DEVELOPMENT AND APPLICATION OF A SCALE TO MEASURE THE EFFICIENCY OF ADULT EDUCATION CENTRES

BY

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THESIS

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DECLARATION

I hereby declare that this thesis entitled "DEVELOPMENT AND APPLICATION OF A SCALE TO MEASURE THE EFFICIENCY OF ADULT EDUCATION CENTRES" is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship, or other similar title, of any other University or Society.

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CERTIFICATE

Certified that this thesis entitled "DEVELOPMENT AND APPLICATION OF A SCALE TO MEASURE THE EFFICIENCY OF ADULT EDUCATION CENTRES" is a record of research work done independently by Sri. Padmanabhan, V.B. under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship, or associateship to him.

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GLOSSARY OF ABBREVIATIONS

ALC	Adult Education Centre
AECs	Adult Education Centres
ASPBAE	Asia South Pacific Bureau of Adult Education
FFLP	Farmer's Functional Literacy Programme
IAEA	Indian Adult Education Association
JSN	Jana Shikshan Nilayam
KANFED	Kerala Association for Non-formal Education and Development
MPFL	Mass Programme for Functional Literacy
NAEP	National Adult Education Programme
NIACE	National Institute of Adult and Continuing Education
NLM	National Literacy Mission
NSS	National Service Scheme
PCO	Programme for Community Organization
QSS	Quilon Social Service Society
RFLP	Rural Functional Literacy Programme
SRC	State Resource Centre
SRCs	State Resource Centres
T & V	Training and Visit
UNESCO	United Nations Educational, Scientific and Cultural Organization
VLW	Village Level Worker

INTRODUCTION

CHAPTER I

INTRODUCTION

Adult education, though of universal concern, has acquired an urgency in developing countries like India because of their attempts to step up their developmental efforts to match the aspirations of their people. Adult education is not mere adult literacy, but it is mistaken or deliberately made so in India even in the current decade. The 1981 census indicates only 36.17 per cent literacy in India as shown in the following table.

Table 1.1 Literacy in India after independence*
(in percentage)

	Year			
	1951	1961	1971	1981
Male	29.90	34.40	39.51	46.74
Female	7.90	12.90	18.44	24.88
Total population	16.60	24.00	29.45	36.17

* Source. Aggarwal, J.C. (1982). Development and Planning of Modern Education, Vikas Publishing House Pvt.Ltd., New Delhi, pp 300

Table 1.1 reveals that the increase in literacy percentage over the period from 1951 to 1981 was 19.57 with an average annual increase of only 0.65 per cent. It has been estimated that if in India, attempts at eradicating illiteracy continue at the same pace, there will be more illiterates (about 500 million against the present 445 million) and India will have 54.5 per cent of the global illiterates in the age group of 15-19 by the dawn of the twenty first century (Jhingan, 1985 and Narain, 1986)

In India, states like Andhra Pradesh, Bihar, Rajasthan, Orissa, Uttar Pradesh and Madhya Pradesh lag far behind with regard to percentage of literacy. This is evident from the literacy rate of the different states in India furnished in Appendix I. Among Indian women, only one in every four is literate. Even in the most literate state in India, namely Kerala, having 70.42 per cent literacy, there exists 12 per cent difference in the literacy percentage of men and women, they being 76 and 64 respectively. This can be seen from the district-wise and sex-wise literacy percentage of Kerala given in Appendix II. In these circumstances, in Indian states, adult education is conceived of as adult literacy or at the most adding post-literacy to it

literate and hence this movement could help only to increase the percentage of literacy from 6.7 in 1901 to 16.6 in 1951

After obtaining independence, the Indians had to rule themselves. Hence attempts were made to spread literacy along with civic education. A new concept of Social Education was formulated and implemented through Community Development Blocks as part of the Five Year Plans. The rights and duties of the citizens were told and the need for co-operative work in nation-building activities was stressed. Gradually the emphasis declined and new concepts emerged.

The Sixties witnessed rapid changes in the field of adult education. The Tehran Conference of the UNESCO held in 1965 adopted the concept of Functional Literacy to overcome the defects of adult education programmes Life-oriented and job-oriented education leading to literacy was the aim. While helping one to do his job better and earn more he was indirectly motivated to become literate. The emphasis on functionality gave this programme a face lift.

intensive scheme to wipe out illiteracy from such pockets. In Kerala the major chunk of the Adult Education Centres (AECs) were organized and conducted by the Development Department as RFLP centres.

The Government of India accepted the Minimum Needs Policy and included education as one of its constituents and the 20 Point Programme was evolved in 1982 under which item 16 referred to education Accordingly, cent per cent enrolment of children of the educable age, prevention of dropping out from schools and provision for non-formal education for adults were putforth as its major aspects. Here started the actual expansion of the programme in all states through the involvement of institutions of higher learning, namely, the Universities during 1983-84 period.

In 1986 a new programme of Mass Literacy, namely, the Mass Programme for Functional Literacy (MPFL) was introduced adding a new dimension to adult literacy work. The mass programme harnessed services of various sections of the community - senior citizens, retired personnel, house-wives, ex-servicemen and students in secondary schools and higher educational institutions

a war against mass illiteracy. NLM is a Social Mission with a political will at all levels for the achievement of the Mission goals for substantial improvement in the working and living conditions of the people. According to Government of India (1989) NLM is aimed at imparting functional literacy to 80 million illiterates of age group 15-35, 30 million by 1990 and an additional 50 million by 1995.

1 2 Major agencies of adult education in India

Joshi (1987) reported that the major agencies functioning in adult education programmes in India can be broadly divided into three as shown below.

A. Government agencies

1. National level - Directorate of Adult Education

2. State level - State Adult Education Directorate (In Kerala, Development Department is also actively engaged in this task)

B. Voluntary agencies

1. National level - Indian Adult Education Association (IAEA)

2. State level

i) Tamil Nadu Board of Continuing Education
ii) Karnataka State Adult Education Council
iii) Bengal Social Service League
iv) Bombay City Social Education Committee
v) Andhra Mahila Sabha
vi) Utkal Nav Jeevan Mandal
vii) Lucknow Literacy House
viii) Kerala Association for Non-formal Education and Development (KANFED)

C. Universities

In India among the 150 Universities, 92 have programmes of adult education. Some of the Universities have Departments/Centres of Adult Education, and in some Universities the programme is under the control of Adult Education Cells. Nearly 5000 colleges are currently involved in this programme.

1.2.1 Agencies in Kerala

In Kerala the various agencies have their own operational strategies

A Government agencies

1. Education Department

Functionaries — State Adult Education Officer and District Adult Education Officers

2. Development Department

Functionaries — Development Commissioner and Assistant Development Commissioners for Functional Literacy Programme

B. Voluntary agencies

In Kerala, KANFED has its operational jurisdiction over the entire State This agency mainly aims at conscientization of people. The SRC in Kerala is attached to KANFED

Other agencies like Quilon Social Service Society (QSS), Mithranikethan at Vellanad, Dale View at Aryanad, Laubach Literacy Centre at Karthikapally, Programme for Community Organization (PCO) at Thiruvananthapuram also have their own programmes in adult education.

c. Universities

University of Kerala and University of Calicut have AECs organised and conducted through their affiliated

colleges. Kerala Agricultural University is also participating in this field of activity.

1.3 Need for the study

The AECs which are the nuclei of the adult education programmes have to function efficiently if they are to achieve their avowed objectives. Most of the earlier studies on efficient functioning of AECs were evaluation studies of the adult education programmes/projects/ centres.

A centre-based comprehensive study to identify the factors contributing to the efficiency of functioning of AECs has not been done so far. For conducting such a study, the efficiency of AECs has to be measured for which a composite scale has to be developed and standardised. Hence the present study was taken up with this objective in mind.

1.4 Objectives

The following were the specific objectives of the study.

1. To develop and standardise a scale to measure the efficiency of adult education centres.

2. To evaluate the selected adult education centres by using the scale developed.

3. To suggest a model for the efficient functioning of adult education centres.

1.5 Scope and limitations

A study of this type will result in the development of an objective scale to measure the efficiency of AECs, standardisation of the scale and application of the scale. A scale using the standard procedure of measurement will definitely be a contribution to the body of research in the discipline of extension education. In view of the major thrust given to the adult education programmes in the successive Five Year Plans of the country it becomes inevitable that a comprehensive measurement device is developed and standardised to evaluate the efficiency of AECs.

The scale developed can be used at the Block level, District level, State level and even at the National level to measure the efficiency of AECs. The study will identify the factors contributing to the efficiency of functioning of AECs and their relative importance. Based on the results of the study, a

suitable model could be suggested for the efficient functioning of AECs.

A study of this nature in detail would require considerable amount of time, personnel and other resources. For a study by one researcher to explore this area in a greater depth and in a comprehensive manner will be far from easy accomplishment. These limitations have been taken into consideration in deciding the area coverage and sample size. However, all efforts have been taken to make the study as objective as possible.

It is visualised that the findings of this study like other scientific and systematic studies, would provide an insight into the subject. There is ample scope for continuing the study in other related aspects and angles in future.

1.6 Organisation of the thesis

The report of the study has been spread under six chapters as given below.

THEORETICAL ORIENTATION

CHAPTER II

THEORETICAL ORIENTATION

The objective of this chapter is to link whatever research findings and other observations exist in the area of study with the research problem. For this a review of literature has been made to integrate important findings which give proper orientation for the proposed research. These findings have been used to locate the problem on a theoretical perspective. The results of the review are presented under the following main heads.

1. Adult education
2. Adult Education Centre
3. Efficiency of Adult Education Centre and its components
4. Factors contributing to the efficiency of Adult Education Centre.
5. Review of the selected specific factors contributing to the efficiency of Adult Education Centre
6. Conceptual frame work of the study
7 Hypotheses framed for the study

Liveright and Haygood (1969) proposed that adult education is the process whereby persons who no longer (or did not) attend school on a regular and full-time basis undertake sequential and organized activities within a conscious intention of bringing about changes in information, knowledge, understanding or skills, appreciation and attitudes, or for the purpose of identifying and solving personal or community problems.

According to UNESCO (1976) 'adult education' include the

> entire body of educational processes, whatever the content, level or method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as apprenticeship, whereby persons regarded as adult by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications, or turn them in a new direction and bring about changes in their attitudes or behaviour in the two-fold perspective of full personal development and participation in balanced and independent social, economic and cultural development. Adult education embraces all forms of educative experiences needed by men and women according to their varying interests and requirements, at their differing levels of comprehension and ability, and in their changing roles and responsibilities throughout life

According to Rogers (1986) the broadest definition of adult education is that of the (then) National Institute of Adult Education (now NIACE), England and Wales

> any kind of education for people who are old enough to work, vote, fight and marry and who have completed the cycle of continuous education commenced in childhood. They may want to make up for limited schooling, to pass examinations, to learn basic skills of trade and profession or to master new working processes. They may turn to it because they want to understand themselves and their world better and to act in the light of their understanding, or they may go to classes for the pleasure they can get from developing talents and skills - intellectual, aesthetic, physical or practical. They may not even 'go to classes'; they may find what they want from books or broadcasts or take guidance by post from a tutor they never meet. They may find education without a label by sharing in common pursuits with like-minded people

Mehta (1987) reported a broader definition of adult education provided in a seminar organised by ASPBAE held in Colombo in 1983 as under

> Adult education is conceived here in terms of literacy for the illiterate, post-literacy for the neo-literate, skill development for the unskilled, remedial education for the drop-outs and push-outs and further and continuing education for the literate. In all its manifestations adult education should aim at consciousness-raising and in the inculcation of self-reliance

According to Mohanty (1988) adult education broadly means education of adults. It is basically an education for the improvement of the adult and conducted only with his initiative.

Adult education has been defined for the purpose of the present study as 'the education given through Adult Education Centres to the enrolled learners'.

2.2 Adult Education Centre

According to Nair (1987) the main purpose of starting AEC is for providing literacy to the illiterate masses. In due course the centre should become a full-fledged centre of learning for all categories of people and from all walks of life. It should be a common place for all, having something to give and take through learning, interaction, decision-making and implementing programmes.

Adult Education Centre has been defined for the purpose of this study as 'an approved common place with physical facilities for the instructor and the enrolled learners to assemble and engage in teaching - learning activities following the guidelines of the agency implementing the adult education programme'

2.3 Efficiency of Adult Education Centre and its components

Chambers' Dictionary defines efficiency as 'the power to produce the result intended'.

According to Directorate of Adult Education (1984), the adult education programme in India has three major elements literacy, awareness and functionality. These tripple components of adult education in India have been emphasised by Mohankumar (1985), Pathak (1985), Prasad (1985), Rengaswamy (1985), Sood (1988), Kabthiyal and Misra (1989) and Singh (1989).

The intended results of adult education in India, thus, are the achievements of adult learners in literacy, awareness and functionality. Efficiency of AEC hence, is the power of the centre to produce achievements of adult learners in literacy, awareness and functionality.

A detailed review of the components of efficiency of AEC is furnished below.

2.3.1 Literacy

Bhatia and Srivatsava (1978) stated that literacy is attained by an individual when he begins to use written language in two ways reading and writing

According to Bhola (1979) literacy is the quality or state of being able to read and write day-to-day messages in the mother tongue.

Jayagopal (1985) reported another definition which denotes literacy as "the degree to which an individual possesses mastery over symbols to their written message to write and to read".

Lind and Johnson (1986) reported that according to UNESCO, 'literate' is a person"who can with understanding both read and write a short simple statement on his every-day life".

According to Reghu (1987 a) a person who is able to read and write with the comprehension is called as a "literate person". The author further stated that according to UNESCO, in a developing country like India the knowledge, attitudes and skills one may achieve by attending the first four years of schooling (standard IV) or equivalent standard is considered as the minimum standard of a literate person.

In India, according to the Census Bureau, " a person is literate if he has attended five years of primary school or if he can read with comprehension, the printed short sentences on a card which the enumerator gives him".

2 3.1.1 Components of literacy

Bhola (1977) suggested the components of literacy skills as oracy, reading, writing, computing and picture literacy.

According to Shah (1981), Directorate of Adult Education (1984), Jayagopal (1985) and Panda and Sarangi (1988) literacy comprises of the skills of reading, writing and arithmetic

Pillai (1988) stated that the components of literacy are oracy, reading and writing abilities, numeracy and technıracy.

The components of literacy identified for the present study were oracy, reading ability, writing ability, numeracy and technıracy.

2.3.1.1.1 Oracy

Reghu (1987 a) stated that oracy is the ability to express one's ideas

2.3.1 1.2 Reading ability

It is considered as the ability to read and comprehend. According to Rajyalakshmi (1989) reading

comprehension is the power to understand and remember what is read.

2.3.1.1.3 Writing ability

It refer to the ability to write alphabets, words and sentences.

2.3.1.1.4 Numeracy

Numbers are ideas. They are represented by symbols called numerals. Reghu (1987a) defines numeracy as the ability to calculate.

2.3.1.1.5 Techniracy

According to Swaminathan (1986) the term 'techniracy' denotes the mastery over technical skills relevant to the individuals' need. He further added

> .. The demand for techniracy is likely to be much stronger and deeper and also more wide spread than that of formal literacy, or even for functional literacy. New approaches to adult education must capitalise on this new demand and need for techniracy.

According to Reghu (1987a) techniracy denotes the minimum technical know-how.

2.3.2 Awareness

According to the Directorate of Adult Education (1984) the component of awareness is to create consciousness among adults about their socio-economic status, policies and programmes of the government, so that they can derive optimum benefit from these programmes.

Sood (1988) stated that the illiterate adult has to be made conscious of the causes and effects of his present situation and he must be made aware of the various programmes and schemes initiated by the government for his benefit.

2.3.3 Functionality

Rao (1984) defined functionality as that aspect which helps in improving the occupational understanding and economic status of the learners.

According to Reghu (1987 a) functionality denotes programmes relating to some income-generating functions of life.

2.3.4 Relative importance of literacy, awareness and functionality

The literature reviewed revealed the difference in

the relative importance of the components of adult education programmes, namely, literacy, awareness and functionality.

Over emphasis of literacy component of adult education programme was reported by Dighe et al (1981), Shah (1983), Mohankumar (1985), Ramabrahmam (1988) and Singh (1989).

According to Mohsini (1983) awareness at the implementation stage is the weakest link among the three components of adult education programme. Seth et al (1983 a) and Mohankumar (1985) reported that social awareness is a neglected aspect of the programme.

Gomathimani (1982) felt that much still remains to be done in the field of awareness which should occupy the foremost position in adult education programme. Singh (1989) opined that though all the three components of adult education are relevant to the life of adult, awareness can play an effective role in creating a supportive atmosphere for promoting and boosting the literacy and functionality components by sustaining the interests of adults in AECs.

Mohankumar (1985) and Pillai (1987a) reported the under emphasis given to functionality component in adult education programme. Pillai (1984) suggested that the relative weightage to be given to functionality in literacy training is one of the important areas for research.

Pillai (1987a) reported that the achievement test administered among the learners of the AECs organised by the University of Kerala had a loading of literacy with 55 per cent marks followed by 20 per cent for numeracy and 25 per cent for awareness and comprehension put together. Ramabrahmam (1988) in his study found that seven out of ten instructors under Andhra Mahila Sabha told that more weightage was given to literacy component while three reported that along with literacy, functional education was also given coverage.

2 4 Factors contributing to the efficiency of Adult Education Centre

A good number of evaluation studies were undertaken during the past decade to estimate the progress of adult education in various parts of India (Mathur and Premchand, 1981, Pestonjee et al , 1981, Harihar and Rao, 1982,

Lal and Mishra 1982, Ganguli, 1983, Madras Institute of Developmental Studies, 1983, Shah, 1983 and Ganguli, 1984). All the evaluation studies by and large were primarily aimed to understand the way of functioning of AECs under adult education programme.

Panicker and Beevi (1985) while evaluating four non-formal education centres of the KANFED included aspects such as oracy and awareness of felt problems, reading ability, writing ability, numeracy and letter writing ability of learners, characteristics of instructor, teaching materials and methods, content of teaching, organisational aspects, facilities available at the centre and such other aspects for evaluation.

According to Reddy (1985a) the indicators of evaluation of adult education can be categorised into two groups, namely organisational and educational aspects of the programme. Organisational aspects of the programme may include establishment of centres, physical facilities at the centres, recruitment of workers, procurement and distribution of materials, co-ordination with development departments, utilisation of money, supervision, community support and such other matters. Academic indicators of

evaluation include enrolment of learners, learners' attendance, drop-outs, achievements in literacy, awareness and functionality, suitability of learning materials, teaching strategies, relevance of curriculum and related matters.

According to Reddy (1985b) the main clients for evaluation can be divided into the following four groups.

1. Trainers,
2. Training organisation, including curriculum planners, programme designers, programme managers,
3. Trainees and
4. Client organisation, the ultimate user and financier of training.

Panicker (1986) while evaluating 15 women's literacy centres of the KANFED included aspects such as location of the centres,teaching materials, attendance, level of interest and understanding of the learners, numeracy, reading habit, changes in the habit of learners, conduct of guest lectures, teaching content (subject) and such other aspects for evaluation.

Mohanty (1986) identified the following functionaries and aspects for evaluation.

1. Trainers (who are the organisers of training including the resource persons)
2. Trainees (participants of a training programme)
3. Instructional processes
4. Material inputs (that is, physical facilities, audio-visual aids and teaching-learning materials)
5. Organisational aspects (such as preparatory work and the schedule of training)

Pillai (1987a) in the evaluation study on adult education programmes in Kerala included the following aspects which contribute to the success of the centre. These factors supposed to contribute to the effectiveness of the centre were location of the centre, seating arrangements, instructional materials, lighting arrangements, learning materials, teaching aids, instructional techniques, resource persons, discussions, local support, study tours, cultural programmes, celebrations, health camps, film shows, evaluation techniques, follow up programmes, contents covered, occupational training and instructor.

Panda and Sarangi (1988) proposed that various indicators are to be determined that suggest effectiveness of adult education programmes concerning literacy skills (reading, writing, computing), knowledge in functional areas (vocational, scientific, health, economic, civic) and degree of participation (in economic, social and political institutions).

Directorate of Adult Education (1989) suggested that overall assessment of the AEC should include assessment on reading ability of learners, writing skill of learners, numeracy accomplishment of learners, general knowledge and awareness of learners' cultural and other activities and functionality development. According to them the things important in an AEC which need extra attention are instructor, physical environment, community participation, attractive teaching materials, immediate benefits of learners by their learning, attendance and over all assessment

From the above review it could be seen that the factors influencing the efficiency of AECs could be grouped under the following five major factors

1. Instructor
2. Instructional processes
3. Material inputs
4. Organisational aspects and
5. Learner

There can be many specific factors under the above five major factors which can have an influence on the efficiency of AECs. A review of such factors which will help the researcher in pinpointing the specific aspects is given in Table 2.1

Table 2.1 Review of specific factors contributing to efficiency of Adult Education Centres

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
	A. Instructor		
1.	Age	Shah (1983)	Studied as a characteristic.
		Pillai(1984)	Sixty four per cent of literacy workers were more matured with respect to age.
		Reddy (1986a)	Suitable age is 20-30 years
2.	Sex	Shah (1983)	Lady instructors seemed more devoted and enthusiastic
		Pillai (1984)	Most of the literacy workers were women.
		Reddy (1986a)	Should be the same as that of learners
3.	Educational qualification	Pillai (1984)	Seventy four per cent had SSLC(10th class) or higher qualification.
		Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
		Reddy (1986a)	Suitable educational qualification is SSLC
4.	Experience in adult education	Shah (1983)	Studied as a characteristic.
		Pillai (1984)	Seventy four per cent were freshers.

(contd.)

Table 2.1(contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made / Findings reported
5.	Training in adult education	Shah (1983)	Studied as a characteristic.
		Pillai (1984)	Seventy four per cent received 21 days training
		Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
6.	Main vocation	Shah (1983)	Studied as a characteristic.
		Pillai (1984)	Eighty four per cent of the instructors studied had their main vocation as instructor itself.
		Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
7.	Monthly average income	Pillai (1984)	Sixty two per cent of instructors had as their monthly income, the honorarium of Rs.50/- only.
8.	Mode of recruitment as instructor	Shah (1983)	Studied as a characteristic
9.	Motive behind being instructor	Shah (1983)	Studied as a characteristic.
10.	Interest in the welfare of illiterates	Seth et al (1983b)	Characteristic of effective instructor
11.	Attitude towards adult education programme	Suryamani and Reddy (1985)	Significantly associated with education and mass media exposure.

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
12.	Mass media exposure	Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
13.	Size of farm owned	Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
14.	Social participation	Suryamani and Reddy (1985)	Significantly associated with attitude and job satisfaction.
15.	Size of family	Suryamani and Reddy (1985)	Significantly associated with job satisfaction.
16.	Caste	Reddy (1986a)	Should be the same as that of learners.
17.	Community	Pillai (1984)	Most of literacy workers were from educationally advanced communities.
18.	Habit of visiting the home of learners	Pillai (1984)	Studied as a characteristic.
19.	Reading out daily news to learners	Pillai (1984)	Studied as a characteristic.
20.	Being neutral in political and religious beliefs.	Reghu (1983)	Studied as a characteristic.
21.	Marital status	Pillai (1984)	Most of the literacy workers were married.
22.	Promptness in keeping diary of anecdotal records in respect of each learner	Pillai (1984)	Only 68 per cent of them kept the diary

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
23.	Using a variety of teaching methods	Reddy and Reddy (1985)	Important characteristic of an effective adult education instructor.
24.	Using humour in AEC	Reddy and Reddy (1985)	Important characteristic of an effective adult education instructor.
25.	Helpful in solving learner's problems	Reddy and Reddy (1985)	Important characteristic of an effective adult education instructor.
26.	Organising the AEC effectively	Reddy and Reddy (1985)	Important characteristic of an effective adult education instructor.
27.	Encouraging the learners to work hard	Reddy and Reddy (1985)	Important characteristic of an effective adult education instructor.
28.	Community leadership.	Reddy (1986a)	Community leaders should be involved in the selection of instructors.
29.	Satisfaction with the honorarium.	Sambaiah (1983a)	Paltry honorarium caused dissatisfaction.
		Shah (1983)	Low honorarium caused dissatisfaction.
30.	Socio-economic background	Shah (1983)	Correspondence between learners' and instructor's socio-economic background should strengthen the programme.

(contd.)

Table 2.1(contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
		Reddy (1986a)	Correspondence between learners' and instructor's socio-economic background should strengthen the programme.
31.	Friendly behaviour with learners	Reghu(1983)	Studied as a characteristic.
32.	Incompetent and unpleasant behaviour	Sambaiah(1983a)	Adversely affect motivation of learners.
33.	Frequent absence from the centre.	Bisht (1983)	Causes dropping out of learners.
34.	Occassional bad treatment of younger instructors towards older learners.	Bisht (1983)	Causes dropping out of learners.
35.	Maintaining records at the centre.	Shah (1983)	Studied as a characteristic.
36.	Communication ability	Mohanty (1986)	Suggested to be evaluated.
37.	Resourcefulness	Mohanty (1986)	Suggested to be evaluated.
38.	Ability to involve trainees in learning process	Mohanty (1986)	Suggested to be evaluated.
39.	Ability to integrate their experiences in the whole process of training, content and methods.	Mohanty (1986)	Suggested to be evaluated.

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
40.	Knowledge of field situations	Mohanty (1986)	Suggested to be evaluated.
41.	Pleasing personality.	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
42.	Pleasing voice	Reddy and Reddy(1985)	Included in the check list of characteristics of an effective instructor.
43.	Uses audio-visual aids in the teaching.	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
44.	Respects the learner's opinion.	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
45.	Informs the learners of their achievements individually.	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor
46.	Impartial	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
47.	Receives criticism with ease	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor
48.	Participates actively in community activities.	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.

(contd)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
49.	Enthusiastic teacher	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
50.	Identifies the learner's interests	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor
51.	Maintains interest in the subject	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
52.	Motivates learners for further study	Reddy and Reddy (1985)	Included in the check list of characteristics of an effective instructor.
53.	Being local	Singh (1987)	Characteristic of instructor.
54.	Being already motivated	Singh (1987)	Characteristic of instructor
55	Acceptable to the community	Singh (1987)	Characteristic of instructor.
56.	Preferably from the weaker sections of society.	Singh (1987)	Characteristic of instructor.
57.	Should give some proof of work done in the community.	Singh (1987)	Characteristic of instructor.

(contd)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
	B. Instructional processes		
1.	Method of teaching	Reghu (1983)	Uninteresting method of teaching leads to dropping out.
		Seth et al (1983b)	Related to progress in literacy. Non-traditional approach of teaching should be used.
2.	Technique of teaching.	Saraswathi and Ravindran (1980)	Improper teaching techniques adversely affected motivation of learners.
		Bisht (1983)	Defects in instructional strategies is related with dropping out.
3.	Content of teaching.	Prasad (1978)	While formulating programmes similar to FFLP, emphasis should be placed on the content.
		Saraswathy and Ravindran (1980)	Learners wanted income-generating programmes along with literacy education.
		Reghu (1983)	Irrelevant content leads to dropping out.
		Sambaiah (1983b)	Irrelevant content adversely affected motivation of learners.
4.	Period of teaching	Pillai (1984)	Time taken to teach reading, writing and arithmetic adopting different methods may be studied.

(contd.)

Table 2.1(contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
		Pillai (1984), Pillai (1987a)	Whether the 10 months period of the course can be still further reduced by increasing the duration of the class held each day may be studied.
	C. Material inputs		
1.	Physical facilities	Sambaiah (1983a), Shah (1983)	Inadequate physical facilities cause dissatisfaction in the instructor.
		Prasad (1985)	Building and sitting arrangements may be provided to create an environment conducive to learning.
		Sundararajan (1985)	Through providing good physical facility for learning a trainee would learn better without distraction in learning.
2	Visual aids	Seth et al (1983b)	Visual aids should be used in teaching adults.
		Prasad (1985)	Teaching and learning materials may be prepared based on felt need of learners with a proper combination of literacy, social awareness and functionality.
3.	Instructional materials	Pillai (1987a)	Use in AECs is satisfactory
4.	Writing materials	Reghu (1983)	Lack of writing materials was related to dropping out.

Table 2.1 (contd.)

Sl No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
5.	Suitable books	Reghu (1983)	Lack of suitable books was related to dropping out.
6.	Slate, books and other accessories	Pillai (1987a)	Children discontinued studies due to lack of slate, books and other accessories.
7.	Lighting arrangements	Pillai (1984)	Eighty per cent of RFLP centres had some sort of lighting arrangements.
8.	Use of resource persons	Mohanty (1986)	Has to be evaluated.
	D. Organisational aspects		
1.	Community support	Shah (1983)	Lack of community support causes dissatisfaction in instructor.
		Reddy (1985a)	Community support should be evaluated
2.	Co-operation from Government Departments	Sambaiah (1983a)	Lack of co-operation from Government Departments causes dissatisfaction in instructor.
3.	Co-operation from Village elite	Sambaiah (1983a)	Lack of co-operation from village elite causes dissatisfaction in instructor.
4.	Promptness in maintaining records	Shah (1983)	Attendance registers were generally not available at centres. Visit books also could not be produced except at one centre.

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
5.	Supervision	Shah (1983)	Supervisors wrote remarks for all the 10 months together in one month, instead of separately in each month and that too not on his own observation, but as reported by the instructors.
		Mohankumar (1985)	Supervision should be there in method of teaching subject matter, educational environment, instructor's relationship with learners and local people and maintenance of records.
6.	Supply of inputs	Shah (1983)	Reading, teaching and learning materials were supplied to the centres very late and in inadequate quantities.
7.	Training	Shah (1983)	Training was given to the instructors as late as 5 to 6 months after the centres started working.
8.	Evaluation	Pillai (1987a)	Concurrent evaluation has to be done.
9.	Reporting	Mohankumar (1985)	All the functionaries in adult education programme must be given practical training in reporting as it is a tool for monitoring and evaluation
10	Recruitment of workers	Mohankumar (1985)	Committed persons should be identified and appointed for adult education programme

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
11.	Linkage with development programmes	Prasad (1985)	May be linked with development programmes in terms of supply of inputs including credit and identification of beneficiaries for any programme.
12.	Integration of women's centres with Mahila Mandals.	Prasad (1985)	This facilitates women to utilise facilities of creche and other nutritional programmes.
13.	Recreation facilities	Prasad (1985)	May be provided to create an environment conducive to learning.
14.	Location of the centre.	Shah (1983)	Performance of centres located in school and panchayat buildings, temples and instructors' houses would be better than that of those being run in open classes.
		Pillai (1984)	All the RFLP centres were established in rural areas.
15.	Allied activities at the centre.	Pillai(1987a)	In the AEC a variety of programmes like physical exercises, cultural programmes, film shows, excursions and celebrations are organised to sustain the interest of learners

(contd.)

