : An insight into table 19, showed that about three-fourth of the respondents were in the category of medium sociability group. The rest of the VEOs shared almost equally the high sociability and low sociability.

Table 19. Distribution of VEOs on the dimension of sociability :

Categories	Frequency	Per cent
High	26	13.00
Medium	145	72.50
Low	29	14.50
Total	: 200	100.00

Mean = 15.23 S.D = 2.61 C.V = 17.14

The coefficient of variation (17.14) indicates not much variation in the level of sociability scores of VEO's.

4.2.17 Guidance and supervision : From the table 20, it can be inferred that a majority of VEOs fell under the category of medium group with respect to the dimension of guidance and supervision. This was followed by 14.50 per cent of the VEOs grouped under low satisfaction, while 12.00 per cent of the respondents clustered under high satisfaction group.

Table 20. Distribution of VEOs based on their satisfaction with regard to guidance and supervision :

Categories	Frequency	Per cent
High	24	12.00
Medium	147	73.50
Low	29	14.50
Total	: 200	100.00

Mean = 35.39 S.D = 3.34 C.V = 9.44

The coefficient of variation (9.44) revealed homogeneity in the guidance and supervision scores of VEOs.

4.2.18 Self confidence : It is clear from the table 21, that majority of VEOs were in the category of medium with regard to their self confidence.

Table 21. Distribution of VEOs according to their level of self confidence :

Categories	Frequency	Per cent
High	43	21.50
Medium	136	68.00
Low	21	10.50
Total	: 200	100.00

Mean = 16.21 S.D = 1.61 C.V = 9.93

Whereas, about onefifth of the respondents were in the high group, only onetenth of the VEOs were in the level of low self confidence. The coefficient of variation (9.93) reveals that the self confidence scores of respondents were not dissimilar.

4.3 RELATIONSHIP BETWEEN THE INDEPENDENT VARIABLES AND JOB EFFECTIVENESS OF VEOs

An attempt is made in the study to identify the nature of relationship between 18 independent variables and one dependent variable—job effectiveness of VEOs. Table 22 presented below reflects the correlation coefficients between these 18 independent variables and the dependent variable. It is found that out of 18 independent variables, 11 were positively and significantly correlated with the job effectiveness of VEOs. These variables were:

achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, morale, job satisfaction, communication skill, dependence, sociability, and guidance and supervision.

The other seven independent variables viz. total experience, experience as VEO, training, organisational climate, job involvement, work facility and self confidence were found to have positive but non significant correlations with the job effectiveness of VEOs.

Table 22. Correlation coefficients between independent variables and job effectiveness of VEOs :

Sl. No.	Variable No.	Independent variables	'r'
01.	X ₄	Achievement motivation	0.1948 **
02.	X ₁₇	Guidance and supervision	0.1943 **
03.	X ₁₁	Job satisfaction	0.1876 **
04.	X ₁₆	Sociability	0.1869 **
05.	X ₅	Communication behaviour	0.1866 **
06.	X ₇	Attitude towards T and V system	0.1805 *
07.	X ₈	Time utilisation	0.1765 *
08.	X ₁₄	Communication skill	0.1659 *
09.	X ₆	Organisational commitment	0.1650 *
10.	X ₁₀	Morale	0.1593 *

Sl. No.	Variable No.	Independent variables	'r'
11.	X ₁₅	Dependence	0.1463 *
12.	X ₁₃	Work facility	0.0864
13.	X ₂	Experience as VEO	0.0573
14.	X ₁	Total experience	0.0505
15.	X ₃	Training	0.0422
16.	X ₁₂	Job involvement	0.0396
17.	X ₉	Organisational climate	0.0251
18.	X ₁₈	Self confidence	0.0084

** Significant at 0.01 level.

* Significant at 0.05 level.

4.4 DIRECT AND INDIRECT EFFECTS OF SIGNIFICANTLY CORRELATED INDEPENDENT VARIABLES ON THE JOB EFFECTIVENESS OF VEOS

The correlation analysis of the data reported before implied positive and significant relationships between 11 independent variables and the dependent variable. The data suggested that the observed relationship between the independent and dependent variable is only partially absolute and partially relative. A portion of observed relationship is the contribution made by other independent variables through which the independent variables

exercise their influence jointly. It is hence, of interest to study the influence of independent variables on the dependent variable both directly as well as indirectly.

Therefore, path analysis was carried out to analyse the direct and indirect effects of significantly correlated independent variables on the job effectiveness of VEOs as the dependent variable. The data are presented in the table 23 fig 4, the highest direct effect was recorded by the variable achievement motivation, 0.182 (X_4), followed by the variables communication behaviour, 0.181 (X_5), communication skill, 0.113 (X_{14}), job satisfaction, 0.110 (X_{11}), dependence, 0.105 (X_{15}), sociability, 0.101 (X_{16}), guidance and supervision (X_{17}), time utilisation (X_8), organisational commitment (X_6), attitude towards T and V system (X_7) and morale (X_{10}), towards the job effectiveness of VEOs in that order.

Table 23. Path analysis of significantly correlated independent variables with job effectiveness of VEOs :

Variable No.	Independent variable	Direct effect		Total indirect effect		Largest indirect effect through the variable	
		Effect	Rank	Effect	Rank	Effect	variable name
X ₄	Achievement motivation	0.182	1	0.014	10	0.011	Guidance and supervision
X ₅	Communication behaviour	0.181	2	0.005	11	0.008	Dependence
X ₆	Organisational commitment	0.056	9	0.109	4	0.028	Job satisfaction
X ₇	Attitude towards T and V system	0.029	10	0.152	2	0.039	Job satisfaction
X ₈	Time utilisation	0.073	8	0.133	3	0.025	Communication skill
X ₁₀	Morale	-0.009	11	0.168	1	0.027	Job satisfaction
X ₁₁	Job satisfaction	0.110	4	0.078	7	0.022	Guidance and supervision
X ₁₄	Communication skill	0.113	3	0.052	8	0.017	Guidance and supervision
X ₁₅	Dependence	0.105	5	0.042	9	0.016	Guidance and supervision
X ₁₆	Sociability	0.101	6	0.086	6	0.019	Communication skill
X ₁₇	Guidance and supervision	0.093	7	0.104	5	0.027	Job satisfaction

Table 23 and fig 4 revealed that the ranks of the variables with respect to the direct and the total indirect effects were not the same. Here the variable morale (X_{10}) which occupies the least position in terms of direct effect, occupies first rank by contributing maximum to the job effectiveness of VEOs indirectly. This was followed by attitude towards T and V system (X_7), time utilisation (X_8), organisational commitment (X_6), guidance and supervision (X_{17}), sociability (X_{16}), job satisfaction, (X_{11}), communication skill (X_{14}), dependence (X_{15}), achievement motivation (X_4), and communication behaviour (X_5) in that order for contributing to the job effectiveness of VEOs, indirectly.

The achievement motivation, job satisfaction, communication skill and dependence variables had their largest indirect effects through the variable guidance and supervision (X_{17}). Whereas organisational commitment, attitude towards T and V system, morale, guidance and supervision variables, had their largest indirect effects through the variable job satisfaction (X_{11}); time utilisation, sociability variables had their largest indirect effects through the variable communication skill (X_{14}) but the communication behaviour interestingly had its largest

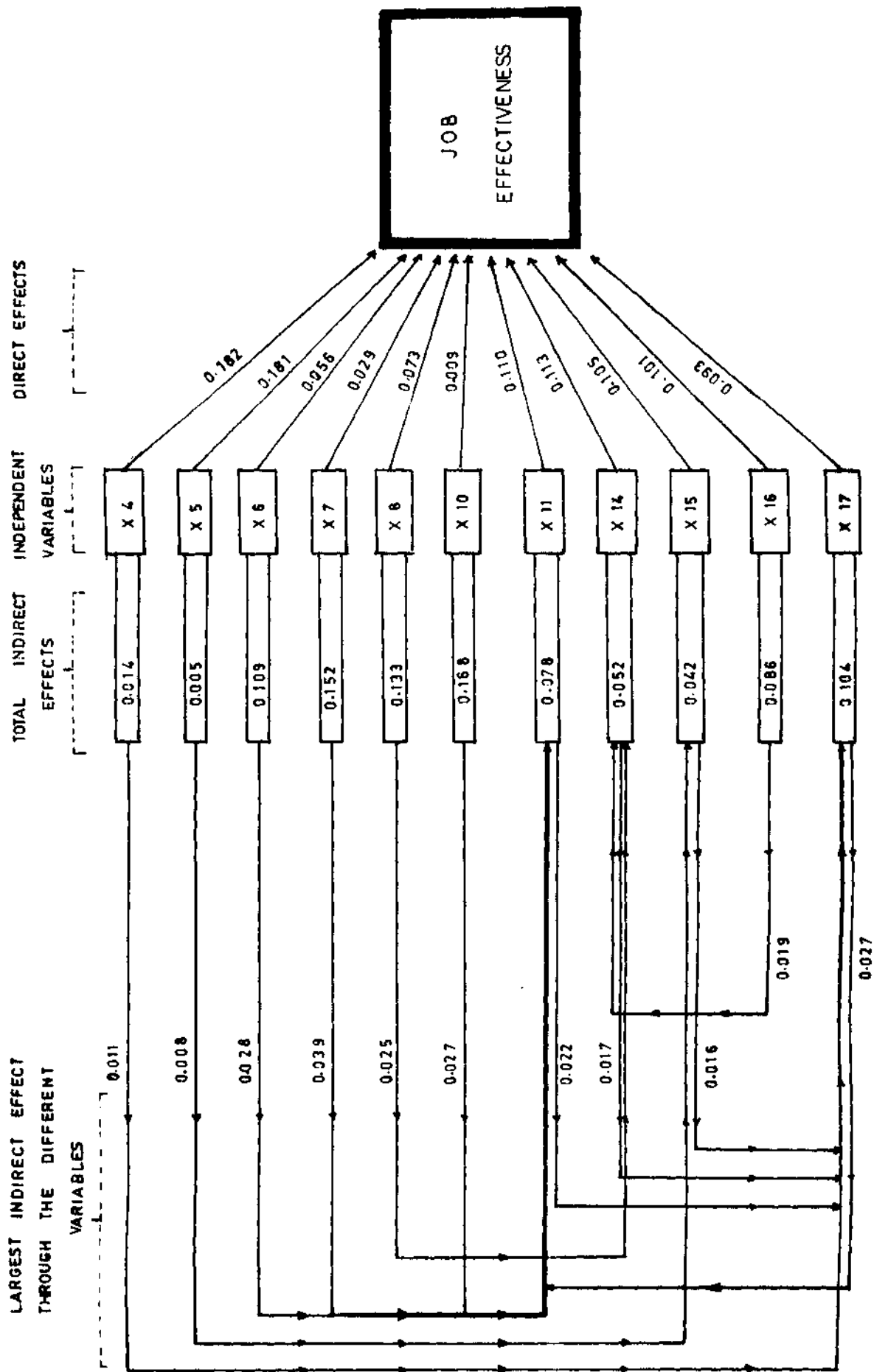


FIG.4: PATH DIAGRAM SHOWING DIRECT AND INDIRECT EFFECTS OF SIGNIFICANT INDEPENDENT VARIABLES ON JOB EFFECTIVENESS OF VEO'S.

indirect effect through the variable dependence (X_{15}). Since 11 independent variables were included in the analysis, 110 independent effects emerged out of them through each other. The complete set of indirect effects are presented in Appendix III.

Dominant direct and indirect effects :

The direct and indirect effects of the 11 independent variables on the job effectiveness of VEOs were presented earlier. Now it is important to identify the dominant variables (> 0.1) among these 11 variables, which had the direct as well as indirect effects on the job effectiveness, in order to identify the most important variables that have influenced the job effectiveness. In this study the dominant variables which had the largest direct effect on the job effectiveness of VEOs, were identified with the criteria of having the path value of 0.1 and above. Accordingly achievement motivation (X_4), communication behaviour (X_5), communication skill (X_{14}), job satisfaction (X_{11}), dependence (X_{15}) and sociability (X_{16}) in that order were identified as the dominant variables that have largest direct effects on job effectiveness of VEOs as shown in fig 5.