Table 2.1 (contd.)

Sl. No	Factor	Author(s)	Observations or Remarks made/ Findings reported
16.	Duration of the centre	Shah (1983)	No centre had run for 10 months' duration. Average functioning of the centre should be placed at 6 to 7 months, or even less.
	E. Learner		
1.	Socio-psychological factors	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants.
2.	Newspaper reading	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants.
3.	Radio listening pertaining to agricultural programmes.	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants
4.	Social participation	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants.
5.	Urban occupational pull	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants
6.	Contact with agrl extension officers	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants.
7.	Achievement aspirations in reading, writing and arithmetic.	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made / Findings reported
8.	Knowledge about improved methods of cultivation	Khajapeer (1978)	Positively and significantly related to performance in literacy of FFLP participants.
9.	Age	Venkataiah (1977)	Inversely related to acquisition of literacy skills in FFLP.
		Khajapeer (1978)	Not significantly related to performance in literacy of FFLP participants.
		Chaturvedi and Prakash (1983)	Functional literacy is not significant in its impact on the adoption behaviour of age groups above 35 years.
10.	Sex	Khajapeer (1978)	Not significantly related to performance in literacy of FFLP participants.
		Sharma (1979)	There was greater motivation and enthusiasm among women adults than male adults.
		Bisht (1983)	Shyness in the case of women is a socio-psychological factor working behind dropping out.
		Mehrotra and Khanna (1983)	Subordinate status of a daughter in the family leads to disparity in the education of boys and girls leading to drop-out of girls.

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
		Shah (1983)	Performance of women learners was found higher than that of men. Adult education centres for women functioned more regularly than those for men.
11.	Caste	Venkataiah (1977)	There was positive association between caste of the participants and their literacy skills. Impact of FFLP in respect of knowledge of agriculture was found only in the dominant and agricultural castes.
		Khajapeer (1978)	Not significantly related to performance in literacy of FFLP participants.
		Shah (1983)	Harijans fared better in learning
12	Primary education	Khajapeer (1978)	Not significantly related to performance in literacy of FFLP participants.
13.	Conservatism	Khajapeer (1978)	Negatively and significantly associated with performance in literacy of FFLP participants.
14.	Fatalism	Khajapeer (1978)	Negatively and significantly associated with performance in literacy of FFLP participants.
15	Authoritarianism	Khajapeer (1978)	Negatively and significantly associated with performance in literacy of FFLP participants.

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made/ Findings reported
16	Lack of interest	Gomathimani (1980)	One of the reasons for dropping out.
17.	Role expectations of teachers by learners	Sreeramamurthy (1978)	Wide gap between role expected of and role played by teacher.
18.	Feeling that the education the villager possesses is sufficient for his occupation.	Chalam (1978)	Reason for disinterest in adult education programme.
19.	Feeling that it is not possible to learn through AECs	Chalam (1978)	Reason for disinterest in adult education programme.
20	Feeling that nobody will take interest in AECs in villages	Chalam (1978)	Reason for disinterest in adult education programme.
21	Motivation	Sambaiah (1983b)	Adversely affected due to inadequate physical facilities irrelevant content, improper teaching techniques and incompetent and unpleasant behaviour of instructors.
		Seth et al (1983a)	Related to progress in literacy, not related to change in attitude towards literacy.
22.	Repeated failures	Shah (1983)	Reason for discontinuance in adult education programme.
23.	Economic difficulties	Shah (1983)	Reason for discontinuance in adult education programme.

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made / Findings reported
24.	Parents' indifference	Shah (1983)	Reason for discontinuance in adult education programme.
25	Apathy	Sambaiah (1983a)	Cause dissatisfaction in instructor.
26.	Attitude towards functional literacy	Seth et al (1983a)	Related to progress in literacy.
		Chaturvedi and Prakash (1983)	Positively related to functional literacy.
27.	Occupation of head of family	Seth et al (1983a)	Influenced attitude towards functional literacy.
28.	Knowledge regarding functional literacy	Chaturvedi and Prakash (1983)	Positively related to functional literacy.
29.	Lack of awareness of need, significance and advantages of adult education	Bisht (1983)	One of the socio-psychological factors working behind dropping out.
30.	Need of the learner to relax and enjoy after a day's hard work	Bisht (1983)	One of the socio-psychological factors working behind dropping out.
31.	Migration from one place to another	Bisht (1983)	One of the socio-psychological factors working behind dropping out
32.	Ill health	Bisht (1983)	One of the socio-psychological factors working behind dropping out

(contd.)

Table 2.1 (contd.)

Sl. No.	Factor	Author(s)	Observations or Remarks made / Findings reported
33.	Lack of flexibility on the part of the learner to adjust with the new education.	Bisht (1983)	One of the socio-psychological factors working behind dropping out.
34.	Belief that women should not be made literate.	Bisht (1983)	One of the socio-psychological factors working behind dropping out.
35.	Size of holding	Venkataiah (1977)	Positively and significantly related with achievement in literacy.

The review presented in the above table revealed a total of 120 specific factors distributed under the five major factors as shown in Table 2.2

Table 2.2 Distribution of specific factors contributing to efficiency of Adult Education Centre collected through review of literature

Sl No	Major factor	No. of specific factors
1	Instructor	57
2	Instructional processes	4
3	Material inputs	8
4.	Organisational aspects	16
5.	Learner	35
	Total	120

Many of the studies reviewed were done in the states other than Kerala The researcher felt that those specific factors which seemed to be not relevant prima-facia under the conditions of Kerala could be eliminated and additional relevant factors might be included. Moreover, some of the specific factors reviewed were overlapping with respect to their meaning and content Such factors had to be combined together.

These were done through a pilot study conducted in Thiruvananthapuram district during 1987-'88. The details of the pilot study are furnished under the chapter on Methodology. A total of 160 specific factors were identified after eliminating the irrelevant ones and adding the relevant ones as furnished below in Table 2.3

Table 2.3 Distribution of specific factors contributing to efficiency of Adult Education Centre selected through pilot study

Sl. No.	Major factors	No.of specific factors collected through review of literature	No. of specific factors eliminated through pilot study	No.of specific factors added through pilot study	Total no.of specific factors selected through pilot study
1	Instructor	57	8	24	73
2	Instructional processes	4	0	4	8
3	Material inputs	8	3	2	7
4	Organisational aspects	16	0	7	23
5	Learner	35	6	20	49
	Total	120	17	57	160

A list of the 160 specific factors selected through the pilot study is furnished in Appendix IV.

2.5 Review of the selected specific factors contributing to efficiency of Adult Education Centre

From the foregoing review of literature and discussion it could be safely concluded that efficiency of AEC is a multidimensional concept with the influence of the variables of the major factors, namely, instructor, instructional processes, material inputs, organisational aspects and learner. Through relevancy rating by judges, 41 variables which were expected to contribute towards achievement of learners in literacy, awareness and functionality were identified for inclusion in the conceptual model for the study. The procedure adopted for selecting the variables are described under the chapter on Methodology.

The researcher reviewed the studies on the selected variables not only in the field of adult education but also in the related fields of education, extension education, non-formal education and workers' education. The review of the 41 variables selected which comes under the major five factors is given below.

2.5 1 Instructor

Fourteen variables were selected under the major factor, instructor. A detailed review of studies on each variable is given below.

2.5.1.1 Experience

Chambers' Dictionary defined 'experience' as practical acquaintance with any matter gained by trial or wisdom derived from the changes and trials of life.

In this study experience of instructor is considered as the total period he has functioned as an instructor in an AEC.

Barret (1926) and Frutchey (1958) reported that experience was not a differential characteristic to discriminate between more and less effective extension workers. Salvi and Dudhani (1967) found that the tenure in extension did not bear any association with effectiveness of Village Level Workers (VLWs). The findings of Sarang (1970), Rao and Dudhani (1971), Kolte (1972), Perumal (1975), Rajagopal (1977), Reddy (1982) and Reddy (1986b) also corroborated this observation and envisioned non-significant relationship between experience and performance of agricultural extension personnel. However, Rahudkar (1962), Patel and Leagans (1968), Ernest (1970), Kanagasabai (1975) and Janardhana (1979) identified a positive relationship between experience and job effectiveness of VLWs Reddy (1983b) however,

reported a negative relationship between experience and role performance of Village Extension Officers.

Johnson J.(1955) found significant relationship between experience and teacher effectiveness. Debnath (1971) in his study of some important determinants of teaching efficiency found that experience was significantly related to teaching efficiency.

Knox (1971) reviewing 20 studies amongst adult education teachers, concluded that a difference is always found in experience between average and outstanding performance in teaching.

Sharma and Sharma (1981) reported the results of a study conducted in New Delhi on the working of instructors in the AECs of the IAEA which revealed that majority of the instructors had developed teaching style through experience.

Based on the results of a study conducted in the RFLP centres in Kerala, Pillai (1984) reported that 74 per cent of the instructors were freshers and 14 per cent had two years, four per cent upto three years, six per cent upto four years and two per cent upto five years of experience in adult education

Ramabrahmam (1988) in a study conducted in Andhra Pradesh revealed that 26 per cent of the instructors had some previous experience in teaching adults.

Rajyalakshmi (1989) conducted a study in the Rayalaseema area of Andhra Pradesh which revealed that the number of years of teaching experience of instructors had significant influence on the academic achievement of learners of non-formal education centres.

Majority of the studies in the field of extension education thus do not indicate any significant role for experience in adding to effectiveness of extension personnel. However, in the field of education and non-formal education, the few studies reviewed established significant positive relationship between experience and teaching effectiveness/teaching efficiency/achievement of learners. Hence in the present study it is postulated that the experience of the instructor will be significantly and positively related to the achievement of learners in literacy, awareness and functionality

2.5.1.2 Concept of communication

In the present study concept of communication is considered as the instructor's concept of the different aspects of communication process

Berlo (1960) stated that knowledge of the source about the communication process itself would influence the communication behaviour of the source. Leagans (1961b) opined that communication is limited by one's concept of communication process and the way one thinks about communication will influence its quality. Successfull communication is not a single unit act but a series of unit acts which have to be combined into an integrated whole by the communicator for influencing the communicatees. This requires clear concept of communication process by the communicator.

Pandyaraj (1978) observed positive and significant relationship between concept of communication and communication behaviour of Junior Agricultural Officers in Kerala. In another study conducted in Kerala, Joseph (1983) found that concept of communication was positively and significantly related with communication effectiveness of Agricultural Demonstrators.

The pilot study and judges' relevancy rating have indicated that this is an important variable in the context of efficiency of AEC. Therefore, it is anticipated that the concept of communication of the instructor will have a direct bearing on the achievement of learners in literacy,awareness and functionality

2 5.1.3 Instructor-learner communication

In this study, it is considered as the inter-personal communication between the instructor and learner in the adult education class.

Instructor communicates with learners in the adult education class for understanding and solving their problems. According to the International Development Research Centre (1979) teachers are more successful when they create a positive atmosphere where learning is possible and that literacy learning is a joint tearcher-learner relationship. Reddy and Reddy (1985) identified through a study that "being helpful in solving learners' problems" is one of the five important characteristics of an effective adult education instructor

In a study conducted on farm leadership in the Coimbatore district of Tamil Nadu, Muthiah (1981) observed significant difference between effective and less effective farm leaders in respect of their leader-follower communication. This trait was found more pronounced amongst the effective farm leaders than the less effective farm leaders. The path analysis revealed that the variable leader-follower communication was among the most essential correlates that could predict the effectiveness of farm leadership.

No research study reporting the contribution of instructor-learner communication to achievement of learners could be located. Since the pilot study and judges' rating revealed the relevance of this variable, it is expected that instructor-learner communication will have a direct relationship with the achievement of learners.

2.5.1.4 Instructor-learner contact span

For the purpose of the present study it is defined as the contact between the instructor and the learner for discussing and solving the problems of the learner.

Learners may contact the instructor for discussing and solving their personal and family problem According to the International Development Research Centre (1979) the rapport between teacher and learner is strongly influenced by teacher's involvement in the life of the community. For instance, it was found in Burma and Somalia that when volunteer teachers lived, worked, and taguht as part of the village community, illiterates were more receptive to attending classes than they were when teachers lived far away from the village.

No report on the contribution of instructor-learner contact span to achievement of adult learners

was available for review. However, it is expected that instructor-learner contact span will have a direct effect on the achievement of learners.

2 5.1 5 Information seeking behaviour

Rogers (1966) viewed communication behaviour as the degree to which an individual is willing to seek information and advice.

In this study it is considered as the acts of instructor is seeking information on adult education from different sources of communication.

Kanagasabai (1975) reported that efficiency of Agricultural Extension Officers was not related with their habit of reading literature. However, Bhatia and Sandhu (1975) found that magazine reading of VLWs was positively and significantly related with their role performance.

Regarding the sources of information Ray (1975) reported that extension officers in West Bengal were mostly in contact with official letters, leaflets, pamphlets, agricultural magazines and official meetings. Sanoria and Singh (1976) revealed that radio broadcast, superior extension personnel and certain publications were the most commonly used sources of information for

the VLWs. Reddy and Singh (1977) reported that package of practices, booklets and folders, Agricultural Extension Officers and Subject Matter Specialists of the Department of Agriculture, magazines, newspapers and radio were the popular sources of information for the VLWs. Gupta (1982) found that exhibits, posters, field trips, transistors, flash cards, pamphlets, circular letters, charts, folders and booklets were the different sources of information for VLWs in Ludhiana.

Pandyaraj (1978) reported positive and significant relationship between information seeking behaviour and communication behaviour of Junior Agricultural Officers in Kerala. In a study conducted in Kerala, Joseph (1983) found positive and significant correlation between information seeking behaviour and communication effectiveness of Agricultural Demonstrators The study also revealed that information seeking behaviour was one among the four independent variables which had maximum direct effect on communication effectiveness.

Most of the studies in the field of extension education reviewed brought out the positive and significant relationship of information seeking behaviour with communication behaviour/ effectiveness of agricultural extension workers A similar relationship is expected in

the present study also between information seeking behaviour of instructor and achievement of learners in literacy, awareness and functionality.

2.5.1 6 Information processing behaviour

According to Muthiah (1981), information processing behaviour of farm leaders referred to the reaction of leaders when they received new information on farm practices and ways of storing them for transmission.

In the present study, information processing behaviour of instructor is considered as the acts of the instructor in evaluating and storing information related to adult education.

In a study conducted on farm leadership, Muthiah (1981) found that both effective and less effective farm leaders used more than one method to evaluate the farm information received by them. The methods used by majority of the farm leaders in both the categories included judging the information received in the light of local socio-economic conditions, discussion with fellow farmers examining the validity of conclusions, cross-checking the information received against past recommendations, weighing the information received in the light of past experience and considering its technical feasibility.

Muthiah (1981) also reported that both the effective and less effective farm leaders used more than one method for storing the technical information received by them for future use. All the leaders in both the categories memorized the information for future use. More than half of the effective farm leaders (57 14 per cent) and less than half of the less effective farm leaders (42.86 per cent) consciously related new information with the already known things so as to make the recall easy.

The results of the pilot study and judges' relevancy rating revealed the importance of information processing behaviour of instructor in contributing to the efficiency of AECs. Hence it is anticipated that information processing behaviour of instructor will significantly contribute to achievement of learners in literacy, awareness and functionality.

2.5.1.7 Empathy

According to Supe and Gajbhiye (1977) the core idea of empathy is the ability to transpose oneself imaginatively into the feeling and acting of another.

In this study empathy of instructor is viewed as his ability to perceive situations from other's stand point

The concept of empathy was used as an index of individual modernity and was considered as a pre-requisite for adopting new ideas and practices (Lerner, 1958).

Muthiah (1981) found through his study that effective farm leaders as well as less effective farm leaders had greater empathy than their followers.

Rogers (1986) identified empathy of teachers as one of the factors for effective learning of students.

On the basis of the literature reviewed, it could be assumed that empathy of instructor might positively and significantly contribute to achievement of adult learners.

2.5.1.8 Job commitment

Job commitment is the degree to which an individual is committed to his job (Joseph, 1983).

In the present study, job commitment of instructor is considered as the degree to which he is committed to his job.

Saneria (1977) found positive and significant correlation between job commitment and communication efficiency

of extension personnel in the agricultural department of Madhya Pradesh. Ambastha (1980) reported that farm scientists with more job commitment had more communication with various categories of farmers and extension personnel. In a study conducted in Kerala, Joseph (1983) found positive and significant relationship between job commitment and communication effectiveness of village level extension personnel. It was also revealed through the study that job commitment was one among the four independent variables which had maximum direct effect on communication effectiveness

Mohankumar (1985) opined that lack of committed persons in the field of adult education is one of the major set backs to the adult education programme. He stated

> Adult education being a noval and important scheme needs committed persons at all levels. The components of awareness and functionality are conveniently neglected, probably because their coverage requires more involvement and commitment. The instructors need more time for the preparation of these two components.

The author suggested that committed persons must be identified and appointed for the adult education programme A study conducted by Pillai (1987a) revealed that choosing a committed instructor is a major problem faced in the adult education programme. According to

Saxena (1989)the functionaries of adult education need great motivation to perform with commitment and devotion.

Based upon the literature reviewed it could be predicted that there would be positive and significant contribution of job commitment on the part of the instructor towards achievement of adult learners in the instructional-learning process at the AEC.

2.5.1.9 Job satisfaction

Gilmer (1961) defined job satisfaction as 'the results of various attitudes the person holds toward his job, toward related factors, toward life in general'. According to Katzell (1964) job satisfaction is the verbal expression of the incumbent's evaluation of his job. Locke (1976) defined job satisfaction as the pleasurable emotional state resulting from the perception of one's job as fulfilling or allowing the fulfilment of one's important job-values, provided these values are compatible with one's needs. According to Sinha et al (1976) job satisfaction is a mental state of an individual in an organisation when he feels satisfaction in performing the job of his position. Porter and Steers (1978) conceptualised job satisfaction as the sum total of an individual's met expectations on the job. Anastasi (1979)

explained job satisfaction as the degree of correspondence between workers' needs and their need-fulfilling characteristics of the job. Singh and Mulay (1982) operationally defined job satisfaction as the degree to which the incumbents were satisfied or dissatisfied with the various aspects of the job which they performed.

In this study job satisfaction of instructor is viewed as the degree of satisfaction or dissatisfaction he is deriving from his job

John (1960) reported that there was no significant relationship between job satisfaction and role performance of VLWs. Kherde and Sahay (1972), Kolte (1972), Perumal and Rai (1976), Rajagopal (1977), Reddy (1982) and Reddy (1983a) also reported a similar trend in their studies In a study conducted in Kerala Joseph (1983) found that job satisfaction was not significantly correlated with communication effectiveness of Agricultural Demonstrators. Jhansi (1985) evidenced that there was no significant relationship between job satisfaction and extension productivity of agricultural scientists.

Laharia (1978) reported that job satisfaction had a strong and positive association with the productivity of agricultural scientists Talukdar (1984) and Reddy (1986b) found a positive and significant relationship

between job satisfaction and productivity of extension personnel working under the T & V system. Manandhar (1987) also observed a positive and significant association between job satisfaction and communication behaviour of extension personnel.

Regarding the causes of dissatisfaction, Shah (1983) reported that majority of instructors of the RFLP centres in Gujarat considered low honorarium, irregular attendance, inadequate physical facilities, lack of community support and delays in supplies of reading and teaching materials as the main causes of their dissatisfaction with the programme and its organisation.

Suryamani and Reddy (1985) revealed through a study conducted among the organisers of adult education programme in Ranga Reddy district of Andhra Pradesh that majority of the respondents were found to be satisfied with their job. The study also revealed that job satisfaction of organisers was found to be significantly associated with mass media exposure and training. The study conducted by Ramabrahmam (1988) in Andhra Pradesh also revealed that a good majority of the instructors were satisfied with their job. However, most of the supervisors were dissatisfied with the nature of work, work load, monetary benefits and other related aspects

according to a study conducted by Rao (1988) among the field functionaries of adult education programme.

The preceeding review provides ample evidence to establish job satisfaction as an important factor influencing outcome variables like performance and productivity. In the present study job satisfaction of instructor is expected to have significant contribution to achievement of learners of AECs.

2 5 1.10 Attitude towards adult literacy

Various definitions of attitude have been advanced Allport (1935) defined attitude as a mental and neural state of readiness organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related. Murphy et al (1937) defined attitude as primarily a way of being set toward or against certain things. Thurstone (1946) defined attitude as the degree of positive or negative affect associated with some psychological object towards which people can differ in varying degrees. According to Krech and Krutchfield (1948) attitudes are a function of perception. Newcomb (1950) speaks of attitude as a state of readiness for motive arousal and an individual's attitude towards

that decide the influence of attitude on behaviour at a given point of time. There are many attitudes that may be logically related to the efficiency of instructor which in turn may contribute to the achievement of learners. Attitude of the instructor towards adult literacy is one among them.

In the present study, attitude of instructor towards adult literacy is considered as the degree of his positive or negative affect towards adult literacy.

One of the major constraints in literacy programmes for women, as reported by Rajyalakshmi (1981) is the negative attitude towards women's literacy. Sahasrabudhe (1988) pointed out lack of proper attitude of functionaries towards adult education as the first major constraint of the adult education programme.

Suryamani and Reddy (1985) reported that majority (72.22 per cent) of the organisers of adult education programme were having favourable attitude, 23 34 per cent were having highly favourable attitude and only 4.44 per cent of the organisers were having less favourable attitude towards adult education. The study further revealed that the respondents' attitude was found to be significantly associated with mass-media exposure and training.

Misra and Kabthiyal (1988) conducted a study on the attitude of instructors towards adult education and reported the following results.

1. Female instructors showed more positive attitude than their male counterparts.
2. There existed sharp difference in pre and post-training attitude of instructors towards adult education in the positive direction.
3. There was no significant difference in the attitude of instructors during their active involvement the programme.

Rajyalakshmi (1989) conducted a study in the Rayalaseema area of Andhra Pradesh which revealed that attitude of the teachers towards non-formal education was a significant factor in predicting the academic achievement of learners of non-formal education centres. Reddy (1989) reported that instructors with high positive attitude towards adult education seem to be more successful in their profession than instructors with low positive attitude towards adult education.

The results of the studies reviewed above indicate that positive attitude of instructors towards adult

literacy/ adult education/ non-formal education may contribute to success in their profession/ achievement of learners. In the present study also it is expected that positive attitude of instructors towards adult literacy may significantly contribute to achievement of learners.

2.5111 Attitude towards learners

In this study attitude of instructor towards learners is viewed as the degree of positive or negative affect of the instructor towards learners.

Tripathi (1977) identified respect for adult learners as one of the characteristics of successful instructors in non-formal education programmes.

According to Seth et al (1983b) it is important to have instructors who may not be highly qualified but are genuinely interested in the welfare of the illiterates.

No study was available for review which related attitude of instructor towards learners and the achievement of learners. However, the findings of the studies reviewed here helped to assume that positive attitude of instructor towards learners may contribute to achievement of learners.

2 5112 Attitude towards job

According to Gilmer (1961) job attitude is the feeling the employee has about his job, his readiness to react in one way or another to specific factors related to a job.

In the present study, attitude of instructor towards job is viewed as the degree of positive or negative affect of the instructor towards his job as adult education instructor.

Vijayalakshmi (1985) reported the results of her study which indicated that positive attitude possessed by instructors towards job had significant positive impact on their effectiveness as instructors.

Based on the literature reviewed it could be assumed that there would be significant positive contribution of attitude towards job of instructor to achievement of adult learners.

2 5113 Attitude towards social activities

In this study, attitude of instructor towards social activities is considered as the degree of positive or negative affect of the instructor towards social activities

Naik (1980) remarked that self-propelled social workers are more successful as compared to formally trained university students because of their practical approach towards unravelling a whole range of problems faced by groups. Self-propelled social workers may possess more favourable attitude towards social activities and this trend may be expected in the case of adult education instructors also.

The study conducted on non-formal education workers in Kerala by Nair(1980) revealed that the instructors had a favourable attitude towards social activities.

However, no study reporting the extent of contribution of attitude of instructor towards social activities to achievement of learners could be traced. The results of the pilot study and judges' relevancy rating indicated that this is an important variable in predicting the efficiency of AECs. Hence it is expected that attitude of instructor towards social activities will have a direct bearing on the achievement of adult learners

2.5.1.4 Interest in adult education

Interest of instructor in adult education is considered in this study as the degree of concernedness of instructor in adult education.

Based on the results of a study conducted on non-formal education workers in Kerala, Nair (1980) reported that the instructors in general had positive interest in adult education and only those instructors who had keen interest in adult education would be successful for the programme. The study also revealed high positive correlation between interest of instructors in adult education and attitude of instructors towards social activities.

The result of the study reviewed prompted the researcher to expect significant positive contribution of interest of instructor in adult education to achievement of adult learners.

2.5.2 Instructional processes

There were four variables selected under the major factor, instructional processes . A review of the studies reported on each variable follows

2.5.2.1 Method of teaching

In the present study, method of teaching is viewed as the different methods of teaching followed at the AEC.

According to Freire (1972) teaching is a dynamic process and it is a deliberate, planned and goal-oriented activity. Reghu (1987b) stated that teaching is the process in which one person helps other to achieve knowledge, skill and attitude. Chandra and Shah (1987) opined that methods which permit interaction, involvement and opportunities to express oneself should be chosen for teaching adults The authors stated.

> One method alone will not serve the instructional requirements, because of the wide range of individual differences among the groups and within the groups themselves. A combination of two ore more methods will be effective for larger groups of individuals who seek varying objectives from adult education.

Knox (1971) reviewing 20 studies on adult education teachers, came to the conclusion that a difference is always found in the familiarity with teaching methods between average and outstanding performance in teaching.

Rao and Rao (1982) reported the results of a case study conducted in the RFLP centres in Andhra Pradesh which revealed that if the teaching methods were very

much close to the participants life, they themselves would generate enough motivation in them and the programme would be successful.

According to Ganguli (1983) a good number of instructors reported to have arranged some educational plays and other cultural programmes with a view to entertain as well as to educate the learners. Nottingham Andragogy Group (1983) referred to three categories of methods which were expository method, direction method and discussion method. Seth et al (1983a) reported that the results of a study conducted in the RFLP centres in Delhi which revealed that the programme lacked in the use of non-traditional approach of teaching adults.

Pillai (1984) conducted a study in the RFLP centres in Kerala which revealed that discussion method was followed in most of the centres. Lessons were started either by telling stories or by posing problems. Reading and writing by the learners were also practised in many centres. Study tours and exhibitions were conducted by a few centres while many centres took the learners out to see exhibitions. According to the opinion of the learners, the usual method of teaching was reading and explaining. Only in a few centres, dramatization,

role-play and any performing arts were held. Sometimes mathematical sums were worked on blackboard

In a study conducted in Kerala, Panicker and Beevi (1985) found that the coaching in the AECs were unsatisfactory and the classes were held in a poor way. A good percentage of the learners agreed that discussions were conducted in social, cultural and educational subjects. Use of a variety of teaching methods was identified as one of the five important characteristics of an effective adult education instructor by Reddy and Reddy (1985)

Stephens (1985) stressed self-paced learning method. The adult learners required familiar ideas, praise and knowledge of progress. The suitable methods are lectures, tutorials, study circles and discussion groups.

Rogers (1986) identified activity-centred learning as one of the factors for effective learning of students According to him the teaching-learning methods may be divided into three main categories.

1 'Presentation' methods (teacher activities such as demonstration, exposition, use of black-board text or audio-visual media)

2. 'Interaction' methods (between teacher and learner, or learner and learner, such as questions, role-play, discussion, buzz groups)

3. 'Exploratory' methods (in which the learners on their own or in groups work on tasks such as practise experiments, reading, writing)

Farooq (1988) opined that adult education instructors usually teach in an authoritarian way because they themselves grew up in an authoritarian school system. He suggested that the methods like role-playing, socio-drama and puppet shows could effectively be utilised to build the learners' confidence in their capacity to observe, criticize, analyse and figure things out for themselves.

Mohanty (1988) mentioned some of the very useful methods for non-formal education programmes such as discovery method, problem-solving method, project method, assignment method, simulation technique, role-play technique, visits, auto-instructional strategies such as programmed instruction and computer assisted instruction, use of video and audio cassettes, tape-slide technique and films, film strips, single concept

film loop, film casettes and film flash techniques, closed circuit television, and group discussion method.

The literature reviewed so far revealed the variety of teaching methods used at AECs. It was also established that a combination of different methods could be useful for teaching adults. The more the variety of teaching methods used by the instructor, the more will be the achievement of learners in literacy, awareness and functionality.

2.5.2.2 Technique of teaching

In this study technique of teaching is considered as the use of audio-visual aids for teaching adults at the AEC.

Studies in Psychology indicate that the use of more number of senses would increase the learners' perception about the subject matter being taught (Nagoke, 1970).

Bhatnagar (1981) reported the findings of a study conducted among the adult women learners in Udaipur district of Rajasthan which revealed that traditional aids like puppet and 'kavad' were found more effective than radio and flipbook.

According to Gangula (1983) hardly any of the AECs reported to use standard media as educational cinema.

Sambaiah (1983b) reported the results of a study addressed directly to the drop-outs in the Telangana district of Andhra Pradesh which revealed that one of the factors which adversely affected their motivation was improper teaching techniques.

Seth et al (1983a) found through a study conducted in the RFLP centres in Delhi that the programme lacked in the use of visual aids in teaching adults.

In a study conducted in the RFLP centres in Kerala by Pillai (1984), the opinion of the learners revealed that film shows were not held in 70 per cent of the centres and the radio was tuned on in many centres.

Prasad (1985) suggested in the context of adult education that the audio-visual media of communication can play a very important role in providing environmental situation for motivating the culturally or intellectually deprived groups to achieve a particular task.

The studies reviewed here indicate that the use of audio-visual aids as technique of teaching adults will improve the adult education programme. It is

predicted in this study that use of audio-visual aids as a technique of teaching adult learners will contribute significantly to the achievement of learners.

2.5.2.3 Approach of teaching

In the present study, approach of teaching is viewed as the personal attention given to the learners by the instructor while teaching them at the AEC.

There are various approaches of teaching. Srinivasan (1985) referred to four types of approaches. content-centred approach, problem-focussed approach, conscientization approach and human development approach.

Pannington (1985) referred to five approaches which were participation-demand approach, educational expert approach, key information approach, community-forum approach and community-survey approach.

Rogers (1986) mentioned two approaches to learning, namely, teacher-centred or learner-centred. This distinction corresponds to what Bruner (1974) described as the 'expository' approach to teaching-learning, which the ' decisions concerning the mode and pace and style of exposition are principally determined by the teacher as expositor, the student is the listener' and the 'hypothetical' approach, in which

"the teacher and the student are in a more co-operative position The student is not a bench listener but is taking part in the formulation and at times may play the principal role . . (through) acts of discovery"

Rao and Rao (1982) reported the results of a case study conducted in the Farmers' Functional Literacy Centres in Andhra Pradesh which revealed that the instructors who had only short term training and who were poorly paid could not pay special attention to different categories of people.

Rogers (1986) identified that awareness of students' differences and guidance as to appropriate responses are two of the many factors for effective learning.

Adult education is basically learner-centred in approach. The adult learner who prefers his/her own pace of learning needs personal attention from the instructor for advancement in learning efforts. The literature reviewed support the need for personal attention to be given to the adults for effective learning. Hence it is expected that more the personal attention given to the learners by the instructor at the AEC, more will be the achievement of learners.

2.5.2.4 Content of teaching

According to Rogers (1986) content of teaching is a set amount of matter that must be covered in the class/group.

For the purpose of this study content of teaching is considered as the usefulness of the topics discussed at the AEC in the day-to-day life of the learner.

The study conducted by Bhandari (1974) in Udaipur district revealed significant difference with respect to the content of learning between participants of the literacy and functional literacy classes. Pillai (1984) reported that the matters discussed at the RFLP centres included topics on health and hygiene, family welfare, nutrition and sanitation According to Ganguli et al (1985), the instructors in Bihar mentioned that apart from teaching the skills of literacy, they also covered topics such as civic rights and duties, minimum wages, untouchability, problems connected with child marriage and importance of family planning. Chandra and Shah (1987) stated that the contents of non-formal education for adults include literacy skills, population education, vocational skills, leadership education and management of dual responsibilities of home and job.

As reported by Hebsur et al (1981), the regression of 16 independent variables on literacy had shown that 'topic taught' figured as the most important variables. According to Aikara and Henriques (1982) the regression analysis of 20 factors had shown that ' contents of teaching' had significant impact on the performance of the learners in literacy, functionality and social awareness.

Natarajan (1982) reported the results of an evaluation study conducted on National Adult Education Programme in Bihar which revealed that 68 per cent of the learners had joined the Programme for learning the three R's while 26 per cent for acquiring functional skills in agricultural activities, weaving, carpenting and child care

Rao and Rao (1982) found through a case study conducted in the Farmers' Functional Literacy Centres in Andhra Pradesh that if the curriculum is very much relevant to the participants, they themselves will generate enough motivation in them and the programme will be successful in spite of many other inadequacies and problems.

According to Pillai (1984) the opinion of the learners revealed that almost all subjects necessary

for creating awareness of one's problems in day-to-day life were covered in the discussion carried on in most of RFLP centres. As per the report of Pillai (1987a) 90 per cent of the learners felt that the topics discussed at the centre were related to their life.

Pillai (1984) reported that lack of interest in the subject matter taught and absence of vocational training were two of the few reasons mentioned by the learners for their dropping out from the RFLP centres. Sambaiah (1983b) found irrelevant content as one of the factors which adversely affected the motivation of learners. Based upon the results of research studies, Prasad (1985) conclusively opined that the learning content unrelated to the realities of life does not sustain interest of the learners. Reghu (1987c) observed that irrelevant content of teaching was one of the reasons for the dropping out of the learners from literacy centres.

Kundu (1986) remarked that liking for the subject is the best possible type of motivation for an adult learner.

The studies reviewed revealed a variety of items as the content of teaching in adult education. It was

also established that the content of teaching should be felt useful by the learners if learning is to take place effectively. Based on the literature reviewed it is predicted that there will be significant and positive contribution of the usefulness of content of teaching to achievement of adult learners.

2.5.3 Material inputs

There were four variables selected under the major factor, material inputs. A review of studies reported on each variable follows.

2.5.3.1 Physical facilities

In this study the variable physical facilities is viewed as the space available and seating arrangement provided for the learners at the AEC.

One of the important elements in a learning situation was identified as the physical facilities provided to a learner (Leagans, 1961a) Rao and Rao (1982) reported that good physical environment was an obvious necessity for promoting adults to participate in the Farmers' Functional Literacy Programme. According to Aikara (1984) better physical facilities at the centre was one of the inputs which were likely to produce better results in the learning outcomes. Prasad (1985) suggested that physical facilities like building and sitting arrangements might be

provided to create an environment conducive to learning. Sundararajan (1985) assumed that providing with a good physical facility for learning would facilitate a trainee to learn better without distortion. According to Saxena (1989) AECs which provide better physical facilities attract more learners and show better performance.

While Lal and Mishra (1982) reported the sufficiency of space for accommodating the learners in AECs the insufficiency of space was reported by Madras Institute of Developmental Studies (1982), Ganguli (1983), Ganguli (1984), Pillai (1984) and Ganguli et al (1985) The necessity for adequate space at the AECs for the learners to gather and involve themselves in a variety of activities was emphasised by Chandra and Shah (1987) and Directorate of Adult Education (1989).

Natarajan (1982) reported that the learners were quite satisfied with the physical facilities at the centres. However, the inadequacy of physical facilities at the centres was revealed through the studies conducted and reported by Dighe et al (1981), Sharma and Sharma (1981), Verma et al (1981), Aikara and Henriques (1982), Lal and Mishra (1982), Sambaiah (1983b), Shah (1983), Ganguli (1984), Prasad (1985) and Ramabrahmam (1988)

A study conducted by Rajyalakshmi (1989) revealed that the physical facilities had significant influence in the achievement of learners in arithmetics and problem areas tests. The study also revealed that the physical facilities had no significant influence in the achievement of learners in Telugu and total tests.

The studies reviewed emphasised space and seating arrangement as important components of physical facilities at the AEC. Based upon the literature reviewed it could be assumed that there will be significant positive contribution of physical facilities available at the AEC to achievement of learners.

2.5.3.2 Lighting arrangements

In the present study lighting arrangements is considered as the type of light provided for the learners at the AEC.

Majority of the AECs functioned after the evening time and hence lighting arrangements were required at these centres. Inadequacy of lighting arrangements at the AECs has been reported by Dighe et al (1981), Madras Institute of Developmental Studies (1982), Rao and Rao (1982), Sambaiah (1983a), Ganguli et al (1985) and Prasad (1985). However, Ganguli (1983) and Ganguli (1984)

felt that in most of the AECs the lighting arrangement was found to be satisfactory.

Provision of better lighting facilities at the AECs for creating an environment conducive to learning has been recommended by Chowdhury (1981), Prasad (1985), Chandra and Shah (1987), Directorate of Adult Education (1989) and Saxena (1989).

Regarding the type of lighting arrangements at the AECs, Verma et al (1981) reported that lanterns were used in four-fifths of the centres. Lal and Mishra (1982) and Ganguli (1983) also reported that in most of the AECs, lanterns were the main source of light.

According to the report of Aikara and Henriques (1982) a large number of AECs (44 per cent) had electric lights and small number (5 per cent) petromax lights About half of them (49 per cent) had only kerosene lamps.

Pillai (1984) reported that out of the 50 RFLP centres studied in Kerala, 20 per cent had no lighting arrangements as they did not need them, 62 per cent used kerosene lights, 14 per cent had petromax lights and only four per cent had used electric lights, though many more had electric connections

Out of the 19 AECs studied by Ramabrahmam (1988) in Andhra Pradesh, eight centres had electric lights while kerosene lamps were used in the rest of the centres. Another study conducted by Rajyalakshmi (1989) revealed that a large number non-formal education centres had electric lights and kerosene lamps for lighting.

The reports of research studies reviewed revealed the type and extent of lighting at AECs. Several authors have recommended better lighting facilities at AECs for creating an environment conducive to learning. Hence, it is predicted that the lighting arrangements at the AECs will positively and significantly contribute to achievement of learners.

2 5.3.3 Teaching-learning materials

In this study the variable teaching-learning materials is considered as the different kinds of materials used at the AEC for the teaching and learning of the adult learners.

In the teaching-learning process the materials have a major role to play. The success of any literacy programme depends on the teaching materials. Lazarus (1983) suggested the'four R principle', namely, use the right material, for the right group, at the right time and in the right way.

According to Sivarajan (1987) the teaching and learning materials cannot be separated into water-tight compartments. The teaching materials may sometimes act as learning materials and vice-versa.

Mali (1974) found through a study that the kind of reading material used was a significant factor affecting retention of literacy. In a study conducted in Kerala, Reghu (1987c) found lack of suitable books and writing materials as one of the reasons for dropping out of learners from literacy classes. Saxena (1989) opined that the environment of AECs may be improved through the supply of techno-pedagogical inputs like rapid learning materials, teaching / learning aids, improved black^boards and roller boards.

Regarding the teaching-learning materials used at the AECs, Hebsur et al (1981) reported that six per cent of the centres had no black boards, seven per cent had no text-books and 30 per cent had no charts or posters. On the other hand, it was gratifying to see that 42 per cent of the centres had a supplementary text book, and 38 per cent a work book.

Aikara and Henriques (1982) reported that as many as 13 per cent of the AECs had no black^board and four per cent had no text books

According to Ganguli (1983) most of the AECs were reported to be using the primers, work books, charts, booklets and few periodicals and other teaching-learning materials.

Pillai (1984) found that in all the 50 RFLP centres studied by him, primers published by KANFED/SRC were used. The weekly published by KANFED, namely, 'KANFED NEWS' was read and discussed at the centres. Note books and flash cards were used in many centres, but not all. Slates were used in all the 50 centres.

Pillai (1987a) reported that 90 per cent of the respondents had stated that instructional materials like charts, posters, models, flash cards and blackboard were available in the centres.

Rajyalakshmi (1989) conducted a study in the Rayalaseema area of Andhra Pradesh and found that teaching-learning materials available at the non-formal education centre was a significant factor in predicting the academic achievement of the learners.

Many studies reviewed identified the variety of teaching-learning materials used at the AECs. Report on the significance of teaching-learning materials in the prediction of achievement of learners has also been

reviewed. A similar trend is expected in the present study also.

2.5.3.4 Human resources

In this study, the variable human resources is considered as the different categories of resource persons who have handled classes at the AEC.

The instructors of the AECs are usually directed at the time of their training and afterwards to mobilise resources-both human and material-for the successful conduct of the programme. Usually the locally available experts and experienced persons are invited to talk to the learners, lead discussions, answer doubts and arrange demonstrations.

According to Chandra and Shah (1987) the learning experiences at AECs will be appropriate only if the human resources are judiciously made use of. The authors opined that the service of experts - doctors, educationists, environmentalists, child-specialists and others-could be procured for special talks and demonstrations

Pillai (1987a) reported the results of an impact study of adult education programmes conducted in Kerala which revealed that the frequency of visits by the resource

persons differed according to their category as well as the centre. It was found through the study that the frequency of visits by social workers, panchayat members, supervisors and representatives of women's clubs were high and that by police officials, college principals, lawyers, nurses and mid-wives were low.

The studies reviewed revealed the different categories of resource persons who visisted the AECs for handling classes and their frequency of visit. It is expected that more the number of categories of resource persons who handle classes at the AEC, more will be the achievement of learners.

2.5.4 Organisational aspects

There were nine variables selected under the major factor, organisational aspects A review of the research studies on each variable is given below.

2.5.4 1 Community support

In this study community support is considered as the support and co-operation received from the local community in the organisation and conduct of the AEC.

The success of any development programme depends on the degree to which the local community support is ensured.

Dighe et al (1981) reported the results of appraisal studies conducted in Rajasthan, Gujarat, Bihar, Tamil Nadu and Maharastra which revealed that due to lack of community participation, the instructors had to hold the AECs in his/her own home. The studies conducted by Sharma and Sharma (1981), Shah (1983) and Ramabrahmam (1988) also revealed lack of community support to the AECs. However, Pillai (1987a) reported that the learners of the RFLP centres were satisfied with the local support they received at the centre.

Based on the results of a study conducted in the RFLP centres in Kerala, Pillai (1984) reported that, of the 50 centres studied, 72 per cent had local committees The study also revealed that though most of the local committees had not been active in general, in 28 per cent of tne centres the local committee members gave some financial assistance.

Ganguli et al (1985) reported that in a study conducted in Bihar, with regard to the nature and quantum of help and co-operation from the local committees, 14 out of 19 supervisors interviewed reported that 'Mukhiya' and 'Sarpanch' of the villages helped in various ways, for instance by helping in conducting surveys to determine the possible clientele group,

motivating learners and selecting instructors and locations for centres.

Rengaswamy (1985) reported that the Madurai Institute of Social Work formed an advisory committee in every village where it planned to start an AEC and the members of these committees were expected to assist the animator in carrying out his day-to-day activities and organise programmes at village level whenever the need arose.

According to Mohanty (1988), community support is essential for success of non-formal education and the non-formal education teachers need to be encouraged for enlisting co-operation of public members in either teaching or in conducting various types of games, sports and cultural activities which will make the programme more interesting.

According to Directorate of Adult Education (1989) for ensuring community participation in the activities of the AECs, there should be close contact with community leaders, village adult education committees should be organised and panchayat samithi should be involved.

It could be seen from the literature reviewed that community support was made available to the AECs through

different ways and in varying degrees. A few studies suggested the ways for ensuring community support which is very much required for the smooth functioning of the AECs It is expected in this study that community support will have a direct bearing on the achievement of adult learners.

2 5.4.2 Supervision

For the purpose of this study supervision is viewed as the visit of supervisors to the AECs.

Sharma and Sharma (1981) reported from a study conducted in New Delhi that there seemed to be no common pattern of supervisors' visits to the centres.

Shah (1983) reported that against the expectation of one supervisory visit to each centre in a month, it was found in a study conducted in the RFLP centres in Gujarat that only 37 per cent had done so. The study further revealed that out of 191 instructors interviewed, tow-third of them reported that the supervisors visited the centres at least twice a month.

Based on the results of a study conducted in the RFLP centres in Kerala, Pillai (1984) recommended that for optimum efficiency in supervision, one supervisor

should not be entrusted with supervision of more than 10 centres and this would enable one to visit a centre at least three times a month.

In a study conducted in Bihar, Gangula et al (1985) found that 80 per cent of the instructors interviewed did not face any problem in getting the supervisors and only 10 per cent of the instructors complained that supervisors never visited their centres. The study further revealed that there was no uniformity in the quantum of work assigned to the supervisors. There were instances where a supervisor was responsible for 25 centres while some others had hardly 10 centres to look after. In another study, Rao (1988) found that the number of centres allotted to each supervisor ranged from 21 to 60 according to the implementing agency and the frequency of visits by the supervisors ranged from one to three visits in a month for each centre.

Ramabrahmam (1988) conducted a study in Andhra Pradesh which revealed that effective supervisory methods included regular visists, both scheduled and surprise of supervisors to the AECs under their control.

Majority of the studies reviewed revealed the periodicity of supervisors' visit to the AECs. A few studies reported the nature of visit done by supervisors such as whether it was with or without prior information. It is anticipated that the present study will reveal a positive significant relationship between supervision and achievement of learners.

2.5.4.3 Supply of inputs

In the present study supply of inputs is considered as the timely and adequate supply of materials for lighting, teaching-learning and seating facilities and resource persons to the AEC and the usefulness of them.

Hebsur et al (1981) felt that those learners who had adequate learning materials performed better in literacy. Aung (1982) reported the findings of the evaluation committee on 'mass education' in Burma which revealed that scarcity of supplementary reading materials resulted in the relapse of neo-literates into illiteracy. According to Directorate of Adult Education (1989) teaching-learning materials should be available in adequate numbers for all learners

Inadequacy of the quantity of inputs especially, the teaching-learning materials supplied to AECs was reported by Dighe et al (1981), Sharma and Sharma (1981), Aikara and Henriques (1982), Lal and Mishra (1982), Shah (1983) and Aikara (1985). However, the quantity of teaching-learning materials supplied to the AECs was reported as satisfactory by Verma et al (1981).

Undue delay in the supply of inputs including teaching-learning materials was reported by Dighe et al (1981), Hebsur et al (1981), Aikara and Henriques (1982), Shah (1983), Mathew (1984), Aikara (1985) and Reddy (1987). Even then Aikara (1984) reported that majority of the AECs received the teaching-learning materials in time. Irregular supply of teaching-learning materials was reported by Sharma and Sharma (1981) and Ganguli et al (1985).

Dighe et al (1981) recommended that teaching-learning materials should be relevant to specific occupations of learners. Khajapeer and Reddy (1981) found through their study that all the participants interviewed liked the teaching-learning materials given to them which provided evidence to conclude that the materials were need-based and interest-based.

and in proper format including the vocabulary. Ramabrahmam (1988) reported that the instructors included in his study differed on the relevance of study/teaching materials.

Aikara (1984) found timely supply of learning materials as one of the inputs which were likely to produce better results in learning outcomes. Saxena (1989) opined that non-availability of suitable instructional and reading materials in time serve as demotivating factor for the learners.

The studies reviewed provided information on the timeliness, adequacy and relevance of inputs, especially teaching-learning materials supplied at the AECs. It could be inferred from the literature reviewed that the supply of inputs should be timely, adequate and relevant so as to provide an environment conducive for the adults to learn. Hence it is postulated that supply of inputs will have positive and significant relationship with achievement of adult learners

2.5 4 4 Training

The term 'training' has been defined by different authors in connection with various fields of activities.

According to Charles and Charles (1938) training becomes the part of the experience of an individual whereby he learns successfully to carry on any gainful occupation.

Halsey (1956) remarked that it was the overall objective of every training programme to cause people to become interested in their work and to aid them to acquire knowledge and skill necessary to do that work well.

According to Lynton and Pareek (1967) training is primarly concerned with preparing the participants for certain lines of action which are delineated by technology and the organisation in which he works. The main focus in training is on internalising the skills for action by giving opportunities to participants to practise the new skills in situations resembling the complexities of real life.

Bennis (1969) conceived training for organisation development as a small group effort designed to make its participants more aware of themselves and of the group process. The group works under the guidance of a professionally competent behavioural scientist and explores group processes and development through focussing

attention on the experienced behaviour of its members.

Littlefield et al (1971) remarked that training is the continuous systematic development among all levels of employees of that knowledge and those skills and attitudes which contribute to their welfare and that of the company.

Peter (1972) observed that training is a socialization process by which the individual acquires knowledge attitudes and skills to meet the expectation of those who influence his behaviour.

Dahama (1973) stated that training is a means to educate a person so as to be fitted, qualified and made proficient in doing some job

Coombs and Ahmed (1974) opined that training emphasises a more systematic and deeper learning of specific skills and related knowledge

Rao (1975) defined training as a kind of learning process where a selected group of individuals undergo learning experiences to internalise the skills, resulting in modification of behaviour towards job performance

According to Aslam (1979), training for skill-development tries to bridge the gap between the existing skills and the new technology on the one side and

develops skills amongst the unskilled on the other side.

For the purpose of this study training is viewed as the period of training in adult education undergone by the instructor during the year of study and the usefulness of the training undergone.

Training occupies an important place in adult education programme. The training of instructors is considered critical for the success of the programme as he/she is the key level or front-line worker (Directorate of Adult Education, 1980a). According to the Directorate of Adult Education (1980b) the training programme "is fundamentally a process of education and has to reflect the main characteristics of the methodology that the functionaries would have to follow while working with the learning groups at the block level"

Debnath (1971) in his study of some important determinants of teaching efficiency found that training was significantly related to teaching efficiency.

According to Dighe et al (1981), Mohankumar (1985) Rengaswamy (1985), Reddy (1985a) and Rahi (1989) training of adult education functionaries is a significant input and its absence or inadequacy may adversely

affect the programme

Shah (1983) reported the results of an evaluation study conducted in the RFLP centres in Gujarat which revealed that training was given to the instructors five to six months after the centres started working

Suryamani and Reddy (1985) revealed through a study conducted in Andhra Pradesh that the attitude and job satisfaction of the organisers of adult education programme were found to be significantly associated with training.

Mohankumar (1985) stated that in many training programmes the attendance is not full and those who are left out or come late are not given the initial training again The author further commented that many trainers who are invited as resource persons from other departments simply give lectures on the technical aspects of their subject which the trainees are neither able to understand nor able to retain. Saxena (1989) also stated that many agencies find it difficult to provide training to their instructors due to non-availability of resource persons in their locality.

Rahi (1989) opined that lack of attention given to the duration and content of the training programme

is the main deficiency in the training programme. Earlier, Dighe et al (1981) had reported the results of appraisal studies which revealed that there was a good deal of variability in the period for which the training programmes for instructors were organised and there seemed an overall tendency for not giving the needed attention to even the recommended duration of training.

Reports of several authors reviewed here indicated that training of functionaries is a significant input in adult education. Training has been found to be significantly related to teaching efficiency. It could also be seen from the literature that the adult education instructors varied with respect to the period of training attended by them and the satisfaction derived from it. It is postulated that training undergone by instructor will be positively and significantly related to achievement of adult learners

2.5.4.5 Monitoring

According to George (1987) monitoring is a continual routinised collection and collation of information regarding the ongoing processes and feeding back an appropriate and relevant portion of this for sustaining and improving the complete system of adult education.

In the present study monitoring is considered as the inspection of the AEC by superior officers and the consequent modifications effected in the conduct of the centre.

Shah (1983) reported the results of an evaluation study conducted in the RFLP centres in Gujarat which revealed that according to 84 per cent of the instructors, the project officers paid only one visit to the centres

Monitoring is essential in any programme and it is more so in the eradication of illiteracy among adults. Hence it is hypothesised that there will be significant positive relationship between monitoring and achievement of learners in literacy, awareness and functionality.

2 5 4 6 Evaluation

According to Reddy (1985a) evaluation is the process of detecting strengths and weaknesses of any programme, for employing corrective measures and keeping the programme on the track.

Rogers (1986) remarked that evaluation is process of making personalised judgements, decisions about achievements, about expectations, about the effectiveness and value of what we are doing According to the author,

evaluation could be distinguished between external and occasional evaluation, practised by the organiser of the programme or some inspector or external validating body and internal, more regular evaluation, practised by the teacher in the course of the teaching programme.

George (1987) opined that evaluation consists in ascertaining the magnitude and attributes of achievements, shortfalls in achievement and non-achievement of the objectives and finding out the reasons for them The aim of evaluation, as stated by the author, is to provide dependable evidence for optimal decision making

In this study evaluation is viewed as the nature of evaluation and evaluators involved in the conduct of evaluation of learners at the AEC

Pillai (1987a) conducted a study on the impact of adult education programmes in Kerala and reported that nearly 75 per cent of the learners studied reported that they were subjected to frequent internal evaluation by the respective instructors Regarding external evaluation, most of the learners reported that oral tests, interviews and such others were held occasionally during the course of the programme and also towards the end by the organis-

ing agency, their representatives, supervisory staff and resource persons

Reports of the evaluation studies reviewed provided information on the frequency and method of conducting evaluation of the learners at the AECs. It is expected that the nature of evaluation and evaluators involved will have a direct bearing on the achievement of learners at the AEC.

2 5.4.7 Reporting

It is considered in this study as the act of sending monthly reports on the activities of the AEC by the instructor to the authorities concerned

Mohankumar (1985) remarked that unless progress of the AEC is reported properly, the whole monitoring system may collapse The author further opined that improper and inadequate reporting is one of the major set-backs to adult education programme.

Mohankumar (1985) commented that the agencies are able to get reports from supervisors and instructors by putting pressure on them The author further observed that even though clear guidance is given on the sending of reports, many do not know how to write the report or they may fill it without proper understanding

Ramabrahmam (1988) stated that one of the main functions of the supervisor is to ensure that they follow the reporting systems, that is, monthly and quarterly reports. The study conducted by the author in Andhra Pradesh revealed that all supervisors reported compliance with the instructions in this regard and all instructors sent the reports in time. The supervisors felt that the formats for reporting were too lengthy and the size should be reduced

The studies reviewed provided details of the regularity of reporting and the proper use of formats for sending reports. It is anticipated that reporting on the activities of the AEC by the instructor to the authorities concerned will positively and significantly influence the achievement of learners.

2 5 4.8 Location of the centre

It indicates in the present study the nearness of the AEC to the learners' residence.

Based on the results of a study conducted, Sudame and Bastia (1981) suggested that the centres should be centrally located, giving easy access to most of the learners. Ganguli et al (1985) reported that in identifying a place where the centre should be organised, most

of the supervisors felt that the convenience of the learners and their preference for the place were given due consideration. According to Chandra and Shah (1987) the meeting place of adult learners need to be near the learners' home. The Directorate of Adult Education (1989) recommended that the AECs should be in the vicinity of the learners since most of the centres are functioning in the night.

Cross (1981) identified inconvenient location of the AEC as one of the institutional factors which act as barriers to adult learning. In a study conducted in New Delhi, Sharma and Sharma (1981) found unsuitable location of centre as one of the difficulties experienced by instructors in running the centres. Sudame and Bastia (1981) found through a study that 65 per cent of the centres in the tribal communities in Orissa were situated more than one kilomter away from the learners' houses which was one of the reasons for the absence of learners at the centre. Distance to the centre as a reason for droppage of learners was reported by Pillai (1984). In a study conducted in Kerala, Pillai (1987a) identified the distance of AEC from the residence of the learner as a barrier to the success of the programme.

Khajapeer and Reddy (1981) reported that out of a sample of 160 participants of adult education programme

interviewed, 146 participants liked the location of the centre mentioning the nearness of the centre as one of the reasons for it. Prasad (1985) reported the findings of studies conducted in Andhra Pradesh, Rajasthan, Bihar and Maharashtra which revealed that convenient location of the centre was one of the motivating factors for the learners to attend the adult education programme. Pillai (1984) and Ramabrahmam (1988) observed that majority of the learners were satisfied with the location of the centre. According to the Directorate of Adult Education (1989) location of the centre is vital to reguar attendance and success of literacy learning

All the reports reviewed indicated that the location of the centre should be in the vicinity of the learners so that they can reach the centre easily. Hence it is postulated that more the nearness of the AEC to the learners' residence, greater will be their achievement in literacy, awareness and functionality.

2.5.4.9 Post-literacy facilities

According to Ansari (1982) post-literacy may be defined as 'systematically organised learning opportunities for persons who have had access to basic education through either primary education, adult education or any other system'. The author stated that post-literacy

has also been defined as all those materials and structures, which enable the newly literate adult to keep up, use and develop the knowledge he has acquired and the abilities generated in him through literacy teaching.

In this study post-literacy facilities denote the facilities for the learners to practise the acquired literacy skills.

Nagappa (1966) revealed through a study that the reading interest of neo-literates could be sustained more systematically by opening community literacy centres in various localities and supplying necessary materials. Pillai (1987a) reported that the University of Kerala had issued a set of neo-literate books each to those learners who secured more than 75 per cent marks in the external evaluation and this enabled some of the centres run by the University to start neo-literate libraries or nucleus of a continuing education centre.

Ansari (1982) opined that the main objectives of post-literacy programme should be 'to enable the participants to persue in a self-reliant manner learning activities for a better realization of their capabilities and for fuller contribution to the well-being of their families, the community and the country'. The author further stated that the contents of these

programmes have to be very flexible and related to the interests and needs of the beneficiaries. Venkataiah and Reddy (1983) and Jayagopal (1985) have remarked that post-literacy programmes are important not only to prevent neo-literates from relapsing into illiteracy but also to set them on the path of life-long education. Ganguli et al (1985) reported that the learners of AECs pointed out that arrangements for continuing education were necessary so as to retain the newly acquired literacy skills with them.

According to Ansari (1982) past experiences and studies have shown that lack of inadequacy of suitable post-literacy and follow-up activities have been a serious drawback of the adult education programme not only in our country but in other developing countries as well. Ganguli et al (1985) reported that the Assistant Project Officers of adult education programme in Bihar realised that in the absence of adequate follow-up programme, a number of neo-literates were likely to relapse into illiteracy.

The literature reviewed substantiated the need for post-literacy facilities. It is expected that post-literacy facilities will have a direct bearing on the achievement of learners in this study.

2.5.5 Learner

There were 10 variables selected under the major factor, learner. A review of the research studies on each variable is given below.

2.5 5.1 Motivation to attend the programme

According to Rogers (1986) motivation is usually defined as those factors that energize and direct behavioural patterns organised around a goal. The author further remarked

> Motivation is frequently seen as a force within the individual that moves him or her to act in a certain way. Motivation in education is that compulsion which keeps a person within a learning situation and encourages him or her to learn

Goyal and Kakar (1987) stated that motivation is a practical art of applying incentives and arousing interests for the purpose of causing people to perform in a desired way, it designates the act of choosing relevant material and presenting it in such a way that it appeals to the people's interest and causes them to perform the work at hand willingly and complete it with sustained enthusiasm.

Motivation of learner to attend the programme is viewed in this study as the need associated with the learner which energized and directed him to attend classes at the AEC

Abraham and Prasanna (1986) stated that motivation to learn is an important determinant for the success of adult education programme. Saxena (1989) opined that learners' motivation for learning, their mobilisation to attend adult education programme with sustained interest and their active involvement in the learning process are important and decisive conditions for the success of the adult education programme.

Lowe (1975) pointed out the importance of the need to ascertain motivations of the learner before starting any adult education programme. According to Bnola (1985) motivational profiles of adult learners vary from country to country and hence there may not be universal strategies that can generate suitable motivation in adult learners. The author further opined that motivational factors are related to problems and needs of adult learners

According to Prasad (1985) it is important that an adult learner who joins an AEC is sufficiently motivated and has faith that his participation in the programme would benefit him in terms of acquiring reading and writing skills, achieving better functional knowledge and awareness, which in turn would contribute to general improvement in his life. Therefore, for evolving an effective motivational

strategy it is important to understand the nature and level of motivation and to identify the factors that motivate adult learners.

The adults attending the educational programmes in rural areas usually lack motivation (Bhangoo, 1989) Lack of motivation among adult learners, particularly those who are deprived socially, culturally, intellectually and economically has been a basic constraint in the successful implementation of the adult education programme (Prasad, 1985) Sambaiah (1983[b]) reported the results of a study addressed directly to drop-outs in the Telangana district of Andhra Pradesh which revealed that their motivation was adversely affected due to inadequate physical facilities, irrelevant content, improper teaching techniques and incompetency and unpleasant behaviour of instructors.