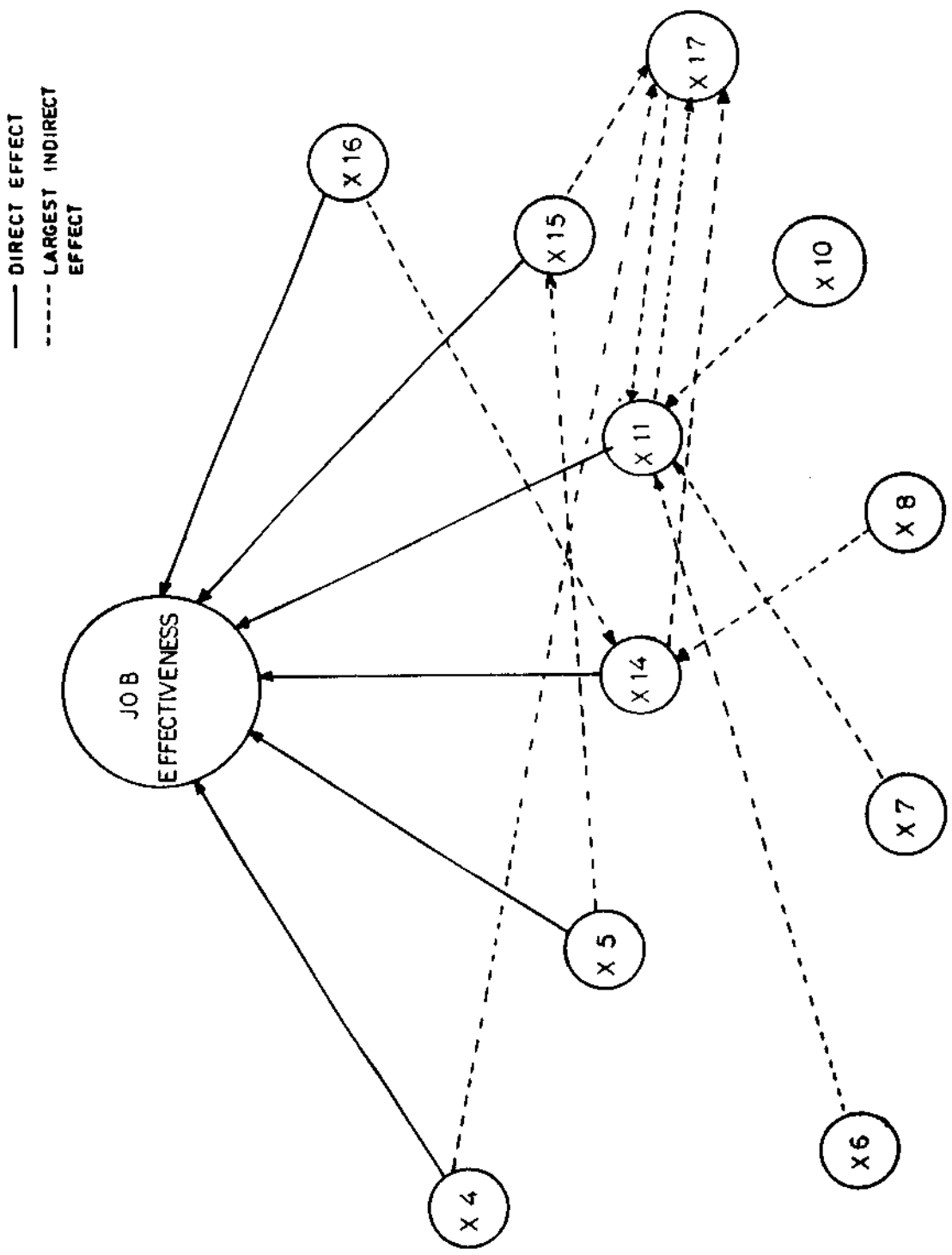


FIG. 5: PATH DIAGRAM SHOWING DIRECT EFFECTS AND LARGEST INDIRECT EFFECTS OF ELEVEN SELECTED INDEPENDENT VARIABLES ON JOB EFFECTIVENESS.

4.5 PRINCIPAL COMPONENTS OF JOB EFFECTIVENESS OF VEOs

Principal component analysis is a method for reducing correlated measurement variables to a smaller set of statistically independent liner combinations having certain unique properties. The main objective of the analysis is to economise the number of variables under consideration. This is used to describe difference between individuals in terms of relatively few composite variables. From the statistical analysis it was concluded that the job effectiveness of VEOs had positive and significant correlation with the 11 independent variables. Hence, the analysis was carried out to determine the differences between individuals these 11 variables and job effectiveness of VEOs by using the technique of principal component analysis. The results of which are presented in table 24.

Table 24. Principal components of job effectiveness of VEOs :

Variable No.	Variable name	principal components	
		1	2
X ₄	Achievement motivation	-0.00005	0.00017
X ₅	Communication behaviour	0.95664	-0.49266
X ₆	Organisational commitment	0.03008	0.10622

Variable No.	Variable name	principal 1	components 2
X ₇	Attitude towards T and V system	0.01068	0.01660
X ₈	Time utilisation	0.01634	0.04244
X ₁₀	Morale	0.00794	0.03831
X ₁₁	Job satisfaction	0.00303	0.01536
X ₁₄	Communication skill	0.00066	0.01113
X ₁₅	Dependence	0.00250	0.00415
X ₁₆	Sociability	0.00114	0.00247
X ₁₇	Guidance and supervision	0.00089	0.00975
X ₁₉	Job effectiveness	0.28891	0.86139
Percentage of variability		55.51	33.62

As could be seen from the above table, the first component accounts for 55.51 per cent, where as the second component accounts for 33.62 per cent of the total variability. The subsequent nine components account for the remaining 10.87 per cent which is negligible and therefore they were not considered for detail discussion. The total variation of the variance-covariance matrix is explained by just two components. In the first principal component the variables communication behaviour, 0.956 (X_5) and job effectiveness, 0.288 (X_{19}) emerged. The coefficients of

the other variables were less and thus of very little significance. In the second principal component, the important variables emerged were job effectiveness, (X_{19}) communication behaviour, (X_5) and organisational commitment, (X_6). Communication behaviour had a coefficient of -0.492 while job effectiveness had a coefficient of 0.861. The coefficient of organisational commitment was 0.106.

4.6 PROBLEMS ENCOUNTERED BY VEOs

An attempt is made in the study to understand specifically the problems encountered by VEOs in achieving higher job effectiveness. Not only the independent variables that are listed in the study, contributed to the variation in the level of job effectiveness but some other situational and organisational problems also had their play in affecting the job effectiveness level of the VEOs. Hence, the respondents were asked to identify the problems that they encountered, as the most important ones. Only 134 responded to this items of the questionnaire. The list of 13 problems faced by the VEOs are listed in the descending order of importance and presented in table 25. Out of these 13 problems listed, majority of the VEOs cited lack of transport facilities, lack of residential

facilities and lack of inputs supply at the appropriate time as the most important problems ; these followed by other important problems like lack of plant protection equipment supplies, lack of teaching aids for educational use, less fixed travelling allowance, more farm families, less financial assistance and non supply of technical information in time in that order.

Table 25. Problems encountered by VEOs in achieving higher effectiveness :

Sl. No.	Problems	No.	Per cent	Rank
01.	Lack of transport facilities	79	39.50	I
02.	Lack of residential facilities	54	27.00	II
03.	Lack of inputs supply at appropriate time	43	21.50	III
04.	Lack of P.P equipment supplies	25	12.50	IV
05.	Lack of teaching aids for educational use	20	10.00	V
06.	Less fixed travelling allowance (FTA)	15	7.50	
07.	More farm families	10	5.00	
08.	Less financial assistance	8	4.00	
09.	Non supply of technical information in time	7	3.50	
10.	Less godowns in local areas	4	2.00	
11.	Insufficient irrigation water supply	4	2.00	
12.	Lack of educational facilities for staff children	2	1.00	
13.	More of contact farmers	2	1.00	

DISCUSSION

CHAPTER V

DISCUSSION

The results of the study are interpreted and discussed in this Chapter under the following heads :

1. Levels of job effectiveness of VEOs.
2. Distribution of VEO's under each characteristic category.
3. Relationship between the independent variables and job effectiveness of VEO's.
4. Direct and indirect effects of significantly correlated independent variables on the job effectiveness of VEO's.
5. Principal components of job effectiveness of VEO's.
6. Problems encountered by VEO's in achieving higher effectiveness.

5.1 LEVELS OF JOB EFFECTIVENESS OF VEO'S

By perusal of table 1, it is clear that three fourth of VEO's had medium level of job effectiveness. It implies that there is lot of potentiality among the VEO's which is yet untapped. It suggests that the supervisory staff have not identified the factors responsible and utilised for making the VEOs highly effective in their job. These are achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, morale, job satisfaction, communication skill, dependence, sociability as well as guidance and supervision.

It was also noticed that, the VEOs with high job effectiveness got 391 score while the VEOs with least job effectiveness got 41 score with a mean of 135.91. There is a considerable gap between low and high job effectiveness scores. The less job effectiveness of VEOs (12.50%) might be due to the lack of transport facilities, non availability of teaching aids, not having higher education facilities and also inability to conceive effectively the four foundations provided by Department of Agriculture viz. division of work, scholar and functional process, structure, and span of control. The less effectiveness of VEOs is in confirmation with the findings of

Singh et al. (1967) and Reddy (1986), whereas high job effectiveness of VEOs (12.50%) might be due to the better work place, good training, and organisational commitment. The high job effectiveness is in confirmation with the study of Singh et al. (1976).

5.2 DISTRIBUTION OF VEOs UNDER DIFFERENT CHARACTERISTIC CATEGORIES

5.2.1 Total experience : The minimum and maximum years of total experience of VEOs ranged between 3 and 35 years with a mean of about 14 years. The data presented in table 2, revealed that a large majority of the VEOs (70%) had experience between 6 to 22 years; while, 19.50 per cent of them had higher experience between 22 and 35 years, 10.5 per cent of them had less experience of 3 to 6 years. It is a good trend that about 90 per cent of the bulk have a minimum of 6 years of experience. This is so because, many of the VEO's appointed in the T and V system are those who were already working in the Community Development blocks. Since the ratio between the staff and clientele was reduced to 1 : 500, some more VEO's were added with the introduction of T and V system, and hence only 10 per cent of them fell under low experience category. This is in confirmation with the finding of Reddy (1986).

5.2.2 Experience as VEO : The data presented in table 3, indicated the distribution of respondents based on the experience as VEOs in T and V system. The minimum and maximum years of experience as VEO varied between 1 and 12 years with an average of about six years. A majority of (62.50%) them had medium experience between three to nine years ; whereas 26 per cent of them had more than nine years of experience and relatively a less number of respondents (11.50%) had less experience of below three years. Such greater variation in the experience as VEOs, reflects more or less the trend observed in the total experience of VEOs discussed earlier. The probable reason for this trend may be that many of the grass root level workers are working since inception of T and V system and only a few were added at later dates, due to the transfer of VEO's from the other non CADA districts to these CADA districts, where T and V system was in operation. This was done in order to increase the concentration of efforts of VEO's in these areas as per T and V system guidelines. This finding is in concurrence with the finding of Reddy (1986).

5.2.3 Training : The results in table 4, revealed that majority of them (93%) had low level of training while a negligible number of respondents (7%) had more training.

This finding is in agreement with the finding of Reddy (1986). This low level of organised pre and inservice trainings might be due to the fact that more importance is given for weekly and fortnightly training programmes, which is inbuilt as a methodology in T and V system. The objectives of inservice training are perhaps very well achieved in these regular training programmes and as such this finding is expected.

5.2.4 Achievement motivation : An examination of table 5, indicated that more number of VEOs (68.50%) had the level of achievement motivation between 25 and 32. This study is supported by the findings of Bharamappa (1981) and Reddy (1986). This trend has emerged may be because, the group is almost homogeneous and their level of aspiration is also of moderate level; 15.50 per cent of them had high achievement motivation may be because of their orientation towards hard work and service to the people. Almost the same percentage of them was at the other end of the pole i.e. low achievement motivation. This may be due to lack of enthusiasm, lack of incentives for the good work done and least scope for promotional opportunities. This is in confirmation with the study by Hosur (1977). Coefficient of variation showed limited variation among the VEO's in their achievement motivation. The scores obtained from the respondents varied between 19 and 35 with a mean of 29.01.

5.2.5 Communication behaviour : The data in table 6, showed that majority of the VEOs had medium level of communication behaviour (159 to 300). Only a limited number of respondents were having high communication behaviour because, only a few had higher education and developed ability to communicate constantly with the clientele system. But 18 per cent of the VEOs were in low level of communication behaviour due to their lack of contacts with the farmers and lack of interest to understand things and communicate to others for their betterment.

The scores obtained by the respondents ranged between 62 and 450 with a mean of 229.33. It shows that the VEOs communication behaviour was of moderate level as evidenced by the obtained mean value. The probable reason for this trend might be that the respondents in T and V system are exposed to the same kind of information input behaviour and processing behaviour, which could cause for not much changes in output behaviour except for some individual differences among VEOs.

5.2.6 Organisational commitment : The data presented in table 7, revealed that threefourth of the VEO's had medium organisational commitment, while the rest of them had high and low organisational commitments in almost equal proportions. This finding is in line with the finding of Reddy (1986). The scores obtained by the respondents ranged

between 30 and 63 with a mean of 51.04. However there was not much variation among the VEO's in this regard. The possible reason might be the identical work targets, similar work situation, opportunities for promotions etc. But still some of them are having low organisational commitment probably because of lack of enthusiasm, work consciousness and relatively higher ages. Some of the VEOs were on the higher score in respect of organisational commitment, may be because of their sincerity, prone to hard work and interest in the nature of the job of extension exclusively, due to de-linking of supply of inputs and advancing of loans from the VEOs job.