The reports of the various authors reviewed here indicated that the adult learners should be properly motivated to attend the adult education programme and their level of motivation should be maintained high to ensure their active participation in the programme. It is postulated in this study that there will be significant positive relationship between motivation to attend the programme and achievement of learners in literacy, awareness and functionality.

2.5.5.2 Mass media exposure

Rogers and Svenning (1969) defined mass media exposure as the degree of exposure to mass communication channels which include newspaper, magazines, film, radio and television. According Badrinarayanan (1977) mass media exposure was the degree to which different mass media sources were utilized by the respondents.

In this study, mass media exposure of learner is considered as the learner's exposure to mass media sources.

According to Agrawal (1977) it has been found that women more than men learn or gain in knowledge as a result of television viewing, who are typically less educated as compared to men

Khajapeer (1978) conducted a study in the field of functional literacy and found that newspaper reading and radio listening of learners were positively and significantly related to their performance in literacy.

Sripal (1978) established positive relationship between knowledge gain and mass media exposure.

Agrawal (1981) stated that there is a recurrent research finding from several studies that television viewing helps in equalizing 'knowledge gap' between literates and illiterates.

Mohanty (1985) stated that adult education when properly translated into operational terms is reduced to a series of communication tasks, and therefore needs the support of the communication media, materials and structures. The communication media also need the support of adult education so that the messages are understood perceived and favourably treated by the intended audience

Robinson and Groombridge (1985) pointed out the variety of ways in which the media have been supporting adult education The media have been generating awareness and interest among masses for increased amount of education. The media have been providing learning materials which when viewed by adults may generate motivation to learn.

Thus, most of the studies reviewed indicated that mass media exposure can positively and significantly contribute to achievement of learners A similar trend is anticipated in the present study also.

2 5 5.3 Empathy

For the purpose of this study empathy of learner is viewed as the ability of learner to perceive the situations from others' stand point

Bhola (1977) suggested that data on an adult learner's use of new attitudes and skills may be collected in nine clusters among which one was modernization and empathy was identified as one of the components of modernization.

The adult learners may vary in their ability to transpose themselves imaginatively into the feeling and acting of another.

A learner will be able to adjust himself/herself with the instructor and other learners at the AEC if he/she is having the ability to empathise. Hence the empathy of the learner is expected to contribute to his/her achievement at the AEC.

2.5 5.4 Attendance at the centre

In the present study attendance of learner at the centre is considered as the regularity of the learner in attending classes at the AEC

Sudame and Bastia (1981) reported that in most of the centres in the tribal communities in Orissa, the percentage of daily attendance, when verified without prior information, was found to be less than 30 per cent. Gomathimani (1982) also identified that attendance in most of the AECs was far from satisfactory. Based on

the results of a study conducted in the Telangana district of Andhra Pradesh Sambaiah (1983a) reported that majority (80.6 per cent) of the instructors pointed out that the attendance of learners in the centres was less than 50 per cent. Shah (1983) reported the results of an evaluation study conducted in the RFLP centres in Gujrat which revealed that the learners' response and attendance record indicated an average attendance of 17 per month. Based on the findings of a study conducted in the RFLP centres in Kerala, Pillai (1984) reported that when surprise checks were done, the average attendance per cent or learners was found to be fifteen. Unsatisfactory attendance of learners at the RFLP centres in Bihar was reported by Ganguli et al (1985) . Through another study conducted in Kerala, Pillai (1987a) found that nearly 60 per cent of the centres run by the University had an average attendance of 20 to 24 learners. The study also revealed that as regards other agencies, a maximum of 45, 45 and 60 percentage of attendance were secured by Voluntary agencies, Department of Rural Development and State Adult Education Department respectively.

Sudame and Bastia (1981) suggested that in order to increase the attendance at the centres, the timings of class should be decided in consultation with the

learners, according to their convenience rather than the convenience of the instructors.

On the basis of a study conducted in the Visakhapatnam district of Andhra Pradesh, Rao (1984) reported that while the learners' achievement in literacy skills, information about occupation and banking service and their saving habit were positively and significantly related to their percentage of attendance, their agricultural knowledge did not seem to be affected by the regularity in attending classes The study also revealed that as for the learners awareness about secular principles, party symbols, prominent political leaders, preventive measures for health, scientific child delivery and family planning, it increased with increase in attendance.

Ramabrahmam (1988) opined that the objectives of adult education programme cannot be realized unless a majority of the learners enrolled attend the centres regularly. A study conducted by the author in Andhra Pradesh revealed that an overwhelming majority of learners in the sample (84 per cent) said that they regularly attended the AEC. The study also revealed that the average attendance of learners ranged from 21 to 26 per day.

According to the Directorate of Adult Education (1989) in the place of 30 learners enrolled, if the daily

attendance is 20-25 it is fairly good, 15-20 is just normal and if less it means there is something wrong and one has to probe into the matter to rectify the situation.

The studies reviewed revealed that the attendance of learners at the AECs was not upto the mark, in general Report on the significant positive relationship between percentage of attendance and achievement of learners was also available. A similar trend is expected in this study also.

2 5.5 5 Achievement aspirations in literacy, awareness and functionality

For the purpose of this study the variable is viewed as the eager desire of the learner to have achievement in literacy, awareness and functionality.

Khajapeer (1978) reported the results of a study conducted in the field of functional literacy which revealed that achievement aspirations of learners in reading, writing and arithmetic were positively and significantly related to their performance in literacy.

Prasad (1985) stated in the context of adult education that one of the ways to motivate an individual is to help him realise his own expectations or aspirations.

The author opined further.

> Each man expects something to happen day in and day out which guides his behaviour. It is necessary to guide his expectations on realistic lines so that every expectation turns out to be an achievement which in turn would provide motivation for sustaining the onward activity towards the goal.

Achievement in literacy, awareness and functionality is the goal for the adult learners. Hence achievement aspirations of learners in literacy, awareness and functionality are expected to contribute to their achievement at the AECs.

2.5.5 6 Interest in adult education

In the present study, interest of learner in adult education is considered as the concernedness of learner in adult education.

Prasad (1985) reported the results of studies conducted in Andhra Pradesh, Rajasthan and Bihar which revealed that the interest of the learners in adult education programmes is not sustained due to the learning content unrelated to the realities of life.

According to Kundu (1986) interest of the learner in the subject matter is a motivating factor which will contribute to progress in the literacy class room.

Saxena (1989) stated tnat many illiterate adults are not interested in literacy programmes.

In the present study, it is anticipated that interest of the learners in adult education will contribute to his/her achievement in literacy, awareness and functionality.

2.5 5.7 Awareness of the need, significance and advantages of adult education

Lionberger (1960) defined awareness as the first knowledge about a new idea, product or practice. At the awareness stage a person has only general information about it.

In this study, this variable is considered as the lerarner's consciousness of the need, significance and advantages of adult education

Seth et al (1983a) found through a study conducted in the Functional Literacy Centres in Delhi that literacy was not a felt need of the women in the low socio-economic group

Prasad (1985) reported that in Rajasathan the learners' perception of the benefits and relevance of adult education programme varied.

The basic pre-requisite for the success of any development programme is the awareness of the need, significance

and advantages of such programmes among the people for whom they are being implemented. Hence it is expected that the learner's awareness of the need, significance and advantages of adult education may contribute to his achievement.

2.5.5.8 Attitude towards adult literacy

In the present study,this variable is viewed as the positive or negative affect of learner towards adult literacy.

Khajapeer (1978) reported the findings of a study conducted in the field of functional literacy which revealed that attitude of learners towards adult literacy was positively and significantly related to their performance in literacy.

Positive attitude of learners towards adult literacy and adult education was reported by Mariappan (1982) and Sambaiah (1983b) respectively. However, neutral attitude of women learners towards literacy was reported by Seth et al (1983a)

Chouhan and Rai (1984) revealed through a study that non-tribal and small farmers and those who adopted new agricultural technology had a more favourable attitude towards literacy as compared to non-tribal and

marginal farmers and those who did not adopt new agricultural technology The study also revealed a significant and positive correlation between farmers' attitude towards literacy and improved agricultural practices, a precondition for the prosperity of the rural life

Based on the studies reviewed it is expected that attitude towards adult literacy will positively and significantly contribute to achievement of learners.

2 5.5.9 Attitude towards instructor

In this study,the variable is considered as the positive or negative affect of the learner towards instructor.

Khajapeer and Reddy (1981) reported the findings of a research study conducted in Chittoor district of Andhra Pradesh which revealed that out of a sample of 160 learners interviewed, 159 had liked their instructors due to various reasons. The one participant who did not like his instructor, did so, for the instructor did not teach well and also because he was a petty politician type

Sambaiah (1983b) found through a study conducted in the Telangana district of Andhra Pradesh that one of the factors which adversely affected the motivation of

learners was the incompetency and unpleasnt behaviour of the instructors.

From the results of an appraisal study conducted on adult education in Bihar, Ganguli et al (1985) reported an indirect suggestion of some of the drop-outs that the instructors should not come drunk to the centres which revealed that this could also be a reason for some learners leaving the programme.

According to Kundu (1986) liking for the instructor on the part of the learner will contribute to progress in literacy class room.

Ramabrahmam (1988) conducted a study in Andhra Pradesh which revealed that 53 per cent of the learners in the AECs under the agency Andhra Mahila Sabha categorically expressed an opinion that their instructors did not have the capacity to teach them properly. Forty nine per cent of the learners had admitted the instructors' failure to even control them Irregular attendance of the instructors was mentioned by 12 per cent of the learners.

The literature reviewed indicated the liking of majority of learners towards the instructors and identified the reasons for not liking them. It is anticipated in this study that attitude of learner towards instructor will have a direct influence on the achievement of learners

2.5.5.10 Enthusiasm to attend the programme

In the present study, this variable is viewed as the learner's eagerness to attend the adult education programme.

Sharma (1979) reported a short review made by IAEA that there was greater enthusiasm to learn among women adults than male adults.

The learners of AECs may have varying degrees of enthusiasm to attend the adult education programme. It is expected that there will be positive and significant relationship between learner's enthusiasm to attend the adult education programme and his achievement in literacy, awareness and functionality.

2.6 Conceptual frame work of the study

The main objective of the conceptual frame work attempted in this section is to provide an effective back drop against which the theoretical conclusions and the relationships predicted with the selected characteristics of this study could be empirically verified.

The efficiency of AEC represented by the achievement of learners in literacy, awareness and functionality is

conceptualized in the present study to be the direct or indirect consequences of different interacting factors, namely, instructor, instructional processes, material inputs, organisational aspects and learner The different components of every factor are presented hereunder.

1. Instructor

Experience, concept of communication, instructor-learner communication, instructor-learner contact span, information seeking behaviour, information processing behaviour, empathy, job commitment, job satisfaction, attitude towards adult literacy, attitude towards learners, attitude towards job, attitude towards social activities and interest in adult education

2. Instructional processes

Method of teaching, technique of teaching, approach of teaching and content of teaching.

3. Material inputs

Physical facilities, lighting arrangements, teaching-learning materials and human resources

4. Organisational aspects

Community support, supervision, supply of inputs, training, monitoring, evaluation, reporting, location of the centre and post-literacy facilities.

5. Learner

Motivation to attend the programme, mass media exposure, empathy, attendance at the centre, achievement aspirations in literacy, awareness and functionality, interest in adult

education, awareness of the need, significance and advantages of adult education, attitude towards adult literacy, attitude towards instructor and enthusiasm to attend the programme

The empirical validation of the above components may provide much insight to understanding this vivacious phenomenon The conceptual model for the study to be empirically verified is presented in Fig.1

2 7 Hypotheses framed for the study

The null hypotheses framed for the present study are as follows.

1. There is no relationship between experience of instructor and efficiency of AEC
2 There is no relationship between concept of communication of instructor and efficiency of AEC.
3. There is no relationship between instructor-learner communication and efficiency of AEC
4. There is no relationship between instructor-learner contact span and efficiency of AEC.
5. There is no relationship between information seeking behaviour of instructor and efficiency of AEC
6. There is no relationship between information processing behaviour of instructor and efficiency of AEC.
7. There is no relationship between empathy of instructor and efficiency of AEC.
8. There is no relationship between job commitment of instructor and efficiency of AEC

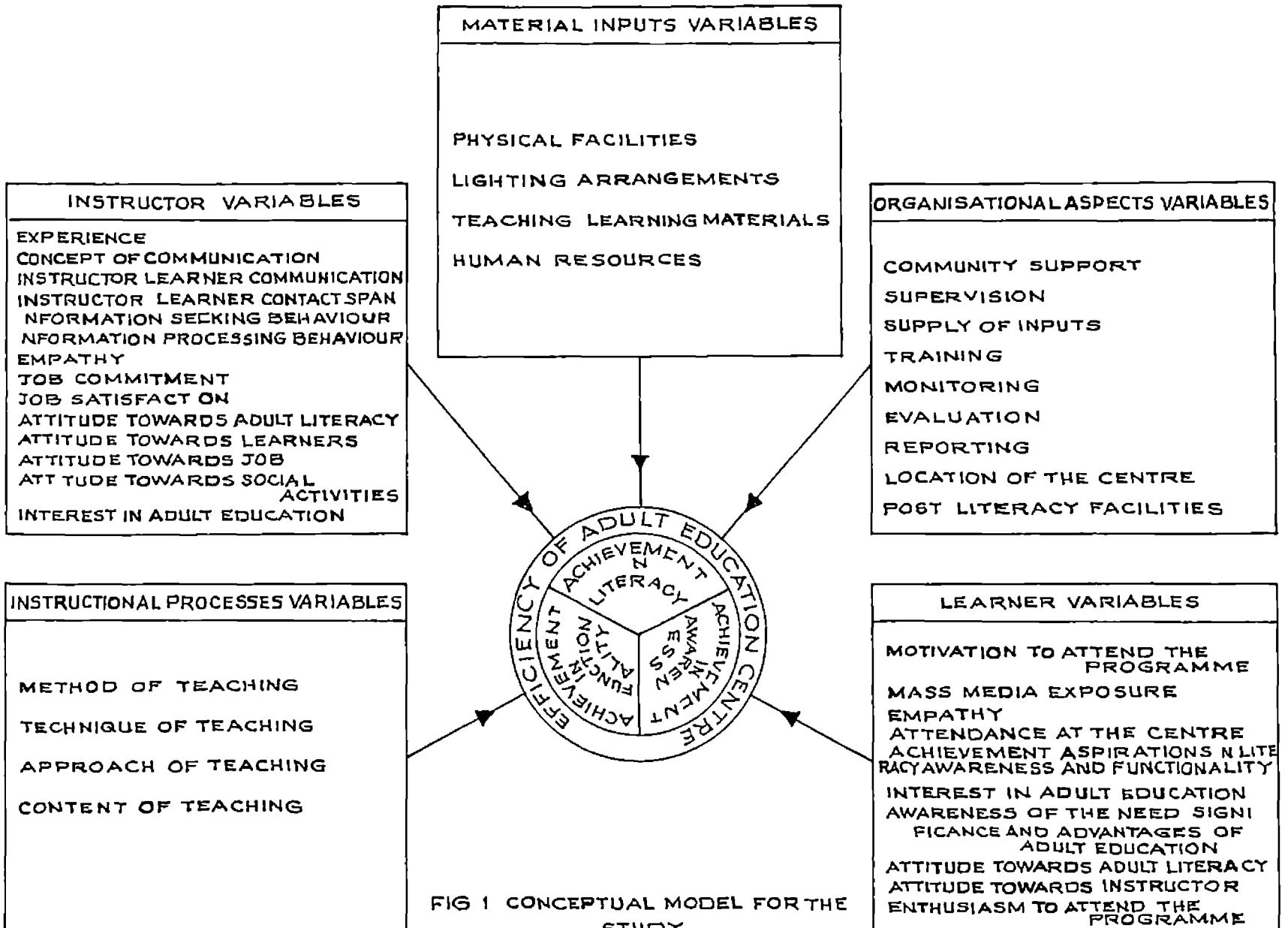


FIG 1 CONCEPTUAL MODEL FOR THE STUDY

9. There is no relationship between job satisfaction of instructor and efficiency of AEC

10. There is no relationship between attitude of instructor towards adult literacy and efficiency of AEC.

11. There is no relationship between attitude of instructor towards learners and efficiency of AEC

12. There is no relationship between attitude of instructor towards job and efficiency of AEC.

13. There is no relationship between attitude of instructor towards social activities and efficiency of AEC.

14. There is no relationship between interest of instructor in adult education and efficiency of AEC.

15. There is no relationship between method of teaching followed by the instructor and efficiency of AEC.

16. There is no relationship between technique of teaching used by the instructor and efficiency of AEC

17. There is no relationship between approach or teaching adopted by the instructor and efficiency of AEC

18. There is no relationship between content of teaching and efficiency of AEC.

19. There is no relationship between physical facilities provided and efficiency of AEC

20. There is no relationship between lighting arrangements provided and efficiency of AEC.

21. There is no relationship between teaching-learning materials used and efficiency of AEC.

22. There is no relationship between human resources provided and efficiency of AEC.

23 There is no relationship between community support received and efficiency of AEC.

24. There is no relationship between supervision and efficiency of AEC.

25. There is no relationship between supply of inputs and efficiency of AEC.

26. There is no relationship between training undergone by the instructor and efficiency of AEC

27. There is no relationship between monitoring and efficiency of AEC

28. There is no relationship between evaluation and efficiency of AEC

29 There is no relationship between reporting and efficiency of AEC

30 There is no relationship between location of centre and efficiency of AEC.

31. There is no relationship between post-literacy facilities and efficiency of AEC.

32. There is no relationship between motivation of learner to attend the programme and efficiency of AEC

33. There is no relationship between mass media exposure of learner and efficiency of AEC.

34 There is no relationship between empathy of learner and efficiency of AEC.

35. There is no relationship between attendance of learner at the centre and efficiency of AEC.

36. There is no relationship between achievement aspirations of learner in literacy, awareness and functionality and efficiency of AEC.

37. There is no relationship between interest of learner in adult education and efficiency of AEC

38. There is no relationship between learner's awareness of need, significan and advantages of adult education and efficiency of AEC.

39. There is no relationship between attitude of learner towards adult literand efficiency of AEC.

40. There is no relationship between attitude of learner towards instructor efficiency of AEC.

41. There is no relationship in enthusiasm of learner to attend the pr and efficiency of AEC

33. There is no relationship between mass media exposure of learner and efficiency of AEC.

34 There is no relationship between empathy of learner and efficiency of AEC.

35. There is no relationship between attendance of learner at the centre and efficiency of AEC.

36. There is no relationship between achievement aspirations of learner in literacy, awareness and functionality and efficiency of AEC.

37. There is no relationship between interest of learner in adult education and efficiency of AEC

38. There is no relationship between learner's awareness of need, significance and advantages of adult education and efficiency of AEC

39. There is no relationship between attitude of learner towards adult literacy and efficiency of AEC.

40. There is no relationship between attitude of learner towards instructor and efficiency of AEC.

41. There is no relationship between enthusiasm of learner to attend the programme and efficiency of AEC

METHODOLOGY

CHAPTER III

METHODOLOGY

The present study was undertaken with the main objective of developing and standardising a scale to measure the efficiency of AECs. The procedure followed in conducting this research study is furnished in this chapter under the following sub headings.

1 Selection of Adult Education Centres
2. Selection of respondents
3. Identification and selection of independent variables
4 Operationalisation and measurement of dependent variable
5. Operationalisation and measurement of independent variables
6. Development of the scale to measure the efficiency of Adult Education Centres
7. Standardisation of the scale
8. Categorising the Adult Education Centres
9. Field procedure
10. Statistical tools employed

3 1 Selection of Adult Education Centres

The study was conducted among the AECs which functioned during the period 1988-'89 in Kerala. The number of AECs

organised and conducted by the different agencies in Kerala during 1988-'89 were collected and details are presented in Table 3.1

Table 3.1 Agency-wise distribution of Adult Education Centres in Kerala (1988-89)

Sl. No.	Name of the agency	No.of AECs	Per cent
1.	Rural Development Department	3300	64.25
2.	Universities	1160	22.59
3.	Voluntary organisations	676	13.16
	Total	5136	100 00

The data furnished in the above table reveal that major chunk (64.25 per cent) of the AECs were organised and conducted by the Rural Development Department. It was the agency which had organised AECs in maximum number of districts in Kerala (in 11 out of the total 14 districts). Hence the AECs functioned under the Rural Development Department only were selected for the present study. The adult education programme conducted by the Rural Development Department was known as the Rural Functional Literacy Programme (RFLP).

The organisational set up of RFLP in Kerala is illustrated in Fig.2

The RFLP centres were under the direct control of instructors. Eight to ten instructors were supervised by a supervisor, who in turn was directed by the Village Extension Officer (VEO) at the panchayat level and General Extension Officer (GEO) and Block Development Officer (BDO) at the Block level There were Functional Literacy Project Officer (FLPO) and Assistant Development Commissioner - Functional Literacy (ADC-FL) at the district level and Rural Development Commissioner at the state level

3.1 1 Selection of the locale of the study

During 1988-89 RFLP was implemented in all the districts of Kerala except Kottayam, Pathanamthitta and Kozhikode, each district having 300 literacy centres (Rural Development Department, 1989) In addition to the RFLP centres, the Rural Development Department organised and conducted Jana Shikshan Nilayams (JSNs) for providing post-literacy and continuing education programmes to those who become literate through RFLP centres. The details of the districts with Blocks which had RFLP centres and JSNs during 1988-89 are presented in Appendix III

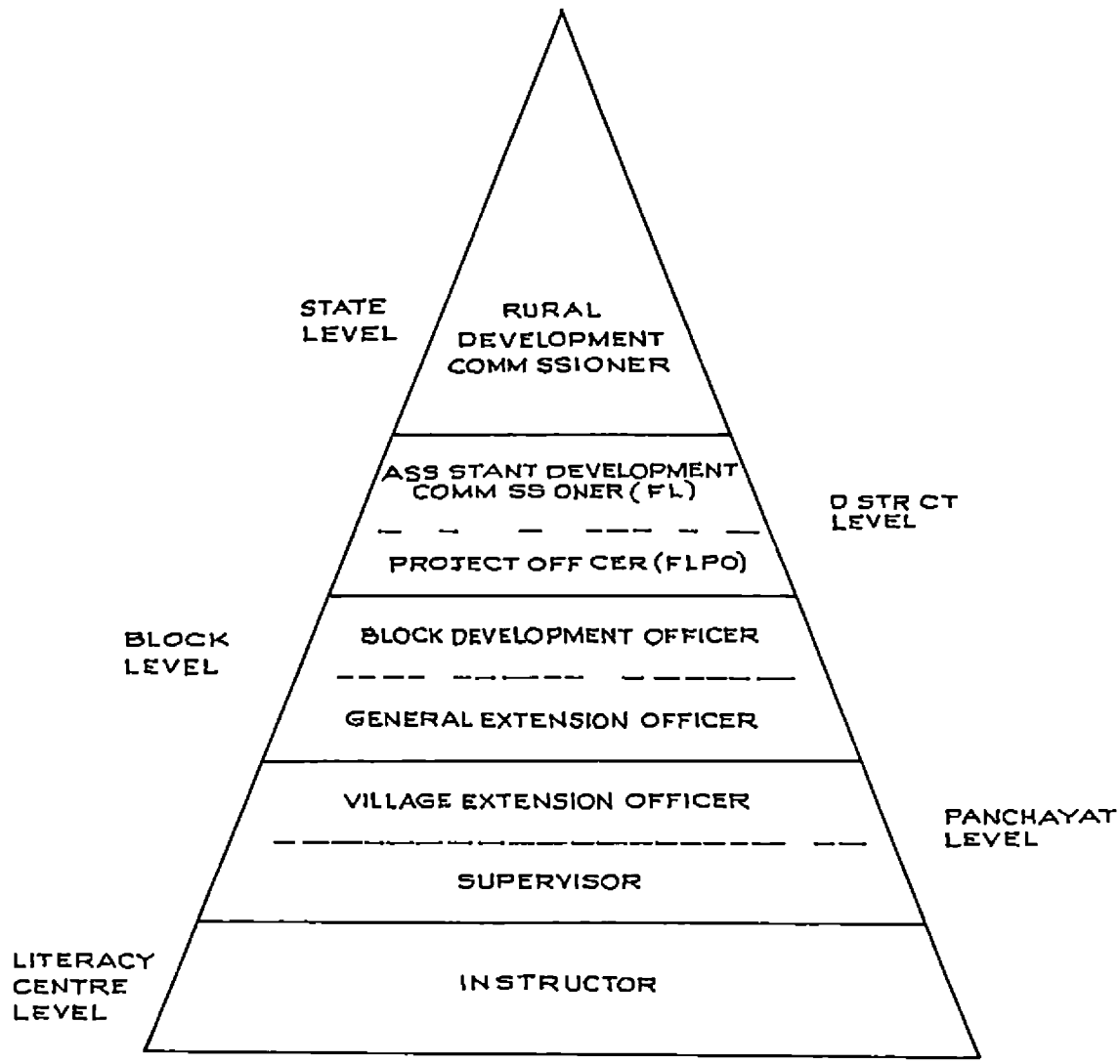


FIG 2 ORGANISAT ON OF RURAL FUNCT ONAL LITERACY PROGRAMME N KERALA

A three stage sampling design was adopted in the present investigation with districts as the first stage units, Blocks as the second stage units and instructors and learners as the third stage units The details of the sampling procedure followed are given below

From among the 11 districts which had RFLP centres during 1988-89, one district was randomly selected by referring to Table of Random Numbers The district thus selected was Thrissur.

Post-literacy facilities was one of the independent variables selected for the study. Hence the Blocks in Thrissur district which had both RFLP centres and JSNs were identified which were Ollukkara and Talikulam Each Block was having 50 RFLP centres and 12 JSNs.

The two Blocks identified were considered as two clusters and cluster sampling procedure was adopted. One Block from among the two was randomly selected by lottery method The Block thus selected was Ollukkara. All the 50 RFLP centres in Ollukkara Block were included for data collection.

3 1.2 Description of the study area

The Rural Development Block area of Ollukkara lies on either side of Thrissur-Palakkad National Highway

between Paravattani and Vaniyampara. The geographical area of Ollukkara Block is 315.73 sq.km. with population of 189,955 and literacy rate of 75.5 per cent Ollukkara Block comprises of seven panchayats and 74 wards with a total number of 32,727 households. The location of the study area is shown in Fig.3.

3.2 Selection of respondents

The main purpose of this study was to develop and standardise a scale to measure the efficiency of AECs for which the major factors contributing to efficiency were identified as instructor, instructional processes, material inputs, organisational aspects and learner. The variables under each major factor were identified and the data were collected from the instructors and the learners. Thus, there were two categories of respondents, namely,the instructors and the learners.

3.2.1 Selection of instructors

Each RFLP centre had one instructor. Fifty RFLP centres were included in the study. All the instructors of the 50 centres were selected Thus there were 50 instructors as the first category of respondents for the study.

3 2.2 Selection of learners

Thirty learners were enrolled in each RFLP centre A sample of six learners were drawn randomly from each

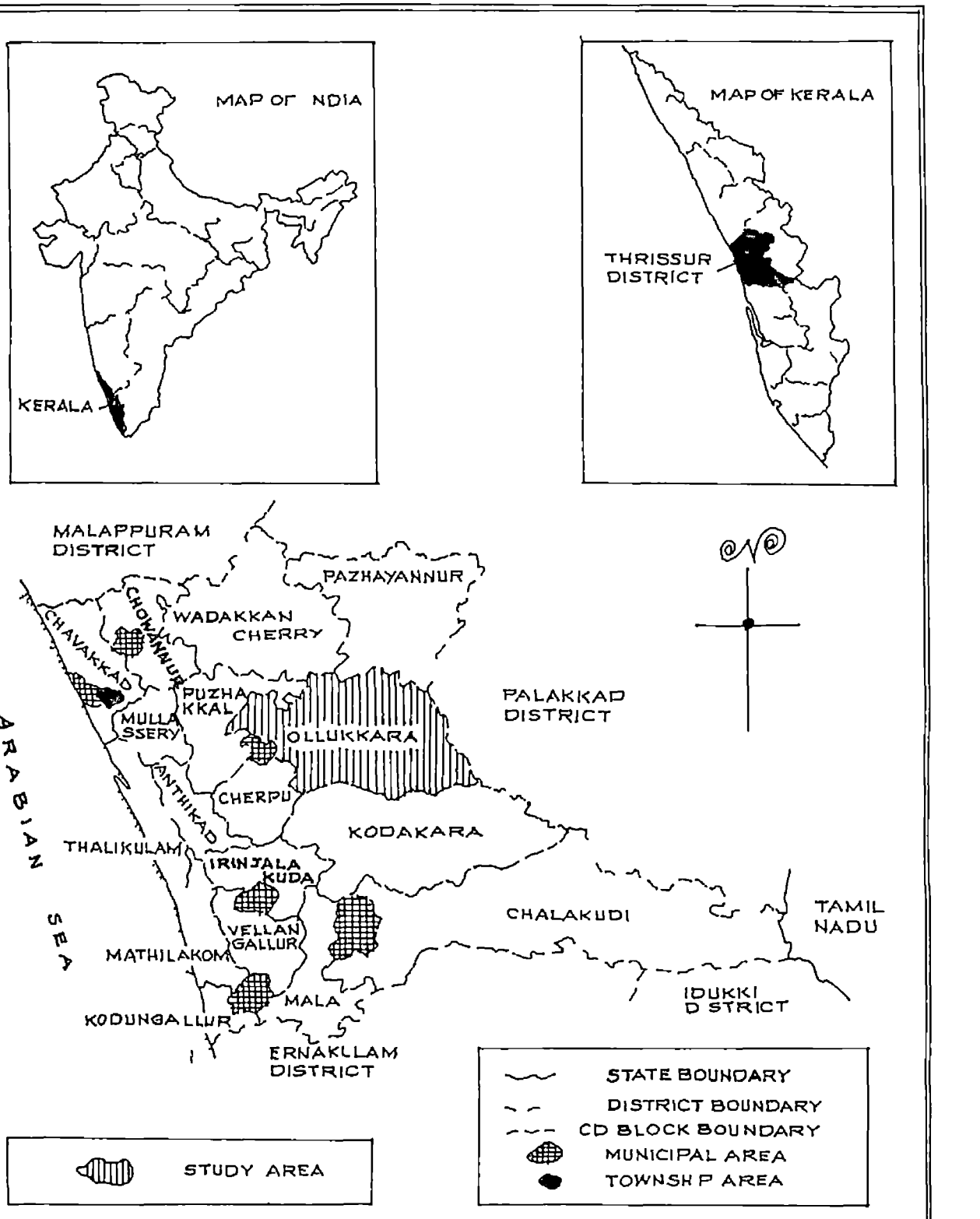


FIG 3 MAP OF THRISSUR DISTRICT SHOWING THE STUDY AREA

of 50 centres so as to get a total number of 300 learners which formed the second category of respondents for the study.