5.2.7 Attitude towards T and V system : An evaluation of table 8, it is clear that 76 per cent of the VEO's had neutral attitude towards T and V system. This is in confirmation with the finding of Rao (1979), Sarkar (1979), Prajapati and Patel (1980) and Reddy (1986). Comparatively more number of VEO's (14%) had favourable attitude towards T and V system when compared to less favourable (10%) attitude of VEO's. This may be due to the many advantages of T and V system over C.D programme like monopurpose, single line of command and reduction in the number of farm families to work with.

Further the data indicate the homogeneity among the VEO's with respect to this variable. The scores obtained by VEO's ranged between 37 and 71 with the mean of 59.48. The analysis revealed that the VEO's attitude in general homogeneous but number of respondents grouped under neutral to favourable than less favourable. The T and V system is being production oriented, the farmers are more responsive to the suggestions of VEO's. Probably this factor too must have compelled the VEO's to develop a favourable attitude towards this programme/system.

5.2.8 Time utilisation : A close observation of table 9, indicated that a 64 per cent of the respondents had utilised their time moderately 94-148 days on their job activities. Among the rest almost equal number of them were on the 'high' and 'low' category of time utilisation with regard to job activities.

The scores obtained by the respondents varied between 61 and 178 with a mean of 120.84. Since the grass root level workers were expected to concentrate their efforts more on job activities than on miscellaneous activities, this trend is expected.

The table 10, revealed that out of a total of 180 days considered for Kharif season (May 1 to October 31, 1986) VEOs were spending 81 days (68.84% of their time) on

educational activities like visiting farmers holdings, arranging field visits and trainings, conducting method demonstrations and visiting demonstration plots. The VEOs in T and V system are supposed to use training and visits basically as extension methods in disseminating agricultural information to the farmers. So, it is logical that the VEO's had spent around 69 per cent of their time on these two methods in addition to related extension methods like, conducting method demonstrations, group meetings at demonstration plots etc. This finding is in confirmation with the findings of Jalihal et al. (1975), Vittal (1982) and Ramakrishna Rao (1985). While 25 days (20.54% of their time) were spent on planning like selection of contact farmers, visits to the farmers fields, scheduling training, method demonstrations and result demonstration plots. Programme planning is given most importance in extension as it provides direction to the Extension personnel in effective implementation of the programme. In this case the VEO's are supposed to work out the schedule of 'training and visits', the number of demonstrations to be conducted and the contact farmers to be selected as the same has to be done in consultation with the farmers and keep them informed. Hence, it is just, that they have spent 20 per cent of their time on this important aspect of planning. Only nine days (8.46% of their time) were utilised for

service activities like collection of soil samples and distribution of literature to the farmers. Interestingly, just three days (2.16% of their time) were made use of for office work like maintainance of demonstrations, trials and minikit plot records. In the T and V system not much importance is given for supplies and services and VEO's were releaved of these responsibilities, in order to help concentrate on production functions. Except keeping records of some educational activities, not much emphasis was given for writing reports. Therefore, the minimum time spent on these activities is compatible with the organisational norms. The data also revealed that VEOs were spending 121 days out of 140 working days (after deducting 40 holidays for festivals and public holidays from 180 days) on the four major activities - education, planning, service and office work, which is fairly good enough. Ofcourse, these are the four important areas on which the VEO's are expected to spend their time and the results are in confirmity with the expectation of the organisation. About 20 days which are not covered by these activities, might have been spent on accompanying the supervisory staff in their visits to the circle, helping the farmers to find solutions to their non-agricultural problems and other miscellaneous activities. Horticulture and Animal Husbandry activities are not covered under T and V system.

But still, the VEO's may have to help solve these problems, in order to gain confidence and achieve the cooperation of the people in executing their work. Arranging loans is not the job of VEO, but still, they may have to do it, in order to implement the Agricultural production programmes on a large scale. Hence the time spent on these miscellaneous activities is in a way appropriate.

The analysis also revealed that there was significant difference in the time allotted by VEOs for each of the activities delineated. This was indicated by the significant 'F' ratio. This trend clearly points out that, the VEO's are budgeting their time according to the requirements of the organisation and the demands of their job activities.

5.2.9 Organisational climate : The data in table 12, revealed that 70.50 per cent of the respondents had perceived the organisational climate as facilitating to their effectiveness (107-127). This may probably due to the special characteristics of the organisation - the single line of command, opportunities for interaction with colleagues, specialists and supervisory staff, in the fortnightly meetings.

This finding is in complete agreement with the finding of Reddy (1986). 14 per cent of them had perceived the organisational climate more facilitating may be because of the individual differences in social and psychological characteristics and their ability to empathise with other colleagues in the organisation. Almost equal number of VEO's perceived the organisational climate as less facilitating mostly due to their lack of sociability and understanding in addition to conservatism associated with the individuals. The scores obtained from the respondents in this aspect ranged between 82 and 135 with a mean of 117.52. Majority of the respondents fell under the category of facilitating to highly facilitating continuum. It is evidently so because, the T and V system as such facilitated for better inter personal relationships, effective communication and constant consultation as an inbuilt mechanism in the methodology.

5.2.10 Morale : An examination of the data in table 13, revealed that half the VEOs inter-viewed (69.50%) had medium level of morale (53-65). This may be due to lack of incentives like promotions, quarters for living and vehicles for mobility. Also some of the VEO's who had worked in the Community Development Programme not very

happy in this programme because of restricting the activities to only agriculture and that too for only educational work. This study is in agreement with the finding of Reddy (1986). Some of them exhibited (17%) high morale probably, those who have a concern for the development of farmers and have a rural back ground. The youngsters who have joined directly the T and V system might be happy with this organisation and the nature of work, this in turn must have augmented their morale. Only few of them (13.50%) exhibited low morale perhaps due to lack of emotional attachment, monotony and frustration. The coefficient of variation (9.56) suggested that the group was homogeneous in nature. The scores obtained by the respondents varied between 46 and 70 with a mean of 59.54. It showed that in general the VEO's level of morale was moderate to high. The probable reason for this trend may be the in-built strength of the organisation, simplicity of the message, constant guidance they get from their superiors, the objectives of the department and more than anything else, his status in T and V system and the support of World Bank.

5.2.11 Job satisfaction : The data presented in table 14, revealed that a majority of the respondents (67.50%) had medium level of job satisfaction (33-46). This finding is in concurence with the findings of Rajagopal (1977),

Reddy (1982) and Reddy (1986). Among the remaining, almost equal number of them grouped under high and low job satisfaction categories. The high job satisfaction among some VEO's may be because of job security, satisfaction of helping the farmers in increasing food production, better opportunities for meeting farmers often and limited reporting. The low job satisfaction among some might be due to lack of opportunities for taking up allround development of the people, limited work during off season, monotony of repeating the same messages over a period of years. This finding is in concurence with the finding of Vittal (1982). The maximum and minimum scores obtained by the respondents were 59 and 22 respectively with the mean of 39.45. The results showed that the job satisfaction of a majority of the respondents was on the medium to high level. The possible reason for this trend might be, in addition, to other factors discussed above, majority of the VEO's were partly satisfied with their educational activities and single line of command.

5.2.12 Job involvement : A large majority of the VEO's (73%) showed up medium level job involvement, whereas 14 per cent of them had high level of job involvement; probably because of the compuslison inbuilt in to the system for regular schedule of work and limited work areas.

While less number of VEO's (13%) had low involvement in the job due to lack of interest in the job, lack of new messages to pass on to the farmers, unfavourable attitude of the farmers towards the system itself for devoid of supplies and services, low empathy and risk taking ability. The scores obtained by the respondents varied between 34 and 60 with the mean of 45.15. The data revealed that only a less percentage of VEO's were on the low level of job involvement when compared to those on the high and medium levels of job involvement. The probable reason for this trend may be that the T and V system makes the VEO's to comprehend their job activities in clear terms through the regular training and visits. In addition, immediate success in crop production, continued monitoring and evaluation, close supervision and limited area of operation might have also facilitated for their better job involvement.

5.2.13 Work facility : It is clear from the table 16, that 66 per cent of the VEO's had indicated the level of work facilities ranging from 14-23 provided by the Department of Agriculture. This study is in line with the finding of Reddy (1986). A few of them did indicated (13.50%) that the work facilities provided were as 'good'. A more number of respondents (20.50%) then this number opined that the work facilities provided are meagre. As

seen from the results of the analysis a majority of the VEO's are in the category of medium and below with respect to work facilities provided. The reasons may be lack of demonstration equipment, lack of input supply at appropriate time, less financial assistance, lack of teaching aids for educational use and lack of transportation facilities. This is in conformity with the study of Samantha (1982). About 160 VEO's out of 200 were of the opinion that the work facilities are medium to high. The probable reason for this trend, may be due to the principal involved in T and V system of making no supply and services ; more importance is given in this system for educational input rather than material input :

5.2.14 Communication skill : The data in table 17, showed that about half of the respondents (53.50%) were having medium level of communication skills (14-18). This may be for the reason of low level of education of VEO's, lack of new messages and opportunities for mass contacts. In T and V system highest priority is given to communication of new technologies. Hence, the VEO's by compulsions atleast have developed some abilities to communicate. But still, about onefourth of the VEO's contacted, possessed high level of communication skills. This is so because of higher level of education of a few of them and the acquired

abilities to communicate better. These extension personnel might have utilised all the opportunities available for developing their communication skills in T and V system. Ofcourse a few, remained on the ladder of (19.50%) low communication skills may be because of the lack of achievement motivation and lack of knowledge about new messages. In general the range of scores obtained by the VEO's were 10 and 18 with a mean of 16.00 on this dimension. About threefourth of the VEO's grouped in the medium to high continuum in respect of communication skill. The plausible reason for this may be, the importance given in T and V system for effective communication of new ideas to the contact farmers and fellow farmers. Ofcourse, extra care is taken in the system to provide only the relevant and most useful information to contact farmers for onward transmission to fellow farmers.

5.2.15 Dependence : The result in table 18, revealed that a majority of VEO's (58.50%) had medium level of dependence, whereas only 17 per cent of the VEO's had high dependence. 24.50 per cent of the VEO's had low dependence. The minimum and maximum scores obtained from the respondents were 11 and 18 with a mean of 16.30. More number of VEO's exhibited low dependence than the one's exhibited high dependence. It is a good trend that a large bulk of the

VEO's were on the medium to low level on the score of dependency. The probable reason for this trend might be that the VEO's get relevant and useful information through fortnightly meetings for onward transmission to contact and fellow farmers. Also, the VEO's get the same training as of their supervisory staff-Agricultural Officers in the training sessions. As such the dependency on superiors for getting information is limited. In addition, the supply of inputs and credit facilities are delinked and hence there is limited scope for dependence as such.

5.2.16 Sociability : An examination of table 19, revealed that a good majority, 72.50 per cent of the VEOs were on the medium level on the score of sociability (12-18). It is so because of the limited contacts they have with the farmers as such ; they are supposed to reach other farmers through contact farmers only. Some (13%) of the VEOs scored high on this sociability variable, because of bipolar aspects-interest on the part of the VEO to help the farmers on one hand, and the curiosity on the part of the farmers to know more and get their problems solved. On the contrary some of them (14.50%) were on the low sociability range because of their restricted visits to non contact farmer fields, and less participation in village social functions. The coefficient of variation

indicated that the VEO's were not having much variation in the level of sociability. The scores obtained by the VEO's ranged between 8 and 18 with a mean of 15.13. Comparatively the percentage of respondents grouped under low sociability were more than the respondents grouped under high sociability. The possible reason for this trend may be that the VEO's are not having regular individual contacts with the non contact farmers as per the principles involved in the T and V methodology.

5.2.17 Guidance and supervision : The data presented in table 20, revealed that almost threefourth of the total VEOs considered were, on medium level (32-39) on the variable guidance and supervision aspect. Guidance and supervision at grass root level is an important feature of the T and V system. This is unfortunately not very well met by the supervisory staff. Because of lack of research findings to add to the messages every year, this aspect of guidance and supervision has lost its importance and has become ritual. The rest 12 per cent of them indicated 'high' on the level of guidance and supervision due to the availability new information on some crops and the ability of some Agricultural Officers to seek information and provide guidance and supervision, with a purpose. However 14.50 per cent of them scored low on the aspect of guidance

and supervision due to lack of ability on the part of the Agricultural Officer to identify the local problems and provide solutions ; lack of initiative and technical competence. The maximum and the minimum scores obtained by the respondents were 39 and 18 respectively with a mean of 35.29. In general about 85 per cent of the VEOs are of the opinion that the guidance and supervision from provided was medium to high. The possible reasons for this trend may be the inbuilt regular trainings and the constant follow-up activities undertaken by the Subject Matter Specialists and superiors in T and V system.

5.2.18 Self confidence : According to the data presented in table 21, that 68 per cent of the VEOs had medium level (14-18) of self confidence in their job activities. The VEO's basically work on agricultural crops whose success depend mostly on rainfall, more than anything else. Hence, always risk is involved in the work of VEO's in their objective of achieving increased yield per acre. Hence probably, this kind of medium level of self confidence among a majority of VEO's. But still with all that, 21.50 per cent of the respondents had exhibited high level of self confidence may be due to their capacity to face the difficult situations, having faith on himself and optimistic. Only 10.50 per cent of them had low self confidence

due to lack of capacity to acclimatize themselves to new situations and paucity of confidence in himself. The coefficient of variation revealed that the respondents were homogeneous in nature in this respect. The maximum and minimum scores obtained by the respondents were 20 and 12 respectively with a mean of 16.21. In general almost 90 per cent of the VEO's were on the ladder of medium to high in their self confidence. The probable reason for this trend may be the inbuilt training and constant guidance support that has equipped the VEO's to face the challenges posed by the farmers and the situation, to a greater extent.

5.3 RELATIONSHIP BETWEEN THE INDEPENDENT VARIABLES AND JOB EFFECTIVENESS OF VEO'S

To study the relationships between independent variables and job effectiveness of VEOs the correlation coefficients computed are presented in table 22. The data revealed that out of 18 independent variables considered only 11 variables were seen to be correlated with the job effectiveness of VEOs significantly. These were : achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, morale, job satisfaction, communication skill, dependence, sociability, guidance and supervision. These are discussed in the following paras.

5.3.1 Total experience : The total experience of VEO's was found to have no significant relationship with their level of job effectiveness. This finding is in concurrence with the findings of Frutchey (1953), Salvi and Dudhani (1967), Reddy (1982), Reddy (1983b), and Reddy (1986) . But this finding is not in confirmity with the findings of Rahudkar (1962), Patel and Leagans (1968) and Janardhana (1979). It is expected that the length of experience facilitate better understanding of the job and efficiency would lead to better job effectiveness, in general. It is not so here probably because many experienced people show symptoms of disinterest and compliance due to an exposure to the same nature of development work at the grass root level, over a period of long time. Lack of promotional opportunities for a long time may also act as a factor of redressal in their job efficiency. In general, the VEO's who had worked in community development blocks are not showing enthusiasm in the work of T and V system. The hypothesis that there is no relationship between total experience and job effectiveness of VEO's, is accepted.

5.3.2 Experience as VEO : The length of experience as VEO's was also found to be non significant in its relationship with the job effectiveness. More experience as VEO should necessarily help to improve their job. The experienced VEO can better communicate with the people, can

understand and solve the farmers problems effectively. In addition, repetition of the same extension methods and messages leads to expertise in the knowledge and techniques. All these in general should enhance the job effectiveness. But the length of experience may not promote job effectiveness at the same proportion. In T and V system, because the VEO has to repeat the same messages over a larger period of time-may be few years, they develops some sort of aversion to repeat the same messages to inquiring and innovations seeking farmers. Some times the disinterest on the part of the farmers towards the messages of VEO leads to dishearting and ineffectiveness on the job. Hence this kind of result is not unexpected. So, the hypothesis that there is no relationship between experience as VEO and their job effectiveness is accepted.

5.3.3 Training : Pre service and inservice training (excluding the fortnightly and weekly training) undergone by the VEO's also exhibited no significant relationship with their job effectiveness. The training is normally given to the VEO's in order to increase their job effectiveness ; it is always true. But sometimes, if the training given is not qualitatively good and need-oriented, then it may not contribute much to the effectiveness of an individual. In T and V system the regular trainings are

inbuilt in the system and they are situation and need-oriented, as such, the special training programmes considered here is a variable, may not leave significant impact on the job effectiveness of the individual, though it may have marginal impact. This finding was in agreement with the findings of Shresta and Singh (1975), Reddy (1983b) and Reddy (1986). But the findings of Nye (1951), Salvi and Dudhani (1967), Patel and Leagans (1968), Kherde (1971) and Reddy (1982) did not corroborate this finding. Here, the hypothesis that there is no relationship between training and job effectiveness of VEO's, is accepted.

5.3.4 Achievement motivation : This was found to have positive and significant relationship with their level of job effectiveness. This indicates that higher the achievement motivation of VEO's, the higher would be their job effectiveness. This finding is compatible with the findings of Laharia (1978), Reddy (1983a) and Reddy (1986). But this finding is not in line with the findings of Janardhana (1979). Higher achievement motivation lead the individual to work consistantly towards reaching some destination which they carved for themselves. Higher it is associated with an individual higher will be his efforts ; in the process, he tries to excell others and thus end up with higher job effectiveness. Therefore, the

hypothesis that there is no relationship between achievement motivation and job effectiveness of VEO's, is rejected and the alternative hypothesis that there is relationship between achievement motivation and job effectiveness of VEO's is accepted.

5.3.5 Communication behaviour : This variable showed up positive and significant relationship with their job effectiveness. This finding is in concurrence with the findings of Hussain (1964), Hiranand and Jain (1967), Kolte (1972), Talukdar (1984) and Reddy (1986). It is quite logical that facilitating communication behaviour would lead to higher job effectiveness of VEOs. In T and V system the whole strategy is built around communication of new technologies to the clientele system. Hence, a better communication behaviour should necessarily form an important factor in influencing the job effectiveness of VEO. According to Rogers and Shoemaker (1971) communication behaviour is the degree to which an individual is willing to seek information and advice. This definition suits well to the definition considered in this study. The VEO's expected to seek new information from specialists and advice the farmers about improved farming practices. This is an education activity which he is expected to give priority in his job. So, necessarily the communication

behaviour should have a bearing on the job effectiveness. As per the statistical analysis the hypothesis that there is no relationship between communication behaviour and job effectiveness of VEO's, is rejected and the alternative hypothesis that there is relationship between communication behaviour and job effectiveness of VEO's, is accepted.

5.3.6 Organisational commitment.: A positive and significant relationship was observed between organisational commitment and job effectiveness of VEO's. This finding is in agreement with the studies of Ritzer and Trice (1969), Siegel and Ruh (1973), Punekar and Haribabu (1976), Jauch et al. (1978), Veerabhadraiah (1980), Angle and Perry (1981), Jagirdhar (1987) and Reddy (1986). But this finding is not in agreement with the studies of Ladhal and Kejner (1965), Lawler and Hall (1970) and Bartol (1979). The probable reasons for this trend may be that the individuals who perceive their job as valuable and emotionally attach themselves to the ideals of the organisation as a service to the community, and have a sense of honesty, do better on the job. Some will derive satisfaction by doing a good job irrespective of the extrinsic rewards offered by the organisation. Hence, the commitment to the job lead to better performance and self satisfaction. Here, again the null hypothesis set for the

study that there is no relationship between organisational commitment and job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between organisational commitment and job effectiveness of VEO's, is accepted.

5.3.7 Attitude towards T and V system : The attitude of VEO's towards T and V system indicated a positive and significant relationship with their level of job effectiveness. This finding is supported by the findings of Ghosh (1978), Pandey (1979), Rao (1979), Sarkar (1979), Kulhari (1980), Prajapati and Patel (1980), Rao (1983) and Reddy (1986). In any organisation the favourable attitude of the workers towards that organisation is one of the factors that promotes enthusiasm and drive to work. Even in a development programme like T and V system, the favourable attitude towards the system as such should yield good dividends in terms of inducing more farmers to accept and adopt new ideas. This specially designed methodology has a built in special features that induce favourable attitude towards the system among its personnel. Attitude is nothing but a pre-disposition to action. Therefore, the VEOs with favourable attitude towards this system would certainly evince keen interest in its programmes and do their best resulting in better performance. Hence, the

statistical results are expected ; the hypothesis that there is no relationship between attitude towards T and V system and job effectiveness of VEO's is rejected and alternative hypothesis that there is relationship between attitude towards T and V system and job effectiveness of VEO's , is accepted.

5.3.8 Time utilisation : The VEO's time utilisation on various job activities was also seem to be positive and significant with their level of job effectiveness. This finding is in complete agreement with the finding of Veerabhadraiah (1980). The above trend could be explained by the analysis of job activities on which VEO's have spent their time. As the data indicated VEO's have spent most of their time (81 days) on educational activities like visiting the farmers holding and guiding them about Agricultural aspects, participation in weekly and fortnightly training programmes to acquire higher knowledge for enlightening the peasants. Planning is an another important aspect which have a bearing on the better functioning of the VEO's. As seen from the data the VEO's had spent some time on planning activity (25 days) which includes : planning for identification and selection of contact farmers, lay out of demonstration and minikit plots. In addition, they had earmarked some time for service and

office work too, which have some influence on their job effectiveness in the major Kharif season. Therefore, perhaps the variable of time utilisation has shown a positive relationship with job effectiveness. So, the hypothesis that there is no relationship between time utilisation and job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between time utilisation and job effectiveness of VEO's, is accepted.

5.3.9 Organisational climate : The organisational climate of VEO's had no significant relationship with their level of job effectiveness. This finding was in concurrence with the finding of Jhansi (1985). But this finding is not in concurrence with the findings of Fiedlander and Greenberg (1971), Talukdar (1984) and Reddy (1986). As evident from the past studies the organisational climate has direct bearing on job effectiveness. In this case due to interaction effect of other uncontrolled variables the effect of this variable might have not shown up as significant, even though it has influence on job effectiveness. Hence, the hypothesis that there is no relationship between organisational climate and job effectiveness of VEO's, is accepted.

5.3.10 Morale : The finding showed positive and significant relationship between morale and job effectiveness of VEO's. This finding is in line with the findings of Mathur (1972), Minocha (1977), Talukdar (1984) and Reddy (1986). It is quite anticipated that morale and job effectiveness go hand-in-hand. Morale is an index of motivation, mental condition with respect to courage, discipline, confidence, collective attitude and overall satisfaction towards the working environment and job situation. As such high morale should certainly lead to better efforts and in turn to higher job effectiveness. As revealed by analysis the hypothesis that there is no relationship between morale and job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between morale and job effectiveness of VEO's, is accepted.

5.3.11 Job satisfaction : Again a positive and significant relationship was observed between job satisfaction and their job effectiveness. This finding is in concurrence with the findings of Jalihal et al. (1975), Singh and Singh (1976), Susilkumar (1984) and Reddy (1986). But this is not in concurrence with the findings of Vroom (1964), John (1966), Wanous (1974), Kherde (1971), Rajagopal (1977) and Reddy (1982). In general, job satisfaction and job effectiveness are associated. It is logical to expect that those people who are satisfied with

their job are likely to perform their job in a better way since, they enjoy doing it. Thus the efficiency of doing a job increases leading to a better job effectiveness. Hence, this type of relationship is expected. As evidenced from the results, the hypothesis that there is no relationship between job satisfaction and job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between job satisfaction and job effectiveness, is accepted.

5.3.12 Job involvement : It is found that the job involvement of VEO's had no significant relationship with their level of job effectiveness. This finding is in concurrence with the findings of Lawler and Hall (1970), Schuler (1975). However, this finding is not in concurrence with the findings of Ladhal and Kejner (1965), Siegel and Ruh (1973) and Veerabhadraiah (1980). The job involvement do always facilitate better command over the job and better job execution. When a job is done with greater interest and enthusiasm, then the chances of better job performance leading to higher job effectiveness, is always evident. In this case it is not significant probably because of some other factors which have a stronger influence on job effectiveness. Thus in effect, the hypothesis that there is no relationship between job involvement and job effectiveness of VEOs, is accepted.

5.3.13 Work facility : The computed correlation coefficient between work facility and job effectiveness of VEO's is found to be non-significant. This finding is in line with the findings of Samantha (1982), Reddy (1983b) and Jhansi (1985). But this finding is not in conformity with the findings of Talukdar (1984) and Reddy (1986). In general lesser the job effectiveness of VEO's. In T and V system the VEO's are expected to do only educational work and as such the technical input is the most important aspect. In addition to technical knowledge, some supporting items like demonstration materials, godown facilities, transport, finance for their activities are to be provided at the work point. But these are insufficiently provided as perceived by the VEO's. As a result of these situational factors the work facilities could not show up significant relationships with job effectiveness ; eventually, the hypothesis that there is no relationship between work facilities and job effectiveness of VEO's, is accepted.

5.3.14 Communication skill : This variable showed up a positive and also significant relationship with their job effectiveness, in the present investigation. This finding is supported by the finding of Parshad and Sandhu (1974) but not in concurrence with the finding of Dhillon and Sandhu (1977). Skill in effective communication is the

basic requirement of change agents in an organisation like T and V system where highest priority is given for communication of agricultural technologies. As the VEO's are working at grass root level, they act as the spokesmen, educators and communicators. Really to have an impact of the T and V system it is this last link in the organisation which has to be sound or otherwise the entire quantum of training at different levels will go futile. Hence, their communication abilities remains vital in educating and persuading the farmers about new agricultural technologies. The results obtained reflect the prevailing situation. As evident from the results the hypothesis that there is no relationship between communication skill and job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between communication skill and job effectiveness of VEO's, is accepted.