Thus, 50 instructors and 300 learners were included in the study as respondents.

3.3 Identification and selection of independent variables

The five major factors contributing to the efficiency of AECs were identified through review of literature as indicated earlier. The specific factors under each of the major factors formed the variables to be included in the efficiency scale. One hundred and twenty specific factors could be identified under the five major factors as detailed in the previous chapter

To eliminate the irrelevant factors and to include additional relevant factors under the conditions of Kerala and to combine those factors which were overlapping in meaning and content, a pilot study was undertaken in Thiruvananthapuram district during 1987-88. The experts in the field of adult education located at Thiruvananthapuram and the RFLP field functionaries and learners of the AECs in Athiyannoor and Parassala Blocks were the respondents for the pilot study as given below in Table 3.2.

Table 3.2 Category-wise distribution of respondents for pilot study

Sl.No.	Category of respondents	Number
1.	Adult education experts	10
2.	Adult education supervisors	10
3.	Adult education instructors	10
4	Learners of AECs	10
	Total	40

The respondents were asked to indicate as to whether each of the 120 specific factors identified was relevant or irrelevant with regard to its contribution to achievement of learners in literacy, awareness and functionality under the conditions of Kerala. They were also asked to mention any additional specific factor which they perceived as relevant under the conditions of Kerala. In addition, the respondents were asked to combine the specific factors if any, which were overlapping in meaning and content. If 10 per cent or more of the respondents stated that a particular specific factor was irrelevant, it was deleted. An additional specific factor was included under the respective major factor if it was mentioned as relevant by 10 per cent or more of the respondents If 10 per cent or more of the respondents stated that two specific factors were to be combined since they were overlapping in meaning and content, it was done

The pilot study resulted in the deletion of 17 and addition of 57 specific factors resulting in a total of 160 specific factors under the five major factors.

The variables identified were again subjected to relevancy rating by judges to select the most relevant ones as perceived by judges. A questionnaire was prepared to collect the responses from the judges in a five point continuum with response pattern of 'very much relevant','very relevant; 'moderately relevant,'slightly relevant' and'irrelevant'with scores of 5,4,3,2 and 1 respectively. A copy of the questionnaire is furnished in Appendix IV.

Experts and experienced persons in the field of adult education including those from the IAEA, Centre for Adult Education and Extension of the University of Kerala, Department of Adult Education and Extension Service of the University of Calicut, SRC for non-formal education in the various states of India, Professors and Directors of the Adult Education Departments in the different Universities in India, Officers of the Directorate of Adult Education, State Adult Education Departments, Shramik Vidyapeeths and National Literacy Mission and functionaries of RFLP in the State Rural Development Department were selected as judges.

Copies of the questionnaire with clear instructions for filling up the questionnaire were sent to 100 judges all over India. A self-addressed stamped envelope was also enclosed along with the questionnaire for getting back the filled up questionnaire from the respondents. Sixtyfour judges responded. The responses of four judges were discarded for incompleteness of ratings. The scores assigned by the remaining 60 judges were added up for each variable. The relevancy weightage for each variable was calculated as given below

$$\text{Relevancy weightage} = \frac{\text{Total score obtained for a variable}}{\text{Maximum score possible for that variable}}$$

Thus, the relevancy weightage could range from 0.2 to 1.0 under the scoring pattern adopted. The relevancy weightage for each of 160 variables is furnished in Appendix IV.

In the present study, the relevancy weightage secured by the variables ranged from a minimum of 0.64 to a maximum of 0.96 The average of 0 64 and 0 96 was taken as the cutting point for the selection of variables as done by Kunju (1989). Thus all those variables which secured a relevancy weightage of 0.80 and above were selected for inclusion in the study. The number of variables originally included under each major factor and the number of variables finally selected for the study are shown in Table 3.3

Table 3.3 Distribution of variables under the major factors which contribute to efficiency of Adult Education Centre before and after judges' relevancy rating

Sl. No.	Major factors contributing to efficiency	Number of variables originally included for judges' relevancy rating	Number of variables selected for the study after judges' relevancy rating
1.	Instructor	73	14
2.	Instructional processes	8	4
3.	Material inputs	7	4
4.	Organisational aspects	23	9
5.	Learner	49	10
	Total	160	41

The independent variables selected for the study are listed under the respective major factors contributing to efficiency of AEC as follows

Instructor

1. Experience
2. Concept of communication
3. Instructor-learner communication
4. Instructor-learner contact span
5. Information seeking behaviour
6. Information processing behaviour

7. Empathy
8. Job commitment
9. Job satisfaction
10. Attitude towards adult literacy
11 Attitude towards learners
12 Attitude towards job
13. Attitude towards social activities
14 Interest in adult education

Instructional processes

1. Method of teaching
2. Technique of teaching
3. Approach of teaching
4. Content of teaching

Material inputs

1 Physical facilities
2. Lighting arrangements
3. Teaching-learning materials
4. Human resources

Organisational aspects

1. Community support
2 Supervision

8. Location of the centre
9. Post-literacy facilities

Learner

1 Motivation to attend the programme
2 Mass media exposure
3. Empathy
4 Attendance at the centre
5. Achievement aspirations in literacy, awareness and functionality.
6. Interest in adult education
7. Awareness of the need, significance and advantages of adult education.
8. Attitude towards adult literacy
9. Attitude towards instructor
10. Enthusiasm to attend the programme.

3.4 Operationalisation and measurement of dependent variable

The dependent variable selected for the present study was efficiency of AEC which was operationalised as the achievement of learners in literacy, awareness and functionality. The summation of scores obtained for each of literacy, awareness and functionality was taken as the score for achievement of learners The components of literacy were identified as oracy, reading ability, writing ability, numeracy and technıracy.

For evaluating the learners with respect to their achievements in literacy, awareness and functionality, the proportion of marks to be allotted to these dimensions had to be determined. Also, the components of these diamensions and the proportion of marks for the components had to be determined. These were done through judges' rating.

Experts in the field of evaluation of adult learners including those from the University of Kerala, University of Calicut, Mahatma Gandhi University, Kottayam, Kerala Sastra Sahitya Parishat, KANFED, SRC for non-formal education, other agencies which conducted and evaluated adult education programmes and functionaries associated with RFLP of Rural Development Department were selected as judges.

Questionnaires (copy furnished in Appendix V) with clear instructions were sent to 40 judges along with self-addressed stamped envelope The judges were asked to indicate the proportion of marks (out of 100) to be assigned to literacy, awareness and functionality and to the components of literacy for evaluating the learners of AECs. They were also asked to suggest additional dimension(s) and/or their component(s) with proportion of marks for evaluating the learners Thirty three judges responded The responses of two judges were not considered for want of completeness in assigning the proportion

of marks. The responses of 31 judges were pooled and averages worked out to arrive at the following results.

1. The marks to be allotted to literacy, awareness and functionality out of the total 100 for evaluating the learners were 38, 34 and 28 respectively
2. No additional dimension of achievement of learners was identified
3. No additional component of literacy was identified.
4. No components of awareness and functionality were identified.
5. The marks to be allotted to the components of literacy were found as given in Table 3.4

Table 3.4 Marks to be allotted to the components of literacy

Sl.No.	Components	Marks to be allotted
1.	Oracy	7
2	Reading ability	10
3.	Writing ability	9
4.	Numeracy	7
5.	Technıracy	5
	Total	38

The operational definitions and methods of measurement followed in the case of the dimensions of achievement of learners and the components of literacy are presented below

3 4.1 Literacy

It was operationally defined as the performance of learners in oracy, reading ability, writing ability, numeracy and technıracy The summation of scores obtained for each of these components was considered as the score for achievement in literacy.

3.4 1.1 Oracy

It was considered as the ability to express one's own ideas through spoken words

Pillai (1984) measured achievement of learners in oracy by asking each learner individually 11 items of which only 5 were to be answered. Pillai (1987a) measured oracy of learners by asking each learner to answer three questions selected at random from a list of 10 supplied

Oracy was measured in this study by asking the learner to answer seven questions selected at random from a list of 18 supplied The question covered aspects on social institutions, institutional benefits, social issues, small family norm, population control, first-aid,

health and hygiene, radio and television programmes and such other items The questions were asked individually to the learners by the researcher. Instructions were given to the learners to limit the answer to each question within three or four sentences. Clarity of words, correctness of the sentences and fluency in speaking were considered for evaluation giving equal weightage for each of them. The maximum score that could be gained by the learner for the answer of each question was one Summation of scores obtained for the answers of all the seven questions was taken as the score for oracy. The range of possible scores for oracy was from zero to seven

3.4.1 2 Reading ability

It was defined as the ability of the learner to read with understanding.

Pillai (1984) measured the ability of learners to read and understand by using a short paragraph printed in the question paper The learners we e asked to read it, and to state in one sentence what tne paragraph was about

Shah (1983) reported that for measuring the reading ability of learners, no test was administered and the evaluators accepted tne statement of the learners on their ability to read

Rao (1984) measured the reading ability of learners by seeking their responses to questions related to their ability in reading sign boards, letters and newspapers

Ganguli et al (1985) reported that the achievement of learners in reading ability was evaluated by asking the learners to read alphabets and simple sentences

Pillai (1987a) measured the ability of learners to read and understand by asking them to read a given passage which was not seen by the learners before, followed by one or two short questions on the same.

Ramabrahmam (1988) measured reading ability of learners by asking them to read the words and sentences in the primer used by them.

In the present study, reading ability was measured by asking the learner to read a paragraph from the primer and the caption on a poster. Clarity, correctness and speed were taken into account by giving the same weightage to each of them while evaluating the reading ability A score was given for each line of the paragraph if it was read clearly, correctly and fluently The maximum score that could be attained by the learner for reading a paragraph was five and that for the caption on the poster was half a score

The ability to understand was measured in two ways. The first one was by asking the learner on the meaning of the caption on the poster. Half a score was given if the answer was correct The second one was by asking the learner to read and understand a paragraph from the neo-literate book written by the researcher and published by the University of Kerala in November, 1988. Two questions were asked to the learners to measure their ability to understand the paragrpah read. The ability of learners to grasp the details, to grasp the central idea and to make logical inferences were considered with equal importance while evaluating their ability to understand Maximum of the scores that could be given to the answer of each question was two. The score for reading ability was the summation of scores for reading and understanding by the learners. The range of possible scores for reading ability was from zero to ten.

3 4.1 3 Writing ability

It referred to the ability of the learner to write alphabets, words and sentences

Goldson and Ralis (1957) measured the writing ability of Thai villagers by asking them if they could write a letter. Their writing ability was furtner measured by asking them to write something on the interview schedule.

Shah (1983) reported that the writing ability of learners was measured through asking them to write their name, age, sex, religion, caste, occupation, income and the name of the centre on the schedule provided to them.

Pillai (1984) measured writing ability by asking the learners to write words on dictation and to complete sentences by inserting the proper word in the blank space provided within each given sentence.

Rao (1984) measured writing ability of learners by seeking their responses to questions related to their ability to filling up bank, money order and other forms.

Pillai (1987a) measured the achievement of learners in writing ability by asking them to write their own name and address, take dictation of words, complete setence by filling up the blank using word and cooy write the given passage.

Ramabrahmam (1988) measured the ability of learners to write by asking them to write words and sentences from the primer used by them.

Writing ability of learners was measured by two ways in this study. The first one was by asking the learners to copy write a paragraph from the primer used

by them. A score was given for each line of the paragraph if it was written correctly with respect to spelling and grammar. The maximum score of learner could get by copy writing was four

The second part was by asking the learner to take dictation. Ten words from the primer were given for writing dictation. Half a score was given for each word written correctly. Score for writing ability was obtained by adding the scores for copy writing and taking dictation The range of possible scores for writing ability was from zero to nine.

3.4.1.4 Numeracy

It was considered as the ability of the learner to read and write numbers and to do the four arithmetical operations of addition, subtraction, multiplication and division

Pillai (1984) measured numeracy of learners by asking them to complete number series, testing their knowledge of simple arithmetical tables, addition and subtraction of rupees and paise and multiplication of numbers

Rao (1984) measured the arithmetic skill of learners on the basis of their ability in writing numbers, addition, subtraction, multiplication and division

Ganguli et al (1985) reported that numeracy of learners was evaluated by asking them to count

Pillai (1987a) measured numeracy by asking the learners to write the numbers to fill in the blanks of number series and simple arithmetical tables and to do addition, subtraction, multiplication and division

Numeracy of learners was measured in this study through the following methods

1 Asking the learner to read aloud a set of four numbers each of two digits One fourth of a score was given for each number read correctly. Zero score was given if the number was read wrongly

2 Asking the learner to write dictation of a set of four numbers each of two digits. One fourth of a score was given for each number written correctly. Zero score was given if the number was written wrongly

3. Asking to find out the answer for addition and subtraction of two sets of each of two-digit and three-digit numbers. Half a score was given for each correct answer and zero score for wrong answer

4. Asking to find out the answer for multiplication and division of two sets of two-digit figures each. Half a score was given for each correct answer and zero score for wrong answer

5. Asking to fill in the blanks of four items with figures from simple arithmetical tables. One fourth of a score was given for each correct answer and zero score for wrong answer

Score for numeracy was computed by adding the scores obtained for the five methods of measuring numeracy. The possible scores for numeracy ranged from zero to seven.

3 4.1.5 Technıracy

It referred to the learner's mastery over the minimum technical skills of adjusting time in a watch, replacing cells in an electric torch and operating a radio set.

In the present study, technıracy was measured through the following three methods·

1. Asking the learner to change the position of needles on the dial of a hand-wound watch with markings instead of numbers and to read the time. Four different positions of the needles

were asked to be made and time to be read. Each time half a score was given if it was correctly done. Zero score was given if it was wrongly done or if the learner did not do it

2. Asking the learner to replace the used up cells with new cells in an electric torch. Two scores were given if it was correctly done and zero score if it was wrongly done or if the learner did not do it.

3. Asking the learner to operate a transistor radio. A score was given if it was correctly done. Zero score was given if it was wrongly done or if the learner did not do it

Score for technIracy was obtained by the summation of the scores obtained for each of the above methods of measuring technIracy. The possible scores for technIracy ranged from zero to five

Score for achievement in literacy was considered as the summation of the scores obtained for each of the oracy, reading ability, writing ability, numeracy and technIracy. The rate or possible scores for achievement in literacy was from zero to thirty eight

3.4.2 Awareness

Awareness was operationally defined as the consciousness of the learner about socio-economic factors, health and hygiene aspects, civic sense, impediments to development, policies and programmes of the Government and need to organise in persuance of their rights and for group action.

Pillai (1984) measured awareness of felt problems by asking the learners individually 11 items of which only five were to be answered.

Rao (1984) measured awareness of learners in terms of their knowledge related to social, political and medical subjects.

Pillai (1987a) measured awareness of learners by asking each learner to answer three questions selected at random from a list of 10 supplied.

Ramabrahmam (1988) measured awareness by collecting responses from the learners as to whether the organisers had told the learner about the listed social institutions and social issues and by collecting and analysing the learner's opinion on the listed institutional benefits and social issues

Singh (1989) measured the level of awareness of development programmes of illiterate workers by administering an oral test with some items of 'yes/ no' type and some others of 'open end' type

Achievement of learners in awareness was measured in this study by asking the learners to respond to questions of short answer type and question on statements to be answered as true or false These questions covered socio-economic factors, health and hygiene aspects, civic sense, impediments to development, policies and programmes of Government and need to organise in persuance of the learner's rights and for group action The details of the two methods used in the study to measure awareness of learners are furnished below.

1. The learners were asked to answer in three or four sentences the seven questions selected at random from a list of 18 supplied Correctness of the content of the answer was evaluated and scoring was done in the following manner

	Score
Wrong answer	0
Partly correct answer	1

Almost correct answer	2
Fully correct answer	3

The scores obtained by the learner for the answers of all the seven questions were added up The range of possible scores was from zero to twenty one

2. The learners were asked to listen to each of the 13 statements read out and to state whether each statement was true or false. There were ten positive statements and three negative statements. If the learner stated a positive statement as true, a score was given and if he stated it as false, zero score was given. In the case of negative statements the scoring pattern was reversed In the list of 13 statements, the negative statements were the third, eight and twelth ones. The scores obtained by the learner for all the 13 statements were added up. The possible scores ranged from zero to thirteen.

Summation of the scores obtained by the learner through the two methods gave the awareness score for the learner The range of possible scores for awareness was from zero to thirty four

3 4 3 Functionality

Functionality was operationally defined as the application of literacy skills to economic related aspects of learner's life.

of addition in the every day life of the learner. A score of three was given for correct answer and a score of zero was given for wrong answer.

2 Asking the learner to find out the balance amount with a female labourer after spending money for buying provision items for home from the daily wages she got. This question was the application of subtraction. A score of three was given for correct answer and a score of zero was given for wrong answer

3. Asking the learner to find out the cost of 10 kilograms of rice, given the cost of one kilogram of rice. This question was the application of multiplication in the every-day life of the learner. A score of three was given to correct answer and a score of zero was given to wrong answer.

4. Asking the learner to find out the expenditure per head if four persons had gone for a movie together, given the total expenditure incurred This question was the application of division A score of three was given to correct answer and zero score was given if the answer was wrong

5 Asking the learner to write an application addressed to the concerned officer for receiving

some economic benefit. This question was the application of the ability of the learner to write with understanding Out of the total 16 scores allotted for writing this application, six scores were set apart for the format of the application and 10 marks for the content of the application

The score for achievement in functionality was obtained through the summation of the scores for the above five items The possible scores ranged from zero to twenty eight.

The score for achievement of learner in literacy, awareness and functionality was computed by adding up the scores for literacy, awareness and functionality. The computed score was considered as the score of the dependent variable for the study The range of possible scores was from zero to one hundred.

The achievement tests constructed and used in this study to measure the literacy, awareness and functionality of learners are furnished in Appendix VI.

3 5 Operationalisation and measurement of independent variables

The selected 41 independent variables under the major factors contributing to efficiency of AEC were operationally

defined and measured as follows

3 5.1 Instructor

There were 14 independent variables selected under the major factor,instructor. Operationalisation and measurement of each variable were as follows

3.5.1.1 Experience

Experience of the instructor was opertionally defined as the total number of years the respondent had functioned as instructor of an AEC.

Pillai (1984) and Ramabrahmam (1988) measured experience by asking the instructor to indicate the number of years he had functioned as adult education instructor

In the present study the experience of the instructor was measured in terms of the total number of years the respondent had functioned as instructor of an AEC For each year functioned as instructor, a score of one was given. Score for experience was considered as the score for the total number of years functioned as instructor of AEC

3 5 1.2 Concept of communication

It was operationalised as the set of concepts possessed by the instructor about the communication process

Concept of communication was measured by using the scale developed by Pandyaraj (1978) with suitable modifications as used by Joseph (1983). The scale consisted of eight items explaining different aspects of the communication process, its importance and such other features The response was rated on a five point continuum ranging from 'strongly agree' to'strongly disagree' The scores assigned were as follows

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

Concept of communication score for each instructor was found out by summing up scores corresponding to each response. The range of possible scores on this scale was from eight to forty.

3.5.1 3 Instructor-learner communication

It was defined as the extent of inter personal communication between the instructor and the individual learners in the adult education class on the problems related to learning

Mutniah (1981) measured leader-follower communication among farm leaders with reference to the frequency

of inter-personal contacts the leaders maintained with the farmers on farm matters on a seven point continuum with points varying from 'atleast once in a day' to 'once in a season' and scores ranging from seven to one. This procedure was modified and used in the present study.

In this study, instructor-learner communication was measured with reference to the extent of inter-personal communication between the instructor and the individual learners in the adult education class on the problems related to learning on a five point continuum which varied from ' very high' to ' very low' and the scores ranged from five to one as given below

Points in the continuum	Scores
Very high	5
High	4
Moderate	3
Low	2
Very low	1

The corresponding score obtained for the point in the continuum was taken as the score for instructor-learner communication.

3.5 1.4 Instructor-learner contact span

It was defined as the instructor's frequency of

getting contacted by the learners for discussing and solving their personal and family problems.

Muthiah (1981) measured leader-follower contact span with reference to the degree to which a farm leader contacted various types of farmers on a seven point continuum ranging from 'once a day' to 'once a season' with scores ranging from seven to one. This procedure was modified and used in the present study.

In this study, instructor-learner contact span was measured with reference to the instructor's frequency of getting contacted by the learners for discussing and solving their personaland family problems on a seven point continuum with points varying from 'once a day' to 'once in three months' and scores ranging from seven to one as shown below

Point in the continuum	score
Once a day	7
Twice to six times a week	6
Once a week	5
Twice to thrice a month	4
Once a month	3
Once in two months	2
Once in three months	1

The corresponding score obtained for the point in the continuum was taken as the score for instructor-learner contact span

3 5 1.5 Information seeking behaviour

It was operationally defined as the extent to which instructors are seeking information on adult education from different communication sources

Pandyaraj (1978) measured the information seeking behaviour of Junior Agricultural Officers by preparing a list of all the information source and asking the respondents to indicate their preference to all sources. This method was modified with respect to the scoring pattern and used by Joseph (1983) and Kareem (1984) The same method was adopted for the present study as described below.

To measure the information seeking behaviour of instructors, a list of all possible source of information on adult education available to the instructors in Kerala was prepared after consultation with experts in the field of adult education. The instructors were asked to indicate their frequency of seeking information regarding adult education on a three point continuum ranging from 'always ' to 'never' A score of two was given to a response of 'always',

one to a response of 'sometimes' and zero to a response of 'never' Information seeking behaviour score of each instructor was arrived at by adding up the score corresponding to each response.

3.5.1.6 Information processing behaviour

It was operationalised as all the activities performed by an instructor for evaluation and storage of information related to adult education

The procedure developed by Muthiah (1981) for measuring information processing behaviour of farm leaders was adopted in this study The procedure adopted was as follows

Information processing behaviour of instructors was measured under information evaluation and information storage Information evaluation referred to the analysis, synthesis, or decisioning on information received by instructors. This was measured on various items, the items being the general reactions of an instructor when he received new information on adult education aspects The instructors were asked to check only those which were applicable to them Each checked item was given one score

Information storage referred to noting, indexing, categorising or cataloguing of information received by instructors. This was measured on various items, the items being what an instructor usually did for storing the information received by him for future use. The instructors were asked to check only those which were applicable to them. Each checked item was given one score

The sum of the scores for information evaluation and information storage was taken as the score for information processing behaviour of the instructor.

3.5.1.7 Empathy

It referred to the ability of an instructor to perceive the situations from other's stand point and thus anticipate and predict their behaviour.

For the measurement of empathy, Supe and Gajbhiye (1977) considered it as the ability of an individual to project himself into the role of another person. They measured the localite empathy and cosmopolite empathy of an individual by selecting some roles and the responses to all the roles formed the total empathy score of the individual

The procedure developed and applied by Muthiah (1981) for measuring the empathetic behaviour of leaders and followers was adopted in the present study with modifications in the roles selected.

In this study, the empathy of instructors was measured on their ability to take the roles of learner, supervisor and

project officer when they received a new information useful to the learners. The responses to the open end questions were scored as follows

Response	Score
No answer or a response completely unrelated to the question (low empathy)	0
Non-specific, general answer, but with some relevance to the question asked (medium empathy)	1
A specific relevant answer showing ability to take the role indicated (high empathy)	2

The total score on all the three roles was arrived at by adding up the individual role scores which was taken as the score for empathy of instructor. The possible scores for empathy ranged from zero to six.

3.5.1.8 Job commitment

It was operationally defined as the personal decision of the instructor to engage in a line of behaviour in his working situations.

Sanoria (1977) measured job commitment in terms of the percentage of time devoted by an extension worker for extension work

Ambastha (1980) measured job commitment of farm scientists using the index developed for the study

Mohankumar (1985) prescribed two bare minimum norms necessary to measure the commitment of a person in the field of adult education, namely, faith in the adult education programme and optimum application of oneself to adult education

The method employed by Joseph (1983) for measuring the job commitment of Village Level Extension Personnel in Kerala was adopted with modifications in this study for measuring the job commitment of instructors.

Job commitment of instructors was measured by considering different aspects such as sense of responsibility in carrying out the job activities, utilisation of time for adult education work, interest in collecting and giving timely information to learners, serving people other than the learners also and motivating the drop-outs to bring them back to the adult education classes The method adopted was as follows.

A list of 20 items covering different aspects of job commitment of instructors was prepared after discussion with experts in the field of adult education These items were edited and given to 30 judges who were adult

education experts for obtaining the relevancy of the items in measuring job commitment of instructors Based on the relevancy weightage obtained, eight items were selected of which six were positive and two were negative These items were rated on a five point continuum ranging from 'strongly agree' to 'strongly disagree'. The scores assigned were as follows for positive items.

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

The scoring was reversed in the case of negative items The fifth and sixth items in the scale were negative ones. Job commitment score for each instructor was found out by summing up the scores corresponding to each response. The range of possible scores on the scale was from eight to forty

3 5.1.9 Job satisfaction

It was operationalised as the instructor's expression of the degree of satisfaction or dissatisfaction he/she is deriving from his/her job as adult education instructor

Since satisfaction with one facet of the job is difficult to isolate because of the complex ways in which it might be inter-correlated with other facets, an overall measure of satisfaction may provide more reliable data. Over the years various ways of measuring job satisfaction have been tried.

Ramabrahmam (1988) measured job satisfaction of instructors by asking each instructor to respond to whether he was satisfied with his job, whether he received his salary regularly, whether he was satisfied with the salary, whether he wished to work again as instructor and whether he thought of quitting his job in course of the programme.

In the present study, the scale developed by Rathore (1974) to measure the level of satisfaction of extension personnel was modified with the help of adult education experts to measure the job satisfaction of instructors. Eight items reflecting different aspects of job were selected. The items were in the form of questions and the answers were rated on a five point continuum ranging from 'very much satisfied' to 'very much dissatisfied'. The scores assigned were as follows

Response	Score
Very much satisfied	5
Satisfied	4
Undecidied	3
Dissatisfied	2
Very much dissatisfied	1

The job satisfaction score for each instructor was computed by summing up the score corresponding to each answer. The range of possible scores on this scale was from eight to forty

3 5 1.10 Attitude towards adult literacy

It was defined as the degree of positive or negative affect of the instructor towards adult literacy.

Attitude of instructor towards adult literacy was measured in the present study using the scale constructed by Venkataiah (1979) to measure the attitude of the participants of Farmers' Functional Literacy Programme towards adult literacy The Likert type summated rating scale consisted of 20 statements with 10 positive and 10 negative statements alternated in sequence, starting with a positive statement with responses obtained on a five point continuum ranging from 'strongly agree' to 'strongly disagree' The scoring pattern employed was as follows

Statement	Response with score				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Positive or favourable	5	4	3	2	1
Negative or unfavourable	1	2	3	4	5

The score for each instructor on the attitude scale was computed by summing the scores of the individual item - response. The range of possible scores under the present scoring system was from twenty to one hundred.

3 5.1.11 Attitude towards learners

It was operatonally defined as the degree of positive or negative affect of the instructor towards learners.

Among the techniques available for the construction of attitude scale, Thurstone's equal appearing interval and Likerts' summated rating are frequently used. Thurstone's technique makes use of objective judgement in the selection of items which requires a large number

of judges and is time consuming. Likert technique obviates these difficulties

In this study, a Likert type scale was developed to measure the attitude of instructors towards learners. The procedure followed is described below

Collection of items

A large number of statements, each expressing one opinion of instructors on learners were prepared after careful study of relevant literature, discussion with instructors and in consultation with experts in the field of adult education. At this stage there were 26 statements in the draft scale. For editing the statements thus collected, the criteria suggested by Thurstone and Chave (1929), Likert (1932), Wang (1932), Bird (1940), and Edwards and Kilpatrick (1948) as summarised by Edwards (1957a) were applied. Each statement was carefully examined in the light of these criteria. There were 18 statements retained after editing

The list of statements were presented to a panel of adult education experts for methodological criticism. They were requested to (1) classify the statements expressing favourable attitude and unfavourable attitude,

(2) to delete redundant statements, (3) to point out ambiguous words or items and (4) to suggest any modifications in the statements. In the light of the criticism and comments of the experts only eight items were retained and some of the terms were modified and rephrased

Try-out

The statements were tried out on 15 instructors of the RFLP centres in Kodakara Block (non-sample area) of Thrissur district in respect of language, structure, meaning of words and subject familiarity. Two items were eliminated and slight modifications were made in the remaining statements based on the experience gained in the try-out test

The final six statements consisted of three statements expressive of favourable attitude and three statements indicative of unfavourable attitude. The positive and negative statements were arranged in alternate sequence in the scale starting with a positive statement The response to each statement was collected on a five point continuum ranging from 'strongly agree' to 'strongly disagree'. The instructors were asked to read each of the statements carefully and to indicate their degree of agreement or disagreement by putting a tick mark against the item in the corresponding column

Scoring

For scoring, numerical values were assigned to the five categories of responses as follows.

Statements	Response with score				
	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
Positive or favourable	5	4	3	2	1
Negative or unfavourable	1	2	3	4	5

The score of each instructor on the scale was computed by adding the scores of the individual item-responses. The range of possible scores on this scale under the present scoring system was from six to thirty.

3 5.1.12 Attitude towards job

It was operationalised as the degree of positive or negative affect of the instructor towards the job of adult education instructor

Attitude of instructor towards job was measured in this study by using the scale developed for the

purpose. The procedure followed in developing the scale is described below.

Thirty four statements which reflected various degrees of positive and negative attitude towards the job of adult education instructor in general were identified through discussion with instructors and by consulting relevant literature. These items were edited according to the criteria suggested by Edwards (1957b). The edited 28 statements were given to experts in the field of adult education to assess the relevancy of them for measuring attitude of instructors towards their job Based on the relevancy weightage obtained 12 statements were finally selected of which six were positive and six were negative The positive and negative statements were arranged in alternate sequence starting with a positive statement. The responses were obtained on a five point continuum ranging from 'strongly agree' to 'strongly disagree'

The scores assigned for the responses were five for 'strongly agree', four for 'agree', three for 'undecided, two for'disagree' and one for 'strongly disagree'. Negative statements were scored in the reverse manner The attitude score of instructor was

obtained by adding up the scores corresponding to his response for each statement. The range of possible scores on this attitude scale was from twelve to sixty.