5.3.15 Dependence : Dependence of VEO's exhibited a positive and significant relationship with their job effectiveness in the present research. The possible reason for this result might be that the VEO's, according to the T and V concept have to look to the Subject Matter Specialists for technical knowledge and messages. Even for literature, selection of demonstration plots and contact farmers, they have to take the help of supervisory

staff. Even their effectiveness depends to a greater extent on the cooperation of contact farmers and fellow farmers. Hence the type of relationship observed between these variables is in confirmity with the happenings in the situation at the field level. In the light of the statistical analysis, the hypothesis set for the study that there is no relationship between dependence and job effectiveness of VEO's is rejected and alternative hypothesis that there is relationship between dependence and job effectiveness of VEO's, is accepted.

5.3.16 Sociability : In case of sociability of VEO's also a positive and significant relationship was observed with their job effectiveness. This finding is in concurrence with the findings of Parshad and Sandhu (1974) and Reddy (1976). It is quite obvious that the VEOs who are more sociable with their farmers can communicate and influence the farmers better in adopting innovations. A Village Extension Officer who can make it possible to keep in direct contact with the non contact farmers also to some extent in addition to contact farmers, can implement the programmes on a larger scale. Some time he may have to go out of the way to help the farmers in solving their non agricultural problems ; and participate in village social functions to gain their confidence. So, sociability is a

gift that VEO's possess and it will have its influence on their effectiveness. The results of analysis are also in line with this analogy. Here again the hypothesis that there is no relationship between sociability and job effectiveness of VEO's, is rejected and the alternative hypothesis that there is relationship between sociability and job effectiveness of VEO's is accepted.

5.3.17 Guidance and supervision : The variable guidance and supervision had positive and significant relationship with the job effectiveness of VEOs. This finding is in confirmity with the findings of Reddy (1976), Talukdar (1984) and Reddy (1986). It is an administrative concept that for successful implementation of any programme, proper guidance and constant supervision is very important. It is much so in a programme like T and V system which requires constant guidance to solve many situational and technological problems that arise during the implementation of Agricultural programmes, That is the reason why guidance and supervision is considered as crucial element in extension administration also. In general, the supervision refers to creation and maintainance of environment in which an individual works smoothly and effectively . Supervisors are the creators of situation for better performance through constant advice, consultations and

hence this positive relationship between the variables. As per the 'r' values, the hypothesis that there is no relationship between guidance and supervision and job effectiveness of VEO's, is rejected and alternative hypothesis that there is relationship between guidance and supervision and job effectiveness of VEO's, is accepted.

5.3.18 Self confidence : The self confidence of VEOs was found to be non significant in its relationship with the job effectiveness. The self confidence is one dominant character any individual should possess to achieve his goals. It is much so in an organisation like T and V system the success of which depends on many climatic and other extraneous factors which are beyond the control of the extension agents. So, evidently there is association between self confidence and job effectiveness. But this variable has not emerged significant because of the lack of solutions to all the farmers problems, lack of cooperation from the farmers and lack of input supplies. Hence, this kind of results might have emerged in T and V system. As per the statistical results the hypothesis that there is no relationship between self confidence of VEO's and their job effectiveness is accepted.

In general the hypothesis set for the study that there is no relationship between independent variables

total experience, experience as VEO, training, organisational climate, job involvement, work facility as well as self confidence, and the dependent variable - job effectiveness of VEO's is accepted.

As evidenced by the 'r' values the hypothesis that there is no relationship between independent variables (the other eleven) considered for the study and the dependent variable - job effectiveness of VEO's is rejected and the alternative hypothesis that there is relationship between the independent variables, achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation, morale, job satisfaction, communication skill, dependence, sociability as well as guidance and supervision, and the dependent variable - job effectiveness of VEO's, is accepted.

5.4 DIRECT AND INDIRECT EFFECTS OF SIGNIFICANTLY CORRELATED INDEPENDENT VARIABLES ON THE JOB EFFECTIVENESS OF VEO'S

Path analysis of job effectiveness as dependent variable and 11 significant independent variables, selected on the basis of their correlation coefficient with job effectiveness (Table 22), was carried out and the results have been presented in Table 23. These results depict the

direct effect, total indirect effect and the largest indirect effect on the dependent variable ; job effectiveness through some independent variables.

The path coefficient analysis of job effectiveness of VEOs (Table 23) showed that achievement motivation (X_4) had the highest direct effect followed by communication behaviour (X_5), communication skill (X_{14}), job satisfaction (X_{11}), dependence (X_{15}), sociability (X_{16}), guidance and supervision (X_{17}), time utilisation (X_8), organisational commitment (X_6), attitude towards T and V system (X_7) and morale (X_{10}) in that order of highest to least direct effect. The achievement motivation had taken the first place among the variables having direct effect, probably due to the instinct that the VEO's possess to reach the goals within the stipulated time. Achievement motivation being psychological variable associated with an individual without any external factors operating, this should necessarily be a function of job effectiveness. To avoid redundancy the reasons given earlier for the association of the above listed independent variables with the dependent variable is not discussed here again to indicate why they are having direct effect.

Table 23 and fig. 4 revealed the ranks of the variables with respect to the direct and the total indirect effects. The variable morale (X_{10}) which occupies the

least position in terms of direct effect, occupies the first rank by contributing maximum to the job effectiveness of VEOs indirectly. The probable reasons might be that the morale is a mental state with respect to courage, confidence, collective attitude, and overall satisfaction towards working environment and job situation. As such, high morale should certainly lead to better efforts and inturn to higher job effectiveness.

The results also revealed that the variables having high total indirect effects were attitude towards the T and V system (X_7), organisational commitment (X_6), morale (X_{10}), guidance and supervision (X_{17}) and time utilisation (X_8) which registered first, second, third, fourth, and fifth largest indirect effect, had attained tenth, ninth, eleventh, seventh, and eight ranks respectively when analysed for their direct effects. This indicates that the above variables contributed a maximum to the job effectiveness of VEOs indirectly than directly.

Among the eleven variables, the variables organisational commitment (X_6), attitude towards T and V system (X_7), morale (X_{10}), as well as guidance and supervision (X_{17}) exhibited the largest indirect effect, through

the variable job satisfaction ; (X_{11}). This might be due to the reason of better commitment of individuals to the job, favourable attitude towards the system, their high morale as well as the guidance and supervision provided in the organisation. It is logical to expect that those people who are satisfied with their job are likely to perform the job in a better way since they enjoy doing it. Another four variables-achievement motivation (X_4), job satisfaction (X_{11}), communication skill (X_{14}), and dependence (X_{15}) exhibited their largest indirect effects through the variable guidance and supervision (X_{17}). The reasons being the VEO's orientation towards hard work to achieve the set goals, job satisfaction, opportunities for better communication, and dependence on superiors for information flow in T and V system. Whereas two variables-time utilisation (X_8), sociability (X_{16}) exerted their largest indirect effects through the variable communication skill (X_{14}). The probable reasons might be that the VEO's are spending much of their time on educational activities like regular trainings in addition to having regular visits/contacts with the contact farmers. Communication behaviour (X_5) exhibited largest indirect effect through the variable dependence (X_{15}) may be because that the VEO's seek to help of supervisory staff in their effective communication of agricultural innovations or agricultural technologies to the clientele. So, job satisfaction,

guidance and supervision, communication skill, and dependence have also indirectly affected the job effectiveness.

5.4.1 Dominant direct and indirect effects : Among the eleven variables having direct effects on the job effectiveness, six variables were having higher direct effects on the job effectiveness of VEO's. Those were achievement motivation (X_4), communication behaviour (X_5), communication skill (X_{14}), job satisfaction (X_{11}), dependence (X_{15}), and sociability (X_{16}) in that order of importance. Interestingly all the six variables which had significantly contributed for the variation in the job effectiveness of VEOs, had emerged as dominant variables indirectly affecting the job effectiveness.

The path analysis clearly showed that there are some variables which have direct effect and some which have indirect effect ofcourse in varying degrees on the job effectiveness of VEOs. From the study, it is seen that even the variables that did not exert much direct impact on the job effectiveness of VEOs had played dominant role in influencing the job effectiveness indirectly. So the study indicates that in improving the job effectiveness of VEOs all the variables having dominant direct influence as well as those having the dominant largest indirect affects through some variables have to be considered. These are projected in Fig. 5.

5.5 PRINCIPAL COMPONENTS OF JOB EFFECTIVENESS OF VEO'S

A review of the data in Table-24, reveals the emergence of job effectiveness as an important variable in the first component, testifying its importance in the analytical frame work ; it was crucial and also associated with communication behaviour variable. An examination of the coefficient of the second principal component revealed that the important variables of the component were, again job effectiveness and communication behaviour. Also, to some extent the variable organisational commitment was having positive influence on the job effectiveness, in the second principal component the communication behaviour showed negative relationship with job effectiveness which seems to suggest that the organisation commitment is an important factor in determining the job effectiveness. Hence, foregoing analysis reveals that a strong relationship exists between communication behaviour and job effectiveness and further the job effectiveness is having relationship with the organisational commitment variable.

Communication behaviour refers to, how an VEO possesses the information that he receives and transmits the same to the farmers. The way he conceives and process the information has bearing on his job effectiveness,

since the VEO is disseminating technical knowledge to the farmers. Besides this, the VEOs commitment to the organisational goals and objectives would definitely influence his job effectiveness. Normally a committed individual would perform the roles stipulated by the organisation better. The importance of these two factors on job effectiveness have been clearly brought out by the principal component analysis.

5.6 PROBLEMS ENCOUNTERED BY THE VEOs

Data in table 25, present the nature of problems as encountered by the VEOs. It could be observed from the table that, thirteen problems were cited by the respondents. Among them lack of transport for the mobility ranked first. This finding is in concurrence with the findings of Reddy and Bhaskaram (1966), Bhaskaram et al. (1979), Rao (1983), Reddy (1983a) and Reddy (1986). The above was followed by the problem lack of residential facilities. This finding is in confirmity with the findings of Bhaskaram et al. (1979), Reddy (1983a), Bora (1984) and Reddy (1986). Then comes the problem of lack of inputs supply at appropriate time, this finding is in concurrence with the findings of Murthy (1965), Reddy and Bhaskaram (1966), Bhaskaram et al. (1979), Rao (1983), Reddy (1983a) and Reddy (1986).

Lack of plant protection equipment supplies, was another problems perceived by the VEO's ; this finding is in line with the findings of Reddy (1983a), Bora (1984), and Reddy (1986). Next comes lack of teaching aids for educational use ; this finding is in concurrence with the findings of Reddy and Bhaskaram (1966) and Reddy (1986). The other ones mentioned in the order of importance were : Less fixed travelling allowance, more farm families, less financial assistance, non supply of technical information in time, less godown facilities in their jurisdictions, insufficient irrigation water supply for farmers, lack of educational facilities for staff children and more of contact farmers.

Most of the VEOs had expressed dissatisfaction about the lack of transport facility. There is no provision for conveyance or for providing loans for purchase of bicycle in T and V system because of the limited jurisdiction area of operation and limited number of people to be contacted (500) by the VEO's. Lack of residential facility in local areas might be due to the fact that innumerable number of VEOs are working in T and V system and it becomes an 'Herelian' task for the Department of Agriculture to provide quarters for all the local workers. The lack of supply of inputs in time has been observed to be a handicap

since the responsibility of supplying inputs is not included in the methodology of T and V system. The responsibility for supply of inputs lies with the Agricultural Officer (inputs) and there seem to be considerable slackness in the supply of inputs at appropriate time due to some handling problems. With regard to lack of supply of PP equipment, the Department of Agriculture may not be able to cope up with the supply of adequate PP equipment due to financial constraints. Add to this the equipment available at most of the places are not used for want of repairs and replacement of accessories. Lack of teaching aids for educational use could be attributed to the reason that some of the VEOs are not supplied with either the teaching aids like posters/charts and roll-up black boards or the necessary finances to prepare them locally.

Further they have expressed **dissatisfaction** regarding fixed travelling allowances, due to the frequent hike in bus fares and fuel charges in case of those who are having mopeds on their own. With regard to their complaint about large number of farm families under their jurisdiction, it is not really true as they have to reach other farmers through contact farmers only. Ofcourse, the Department of Agriculture has taken 1971 census into cognisance for fixing the target audiences ; the increase

in number in recent years may not be a big burden as to attract the attention of planners. Then the problem of less contingency (financial assistance) may be overcome if some funds are diverted from other budget heads not very helpful in increasing the effectiveness of VEO's. Lack of educational facilities remain as long as VEO's are posted to work in interior rural areas.

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SUMMARY

CHAPTER VI

S U M M A R Y

Although, lot of latest technical know-how is available at agricultural research farms for increasing agricultural production, the average per hectare yields of major crops in India are still far below the yields obtained in some other developing countries like China, Korea, Egypt, and Phillipines, (FAO 1985). This is primarily because of the considerable gap between the technology developed on the research farms and its application in the farmers' fields. This was attributed among other things, to the ineffective extension system which could not able to motivate a large bulk of the population, to accept and adopt the latest agricultural technologies .

The Annual conference of World Bank held at Nairobi (1970) identified certain weakness is in the Agricultural Extension systems operating in many developing countries of the world. Some of these deficiencies were : lack of single - direct line of technical support, dilution of efforts, poor mobility of Extension Workers due to excessive coverage of area, inadequate and out dated training for Extension Staff, lack of ties with research, low status of Extension Personnel and duplication of services.

In order to overcome the afore said deficiencies Daniel Benor suggested a new model of extension system known as 'Training and Visit system' which is very popular in most of the underdeveloped and a few developing countries in the world. The back bone of the entire organisation of Training and Visits (T and V) system is the 'Village Extension Officer' (VEO), as he is the grass root level extension worker. He is the strategic link between the research organisation and farmers. His function is critical in teaching and persuading farmers to adopt agricultural production practices ; giving feed back to the extension and research services, the information on actual farm production conditions, constraints and farmers reactions to recommend practices.

Eventually the success of the programme in general depends to a great extent on the extent of job performance of the VEOs.

A large number of studies conducted in India, highlighted the importance of grass root level extension functionaries and their job performance. But, the role of the VEO is frequently stressed, as his function is not only persuading farmers to adopt production recommendations, but also to give feed back to the extension and research

services. It is therefore, highly important that his proficiency in job effectiveness is raised and maintained at a high level. In this context it is essential to evaluate objectively, the effectiveness of the VEOs with respect to specific job behaviours. The effective worker is an optimiser in utilising all available and potential resources - material, human and financial, both within and outside the organisation towards its sustained long term functioning. Not many of the available studies have specially looked into this aspect and hence a study on this dimension was considered to be of practical value to the administrators as well as Extension professionals in effectiveness implementation of T and V system.

In this study the variables time utilisation and communication behaviour have been given more importance than the other independent variables which have a bearing on job effectiveness of VEO. Time is an unique and economic resource ; it is the dimension of time which it utilised effectively and effeciently pay dividends of for reaching effect. So in T and V system the most efficient and purposeful time utilisation by the grass root level functionary the VEO, is expected to enhance his level

of job performance. Also the communication behaviour of the same functionary VEO is considered as an important variable as the whole concept of T and V system is centred around communication of new technologies to the clientele system. The VEO's are supposed to acquire new knowledge through trainings and disseminate the same to the farming community. This is an educational activity which is expected to be given priority in his job. As such it was considered as one of the important factors which influence the job effectiveness of VEO.

In this background, the present investigation 'A study on time utilisation, communication behaviour and other selected factors as determinants of job effectiveness of Village Extension Officers in T and V system of Andhra Pradesh' was designed and undertaken in the selected canal area (CADA) districts of Andhra Pradesh basically, to measure the extent of job effectiveness of the VEO's and to identify the factors, having influence on their job effectiveness.

The specific objectives of this study were :

1. To understand the extent of job effectiveness of VEOs in T and V system.
2. To analyse the impact of time utilisation, communication behaviour and other selected variables on the job effectiveness of VEOs.

3. To know the extent of time utilisation by VEOs on educational and other activities in T and V system.
4. To identify the problems encountered by the VEOs in achieving higher effectiveness.

This study was conducted in the four districts of the state of Andhra Pradesh. One district was selected randomly from each of the canal areas of CADA having the highest area covered under T and V system as well as the area covered in the first phase of the introduction of T and V system. Accordingly, Guntur from Nagarjunasagar right canal, Nalgonda from Nagarjunasagar left canal, Karimnagar from Kakateeya canal and Ananthpur from high level canal areas were selected. Then one division was selected from each of the four selected districts using random sampling technique.

Out of the list of VEOs in position in the selected division units 55 VEOs from Narsaraopet division, 55 VEOs from Miriyalguda division, 50 VEOs from Jagtial division and 40 VEOs from Ananthpur division were selected purposively ; thus making a total sample of 200 VEOs.

The dependent variable selected for the study was job effectiveness of VEOs. This job effectiveness variable was measured by using a scale developed for this study. The independent variables selected for the study were: time

utilisation, communication behaviour, total experience, experience as VEO, training, achievement motivation, organisational climate, organisational commitment, attitude towards T and V system, morale, job satisfaction, job involvement, work facility, communication skill, dependence, sociability, guidance and supervision as well as self-confidence. The variables time utilisation and organisational climate were measured by using the scales developed for this study.

The data were collected in fortnightly/weekly meetings in groups (6-18) using a structured questionnaire developed for the study. The statistical tools like percentages, analysis of variance, correlation, path analysis and principal component analysis were employed to analyse the data. The major findings of this study are as follows:

1. Majority of the VEOs were in medium level on all the 18 independent variables considered. However, more number of respondents were on the high category when compared to low category, on the variables like total experience, experience as VEO, organisational commitment, attitude towards T and V system, time utilisation, morale, job involvement, communication skill and self-confidence.

2. More number of VEO's were on low category when compared to high category on the variables like training, achievement motivation, communication behaviour, organisational climate, job satisfaction, work facility, dependence, sociability and guidance and supervision.

3. Regarding communication behaviour, majority of the VEOs (137) were at medium level and whereas with respect to time utilisation large majority of the VEOs (128) were in medium level.

4. The VEOs 68.84 per cent of the time was utilised for educational activities, 20.54 per cent of the time for planning, 8.41 per cent of the time for service and 2.16 per cent of the time for office work. Further, there was significant differences in the time utilized by VEOs on each of these four major areas.

5. There was positive and significant relationship between the independent variables, achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilization, morale, job satisfaction, communication skill, dependence, sociability as well as guidance and supervision, and the depended variable - job effectiveness of VEOs.

6. There was positive but non-significant relationship between total experience, experience as VEO, training, organisational climate, job involvement, work facility as well as self confidence and the dependent variable - job effectiveness of VEOs.

7. The achievement motivation was found to have the maximum direct effect, while the morale had the maximum indirect effect-which holds the least position in terms of direct effect. The variables achievement motivation, communication behaviour, communication skill , job satisfaction, dependence and sociability emerged as the dominant variables among the eleven significantly correlated variables, in contributing and explaining the job effectiveness of VEOs.

8. As regards the largest indirect effects, the dominant variables achievement motivation, job satisfaction, communication skill and dependence channeled through the variable guidance and supervision while communication behaviour variable channeled through dependence and sociability variable through the communication skill variable.

9. Principal component analysis revealed that, the communication behaviour and job effectiveness were having strong relationship among themselves and to some extent the job effectiveness was having relationship with the organisational commitment.

10. Lack of transport facilities, lack of residential facilities, lack of input supply at appropriate time, lack of plant protection equipment and lack of teaching aids for educational use were perceived by VEOs as the major problems in that order, in their effective functioning

Implications of the study :

In general, the level of job effectiveness majority of the VEOs was medium and a few of them low ; further the characteristics of the VEOs like achievement motivation, communication behaviour, organisational commitment, attitude towards T and V system, time utilisation , morale, job satisfaction, communication skill, dependence, sociability as well as guidance and supervision had a pronounced effect on VEOs job effectiveness. This implies the need for improving the job effectiveness of large majority of VEOs who are in medium to low level categories, by taking cognisance of the said characteristics.

As most of the VEOs had less training, the administrators may have to strengthen the system of in-service training to VEOs, in addition to weekly/fortnightly trainings already in vogue.

Communication behaviour and organisational commitment emerged as the crucial variables in predicting the variability in the job effectiveness of VEOs. Hence the supervisory and technical staff should give more attention to these two variables in increasing the effectiveness of VEOs. The VEOs should be provided with the latest techniques of crop production and helped in the effective dissemination of information to the farmers.

Since most of the VEOs expressed the problems of lack of transport facilities, lack of residential facilities, lack of input supply at appropriate time, lack of plant protection equipment and lack of teaching aids for educational use in enhancing their job effectiveness - the organisation may have to provide loans to VEOs for the purchase of bicycles where the villages are sparsely distributed and no other means of transport is available. The World Bank may have to provide some funds for construction of residential quarters for VEO's in a phased manner.

The cooperative agencies have to be instructed to provide the required quantities of inputs during sowing seasons. Since VEOs job is mostly educational, demonstration equipments, and teaching aids like charts, posters, black boards, models, samples and photographs have to be provided to make the VEOs more effective in their job.

Suggestions for Future Research

The present study was limited to canal areas of Andhra Pradesh and one category of extension personnel VEOs. It is opined that further investigations may have to be taken up in different canal (CADA) areas of the state having varying situational and economic conditions, involving VEOs as well as other categories of extension personnel. This will help to draw some general conclusions about the overall job effectiveness of extension personnel in T and V system. Farmers evaluation of the VEOs with regard to their job effectiveness was not included in this study due to lack of resources and time available at the disposal of the researcher. Hence some studies incorporating this aspect would certainly help in arriving at more valid findings.

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CHAPTER VII

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* Original not seen.

APPENDICES

CHAPTER VIII

A P P E N D I C E S

APPENDIX I

THE UNIVERSITY OF AGRICULTURAL SCIENCES

Dr. K.M. Jayaramaiah
MS(USA), Ph.D.(IAHI)
Professor and Editor
Communication Centre.

Dept. of Agril. Extension
College of Agriculture
Bangalore 560 024
September 1, 1986.

Dear Sir,

I am happy to inform you that one of my Ph.D. student Mr. M. Srinivasulu Reddy is conducting a research study entitled 'Time utilisation and communication behaviour and other selected factors as determinants of Job Effectiveness of Village Extension Officers in T and V system of Andhra Pradesh'. Now we are in the process of developing a rating scale to measure the Time utilisation, Organisational climate and Job effectiveness of Village Extension Officers.

You have been selected as one of the experts for judging the relevance and importance of each of the items/statements included in the above listed scales, because of your vast experience and expertise in the field of extension. In the enclosed three annexures a set of statements are delineated to cover various aspects of time utilisation, organisational climate and job effectiveness of Village Extension Officers. You are requested to rate as to the level of relevance of each one of the statements as well as their relative importance to the variable on a five point continuum viz., very much relevant (VMR), much relevant (MR), relevant (R), some what relevant (SWR), and least relevant (LR), in the first part, and very important (VI), important (I), some what important (SWI), less important (LI), and least important (LSI), in the second part of the schedule by putting a tick mark (✓) in the appropriate category. The items listed are only suggestive and we will be too glad if you can delete any of the items which does not fall under the realm of the variable under consideration or add some more items with appropriate rating.

Your judgement will be of much importance to us in finalising the statements ; We thank you in advance for your kind consideration and valuable rating.

Thanking you,

Yours sincerely,

sd/-
(K.M. JAYARAMAIAH)

APPENDIX II

THE UNIVERSITY OF AGRICULTURAL SCIENCES

Dr. K.M. Jayaramaiah
M.S.(USA), Ph.D.(IARI)
Professor of Agril. Extension
(Dev. Edn.),
Dept. of Agril. Extension.

College of Agriculture
GKVK Campus,
Bangalore
December 26, 1986.

Dear Sir,

I am happy to inform you that one of my Ph.D. student Mr. M. Srinivasulu Reddy is conducting a research study entitled 'A study on the time utilisation and communication behaviour and other selected factors as determinents of job effectiveness of Village Extension Officers in T and V system of Andhra Pradesh'. By virtue of your expertise and experience in T and V system, you have been selected as one of the respondents for this study. It is a lengthy questionnaire, but still I hope that you will squeeze some time to help us by providing your valuable response to the enclosed questionnaire items. I assure you that your response would be kept confidential and used only for research purposes. Even though you are supplied with the questionnaire Mr. M. Srinivasulu Reddy the research scholar would be available during the weekly/fortnightly meetings to clarify the doubts, if any in responding to the items included in the questionnaire.

I thank you in advice for your kind patience, cooperation and valuable response to all the items delineated inspite of your busy schedule of field work.

With kind regards,

Yours sincerely,

sd/-
(K.M. JAYARAMAIAH)

'A STUDY ON THE TIME UTILISATION, COMMUNICATION BEHAVIOUR AND OTHER SELECTED FACTORS AS DETERMINANTS OF JOB EFFECTIVENESS OF VILLAGE EXTENSION OFFICERS IN T AND V SYSTEM OF ANDHRA PRADESH'

Questionnaire

1. General :

1.1 Name of the V.E.O. :

1.2 Name of the Division :

1.3 Name of the Circle :

1.4 Number of Farm families,
in your jurisdiction.

2.1 Experience :

(a) Total experience _____ years.

(b) Experience as VEO _____ years.

2.2 Training received (other than regular fortnightly/
weekly trainings)

(a) Pre-service :	Name of the course	Duration in weeks
-------------------	-----------------------	----------------------

1.

2.

3.

(b) In-service :

1.

2.

3.

2.3 Achievement Motivation :

Please tick (✓) any one of the five alternatives provided against each statement to indicate your degree of agreement.

Sl. No.	Statement	Strongly agree	Ar-ree	Un-deci- ded	Dis-agree	Strongly Disagree
1	One should enjoy work as much as play.					
2	One should work like a slave at everything one undertakes until he is satisfied with the result.					
3	One should succeed in his occupation even if one has to neglect his family.					
4	One should have determination and driving ambition to achieve certain things in life, even if these qualities make one unpopular.					
5	Work should come first even if one can not get rest.					
6	Even when ones own interests are in danger, he should concentrate on his job and forget his obligation to others.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly Disagree
7	One should set different goals for one self and try to reach them.					