3 5.1 13 Attitude towards social activities

It was defined as the degree of positive or negative affect of the instructor towards social activities

This variable was measured by using the Likert type scale developed by Nair (1980) The scale consisted of 25 statements with 13 positive and 12 negative statements randomly arranged for obtaining responses on a five point continuum ranging from 'strongly agree' to 'strongly disagree' The positive and negative statements in the scale are identified below with their serial number

1(+), 2(-), 3(-), 4(+), 5(+), 6(-), 7(-), 8(-), 9(-), 10(+), 11(+), 12(-), 13(+), 14(-), 15(-), 16(+), 17(+), 18(+), 19(+), 20(-), 21(-), 22(-), 23(+), 24(+), 25(+)

The method of scoring followed for the positive statements is given below.

Strongly agree	5
Agree	4
Undecided	3

Disagree	2
Strongly disagree	1

The scoring pattern was reversed in the case of negative statements The attitude score of each instructor was computed by summing up the scores corresponding to his response for each statement The range of possible scores on this scale was from twentyfive to one hundred and twenty five

3.6.1.14 Interest in adult education

It was operationally defined as the degree of concernedness of instructor in adult education.

The variable was measured in this study by using the interest inventory developed by Nair (1980) following the methods employed in the Kuder Preference Record for measuring the interest of instructors in adult education. The interest inventory consisted of 30 items each with provision for making three responses A, B and C Only one response was considered to be appropriate among the three. The instructors were asked to indicate their response to each of the 30 items by putting a tick mark The appropriate response is given below with the serial number of the item

1(A), 2(B), 3(A), 4(C), 5(C), 6(C),
7(B), 8(B), 9(C), 10(A), 11(A), 12(A),
13(A), 14(B), 15(A), 16(B), 17(B), 18(A),
19(A), 20(A), 21(B), 22(A), 23(B), 24(A),
25(A), 26(A), 27(B), 28(C), 29(B), 30(B)

Scoring was done by giving one score to each appropriate response made by the instructor. Interest score of the instructor was calculated by adding up his scores for all the appropriate responses made. The range of possible scores on the interest inventory was from zero to thirty.

3.5.2 Instructional processes

There were four independent variables selected under the major factor, instructional processes. These were operationally defined and measured as given below.

3.5.2.1 Method of teaching

It was operationalised as the different methods of teaching followed at the AEC.

Pillai (1984) measured method of teaching by asking the instructors to indicate the different methods of teaching followed at the AEC.

In the present study, method of teaching was measured by asking the instructor to indicate by tick mark

the different methods of teaching followed at the AEC in the list of teaching methods given. The list of teaching methods was prepared in consultation with instructors and adult education experts and by referring to literature A score of one was given to each method indicated by the instructor. Score for method of teaching was computed by summing up the scores for all the methods indicated

3 5.2.2 Technique of teaching

It was defined as the frequency of use of audio-visual aids at the AEC for teaching adults

The variable was measured by asking the instructor to indicate by tick mark the frequency of use of audio-aids, visual aids and audio-visual aids at the AEC for teaching adults on a five point continuum ranging from 'regularly used' to 'not at all used' The scores given were five for 'regularly used' four for'sometimes used' three for 'rarely used', two for'very rarely used' and one for 'not at all used' The score for technique of teaching was calculated by the summation of the scores obtained for audio-aids, visual aids and audio-visual aids The possible scores for technique of teaching ranged from three to fifteen.

3.5 2.3 Approach of teaching

It was defined as the extent of personal attention given to the learners by the instructor while teaching them at the AEC

Approach of teaching was measured by asking the instructor to indicate by tick mark the extent of personal attention given by him to the learners while teaching them at the AEC on a five point continuum ranging from 'very much given' to 'not at all given'. The scores assigned were five for 'very much given', four for 'much given', three for 'moderately given' two for 'slightly given'and one for 'not at all given' The score for approach of teaching was the corresponding score obtained for the response made.

3 6.2.4 Content of teaching

It was operationally defined as the learner's expression of the degree of usefulness of the topics discussed at the AEC in the day-to-day life of the learner

Content of teaching was measured in this study by asking the learner to express the degree of usefulness of the topics discussed at the AEC in the day-to-day life on a five point continuum ranging from 'very much useful' to 'not at all useful'. The scores assigned

were five for 'very much useful', four for 'much useful', three for 'moderately useful', two for 'slightly useful' and one for 'not at all useful' The corresponding score obtained by the learner for his response was taken as the score for content of teaching for that learner. The average score of the six learners studied at an AEC was computed to get the score for content of teaching for that AEC

3.5 3 Material inputs

There were four independent variables selected under the major factor, material inputs These were operationalised and measured as follows

3.5.3.1 Physical facilities

It was operationalised as the space available and seating arrangement provided for the learners at the AEC.

Pillai (1984) measured the provision of physical facilities by asking the literacy worker to indicate whetner the AEC had adequate accommodation for 30 persons and whether seating arrangements like mat and benches were provided at the AEC.

Rajyalakshmi (1989) measured physical facilities by asking the instructor to indicate the space, seating arrangements and furniture provided at the AEC

In the present study, physical facilities was measured by asking the instructor to indicate whether the AEC had enough space for the 30 learners to sit and learn and also the nature of seating arrangement provided for the learners like ground, mat/gunny bag/ plated coconut leaves, bench, bench with back-rest and chair If the centre had enough space for the 30 learners to sit and learn, a score of one was given, other wise a score of zero was given. In the case of seating arrangement, the scores given were as follows

Ground	1
Mat/gunny bags/ plated coconut leaves	2
Bench	3
Bench with back-rest	4
Chair	5

The score for physical facilities was obtained by adding the scores for spacing and seating arrangement The range of possible scores was from one to six.

3.5.3 2 Lighting arrangements

It was defined as the type of light provided for the learners at the AEC.

Pillai (1984) measured the provision of lighting arrangements by asking the literacy worker to indicate

whether the AEC had lighting arrangements and whether the sort of lighting was electric light or petromax or hurricane lamps or others

Ramabrahmam (1988) measured lighting arrangements by asking the learners to indicate whether the AEC had got electric connection and if not, what was the source of light - petromax or oil lmap or hurricane lamp or any other type.

Rajyalakshmi (1989) measured lighting arrangements by asking the instructor to check the source of light used at the AEC in the list given.

For measuring the lighting arrangement in this study, the instructor was asked to indicate whether the centre functioned in day light or artificial light If the centre functioned in artificial light the instructor was further asked to indicate the type of light provided such as electric light, petomax, hurricane lamp, kerosine oil lamp or candle light. Scores were assigned as indicated below.

Day light/ Electric light	5
Petromax	4
Hurricane lamp	3
Kerosine oil lamp	2
Candle light	1

The corresponding score for the type of light provided at the centre was taken as the score for lighting arrangements.

3 5.3.3 Teaching-learning materials

It was operationally defined as the different kinds of materials used at the AEC for the teaching and learning of the adult learners

Pillai (1984) measured teaching-learning materials by asking the instructor, to indicate by tick mark in the list given, the different kinds of teaching-learning materials used at the AEC Pillai (1987a) measured teaching-learning materials by furnishing a list of seven items and asking the respondent-learners to indicate which of them were used at the AEC.

In the present study, a list of different kinds of teaching-learning materials used at the AECs was prepared through review of literature and discussion with instructors and experts in the field of adult education. The instructor was asked to identify by tick mark in the list given, the different materials used at his AEC for the teaching and learning of the adult learners Each kind of teaching-learning material used

at the AEC was given a score of one. The score for teaching-learning materials was considered as the summation of the scores obtained for each kind of teaching-learning material used at the AEC.

3.5.3 4 Human resources

It was operationalised as the different categories of resource persons who had handled classes at the AEC.

Pillai (1984) measured human resources made available at the AEC by asking the learners to indicate whether any resource person had come to take class for them. Pillai (1987a) furnished a list of 29 categories of resource persons and asked the respondent learners to indicate who all had participated in leading discussions at the AEC for measuring the human resources.

In this study, for measuring human resources a list of different categories of resource persons who are usually available for handling classes at the AECs was prepared by referring to literature and discussing with instructors and adult education experts The instructor was asked to indicate by tick mark the different categories of resource persons who had

handled classes at his AEC Each category of resource person thus indicated was given a score of one Human resources score was obtained by adding the score for each category of resource person who had handled class at the AEC

3.5.4 Organisational aspects

Nine independent variables were selected under the major factor, organisational aspects. These were operationally defined and measured as furnished below.

3.5.4.1 Community support

It was defined as the extent of support and co-operation received from the local community in the organisation and conduct of the AEC

Sharma and Sharma (1981) and Ramabrahmam (1988) measured community support by asking the instructor to indicate the extent of support and co-operation received from the local community for the functioning of the AEC.

For measuring community support in the present study, a list of activities in which the support and co-operation of the members of the local community can be sought for the organisation and conduct of AEC was prepared through review of literature and discussion with instructors, supervisors and adult education experts. The instructor

was asked to indicate by tick mark the activities in which the support and co-operation of the local community was received with respect to his AEC. Each activities thus indicated was given a score of one. The score community support was taken as the summation of the score for each activity indicated.

3.5.4.2 Supervision

It was operationally defined as the frequency and nature of visit of supervisor in the AEC

Sharma and Sharma (1981) and Ramabrahmam (1988) measured supervision by asking the instructor to indicate the frequency of visit of supervisor to the AEC in a month

Supervision was measured in this study by asking the instructor to indicate the frequency of visit of supervisor to the AEC in a month and nature of visit, that is, whether there had been any surprise visit The response to frequency of visit was collected on a four point continuum ranging from 'once a month' to 'more than thrice a month'. The frequency of visits with their corresponding scores are given below.

Frequency of visit	Score
Once a month	1
Twice a month	2
Thrice a month	3
More than thrice a month	4

The instructor was also asked to indicate whether the supervisor had made any suprise visit to the AEC. For a positive response a score of one and for a negative response a score of zero were given. The score for supervision was obtained by adding the scores for frequency of visits and nature of visit. The range of possible scores was from one to five.

3 5 4.3 Supply of inputs

It was operationalised as the supply of lighting equipments, teaching-learning materials, seating facilities and resource persons to the AEC at proper time, in adequate number and the usefulness of them.

Pillai (1984) measured the supply of material inputs by asking the literacy worker to indicate whether the learners received materials to practice writing, whether drinking water was provided at the AEC and such other items.

Ramabrahmam (1988) measured the supply of material inputs by asking the instructor to respond to whether teaching-learning materials were received in time, in sufficient number and how far they were related to the learners' occupation

In the present study, supply of inputs was measured by asking the instructor to respond to whether the four inputs, namely, lighting equipments, teaching-learning materials, seating facilities and resource persons were supplied at the AEC, at the proper time and in adequate number and whether they were useful at the AEC. For each one of the four inputs a score of one each was given if it was supplied at proper time and in adequate number and if it was useful at the AEC. A score of zero each was given if it was not supplied at proper time and in adequate number and if it was not useful at the AEC The score obtained for each of the four inputs was found out by adding up the individual scores The score for supply of inputs was computed by summing up the score obtained for each of the four inputs. The minimum and maximum of the possible scores for supply of inputs was zero and twelve respectively

3.5.4.4 Training

It was defined as the total number of days of training in adult education undergone by the instructor during the year of study and his expression of the degree of usefulness of the training undergone.

Pillai (1984) and Ramabrahmam (1988) measured training of instructor by asking to indicate the period of training in adult education undergone by him. Ramabrahmam (1988) asked also to express the instructor's feeling about training programme as to whether it was extremely useful, adequate or irrelevant to adult education programme.

Training was measured in this study by asking the instructor to indicate the total number of days of training undergone by him in adult education during the year of study and also by asking him to express his feeling on the degree of usefulness of the training undergone by him on a five point continuum. The responses that could be obtained in the continuum and the corresponding scores are given below.

Response	Score
Very much useful	5
Much useful	4
Moderately useful	3

Response	Score
Slightly useful	2
Not useful	1

The corresponding score for the response was the instructor's score for usefulness of training The organisers of the adult education programme had arranged for 21 days' training for the instructors during the year of study. Score for period of training was calculated by assigning one score for each day of training undergone by the instructor. The score for training was arrived at by adding up the scores for period of training and usefulness of training undergone. The range of possible scores for training was from zero to twenty six.

3.5.4.5 Monitoring

It was operationally defined as the total number of inspections made at the AEC by superior officers and the consequent modifications effected in the conduct of the AEC

Ramabrahmam (1988) measured monitoring by asking the supervisor to respond to how he recorded the progress of the adult education programme, what aspects of the programme he discussed with Project Officer and instructor in monthly meetings and what modifications he had effected in the administration of the programme.

This variable was measured in the present study by asking the instructor to indicate the number of inspections made at the AEC by superior officers and to tick mark in the list supplied, the modifications he had effected in the conduct of the AEC based on the inspection reports. The list of modifications that could be effected was prepared by referring to literature and in consultation with instructors, supervisors and adult education experts.

For each inspection made at the AEC, one score was given. Total score for the number of inspections made was found out. For each modification effected on the conduct of the AEC, one score was given. Total score for the number of modifications effected was found out by adding up the score for each modification effected. The score for monitoring was obtained by the summation of scores for number of inspections made at the AEC and number of modifications effected at the AEC

3 5.4.6 Evaluation

It was operationalised as the frequency and methods of evaluation used and the categories of evaluators involved in the conduct of evaluation of learners at the AEC.

Pillai (1984) measured evaluation through the reaction of learners on aspects like whether written examinations had been conducted and if so, the frequency of them. Pillai (1987a) assessed the aspects on evaluation by asking the respondents to indicate whether the evaluations were internal or external and how it was done.

In this study, the variable evaluation was measured by asking the instructor to indicate by tick mark in the lists given, the frequency and methods of evaluation used and the different categories of evaluators involved in the conduct of evaluation of learners at the AEC. The scoring procedure adopted was as follows

Frequency of evaluation	Score
Once a month	4
Once in two months	3
Once in three months	2
Once in six months	1

For scoring the methods of evaluation, each method indicated was given a score. For scoring the evaluators involved in the conduct of evaluation, each category of evaluators indicated was given a score The score for evaluation was computed by adding up the scores for

frequency and methods of evaluation and the score for evaluators involved in the conduct of evaluation.

3.5.4 7 Reporting

It was defined as the act of regularly sending monthly reports in prescribed proforma on the activites of the AEC by the instructor to the authorities concerned

Ramabrahmam (1988) measured reporting by asking the supervisor to respond to whether he had received the monthly reports from the instructors for submitting to the authorities

Reporting was measured in this study by asking the instructor to indicate whether he was regularly sending monthly reports on the activities or the AEC in all the months to the authorities concerned and whether all the reports sent were in the prescribed proforma. If the instructor was regularly sending the monthly reports in all the months, one score was given, otherwise,a score of zero was given If the instructor had sent all the reports in the prescribec proforma, score of one was given, otherwise,a score of zero was given . Score for reporting was obtained by summing up the scores for regularly sending monthly report and for sending them in the prescribed proforma The possible scores for reporting ranged from zero to two.

3.5.4.8 Location of the centre

It indicated the proportion of learners for whom the AEC was near to their residence

Pillai (1984) measured location of centre by asking the literacy workers to indicate whether the AEC's accessibility to the learners was difficult or not difficult. Ramabrahmam (1988) measured location of centre by asking the potential learners to respond to the distance of their house from the AEC

Location of the centre was measured in the present study by asking the instructor to indicate the proportion of learners for whom the AEC was near to their residence in a three point continuum with provision for responses 'near to residence for majority of learners', near to residence for about half of learners' and 'near to residence for a few learners' with scores three, two and one respectively. The corresponding score for the response of the instructor was considered as the score for location of the centre.

3 5.4.9 Post-literacy facilities

It denoted the facilities near the AEC for the learners to practice the acquired literacy skill after the completion of the course period at the AEC

Pillai (1987a) measured post-literacy facilities by assessing the chances of the learners for participating in post-literacy centres, improving knowledge and information by reading neo-literate literature and reading the newspapers every day. Ramabrahmam (1988) measured post-literacy facilities by asking the instructors to indicate the follow-up programmes contemplated by his agency for the learners.

In this study, the variable post-literacy facilities was measured by asking the instructor to indicate whether there were any facilities near the AEC for the learners to practise the acquired literacy skills after the completion of the course period at the AEC. If the response was positive, score of one was given, otherwise, score of zero was given The corresponding score for the response was taken as the score for post-literacy facilities.

3.5.5 Learner

There were 10 independent variables selected under the major factor, learner. These were operationalised and measured, the details of which are presented below. The average of the scores obtained by the six learners studied in an AEC for each of the 10 variables was taken as the score for that variable.

3.5 5.1 Motivation to attend the programme

This variable pertained to the need associated with the learner with respect to psychological, sociological, economical and religio-cultural factors which energized and directed him to attend classes at the AEC.

In the present study, the rating scale devised by Abraham and Prasanna (1986) was used for measuring the level of motivation of adult learners to attend classes at the AEC The scale consisted of four sub-scales. Each sub-scale was meant to measure each of the four areas, namely, psychological, sociological, economical and religio-cultural factors which motivated the adult learner. Each sub-scale consisted of ten statements. These statements were put in such a form that responses might simply be checked. The categories of responses in the scale were 'very true','true' and 'untrue' with the corresponding scores as three, two and one respectively The learners were asked to respond to each statement in each sub-scale and scores were assigned for their responses The total of the scores obtained for each sub-scale gave the score for that sub-scale which was a measure of the particular factor

studied The score for motivation of each learner was obtained by adding up the scores for all the four sub-scales. The range of possible scores on this scale was from forty to one hundred and twenty.

3.5 5 2 Mass media exposure

It was operationally defined as the learner's frequency of exposure to different mass media sources.

Reddy (1989) measured mass media exposure of adult education instructors through assessing the frequency of their exposure to newspaper, radio and movies.

Mass media exposure was measured in this study by asking the learner to respond to how often he was exposed to each of the listed sources of mass media, namely, radio, television and film The range of response for each mass media source and the scoring pattern followed are given below.

Frequency of exposure	Score
Twice or more a week	4
Once a week	3
Once a fortnight	2
Once a month	1
Never	0

The score for mass media exposure of the learner was taken as the summation of scores obtained for each mass media source The possible scores for mass media exposure ranged from zero to twelve

3.5 5 3. Empathy

It was operationalised as the ability of the learner to perceive the situations from other's stand point and thus anticipate and predict their behaviour

The procedure developed and applied by Muthiah (1981) for measuring the empathetic behaviour of leaders and followers was adopted in this study with modifications in the roles selected In the present study, empathy was measured on the ability of the learner to take the roles of instructor, supervisor and project officer when they received a new information useful to the learners The responses to the open ended questions were scored as follows

Response	Score
No answer or a response completely unrelated to the question(low empathy)	0
Non-specific, general answer, but with some relevance to the question asked (medium empathy)	1

Response	Score
A specific and relevant answer showing ability to take the role indicated (high empathy)	2

The total score on all the three roles was arrived at by summing up the individual role scores which was taken as the score for empathy of learner. The range of possible scores was from zero to six.

3 5 5.4 Attendance at the centre

It referred to the average number of days in a month on which the learner was present for the classes at AEC

Pillai (1984) measured attendance of learners through surprise inspections at the AEC as well as from the attendance register maintained at the AEC. Pillai (1987a) measured attendance both towards the beginning and in the end of the programme from the response of the learners Ramabrahmam (1988) measured attendance of learners by asking the learners to respond to whether they had attended the classes regularly or not, followed by verification with the attendance register maintained by the instructor

Attendance of the learner at the centre was measured in this study by calculating his average attendance per month for the previous 10 months by refering to the attendance register maintained at the AEC. A score of one was assigned for each day attended at the centre. The total score for the number of days attended was taken as the score for attendance of the learner at the centre.

3.5.5.5 Achievement aspirations in literacy, awareness and functionality

This variable was defined as the learner's expression of the degree of his desire to have achievement in literacy, awareness and functionality.

The variable was measured in the present study by asking the learner to express his desire to have achievement in each of literacy, awareness and functionality on a five point continuum ranging from 'very much desirous' to 'not at all desirous'. The responses and the corresponding scores are furnished below

Response	Score
Very much desirous	5
Desirous	4
Undecided	3

Response	Score
Not desirous	2
Not at all desirous	1

The corresponding score for the response on each of literacy, awareness and functionality were noted. The summation of the three scores was considered as the score for achievement aspirations in literacy, awareness and functionality The possible scores ranged from three to fifteen.

3.5 5 6 Interest in adult education

It indicated the degree of concernedness of learner in adult education

Interest of learner in adult education was measured by using the selected items of the interest inventory developed by Nair (1980) to measure the interest of instructors in adult education. The 30 items of the interest inventory were tried out on 30 adult learners of RFLP centres in Kodakara Block (non-sample area) of Thrissur district The 10 items which recorded larger variations in responses were selected to measure the interest of learners in adult education. Each item had provision for making three responses - A, B and C Only one response was considered to be appropriate among the three. The learners were asked to respond

to each of the 10 items. The appropriate response is given below with the serial number of the item.

1(A), 2(B), 3(A), 4(C), 5(C), 6(A), 7(A), 8(B), 9(A), 10(A)

Scoring was done by giving one score to each appropriate response made by the learner. Interest score of the learner was calculated by adding up his scores for all the appropriate responses made. The range of possible scores on the interest inventory was from zero to ten.

3 5.5.7 Awareness of need, significance and advantages of adult education

This variable was defined as the learner's expression of consciousness of the degree of need, significance and advantages of adult education.

The variable was measured in the present study by asking the learner to express his consciousness of each of need, significance and advantages of adult education on a five point continuum The responses and corresponding scores are given below.

Need for adult education

Response	Score
Very much needed	5
Needed	4
Undecided	3
Not needed	2
Not at all needed	1

Significance of adult education

Response	Score
Very much significant	5
Significant	4
Undecided	3
Not significant	2
Not at all significant	1

Advantages of adult education

Response	Score
Very much advantageous	5
Advantageous	4
Undecided	3
Not advantageous	2
Not at all advantageous	1

The corresponding score for the response on each of need, significance and advantages of adult education were noted. The summation of the three scores was taken as the score for awareness of need, significance and advantages of adult education The possible scores ranged from three to fifteen.

3.5.5 8 Attitude towards adult literacy

It referred to the degree of positive or negative affect of the learner towards adult literacy.

Seth et al (1983a) measured attitude of women learners towards literacy by developing an attitude scale with 22 statements adopting the method of equal appearing interval as originally described by Thurston and Chave (1929).

Attitude of learners towards adult literacy was measured in this study by using the scale constructed by Venkataiah (1979). The scale consisted of 20 statements with 10 positive and 10 negative statements alternated in sequence, starting with a positive statement, with responses obtained on a five point continuum ranging from 'strongly agree ' to 'strongly disagree'. The scoring pattern employed was as follows

Statement	Response with score				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Positive or favourable	5	4	3	2	1
Negative or unfavourable	1	2	3	4	5

The score for each learner on the attitude scale was computed by summing the scores of the individual item-response The range of possible scores on the scale was from twenty to one hundred.

3 5 5.9 Attitude towards instructor

It was operationalised as the degree of positive or negative affect of the learner towards the instructor.

Scalogram analysis by Guttman as explained by Edwards (1957b) was followed in measuring attitude of learner towards instructor The procedure adopted was as follows

Thirty five statements which reflected varying degrees of attitude of learner towards instructor were collected through review of literature From among them,

seven statements were selected which had homogeneous content by discussing with experts in the field of adult education. The items were arranged in a logical and sequential order of the degree of attitude The item that reflected the most negative attitude was arranged as the first one, and the item that reflected the most positive attitude as the last one with items of varying degrees of attitude in between in a sequence The statements were then given to a sample of 100 learners of the RFLP centres of Kodakara Block (non-sample area) of Thrissur district Subjects were asked to respond to each statement in terms of their agreement or disagreement with it. A score of one was given for agreement to positive statements and a score of zero was given on disagreement to positive statements. In the case of negative statements the scoring pattern was reversed.

The method of scalorgram analysis suggested by Goodenough (1944) was then adopted which is as follows

A score matrix was prepared with rows corresponding to subjects and columns corresponding to statements The responses of a subject to the various statements were recorded in the row of the matrix in terms of zero and one weights. The response patterns were recorded with the subject with the highest score assigned to the

first row The second row was corresponding to the subject with the next highest score, and so on Summing across the rows of the score matrix gave the scores for the various subjects and these were recorded at the right of the last statement column Summing down the columns gave the frequencies with which the response has been made to each of various statements

The sum of each column of the score matrix was divided by the total number of subjects to obtain the proportion giving the one response to each of the statments The proportion giving the zero response were $1-p = q$

A bar chart was drawn for each statement in a graph paper. The top part of the bar chart indicated the proportion giving the one response to a statement and the lower part represented the proportion giving the zero response . The points of division were indicated by the solid lines and each point of division was extended through the other bar charts in terms of dotted lines.

The predicted patterns of responses for each score were obtained directly from the bar charts and were compared with the observed patterns which had been recorded in the original score matrix Each deviation of an observed response from the predicted response

was counted as an error The errors of each subject were summed and recorded at the right of the column of scores. The total number of errors was obtained by summing up the entries in the error column The proportion of errors was found out by dividing the total number of errors by the product of number of subjects and number of statements

Coefficient of reproducibility = 1- proportion of errors

A coefficient of reproducibility of only 0.76 was obtained for the initial set of seven statements. Two statements which caused the maximum number of errors were then removed and the analysis was repeated with the remaining five statements A coefficient of reproducibility of 0.87 was then obtained. These five statements constituted the final scale The first two statements in the scale were negative and the remaining three were positive.

Each learner interviewed was asked to mention whether he agreed or disagreed with each of the statements in the scale For agreeing to a positive statement, a score of one and for disagreeing to it, a score of zero was given. The scoring pattern was reversed in the case of negative statements Score for attitude of learner towards instructor was the summation of scores obtained for all the

five statements in the scale The possible scores in this scale ranged from zero to five.

3.5.5.10 Enthusiasm to attend the programme

It was defined as the instructor's expression of the learner's degree of eagerness to attend the adult education programme.

The variable was measured in this study by asking the instructor to indicate the eagerness of the learner to attend the adult education programme on a five point continuum ranging from 'very much eager' to 'not at all eager'. The responses and the corresponding scores are given below.

Response	Score
Very much eager	5
Much eager	4
Moderately eager	3
Slightly eager	2
Not at all eager	1

The corresponding score for the response made was taken as the score for enthusiasm of the learner to attend the programme

Table 3.5 Methods adopted for the measurement of variables

Variable	Method of measurement adopted
A. Dependent variable	
(Achievement in literacy, awareness and functionality of learner)	Achievement tests developed for the study.
B. Independent variables	
i. Instructor	
1. Experience	Method developed for the study
2. Concept of communication	Scale developed by Pandyaraj (1978) with modifications
3. Instructor-learner communication	Procedure developed by Muthiah (1981) with modifications
4. Instructor-learner contact span	Procedure developed by Muthiah (1981) with modifications
5. Information seeking behaviour	Method adopted by Pandyaraj (1978) with modifications
6. Information processing behaviour	Procedure developed by Muthiah (1981)
7. Empathy	Procedure developed by Muthiah (1981) with modifications
8. Job commitment	Method employed by Joseph (1983) with modifications

(contd.)

Table 3 5 (contd.)

Variable	Method of measurement adopted
9. Job satisfaction	Scale developed by Rathore (1974) with modifications
10. Attitude towards adult literacy	Scale constructed by Venkataiah (1979)
11. Attitude towards learners	Scale constructed for the study
12 Attitude totwards job	Scale constructed for the study
13. Attitude towards social activities	Scale developed by Nair (1980)
14. Interest in adult education	Interest inventory developed by Nair (1980)
ii Instructional processes	
1 Method of teaching	Check-list developed for the study
2. Technique of teaching	Method developed for the study
3 Approach of teaching	Method developed for the study
4 Content of teaching	Method developed for the study
iii. Material inputs	
1 Physical facilities	Method developed for the study
2 Lighting arrangements	Method developed for the study
3 Teaching-learning materials	Check-list developed for the study
4 Human resources	Check-list developed for the study

(contd)

Table 3.5 (contd.)

Variable	Method of measurement adopted
iv) Organisational aspects	
1 Community support	Check-list developed for the study
2 Supervision	Method developed for the study
3 Supply of inputs	Method developed for the study
4 Training	Method developed for the study
5. Monitoring	Check-list developed for the study
6. Evaluation	Method developed for the study
7. Reporting	Method developed for the study
8. Location of the centre	Method developed for the study
9 Post-literacy facilities	Method developed for the study
v) Learner	
1 Motivation to attend the programme	Scale devised by Abraham and Prasanna (1986)
2. Mass media exposure	Method developed for the study
3. Empathy	Procedure developed by Muthiah (1981) with modifications
4. Attendance at the centre	Method developed for the study
5. Achievement aspirations in literacy, awareness and functionality	Method developed for the study
6. Interest in adult education	Interest inventory developed by Nair (1980) with modifications
7 Awareness of the need, significance and advantages of adult education	Method developed for the study

(contd)

Variable	Method of measurement adopted
8. Attitude towards adult literacy	Scale constructed by Venkataiah (1979)
9 Attitude towards instructor	Scale developed for the study
10. Enthusiasm to attend the programme	Method developed for the study

The reliability of each of the above methods used for the measurement of variables in the present study was tested by test-retest method The questionnaires and interview schedules were administered twice to the randomly selected 30 instructors and 30 learners respectively of the AECs of Kodakara Block (non-sample area) in Thrissur district at an interval of three weeks period during July 1989 Correlations between the first and second set of scores were worked out. The calculated coefficients of correlation (coefficients of stability) ranged from 0.79 to 0 98 which were all statistically significant estaplishing test-retest reliability

3.6 Development of the scale to measure the efficency of Adult Education Centres

Out of the 41 independent variables those which had significant relationship with achievement of learners in literacy, awareness and functionality were identified through simple linear correlation analysis. Among them,those independent variables which had significant contribution to the variation in the achievement of learners were identified through multiple regression analysis The multiple regression analysis was repeated with significant variables and a reduced number of variables which had significant contribution to the variation in the achievement of learners were identified with causing only a negligible corresponding reduction in the total variation The best sub-group of variables out of them for predicting the variation in the achievement of learners was identified through step-wise regression analysis. The direct and indirect effects of the significant contributors on the variation in the achievement of learners and its components were found out through path coefficient analysis

3.7 Standardisation of the scale

The efficiency scale was standardised by establishing its validity and reliability

3.7.1 Validity of the scale

Three kinds of validity were established for the scale, namely, content validity, criterion-related validity and concurrent validity.

3.7.1.1 Content validity

Content validity is the representativeness or sampling adequacy of the content- the substance, the matter, the topics - of a measuring instrument (American Psychological Association, 1966). Content validation consists essentially in judgement (Kerlinger, 1964).

3 7.1 2 Criterion-related validity

Criterion-related validity is studied by comparing test or scale scores with one or more external variables, or criteria, known or believed to measure the attribute under study (American Psychological Association, 1966). In criterion-related validation, which is often practical and applied research, the basic interest is usually more in the criterion, some particular outcome, than in the predictors The higher the correlation between

a measure of the predictor and the criterion, the better the validity. The emphasis is on the criterion and its prediction.

3 7.1 3 Concurrent validity

According to Kerlinger (1964) concurrent validity is a related term for criterion-related validity which differs from it in the time dimension, the criterion is measured at about the same time as the predictor. Pillai (1987b) opined that concurrent validity is established for aptitude tests by validating them against ratings by supervisors done concurrently.

3.7.2 Reliability of the scale

Two different procedures were used to establish the reliability of the scale namely, test-retest method and split-half technique.

3.7.2.1 Test-retest method

Test-retest method is the repetition of the same test or measure over time (Aggarwal, 1986). This method is for establishing the stability of the test over a period of time (Pillai et al,1967). Normally an interval of two to three weeks between the two administrations of the test is considered satisfactory (Pillai, 1987b)

3 7.2.2 Split-half technique

Split-half technique is for establishing the internal consistency of the test (Pillai et al, 1967) This method includes the sub-division of the test into two or more equivalent fractions (Aggarwal,1986). Correlation between the scores of the two halves was worked out using Pearson's formula for product-moment correlation. The reliability coefficient for the total length of the scale was computed using Spearman-Brown Prophecy formula.

$$r_{tt} = \frac{2\, r_{hh}}{1 + r_{hh}}$$

where r_{tt} = reliability coefficient of the whole scale

r_{hh} = reliability coefficient obtained between parts of the divided scale

3.8 Categorising the Adult Education Centres

Depending on the score obtained on the basis of the efficiency scale developed in this study, the AECs were categorised into three classes, namely, 'high efficient', 'medium efficient' and'low efficient'centres with the mean efficiency score $\pm$ standard deviation as the cutting points as shown below.

High efficient centre = $> \bar{x} + \sigma$

Medium efficient centre = $\bar{x} - \sigma$ to $\bar{x} + \sigma$

Low efficient centre = $< \bar{x} - \sigma$

3.9 Field procedure

The drafts of the achievement tests constructed to measure literacy, awareness and functionality of learners were administered to 20 learners of the AECs in Kodakara Block (non-sample area) of Thrissur district. The draft interview schedule to collect data from learners for measuring the independent variables was also administered to them. The draft questionnaire to collect data from instructors for measuring the independent variables was administered to 10 instructors of AECs of the same area. In the light of the results of the pre-testing, suitable modifications were made in the structure and sequence of questions and the achievement tests and interview schedule for learners and questionnaire for instructors were finalised. The final form of the achievement tests, questionnaire and interview schedule are presented in Appendix VI VII and VIII respectively.

Data were collected by the researcher from the learners through interview technique and from the instructors through the questionnaire served on the spot at the time of visit to the AECs.

The Commissioner for Rural Development, Kerala had already been addressed by the Professor and Head, Department of Agricultural Extension, College of Agriculture, Vellayani seeking permission to undertake the study and soliciting her co-operation. She had obliged with a letter addressed to the Assistant Development Commissioner (FLP), Thrissur and the Block Development Officer, Ollukkara instructing them to offer necessary help to the researcher A copy of the letter is presented in Appendix IX The questionnaire developed for obtaining the rating score of supervisors on the efficiency of AECs (Appendix X) for establishing concurrent validity was served in person to the supervisors when they assembled at the office of the Rural Development Block, Ollukkara. The filled up questionnaires were received by the researcher on the spot These data were collected during the period from middle of August to middle of October 1989.

Data were collected from the instructors of the AECs of Kodakara Block(non-sample area) in Thrissur district for establishing test-retest method of reliability during the month of November 1989.

The marks secured by the individual learners for the final evaluation test conducted by the Rural Development Department were collected by the researcher during

December 1989 from the General Extension Officer of the Rural Development Block, Ollukkara who was in charge of the adult education programme for establishing criterion-related validity for the scale.

3.10 Statistical tools employed

Data collected from the instructors and learners were coded, tabulated and analysed using the following statistical techniques. Data were analysed at the computer centre of the Kerala Agricultural University at Vellanikkara.

3.10.1 Percentages

After working out the mean and standard deviation for the scores obtained through the administration of the efficiency scale, the AECs were categorised into different classes based on appropriate criteria The percentage distribution of the centres under each class were then computed by dividing the number of centres in each class by the total number of centres and multiplying by hundred.

3 10.2 Coefficient of variation

Coefficient of variation was used to compare the amount of relative variation present in the different variables included in the study Coefficient of variation

is the ratio of standard deviation to arithmetic mean expressed as a percentage and is independent of units. Lesser the coefficient of variation for variable, the more homogeneous the sample will be, with respect to that variable

3 10.3 Pearson's product moment correlation

This measure (simple linear correlation) was used to determine the nature and degree of relationship between the independent variables and the dependent variable (Y) Again, it was employed for working out the relationship between two sets of scores for establishing the validity and reliability of the efficiency scale. The computed values of correlation coefficient (r) were tested for their significance using Student's 't' test with n-2 degrees of freedom.

3.10.4 Multiple correlation and regression analysis

In Pearson's product moment correlation the relationship between the independent variables and the dependent variable is expressed in terms of simple correlation coefficients or zero-order correlation coefficients. But the dependent variable is not solely[1] influenced by any one of these explanatory variables, but by all of them through their direct, reciprocal and interactive relationships Thus the need for multiple

regression analysis arises

The multiple correlation coefficient (R) represents the zero-order correlation between the actual score and predicted score of the dependent variable obtained from the independent variables under consideration. The square of the multiple correlation coefficient (R^2) represents the proportion of the total variation explained by the relevant independent variables included in the regression equation.

The multiple linear regression analysis was employed to describe the nature of the functional relationship between the dependent variable and the set of independent variables and to know the significant contributors towards changes in the dependent variable The partial regression coefficient 'b_1' in the multiple regression analysis indicates the expected changes in the dependent variable (Y_1) for unit change in the independent variable x_1 when the other independent variables x_j ($j \neq 1$, $j = 1$ k) are held constant

The prediction equation used in the present study to determine the multiple regression was of the following nature

$$Y_i = b_0 + \sum_{i=1}^{k} b_i x_i + e_i$$

where Y_i = value of the dependent variable

b_0 = constant

k = number of independent variables

b_i = partial regression coefficient

x_i = value of the ith independent variable

e_i = ith error component

The p+1 parameters of the regression equation were estimated by the Principle of Least Squares.

Statistical significance of the partial regression coefficients was tested by using the Student's 't' test with n-p-1 degrees of freedom given by

$$t = \frac{b_i}{SE(b_i)}$$

$$SE(b_i) = \sqrt{c_{ii} S^2}$$

where S^2 = error mean square

c_{ii} = diagonal elements of the sum of product matrix of the independent variables

p = number of independent variables

n = number of observations

3.10.5 Step-wise regression

Step-wise regression was employed to obtain information regarding the best subgroup of variables and the relative contribution of each of these independent variables (x_1) in contributing to the variations to the dependent variable (Y). Step-wise regression analysis selects the best subset of variables in predicting variations in the dependent variable in such a manner that

(a) it yields the largest multiple correlation among all subsets,

(b) inclusion of the remaining variables does not significantly improve the prediction of the dependent variable

3.10.6 Path coefficient analysis

Path coefficient analysis originally developed by Wright (1921) followed by Li (1955), Dewey and Lu (1959), Land (1969), Singh (1975) and Singh and Chaudhary (1977) was put to use to know the nature of influence of the independent variables in terms of direct and indirect effects on the dependent variable in the prediction model used. Path coefficient analysis attempts to measure the direct and indirect influences of the different causal variables on an effect variable and

permits the separation of an empirical relationship into a series of component parts with direct and indirect links between them. The experimenter pre-supposes a closed system of variables where each independent variable affects the dependent variable through a series of paths so that each correlation is a combination of those paths

Let the response variable Y be a linear function of the causal factors defined by

$$Y = b_0 + \sum_{i=1}^{k} b_i x_i + h$$

where h is the residual factor

The basic relationship in path analysis is defined by

$$r_{iy} = \sum_{j=1}^{k} P_{jy}\, r_{ij}$$

where r_{iy} = correlation coefficient between Y and x_j

P_{jy} = path coefficient of x_j

r_{ij} = correlation coefficient between x_i and x_j

The calculated path coefficients 'b_i' measure the direct effect of trait x_i on the effect Y. They are standardised regression coefficients (beta weights)and indicate the relative contribution of the various factors on the

observed effect

For the estimation of path coefficients the following simultaneous equations will be set up.

$$r_{1y} = P_{1y} + r_{12} P_{2y} + \cdot \quad + r_{1k} P_{ky}$$

$$r_{2y} = r_{21} P_{1y} + P_{2y} + \quad + r_{2k} P_{ky}$$

$$r_{ky} = r_{k1} P_{1y} + r_{k2} P_{2y} + \quad + P_{ky}$$

The residual effect which indicates the contribution of factors not included in the causal scheme can be estimated as follows.

$$h = \left[1 - \sum_{i=1}^{k} P_{iy} \; r_{iy}\right]^{\frac{1}{2}}$$

3.10.7 β_1 and β_2 statistics

To test the normality of the distribution of scores obtained through the efficiency scale. β_1 and β_2 statistics were calculated and tested for their statistical significance by using the following test criteria of the large sample test.

$$Z_1 = \sqrt{\frac{\beta_1 (n+1)(n+3)}{6(n-2)}}$$

Where

$$\beta_1 = \frac{M_3^2}{M_2^3}$$

$$M_2 = \frac{\sum_{i=1}^{k} f_i (X_i - \bar{X})^2}{n}$$

$$M_3 = \frac{\sum_{i=1}^{k} f_i (X_i - \bar{X})^3}{n}$$

where $n = \sum_{i=1}^{k} f_i$ = Total frequency

f_i = frequency

$\bar{X} = \frac{\sum_{i=1}^{k} f_i X_i}{n}$ = mean score

X_i = mid value of the class

$$Z_2 = \left[(\beta_2 - 3) + \frac{6}{n-1} \right] \sqrt{\frac{(n+1)^2 (n+3)(n+5)}{24n(n-2)(n-3)}}$$

where

$$\beta_2 = \frac{M_4}{M_2^2}$$

$$M_4 = \frac{\sum_{i=1}^{k} f_i (X_i - \bar{X})^4}{n}$$

Significant values of Z_1 and Z_2 indicate the presence of non-normality in the data

Theoretical frequencies were also calculated by fitting a normal distribution to the data and the goodness of fit tested using the chisquare statistic given by

$$\chi^2 = \sum_{i=1}^{K} \frac{(O_i - E_i)^2}{E_i}$$

df = K-1

K = number of classes

O_i = observed frequency of the i^{th} class

E_i = expected frequency of the i^{th} class

RESULTS

CHAPTER IV

RESULTS

Keeping the objectives of the study in view, the results of the present study are presented in this chapter under the following heads.

1. Development of scale to measure the efficiency of Adult Education Centres
2. Standardisation of the scale
3. Distribution of scores obtained by using the scale
4. Evaluating the selected Adult Education Centres by using the scale

4 1 Development of scale to measure the efficiency of Adult Education Centres

The results of the procedure followed in the development of scale to measure the efficiency of AECs are presented below.

4.1.1 Profile analysis of the Adult Education Centres

The efficiency of AEC was the dependent variable for the study and the 41 specific factors selected through judges' relevancy rating were the independent variables. The profile of the 50 AECs included in the

study with respect to range of observed scores, mean scores, standard deviation and coefficient of variation of the dependent variable and the 41 independent variables studied is presented in Table 4.1

A bird's eye view of the data furnished in the Table points out some interesting facts. The mean experience of the instructor in adult education was 2.5 years and the average number of methods used by the instructor for teaching the adults at the AEC was more than three. On an average, nine teaching-learning materials were used at the AECs and more than four categories of resource persons had handled classes for the adults Community support was received for more than three activities in the organisation and conduct of the AEC and the location of the centre was near to the residence for about 50 per cent of the learners The data in the Table also revealed that the average attendance of learners at the AEC was 15 days per month.

The values of coefficient of variation implied that the AECs were relatively more consistent in distribution with respect to majority of the variables except post-literacy facilities, empathy of instructor, experience of instructor, empathy of learner and community

Table 4.1 Profile of the Adult Education Centres

(n = 50)

Variable	Description of the variable	Range of observed scores	Mean score	Standard deviation	Coefficient of variation
Y	Efficiency of AEC	32-95	62.58	9.95	15.90
	Instructor				
X_1	Experience	0-6	2.50	1.36	54.41
X_2	Concept of communication	17-38	26.60	5.89	22.15
X_3	Instructor-learner communication	1-5	3.56	0.83	23.27
X_4	Instructor-learner contact span	1-7	3.90	1.46	37.42
X_5	Information seeking behaviour	3-21	9.40	3.63	38.65
X_6	Information processing behaviour	2-7	4.32	1.36	31.55
X_7	Empathy	0-6	2.80	1.56	55.79
X_8	Job commitment	8-36	22.72	7.31	32.19
X_9	Job satisfaction	11-40	25.00	7.70	30.81
X_{10}	Attitude towards adult literacy	20-95	60.48	20.39	33.71
X_{11}	Attitude towards learner	8-27	17.74	5.34	30.10
X_{12}	Attitude towards job	12-58	32.88	11.60	35.29
X_{13}	Attitude towards social activities	25-107	63.68	25.24	39.64
X_{14}	Interest in adult education	19-30	23.78	2.78	11.69

(contd.)

Table 4.1 (contd.)

Variable	Description of the variable	Range of observed scores	Mean score	Standard deviation	Coefficient of variation
	Instructional processes				
X_{15}	Method of teaching	1-7	3.58	1.15	32.14
X_{16}	Technique of teaching	3-14	9 56	2.82	29.45
X_{17}	Approach of teaching	1-5	3.82	0.79	20.74
X_{18}	Content of teaching	3-5	3.37	0.49	14.58
	Material inputs				
X_{19}	Physical facilities	1-5	2.46	0.70	28.41
X_{20}	Lighting arrangements	3-6	3.98	0.47	11.77
X_{21}	Teaching-learning materials	5-15	9.38	2.92	31 11
X_{22}	Human resources	2-8	4.52	1.82	40.37
	Organisational aspects				
X_{23}	Community support	2-7	3.80	1 11	29.30
X_{24}	Supervision	1-5	3.32	0.86	25.87
X_{25}	Supply of inputs	3-12	7.10	2.40	33.83
X_{26}	Training	15-26	24.40	1.95	7.99
X_{27}	Monitoring	4-12	6.74	2.08	30 81
X_{28}	Evaluation	4-10	6 10	1.33	21.81
X_{29}	Reporting	0-2	1 68	0 51	30.21
X_{30}	Location of the centre	2-3	2.54	0.50	19.62
X_{31}	Post-literacy facilities	0-1	0.56	0.50	88.64

(contd.)

Table 4.1 (contd.)

Variable	Description of the variable	Range of observed scores	Mean score	Standard deviation	Coefficient of variation
	Learner				
X_{32}	Motivation to attend the programme	55-119	73.95	11.15	15.08
X_{33}	Mass media exposure	1-10	4.43	1.37	31.03
X_{34}	Empathy	0-6	1.86	0.94	50.78
X_{35}	Attendance at the centre	10-25	15.22	3.10	20.37
X_{36}	Achievement aspirations in literacy, awareness and functionality	10-15	12.00	1.10	9.18
X_{37}	Interest in adult education	4-10	5.83	1.03	17.65
X_{38}	Awareness of need, significance and advantages of adult education	12-15	12.55	0.58	4.64
X_{39}	Attitude towards adult literacy	25-100	53.79	11.70	21.76
X_{40}	Attitude towards instructor	3-5	3.92	0.46	11.67
X_{41}	Enthusiasm to attend the programme	3-5	4.26	0.46	10.75

support. These variables had high coefficients of variation indicating poor consistency in distribution of scores. It could also be noted that the variable, learner's awareness of need, significance and advantages of adult education had the lowest coefficient of variation value.

4.1 2 Simple linear correlation analysis

The degree of the linear relationship of the 41 independent variables with efficiency of AECs(dependent variable) was found out by calculating the Pearson's product moment correlation coefficient The results are presented in Table 4.2

A cursory glance of the data presented in Table 4.2 indicates the relationship of the selected variables of instructor, instructional processes, material inputs, organisational aspects and learner with efficiency of AEC The calculated values of the correlation coefficient (r) were tested for their statistical significance at 0.05 and 0.01 levels of probability All the independent variables except the four - experience of instructor, physical facilities, training and post-literacy facilities expressed significant and positive relationship with the dependent variable at 0.05 level of probability

Table 4.2 Pearson's product moment correlation between the selected independent variables and efficiency of Adult Education Centres

(n = 50)

Variable	Description of the variable	Value of 'r'
	Instructor	
X_1	Experience	0 184
X_2	Concept of communication	0.345*
X_3	Instructor-learner communication	0 725**
X_4	Instructor-learner contact span	0 815**
X_5	Information seeking behaviour	0.650**
X_6	Information processing behaviour	0.812**
X_7	Empathy	0.615**
X_8	Job commitment	0.944**
X_9	Job satisfaction	0 901**
X_{10}	Attitude towards adult literacy	0.940**
X_{11}	Attitude towards learners	0.919**
X_{12}	Attitude towards job	0 912**
X_{13}	Attitude towards social activities	0.896**
X_{14}	Interest in adult education	0.551**
	Instructional processes	
X_{15}	Method of teaching	0.750**
X_{16}	Technique of teaching	0.416**
X_{17}	Approach of teaching	0.702**
X_{18}	Content of teaching	0.296*

(contd)

Table 4 2 (contd.)

Variable	Description of the variable	Value of 'r'
	Material inputs	
X_{19}	Physical facilities	-0.189
X_{20}	Lighting arrangements	0.412**
X_{21}	Teaching-learning materials	0.625**
X_{22}	Human resources	0.627**
	Organisational aspects	
X_{23}	Community support	0.683**
X_{24}	Supervision	0.317*
X_{25}	Supply of inputs	0.789**
X_{26}	Training	-0.112
X_{27}	Monitoring	0.616**
X_{28}	Evaluation	0.525**
X_{29}	Reporting	0.359*
X_{30}	Location of the centre	0.771**
X_{31}	Post-literacy facilities	0.226
	Learner	
X_{32}	Motivation to attend the programme	0.328*
X_{33}	Mass media exposure	0.318*
X_{34}	Empathy	0.734**
X_{35}	Attendance at the centre	0.312*
X_{36}	Achievement aspirations in literacy awareness and functionality	0.297*

(contd.)

Table 4.2 (contd.)

Variable	Description of the variable	Value of 'r'
X_{37}	Interest in adult education	0.347*
X_{38}	Awareness of need, significance and advantages of adult education	0.316*
X_{39}	Attitude towards adult literacy	0.354*
X_{40}	Attitude towards instructor	0.291*
X_{41}	Enthusiasm to attend the programme	0.321*

* Significant at 0.05 level

** Significant at 0.01 level

It was found that a total number of 24 independent variables showed significant and positive relationship with efficiency of AEC at 0.01 level of probability also. These variables were instructor-learner communication, instructor-learner contact span, information seeking behaviour of instructor, information processing behaviour of instructor, empathy of instructor, job commitment of instructor, job satisfaction of instructor, attitude of instructor towards adult literacy, attitude of instructor towards learners, attitude of instructor towards job, attitude of instructor towards social activities, interest of instructor in adult education, method of teaching, technique of teaching, approach of teaching, lighting arrangements, teaching-learning materials, human resources, community support, supply of inputs, monitoring, evaluation, location of the centre and empathy of learner

The 13 independent variables which were found to have significant and positive relationship with the dependent variable at 0.05 level of probability alone were concept of communication of instructor, content of teaching, supervision, reporting, motivation of learner to attend the programme, mass media exposure

of learner, attendance of learner at the centre, achievement aspirations of learner in literacy, awareness and functionality, interest of learner in adult education, learner's awareness of need, significance and advantages of adult education, attitude of learner towards adult literacy, attitude of learner towards instructor and enthusiasm of learner to attend the programme

Job commitment of instructor had the highest 'r' value (0 944) followed by attitude of instructor towards adult literacy (0.940), attitude of instructor towards learner (0.919), attitude of instructor towards job (0.912) and job satisfaction of instructor (0.901) in that order

The empirical model for the study showing the observed relationships in the simple correlation analysis is presented in Fig.4

4 1.3 Multiple linear regression analysis

Through the use of Pearson's product moment correlation coefficient 24 independent variables which expressed significant and positive relationship with efficiency of AEC at 0.01 level of probability were identified. However, a closer look will reveal that

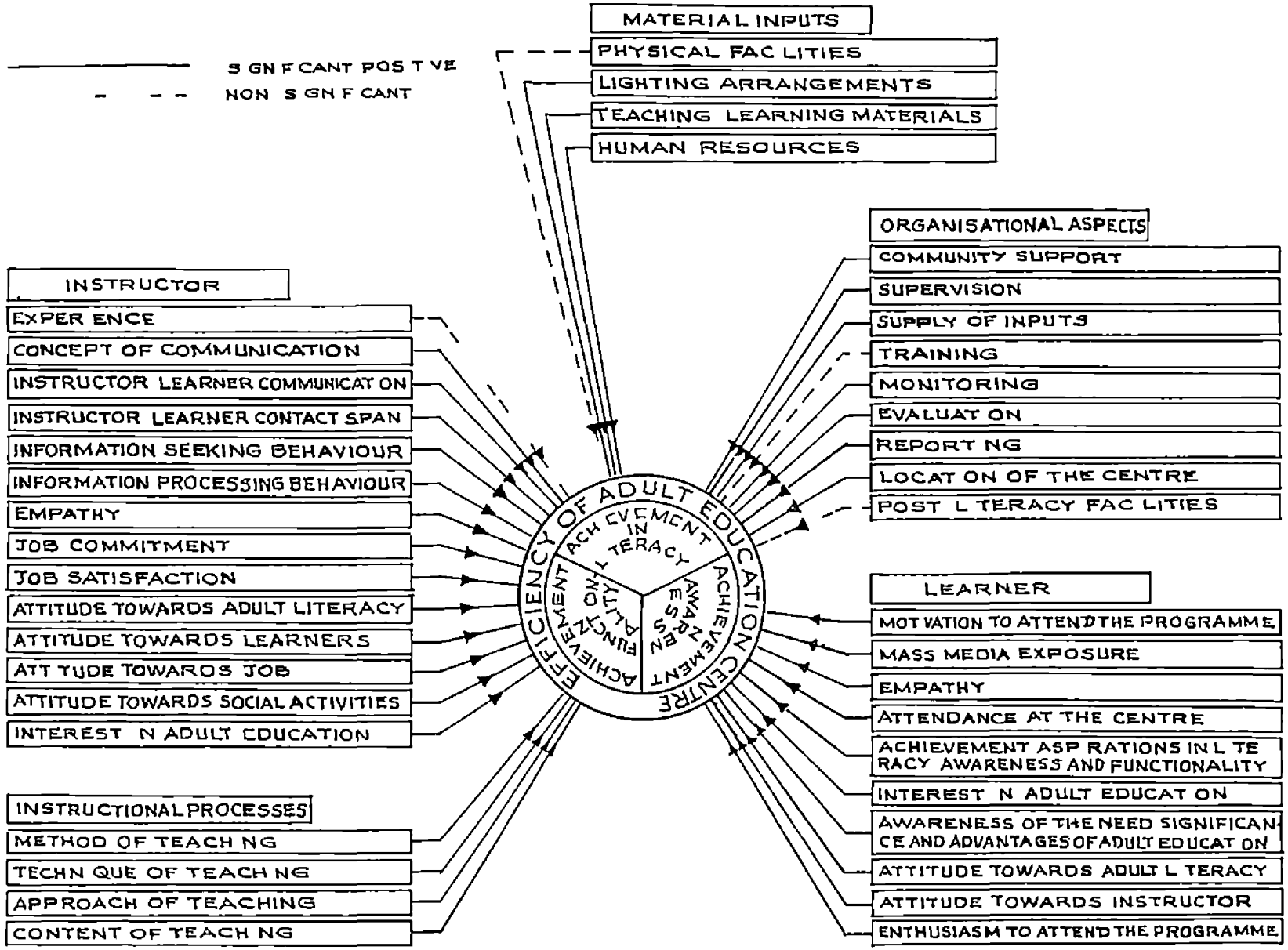


FIG 4 EMPIRICAL MODEL FOR THE STUDY SHOWING THE OBSERVED RELATIONSHIPS BETWEEN THE 41 INDEPENDENT VARIABLES AND THE DEPENDENT VARIABLE

efficiency of AEC is not influenced by any one of these factors in isolation, but rather by all of them as part of an interdependent system, through their reciprocal and interactive relationships. Hence multiple linear regression analysis was employed in this study to find out the functional relationship between the dependent variable and the set of independent variables and to identify the major contributing independent variables towards variations in the dependent variable. As a preliminary screening of the independent variables, those variables which showed statistical significance at 0.01 level of probability alone were selected for multiple linear regression analysis. The results of the analysis are furnished in Table 4.3

The data presented in Table 4.3 clearly indicates that all the 24 independent variables taken together accounted for an appreciable amount of variation in the efficiency of AEC The calculated coefficient of determination (R^2) was 0.9835 which suggested that 98.35 per cent variation in the efficiency of AEC could be attributed to the variations in the 24 independent variables.

Table 4.3 Results of multiple correlation and regression analysis - Stage I

(n = 50)

Sl No.	Variable	Description of the variable	Partial regression coefficient b_t
		Instructor	
1	X_3	Instructor-learner communication	-2.2495*
2	X_4	Instructor-learner contact span	-0.1983
3	X_5	Information seeking behaviour	0.1243
4	X_6	Information processing behaviour	1.3514*
5	X_7	Empathy	-0.9477
6	X_8	Job commitment	0.9995**
7	X_9	Job satisfaction	-0 5864*
8	X_{10}	Attitude towards adult literacy	0.2218*
9	X_{11}	Attitude towards learners	0 4813
10	X_{12}	Attitude towards job	0.1812
11	X_{13}	Attitude towards social activities	-0.0048
12	X_{14}	Interest in adult education	0.1469
		Instructional processes	
13	X_{15}	Method of teaching	0.4591
14	X_{16}	Technique of teaching	0.1460
15	X_{17}	Approach of teaching	0.5526

(contd)

Table 4.3 (contd)

Sl. No.	Variable	Description of the variable	Partial regression coefficient b_1
		Material inputs	
16	X_{20}	Lighting arrangements	0.9147
17	X_{21}	Teaching-learning materials	-0.5354
18	X_{22}	Human resources	-1.4921*
		Organisational aspects	
19	X_{23}	Community support	0.1924
20	X_{25}	Supply of inputs	-0.8467*
21	X_{27}	Monitoring	0.9926*
22	X_{28}	Evaluation	-1.2898
23	X_{30}	Location of the centre	0.6809
		Learner	
24	X_{34}	Empathy	2.1282*

Coefficient of determination (R^2) = 0.9835**

* Significant at 0.05 level

** Significant at 0.01 level

The partial regression coefficients were tested for their statistical significance. Nine variables out of the 24 were found to exert significant influence on the efficiency of AEC These variables were instructor-learner communication, information processing behaviour of instructor, job commitment of instructor, job satisfaction of instructor, attitude of instructor towards adult literacy, human resources, supply of inputs, monitoring and empathy of learner. Of these nine variables, only one variable, namely, job commitment of instructor was found to have statistical significance at 0.01 level of probability. The partial regression coefficient of the variable job commitment of instructor was found to be 0.9995. This indicates that the rate of change of score on efficiency of AEC per unit change in job commitment score of instructor was almost equal to one.