2.4 Communication Behaviour :

Please provide information about various activities undertaken by you in the previous year regarding information on input behaviour, information processing behaviour and information output behaviour.

2.4.1 Information input Behaviour :

1(a). Particulars of sources used to obtain information:

Sl. No.	Source	Frequency of use		
		Very frequently	Frequently	Less frequently
1	Assistant Director of Agril.			
2	Subject matter Specialist.			
3	Agril. Extn. Officer.			
4	Leaflets/Folders.			
5	News papers.			
6	Magazines/Journals.			
7	Any other (Specify):			
	(1) _____			
	(2) _____			

1(b). Extent and usefulness of information
obtained from each source.

Sl. No.	Source	Extent of information			Extent of usefulness		
		Full	Part	Little	Very useful	Useful	Little useful
1	Assistant Director of Agriculture.						
2	Subject Matter Specialist.						
3	Agricultural Extension Officer.						
4	Leaflet/Folder.						
5	Newspaper.						
6	Magazines/journals.						
7	Any other (Specify) :						
	(1) _____						
	(2) _____						
	(3) _____						

2(a). Indicate the Newspapers and Magazines you are reading and other particulars as detailed below :

Sl. No. Name of Magazine/ Newspaper	Subscriber		Read		
	Yes	No	Regu- larly	Occass- ionally	Rarly
1 Enadu					
2 Andhrapatrika					
3 Andhra Prabha					
4 Annadatha					
5 Padipantalu					
6 If any other (Specify)					
(1) _____					
(2) _____					
(3) _____					

2(b). Do you have some technical Publication with you ?

Yes _____ No _____

If yes give details :

So. No.	Name of the Publication	Read		
		Regularly	Occasionally	Rarely
1				
2				
3				
4				
5				
6				

2(c). Do you have Radio ? Yes _____ No _____

2(d). Do you see T.V. Programmes Yes _____ No _____

2(e). Do you listen farm radio Programmes ?

Yes _____ No _____

If yes, how frequently :

Sl. No.	Name of the Programme	Listen		
		Regularly	Occasionally	Rarely
1				
2				
3				
4				
5				
6				

2.4.2 Information Processing Behaviour :

1. Information evaluation :

When you receive research information/recommendations related to agriculture, How do you react to it ? Please tick mark (✓), the ones you consider as appropriate.

- (a) Accept it unreservedly ()
- (b) Weight it in the light of past experience ()
- (c) Consider its economic and local flexibilities. ()
- (d) Discuss it with colleagues ()
- (e) Discuss it with contact farmer. ()
- (f) Discuss it with Agril. Extension Officer. ()
- (g) Others, if any specify : ()
1. _____ ()
2. _____ ()
3. _____ ()

2. Information Storage :

How do you preserve or keep the information for future use in your job ?

- (a) By memorising ()
- (b) By making notes in a classified note book ()
- (c) By maintaining information received as it is in files. ()
- (d) Any other, specify : ()
1. _____ ()
2. _____ ()
3. _____ ()

3. Information Transformation :

For onward communication to farmers, the information you received might have been transformed in to a number of forms suitable to your audience, what types of transformation did you make ?

- (a) Prepare lecture in local language ()
- (b) Prepare charts, posters etc. ()
- (c) If any other, specify ()
1. _____ ()
2. _____ ()
3. _____ ()

Information Output behaviour :

Please indicate precisely all of the communication channels or methods you used to carry the information to the farmers :

Communication Channel/Method	No. of times used per month on an average
(a) Farm visits	_____
(b) Home visits	_____
(c) Office calls	_____
(d) Group discussions	_____
(e) Method demonstrations	_____
(f) Result demonstrations	_____
(g) Farmer's training programmes	_____
(h) Exhibitions	_____
(i) Conducted tours	_____
(j) Campaigns	_____
(k) Filmshows/Slide shows	_____
(l) Trial plots	_____
(m) Posters	_____
(n) Any other, Specify :	
(1) _____	_____
(2) _____	_____
(3) _____	_____

2.5 Organizational Commitment :

Listed below are a series of statements that represent possible feelings that individuals might have about the organization for which they work. Please indicate the degree of your agreement or disagreement with statements with regard to your Department by putting, tick (✓) mark, in the column against each of the statement.

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
1	I am willing to put a great deal of effort to help T and V system to be successful.					
2	I talk about the T and V system to my friends as a great organization to work for.					
3	I feel very little loyalty to the T and V system.					
4	I would accept almost any type of job assignment in order to keep working for the organization.					
5	I find that my values and organization values are very similar.					
6	I am proud to tell others that, I am part of the T and V system.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
7	I would just as well be work for a different organisation as the type of work was similar.					
8	The T and V system really inspires the very best of me in the way of job effectiveness.					
9	I would take a very little chance in my present circumstances to cause me to leave the organisation.					
10	I am extremely glad that, I choose the T and V system to work for over others.					
11	There is not too much to be gained by sticking with the organisation identified.					
12	Often, I find it difficult to agree with organisations policies on important matters relating to its employees.					
13	For me this is the best of all possible organisations for which to work.					
14	Deciding to work for the T and V system was a definite mistake on my part.					

2.6 Attitude of VEO's towards T and V system :

Written below are some statements that represent the attitude of an individual towards T and V system. Each statement has five responses i.e., Strongly agree (SA), Agree (A), Undecided (UD), Disagree (DA) and Strongly disagree (SDA). You are requested to go through and tick mark (✓) any one of these five responses against each statement indicating your own affect towards T and V system.

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
1	The T and V system is an step towards Agril. Development.					
2	The technological base of SMS's is weak in the new extension system and no adequate attention is being paid to this in the system.					
3	The new system provided sufficient incentives and facilities to its employees for promoting their professional competence.					
4	There is poor coordination between research and extension programmes in the T and V system.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
5	In this extension system the contact farmers have major contribution in persuading other farmers to adopt improved practices.					
6	Only these farmers who got benefits of community development programmes earlier are now getting the benefits of the T and V system.					
7	The T and V system has failed to serve the common farmers.					
8	I always get proper guidance in the T and V system.					
9	The T and V system looks for coordination with cooperative organisations.					
10	My knowledge about agricultural technology has much improved because of the training programmes being organised by T and V system.					
11	The prescribed work norms of functionaries are insufficient in the new extension system.					
12	The T and V system is quite effective because it maintaining regular contacts with farmers.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
13	There is a little work and more of propaganda about the T and V system.					
14	In the T and V system agricultures Scientists have come out with research findings suitable for this area which have helped in solving the problems of farmers.					
15	In the T and V system programme of circle visits of extension functionaries are never planned according to the needs and convenience of farmers.					
16	Because of T and V system farmers have developed faith and trust in the extension functionaries.					
17	I doubt the succes of the T and V system because its extension functionaries lack the sense of responsibilities.					

2.7 Time utilization :

Please indicate the appropriate time spent (utilised) for each of the items of work attended by you during the last KHARIF season.

Sl. No.	Item	Time spent in days
1	Preparation of plan of work.	_____
2	Planning the selection of contact farmers	_____
3	Planning of training programmes for farmers	_____
4	Planning of visits to farmers fields	_____
5	Planning for layout of demonstration plots, trial plots and minikit plots.	_____
6	Planning for method demonstrations.	_____
7	Visiting the farmers holdings and guiding them about agricultural aspects.	_____
8	Arranging field visits to the demonstration plots.	_____
9	Organising visits to farmers fields with officers.	_____
10	Arranging field visits for farmers.	_____
11	Training of contact farmers.	_____
12	Visiting demonstration plots by VEO only.	_____
13	Organising group meetings.	_____
14	Organising plant protection compaigns.	_____
15	Conducting result demonstrations, trials and minikit trials.	_____
16	Conducting method demonstrations.	_____

Sl. No.	Item	Time spent in days
17	Identification and selection of contact farmers.	_____
18	For taking soil samples from farmers fields.	_____
19	Distribution of technical literatures.	_____
20	Consulting specialists with regard to field problems.	_____
21	Participation in fortnightly training programmes.	_____
22	Participation in weekly training programmes.	_____
23	Maintaining demonstrations, trial and minikit plots records.	_____

2.8 Organisational climate :

The statements below are designed to get an insight into the organisational climate of VEO's in the Department of Agriculture. Against each statement there is a five point continuum i.e., Almost always (AA), Usually (U), Some times (ST), Rarely (R) and Almost Never (AN). You are requested to put tick mark (✓) in the appropriate column, which best characterise your department.

Sl. No.	Statement	Almost always	Usually	Some times	Rarely	Almost never
1	Atmosphere in the organisation is friendly.					
2	Superiors take quick decisions and communicate the same to the persons concerned.					

Sl. No.	Statement	Almost always	Us-ually	Some times	Ra-rely	Almost never
3	There is freedom to talk to superiors about the job.					
4	Efficiency in work is rewarded.					
5	The superiors and the SMS's take pains to help a VEO who wants to learn more about his job.					
6	Confidence and trust is prevalent in the personnel.					
7	There is sufficient work to do in the system to improve the lot of farmers.					
8	VEO's schedule of visits for the fortnight is decided in advance.					
9	The VEO's can approach the SMS at any time to get solutions to the problems faced in the field.					
10	Any special activity undertaken by the VEO for the benefit of the farmers is appreciated.					
11	As a VEO, one thinks his job is very important in the system.					
12	Extension workers in this organisation are helpful to each other.					
13	The VEO's abilities are fully utilized in this system.					

Sl. No.	Statement	Almost always	Usually	Some times	Ra- rely	Almost never
14	There is scope for informal discussion with superiors and subject matter specialists.					
15	Every individual in the organisation is accountable for the job done, even though there is freedom of operation.					
16	Group decision making process involved in fortnightly meeting enthuse the VEO to act.					
17	The priorities of work are identified in the system.					
18	Technical knowledge and guidance is given sufficiently to the VEO's through fortnightly training programmes.					
19	The line of command is well defined in this system.					
20	Job security is there in this organisation as it is a Government organisation .					
21	The subject matter information given in the training programmes precise and problem oriented.					
22	In T and V system the field problems of the VEO's are given due consideration in training programmes.					
23	Constant supervision by the superiors in this system facilities taking corrective measures at the appropriate time.					

Sl. No.	Statement	Almost always	Usually	Some times	Rarely	Almost never
24	Communication is both vertical and horizontal in T and V system.					
25	The contact farmers are identified as per the guidelines given by the organisation.					
26	The contact farmers are being trained and utilised for influencing other fellow farmers about agricultural technology.					
27	Impact points on various aspects of Agril. are well developed and used by the VEO's in their educational activities.					

2.9 Morale :

Below given are some statements. Each statement is followed by scale ranging from strongly agree (SA), Agree (A), Undecided (UD), Disagree (DA), Strongly Disagree (SDA). Kindly tick mark (✓) the column against each statement which best expresses the situation.

Sl. No.	Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	The VEO's enjoy working with farmers for their betterment.					
2	The superiors here consider the welfare of the VEO's as their own.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Disagree	Strongly disagree
3	The superiors feel VEO's as inseperable part of department.					
4	For the VEO's the future of the Dept. is their future.					
5	The VEO's enjoy being the part of the farming communities.					
6	If some farmers come after working hours with some problems with VEO's do no mind attending to their needs.					
7	Superiors always keep the interest of VEO's in view.					
8	It is felt that the development of the farmers is a joint venture.					
9	Most of the VEO's have no emotional attachment with Dept.					
10	The VEO's are willing to do everything for the good name of the Dept.					
11	The VEO's do not mind to spend extra time and effort for the farmers.					
12	There is strong 'we' feeling among the VEO's.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
13	The VEO's should not bother about the image of the Dept. it was given nothing to them.					
14	The VEO's inspite of want of recognition do not mind working for extension.					

2.10 Job satisfaction :

Please indicate with tick mark (/) any one of the five alternatives, Very much satisfied (VMS), Satisfied (S), Partly satisfied (PS), Dis Satisfied (DS), Very much dissatisfied (VMDS) reflect the extent of your satisfaction with regard to your job.

Sl. No.	Statement	Very much satisfied	Satisfied	Partly satisfied	Dis satisfied	Very much dis-satisfied.
1	Present salary					
2	Job security					
3	Praise and recognition for good work.					
4	Residential facilities.					
5	Help, guidance and encouragement from superiors.					

Sl. No.	Statement	Very much satisfied	Satisfied	Partly satisfied	Dis satisfied	Very much dis satisfied
6	Opportunity for self development					
7	Promotion policy of the department.					
8	Freedom to pursue original ideas.					
9	Freedom of flexibility in work.					
10	Status and prestige as a person in Department.					
11	Type of work done.					
12	Scope to prove your merit and excellence.					

2.11 Job involvement :

Below given are some statements relating to your job involvement. You are requested to go through each statement and indicate the degree of your involvement in your job by putting a tick mark (✓) against the appropriate

response category i.e., Strong agree (SA), Agree (A), Undecided (UD), Disagree (DA), Strongly disagree (SDA).

Sl. No.	Statement	Stron- gly agree	Ag- ree	Un- de- cided	Dis- agree	Strongly disagree
1	The major satisfaction in my life comes from job.					
2	For me, morning in work ready go off quickly.					
3	Quite often, I feel like staying at home instead of going for work.					
4	The most important things that happen to me involve my work.					
5	Some times, I keep my self awake at night, thinking a head the next days work.					
6	I feel depressed then I fail at something connected with my work.					
7	I avoid extra duties and responsibilities in my work.					
8	I would keep working even if I do not get the salary.					
9	I am very much involved personally in my work.					
10	I live, eat and breath my job.					

Sl. No.	Statement	Strongly agree	Agree	Un-decided	Dis-agree	Strongly disagree
11	Many things in life are more important than work.					
12	I usually go for work a little early to get the things ready.					

2.12 Work facility :

Indicate your degree of satisfaction against the following items with respect to the facilities available at your work point.

Sl. No.	Items	Satis-fied	Some what satisfied	Not satis-fied
1	Supply of inputs at local level (a) Seeds (b) Fertilizers (c) Pesticides			
2	Supply of plant protection equipment			
3	Repairs and mintenance of PP equipment.			
4	Timely information.			
5	Proper supervision and guidance.			
6	In respect of transportation			
7	In respect of providing demonstration equipment and aids.			

2.13 Communication skill :

Indicate your degree of communication skill by responding to items listed below on a three point continuum i.e., Always, Some items, Never.

Sl. No.	Item	Always	Some times	Never
1	Listen patiently to what farmers say			
2	Encourage others to raise questions.			
3	Initiating discussion with farmers.			
4	Illustrating a point with example.			
5	Summarise points at the end.			
6	Evaluating the problem and giving solutions.			

2.14 Dependence :

Indicate your degree of dependence on a two point continuum with respect to the items listed below :

Sl. No.	Item	Yes	No
1	I blindly follow everything, the Agril. Officer tells me.		
2	I cannot do anything without the permission of my superiors.		
3	My superiors take care of things for me.		
4	I do everything after consulting superiors.		
5	I need more help from my superior.		

Sl. No.	Item	Yes	No
6	I never disobey my superior.		
7	I will do things to please my superiors.		
8	I want to behave according to the wishes of the superiors.		
9	In the Dept. it is better to go with majority than to have ones own way.		

2.15 Sociability :

How do you rate yourself against the following statements? Please tick mark (✓) the appropriate response against each statement.

	Often	Sometimes	Never
(a) Do the farmers come to you for advise.			
(b) Do you visit other farmers.			
(c) Do you take part in the village social functions.			
(d) Do you mingle freely with farmers.			
(e) Do you eat with farmers during your visits.			
(f) Do you discuss freely with other farmers.			

2.16 Guidance and supervision :

How much satisfied are you with respect to the administration of the Department of Agriculture in your jurisdiction. Please indicate by scoring the appropriate level of satisfaction against each statement.

Sl. No.	Statement	Satis- fied	Some what satisfied	Not satis- fied
1	In technical subject matter.			
2	In your professional growth.			
3	In your job responsibility.			
4	In your field extension work.			
5	In setting ideal examples.			
6	In regular and timely advice.			
7	In your office work.			
8	In communicating with contact farmers.			
9	In rectifying the mistakes.			
10	In identifying the local problems.			
11	In taking corrective measure.			
12	In promoting better programme implementation.			
13	In improving the maintenance of records			

2.17 Self confidence :

Please check whether the following statements are appropriate to you or not, by responding to as Yes or No

Sl. No.	Statement	Yes	No
1	I have a horrar of failing in anything I want to accomplish.		
2	I am hesitant about taking decisions.		
3	I can face a difficult situation without worry.		
4	I feel secure within myself.		
5	I frequently feel unworthy.		
6	I can adjust readily to new situations.		
7	I am usually discouraged, when the opinions of others differ from my own.		
8	I have enough faith in myself.		
9	I have several times given up doing a thing, because I though too little of my ability.		
10	I find it easy to keep my mind on a task or job.		

3.1 Job effectiveness :

Below are some statements reflecting the job effectiveness of VEO's. You are requested to specify with regard to your performance in the previous year 1985-86. (June 1985 to May 1986).

Sl. No.	Statement	Number
1	Number of farm visits made.	_____
2	Number of field visits made with farmers.	_____
3	Number of group meetings held.	_____

Sl. No.	Statement	Number
4	Number of fortnightly training programmes.	_____
5	Number of weekly trainings programme participated.	_____
6	Number of results demonstrations conducted.	_____
7	Number of method demonstrations conducted.	_____
8	Number of plant protection campaigns organised.	_____
9	Number of trials conducted.	_____
10	Number of problems of farmers solved.	_____
11	Number of farm families covered.	_____
12	Number of plan of works prepared.	_____
13	Number of contact farmers selected.	_____
14	Number of training programme organised, for contact farmers.	_____
15	Number of problems passed on to the SMS's seeking solutions.	_____
16	Number of farmers motivated to adopt new ideas.	_____
17	Number of teaching aids used for educating farmers :	
	(a) Charts	_____
	(b) Posters	_____
	(c) Specimens	_____
18	Average number of farmers participated in group meetings.	_____
19	Average number of contact farmers participated in training programmes, organised by VEO.	_____
20	Average number of farmers visited to result demonstration plots.	_____

Sl. No.	Statement	Number																						
21	Average number of farmers participated in field visits.	_____																						
22	Average number of visits made by VEO's to the demonstration plots in a month.	_____																						
23	Average number of farmers participated in method demonstrations.	_____																						
24	Average number of farmers visited the trial and minikit plots.	_____																						
25	Area covered under high yielding varieties of major crops in the jurisdiction.																							
		<table border="1"> <thead> <tr> <th colspan="3" data-bbox="1058 797 1230 828">In acres</th> </tr> <tr> <th data-bbox="964 828 1089 859">Kharif</th> <th data-bbox="1121 828 1199 859">Rabi</th> <th data-bbox="1230 828 1356 859">Summer</th> </tr> </thead> <tbody> <tr> <td data-bbox="290 890 454 922">1. Paddy</td> <td data-bbox="964 911 1089 922">_____</td> <td data-bbox="1121 911 1199 922">_____</td> <td data-bbox="1230 911 1324 922">_____</td> </tr> <tr> <td data-bbox="290 953 533 984">2. _____</td> <td data-bbox="964 973 1089 984">_____</td> <td data-bbox="1121 973 1199 984">_____</td> <td data-bbox="1230 973 1324 984">_____</td> </tr> <tr> <td data-bbox="290 1015 533 1046">3. _____</td> <td data-bbox="964 1036 1089 1046">_____</td> <td data-bbox="1121 1036 1199 1046">_____</td> <td></td> </tr> <tr> <td data-bbox="290 1077 533 1108">4. _____</td> <td data-bbox="964 1098 1089 1108">_____</td> <td></td> <td></td> </tr> </tbody> </table>	In acres			Kharif	Rabi	Summer	1. Paddy	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____		4. _____	_____		
In acres																								
Kharif	Rabi	Summer																						
1. Paddy	_____	_____	_____																					
2. _____	_____	_____	_____																					
3. _____	_____	_____																						
4. _____	_____																							
26	Total fertilizer consumption in the jurisdiction (in quintals)																							
		<table border="1"> <tbody> <tr> <td data-bbox="964 1274 995 1305">N</td> <td data-bbox="1019 1284 1246 1305">_____</td> </tr> <tr> <td data-bbox="964 1336 995 1367">P</td> <td data-bbox="1019 1346 1246 1367">_____</td> </tr> <tr> <td data-bbox="964 1398 995 1429">K</td> <td data-bbox="1019 1408 1246 1429">_____</td> </tr> </tbody> </table>	N	_____	P	_____	K	_____																
N	_____																							
P	_____																							
K	_____																							
27	Total quantity of inputs distributed in the Jurisdiction.																							
	(a) HYV seeds (in qtls.)	_____																						
	(b) fertilizer (in tons)	_____																						

Sl. No.	Statement	Number
	Average yield (per acre) of major crops during the previous year in the jurisdiction.	
(a)	Paddy	_____
(b)	_____	_____
(c)	_____	_____
(d)	_____	_____

3.0 Working problems :

What are the major problems you are facing increase in your job effectiveness. Suggest probable solutions to overcome these problems.

<u>Sl.No.</u>	<u>Problems</u>	<u>Solutions</u>
1.		
2.		
3.		
4.		
5.		
6.		

4.0 Remarks if any :

A P P E N D I X I I I

DIRECT AND INDIRECT EFFECTS OF SIGNIFICANTLY CORRELATED INDEPENDENT VARIABLES

	X ₄	X ₅	X ₆	X ₇	X ₈	X ₁₀	X ₁₁	X ₁₄	X ₁₅	X ₁₆	X ₁₇
X ₄	0.182	-0.000	-0.002	0.004	0.001	-0.001	0.002	-0.001	-0.010	0.010	0.011
X ₅	-0.000	0.181	0.002	0.002	0.002	-0.000	-0.001	-0.008	0.008	0.005	0.003
X ₆	-0.005	0.006	0.056	0.010	0.020	-0.003	0.028	0.002	0.008	0.013	0.010
X ₇	0.025	0.014	0.019	0.029	0.015	-0.002	0.039	0.003	0.003	0.022	0.015
X ₈	0.003	0.004	0.016	0.006	0.073	-0.002	0.008	0.025	0.017	0.016	0.011
X ₁₀	0.029	-0.003	0.019	0.007	0.015	-0.009	0.027	0.015	0.013	0.022	0.024
X ₁₁	0.022	-0.002	0.014	0.010	0.005	-0.002	0.110	0.002	0.015	0.010	0.023
X ₁₄	-0.002	-0.013	0.011	0.001	0.016	-0.001	0.002	0.113	0.004	0.016	0.017
X ₁₅	-0.017	0.013	0.004	0.001	0.012	-0.001	0.016	0.004	0.105	0.001	0.011
X ₁₆	0.018	0.008	0.007	0.006	0.011	-0.002	0.011	0.019	0.001	0.101	0.009
X ₁₇	0.020	0.005	0.006	0.005	0.009	-0.002	0.027	0.021	0.013	0.009	0.093

APPENDIX IV

CORRELATION MATRIX SHOWING THE INTERRELATIONSHIPS AMONG THE DIFFERENT INDEPENDENT VARIABLES

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄	X ₁₅	X ₁₆	X ₁₇	X ₁₈
X ₁	-																	
X ₂	0.0449	-																
X ₃	0.3333**	0.1904**	-															
X ₄	0.0384	0.1523*	0.0074	-														
X ₅	0.0051	0.0848	-0.0020	-0.0016	-													
X ₆	-0.1948*	-0.1226	-0.1750*	-0.0274	0.0338	-												
X ₇	-0.0393	-0.0069	-0.0011	0.1377	0.0745	0.3410**	-											
X ₈	-0.0537	-0.1057	-0.1179	0.0173	0.0206	0.2801**	0.2011**	-										
X ₉	-0.0830	0.0206	-0.1798*	0.0432	-0.0561	0.3400**	0.2770**	0.2502**	-									
X ₁₀	-0.0704	-0.0005	-0.0498	0.1601*	-0.0191	0.3301**	0.2513**	0.2098**	0.5149**	-								
X ₁₁	0.0795	-0.1417*	-0.0978	0.0149	-0.0063	0.2581**	0.3597**	0.0749	0.3841**	0.2480**	-							
X ₁₂	0.0133	0.1254	0.0566	0.2743**	0.0463	0.2695**	0.2194**	0.1682*	0.1276	0.2804**	0.2443**	-						
X ₁₃	0.0992	0.0738	0.0044	0.0625	0.0914	0.0991	0.1616*	0.1645*	0.3294**	0.2403**	0.3178**	0.1848**	-					
X ₁₄	0.0330	0.0699	0.0690	-0.0081	-0.0708	0.1970**	0.0273	0.2228**	0.1633*	0.1343	0.0134	0.2608**	0.1073	-				
X ₁₅	-0.0766	-0.0973	-0.0049	-0.0955	0.0742	0.0718	-0.0266	0.1656*	0.1812**	0.1239	0.1414*	0.2673**	0.1111	0.0382	-			
X ₁₆	0.1601*	0.1339	0.0856	0.0961	0.0454	0.1257	0.2163**	0.1556*	0.2167**	0.2130**	0.0970	0.2259**	0.2721**	0.1713*	-0.0108	-		
X ₁₇	0.0881	0.0680	0.0596	0.1133	-0.0301	0.1063	0.1580*	0.1166	0.2507**	0.2639**	0.2445**	0.2174**	0.3220**	0.1845**	0.1222	0.0928	-	
X ₁₈	0.0638	-0.0977	-0.1139	0.0228	0.1297	0.0027	0.1298	0.1483*	0.1298	0.0716	0.1200	0.0899	0.1024	-0.0519	0.0311	0.0664	0.0168	-

** Significant at 1 per cent level

* Significant at 5 per cent level.

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