The other 15 variables, namely, instructor-learner contact span, information seeking behaviour of instructor, empathy of instructor, attitude of instructor towards learners, attitude of instructor towards job, attitude of instructor towards social activities, interest of instructor in adult education, method of teaching, technique of teaching, approach of teaching, lighting

arrangements, teaching-learning materials, community support, evaluation and location of the centre were not found to be statistically significant . The significance of contribution of the selected 24 independent variables to the variations in the dependent variable may be seen in Fig.5

The possibility of reducing the number of variables from 24 without causing substantial reduction in the coefficient of determination was thought of. If it was possible, saving of time, labour and expenditure could be effected while using the final scale which will be of less number of variables. Hence multiple correlation and regression analysis was done at the second stage by using the nine variables which were found to be significant at the first stage of multiple correlation and regression analysis. The results are presented in Table 4 4

The data furnished in Table 4.4 indicate that all the nine independent variables taken together accounted for a fairly high amount of variation in the dependent variable The computed coefficient of determination (R^2) was 0.9627 which suggested that 96.27 per cent of the variation in efficiency of AEC could be explained by the nine independent variables. Reduction in the number

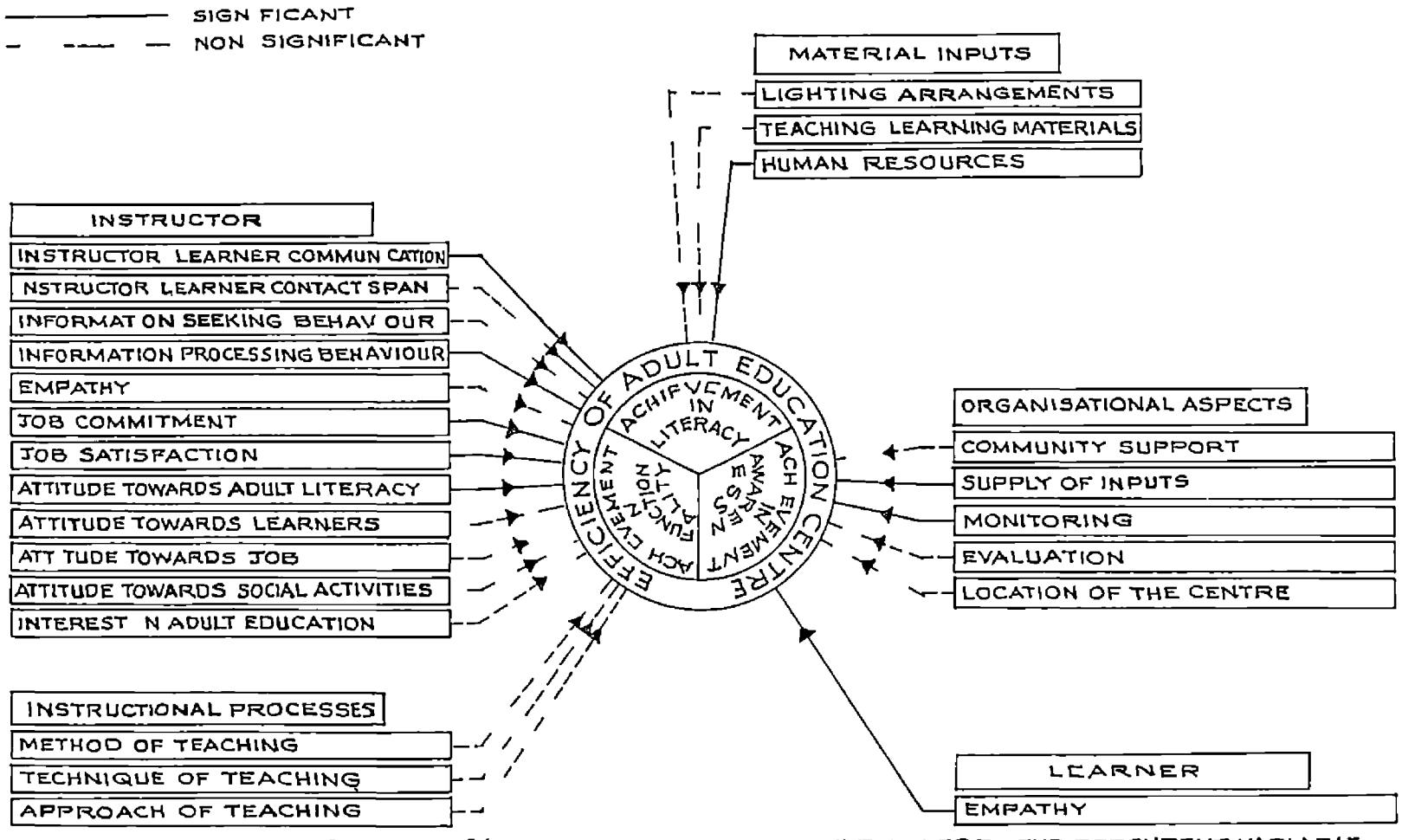


FIG 5 CONTRIBUTION OF THE 24 SELECTED INDEPENDENT VARIABLES TO THE DEPENDENT VARIABLE

Table 4 4 Results of multiple correlation and regression analysis - Stage II

(n = 50)

Sl No.	Variable	Description of the variable	Partial regression coefficient b_1
1	X_3	Instructor-learner communication	-1.4582*
2	X_6	Information processing behaviour of instructor	1.1273*
3	X_8	Job commitment of instructor	1 6917**
4	X_9	Job satisfaction of instructor	-0.3070
5	X_{10}	Attitude of instructor towards adult literacy	0.0925
6	X_{22}	Human resources	-2.3985**
7	X_{25}	Supply of inputs	-0.9159**
8	X_{27}	Monitoring	0.3808
9	X_{34}	Empathy of learner	2.7168**

Coefficient of determination (R^2) = 0.9627**

* Significant at 0.05 level

** Significant at 0.01 level

of independent variables from 24 to nine has not brought out a significant reduction in the coefficient of determination. The observed reduction was only upto the order of 2.08 per cent.

Job commitment of instructor, human resources, supply of inputs, empathy of learner, instructor-learner communication and information processing behaviour of instructor were the six variables found significant in causing variation in the efficiency of AEC. The other three variables, namely, job satisfaction of instructor, attitude of instructor towards adult literacy and monitoring were not found to be statistically significant. The significance of contribution of the selected nine independent variables to the variations in the dependent variable is presented in Fig.6.

4.1.4 Step-wise regression analysis

In the present study, step-wise regression analysis was employed to select the best regression equation thereby identifying the best subgroup of variables out of many for predicting the variations in the efficiency of AEC (dependent variable) and also to determine the relative contribution of each variable included in the regression model in explaining this variation.

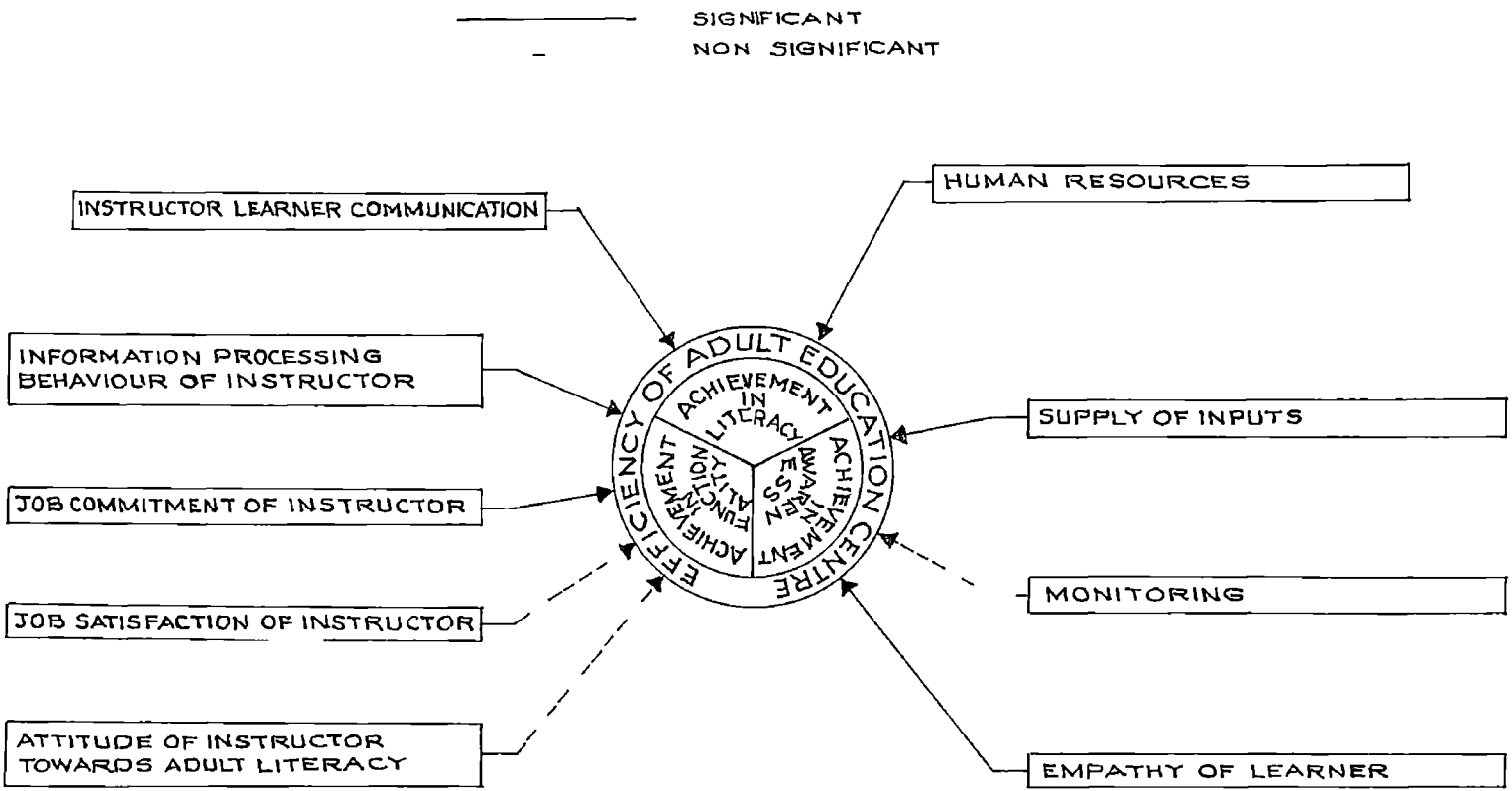


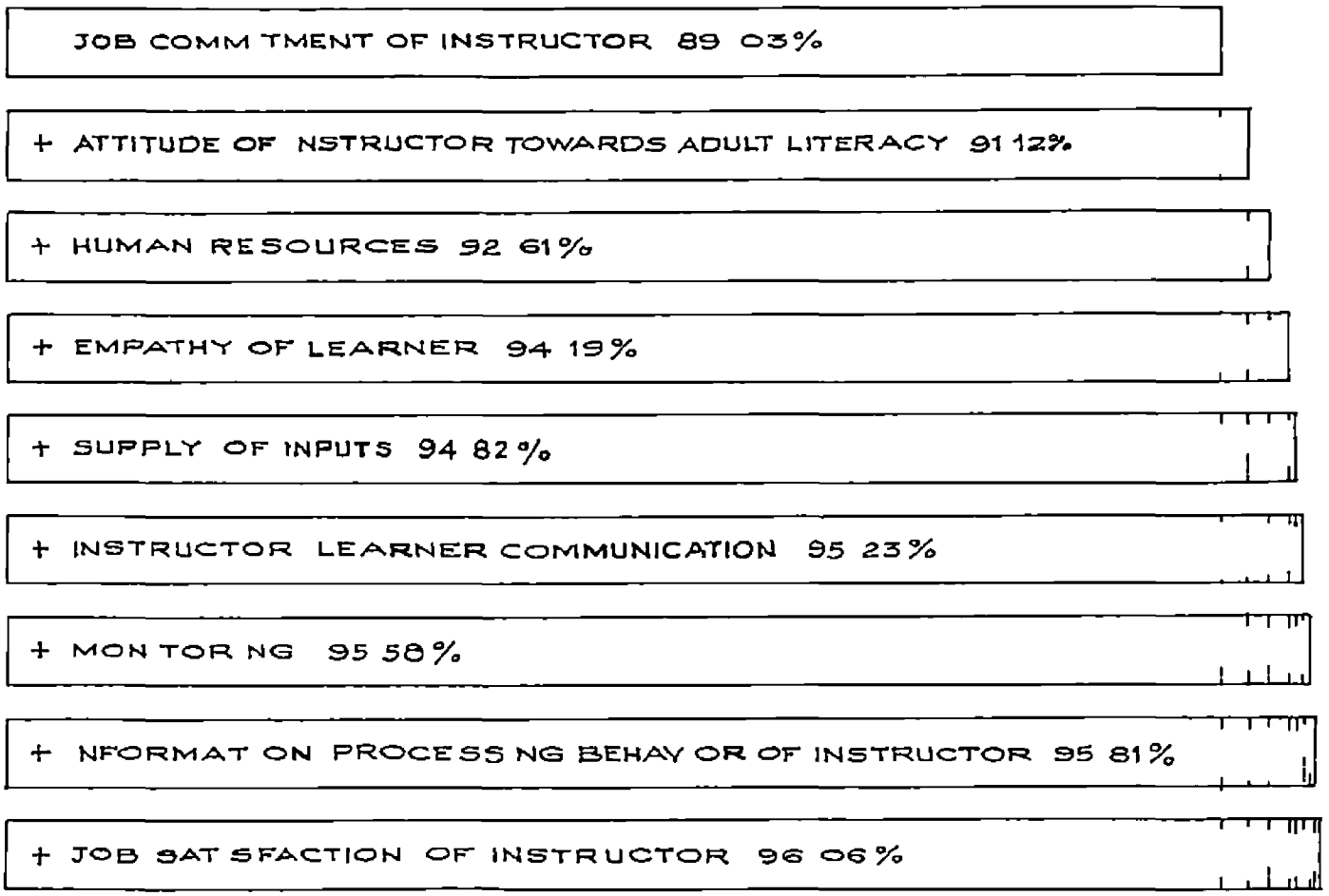
FIG 6 CONTRIBUTION OF THE NINE SELECTED INDEPENDENT VARIABLES TO THE DEPENDENT VARIABLE

This regression equation consists of the best subset of independent variables in the sense that it results in the maximum predictability of the dependent variable with relatively less number of independent variables

The results of step-wise regression analysis are furnished in Table 4.5

The table presents the results of step-wise regression analysis depicting all the relevant steps involved. As much as 89.03 per cent variation in the efficiency of AEC was explained by a single variable - job commitment of instructor - out of a total 96.06 per cent accounted for by the nine variables together. The remaining eight variables accounted for only 7.03 per cent variation. The relative contribution of the nine variables to the variations in the efficiency of AEC is presented in Fig 7

As the total variation explained by the 24 variables used in the multiple correlation and regression analysis was 98 35 per cent, it could be inferred that the eliminated 15 variables could explain as little as 2.29 per cent of total variation



F G 7 RELAT VE CONTR BUT ON OF THE NINE SELECTED NDEPENDENT VARIABLES TO THE DEPENDENT VARIABLE

The variable, attitude of instructor towards adult literacy was eliminated during the step-wise regression analysis and the resulting prediction equation with eight variables is given below.

$$\hat{Y} = 36.1829 + (-1.5066^{*} X_3) + (1.0387 X_6) + (1\ 8718^{**} X_8) + (-0.2693 X_9) + (-2\ 6461^{**} X_{22}) + (-0\ 9135^{**} X_{25}) + (0.5470 X_{27}) + (3.3524^{**} X_{34})$$

$$(R^2 = 0.9397^{**})$$

* Significant at 0.05 level
** Significant at 0.01 level

The prediction model has explained as much as 93 97 per cent variation in the efficiency of AEC The partial regression coefficient of efficiency of AEC on job commitment of instructor and empathy of learner were found to be positive and staistically significant.

Table 4.5 Results of step-wise regression analysis of selected variables with efficiency of Adult Education Centre

(n = 50)

Steps included	Variables entered	Percentage variation explained (R^2)	Increase in percentage variation
1	X_8 Job commitment of instructor	89.03	89.03
2	X_{10} Attitude of instructor towards adult literacy	91.12	2.09
3	X_{22} Human resources	92.61	1.49
4	X_{34} Empathy of learner	94.19	1.58
5	X_{25} Supply of inputs	94.82	0.63
6	X_3 Instructor-learner communication	95.23	0.41
7	X_{27} Monitoring	95.58	0.35
8	X_6 Information processing behaviour of instructor	95.81	0.23
9	X_9 Job satisfaction of instructor	96.06	0.25

4 1.5 Path coefficient analysis

The technique of path coefficient analysis was applied to the data to know the direct and indirect effects of the various causal factors (X_i) on the efficiency of AEC (Y) and to know the relative importance in each of the causal factors in explaining the efficiency of AEC The following nine variables which were found to be significant at the first stage of multiple correlation and regression analysis were included for path coefficient analysis.

X_3 - Instructor-learner communication

X_6 - Information processing behaviour of instructor

X_8 - Job commitment of instructor

X_9 - Job satisfaction of instructor

X_{10} - Attitude of instructor towards adult literacy

X_{22} - Human resources

X_{25} - Supply of inputs

X_{27} - Monitoring

X_{34} - Empathy of learner

The data pertaining to the results of path coefficient analysis are presented in Table 4.6

Table 4.6 Direct and indirect effects of independent variables on efficiency of Adult Education Centre

	X_3	X_6	X_8	X_9	X_{10}	X_{22}	X_{25}	X_{27}	X_{34}	Correlation coefficient
X_3	-0 121	0.115	1.030	-0 184	0 147	-0 299	-0.169	0.051	0.155	0.725
X_6	-0.090	0.154	1 089	-0.199	0.153	-0.346	-0.173	0.051	0.173	0.812
X_8	-0.101	0.135	1 243	-0.226	0 180	-0.334	-0.192	0 057	0.182	0.944
X_9	-0.094	0.129	1.183	-0.238	0.172	-0.271	-0.182	0 049	0 153	0.901
X_{10}	-0.095	0.124	1.178	-0.215	0.190	-0.305	-0 189	0.056	0.196	0 940
X_{22}	-0.083	0.122	0.945	-0.146	0.132	-0.440	-0.151	0.059	0.189	0.627
X_{25}	-0 093	0 121	1 082	-0.195	0.162	-0.300	-0.221	0.057	0.176	0.789
X_{27}	-0 079	0 098	0.893	-0.147	0.133	-0.327	-0.160	0.079	0.126	0.616
X_{34}	-0.073	0.105	0.876	-0.141	0.144	-0.323	-0.151	0.039	0 258	0.734

X_3 - Instructor-learner communication
X_6 - Information processing behaviour of instructor
X_8 - Job commitment of instructor
X_9 - Job satisfaction of instructor
X_{10} - Attitude of instructor towards adult literacy
X_{22} - Human resources
X_{25} - Supply of inputs
X_{27} - Monitoring
X_{34} - Empathy of learner

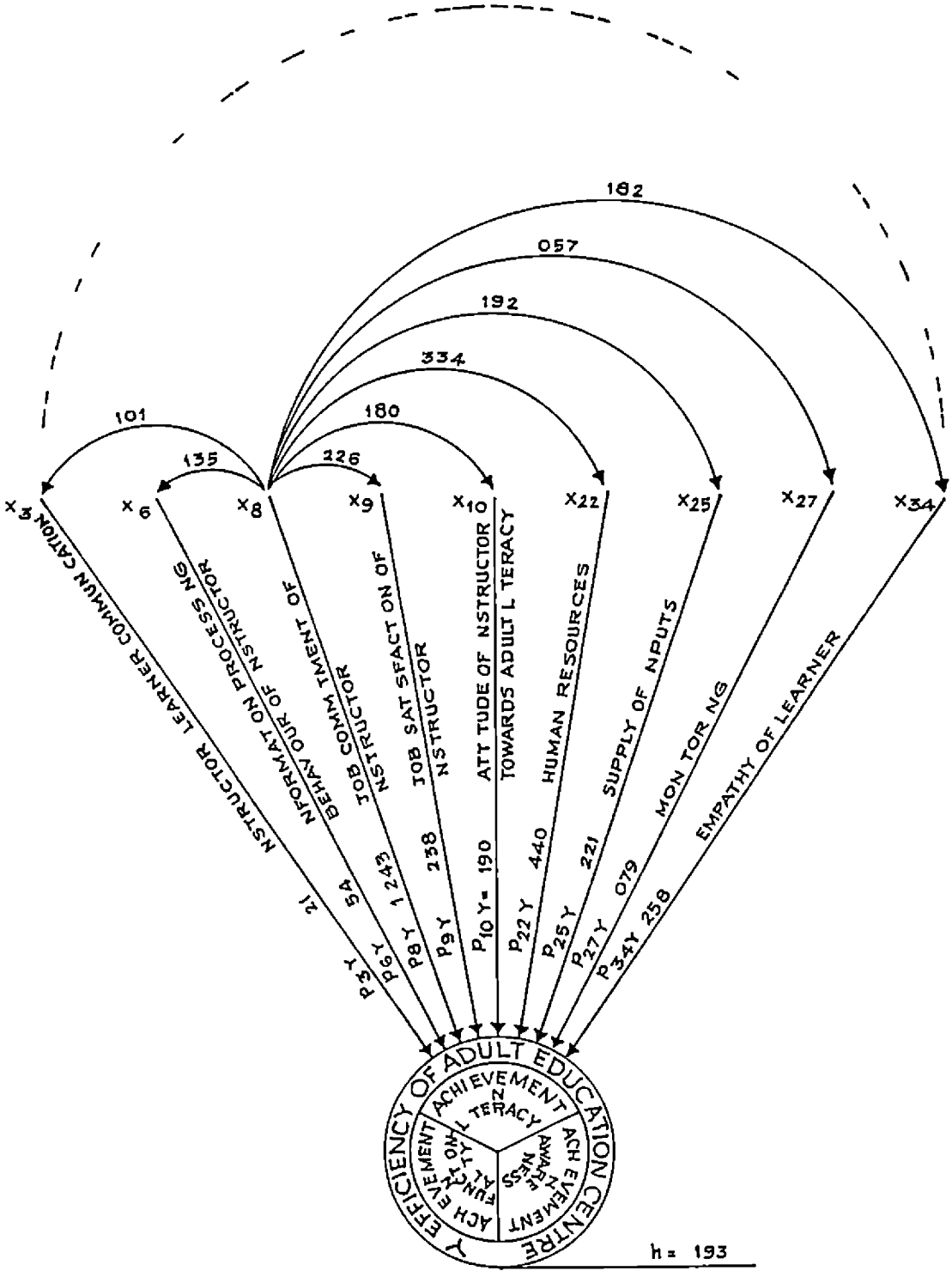
A perusal of Table 4 6 indicates that job commitment of instructor had maximum direct effect on efficiency of AEC. Hence it was the most important factor contributing to variation in efficiency of AEC The direct effect (1 243) of this factor on efficiency of AEC was very high and positive. Indirect effects of this factor through the other factors were relatively small. Thus it may be inferred that the high correlation (0.944) between this factor and the efficiency of AEC was mainly due to its direct effect. On the other hand, direct effect (0.190) of attitude of instructor towards adult literacy on efficiency of AEC was rather small. The high correlation (0.940) of this factor with efficiency of AEC was due to its positive inter-relationship (1 178) with job commitment of instructor. The trend was the same for the other seven variables also. The variables such as empathy of learner, information processing behaviour of instructor and monitoring also exerted positive direct effects on efficiency of AEC, but the rates of dependance were to small to include them in the final scale to measure efficiency. These causal factors cannot be expected to have a significant contribution in their relationship with efficiency of AEC. Thus it is to be concluded that the most effective method

of measuring the efficiency of AECs is through measuring the job commitment of the instructor.

The residual effect (h = 0 193) in the path coefficient analysis was found to be negligibly small. Therefore the path coefficient model has been successful in explaining the causal mechanism satisfactorily. The path diagram of independent variables and efficiency of AEC is given in Fig.8.

The efficiency of AEC was defined in this study as the power of the centre to produce achievements of adult learners in literacy, awareness and functionality. The summation of scores obtained for literacy, awareness and functionality was taken to represent efficiency of AEC, the dependent variable for the study. Since the single variable job commitment of instructor exhibited the largest contribution to the efficiency of AEC, its contributions to the components of efficiency of AEC, namely, literacy, awareness and functionality were worked out through path coefficient analysis.

The results of the path coefficient analysis using the nine variables including job commitment of instructor as the causal factors(X_1) and achievement of learners in



F G 8 PATH D AGRAM OF THE N NE INDEPENDENT VARIABLES AND THE DEPENDENT VARIABLE

literacy as the effect factor (Y) are furnished in Table 4.7

The data presented in the Table reveal that job commitment of instructor had maximum direct effect (1.193) on achievement in literacy of learners Indirect effects of this factor through the other factor were less Hence it may be inferred that the high correlation (0.872) between this factor and the achievement in literacy was mainly due to its direct effect It may be observed that the direct effect (0.725) of attitude of instructor towards adult literacy on achievement in literacy was relatively small. The high correlation (0.891) of this factor with achievement in literacy was due to its positive inter-relationship (1.131) with job commitment of instructor. Similar trends were exhibited by the other seven variables also. The variables, namely, instructor-learner communication and empathy of learner also exerted positive direct effects on achievment in literacy of learners, but at very low rates Hence it is concluded that job commitment of instructor was the most important factor contributing to variation in achievement in literacy of learners.

Table 4 7 Direct and indirect effects of independent variables on achievement in literacy of learners

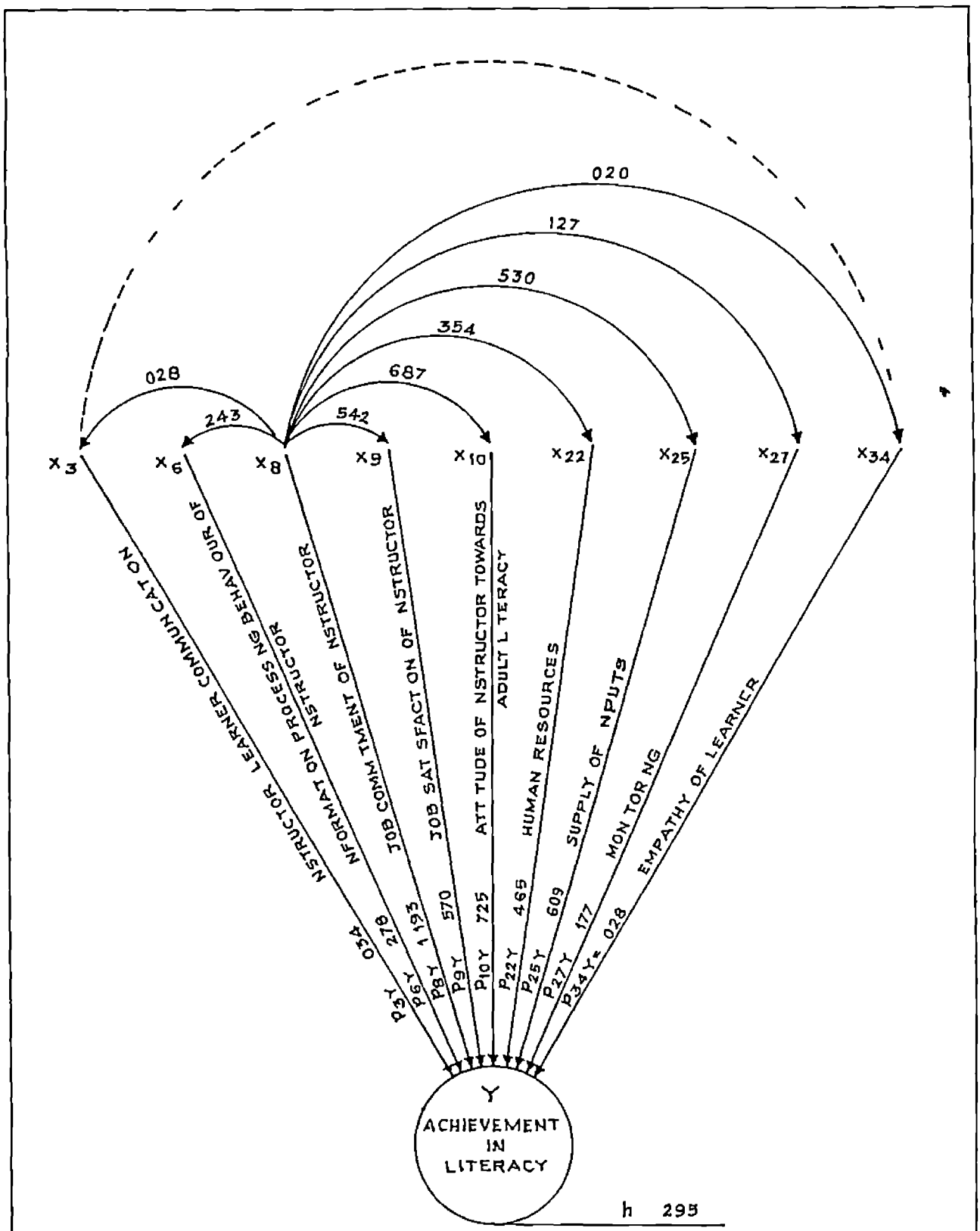
	X_3	X_6	X_8	X_9	X_{10}	X_{22}	X_{25}	X_{27}	X_{34}	Correlation coefficient
X_3	0 034	0.207	0.988	-0.441	0.565	-0.317	-0.467	0.115	0.017	0 701
X_6	0 025	0 278	1.045	-0 476	0.584	-0.366	-0.478	0.113	0.019	0.744
X_8	0.028	0.243	1 193	-0.542	0.687	-0.354	-0.530	0.127	0.020	0.872
X_9	0 026	0 232	1 136	-0.570	0 657	-0.287	-0.501	0 110	0.016	0.819
X_{10}	0 026	0.224	1 131	-0.516	0.725	-0 323	-0.522	0.125	0.021	0.891
X_{22}	0 023	0.218	0.907	-0.351	0.502	-0.465	-0.415	0.132	0.020	0.571
X_{25}	0.026	0.218	1.039	-0.469	0.622	-0.317	-0.609	0.127	0 019	0.656
X_{27}	0.022	0.177	0.857	-0 353	0.511	-0.346	-0 441	0 177	0.014	0.618
X_{34}	0.020	0.187	0.841	-0 337	0.552	-0.342	-0.415	0 086	0 028	0.620

X_3 - Instructor-learner communication
X_6 - Information processing behaviour of instructor
X_8 - Job commitment of instructor
X_9 - Job satisfaction of instructor
X_{10} - Attitude of instructor towards adult literacy
X_{22} - Human resources
X_{25} - Supply of inputs
X_{27} - Monitoring
X_{34} - Empathy of learner

The residual effect (h = 0.295) in the path coefficient analysis was found to be small. The path diagram of independent variable and achievement in literacy of learners is presented in Fig 9

Path coefficient analysis was done by using the nine variables as causal factors and achievement in awareness of learners as the effect The results of the analysis are presented in Table 4.8.

It can be observed from the Table that job commitment of instructor was the most important factor contributing to variation in achievement in awareness of learners. The direct effect (1 812) of this factor on achievement in awareness was very high and positive. Indirect effects of this factor through the other factors were relatively small. Hence it can be inferred that the high correlation (0.740) between this factor and achievement in awareness was mainly due to its direct effect The direct effects of attitude of instructor towards adult literacy and job satisfaction of instructor on achievement in awareness were negative. The high positive correlations of these factors with achievement in awareness were due to their positive inter-relationshipswith job commitment of instructor.



F G 9 PATH DIAGRAM OF THE N NE NDEPENDENT VARIABLES AND ACH EVEMENT N LITERACY

Table 4.8 Direct and indirect effects of independent variables on achievement in awareness of learners

	X_3	X_6	X_8	X_9	X_{10}	X_{22}	X_{25}	X_{27}	X_{34}	Correlation coefficient
X_3	-0.583	0.020	1.501	-0.147	-0.244	-0.428	-0.116	0.127	0.285	0.415
X_6	-0.434	0.026	1.588	-0.159	-0.252	-0.494	-0.119	0.124	0 320	0.600
X_8	-0 483	0.023	1 812	-0.181	-0.297	-0.478	-0.132	0.140	0.336	0 740
X_9	-0 452	0.022	1 725	-0 190	-0.284	-0.368	-0.124	0 121	0.282	0.732
X_{10}	-0.454	0.021	1.717	-0 172	-0.313	-0.436	-0.130	0 137	0.363	0 733
X_{22}	-0.397	0.021	1.378	-0.117	-0.217	-0.629	-0.103	0.144	0.349	0 429
X_{25}	-0.447	0 021	1.577	-0.156	-0.269	-0.429	-0 151	0.141	0.325	0.612
X_{27}	-0.382	0.017	1° 302	-0.118	-0.221	-0.467	-0.109	0 195	0.231	0 448
X_{34}	-0 350	0.018	1 278	-0.113	-0.238	-0.462	-0.103	0.094	0 476	0.600

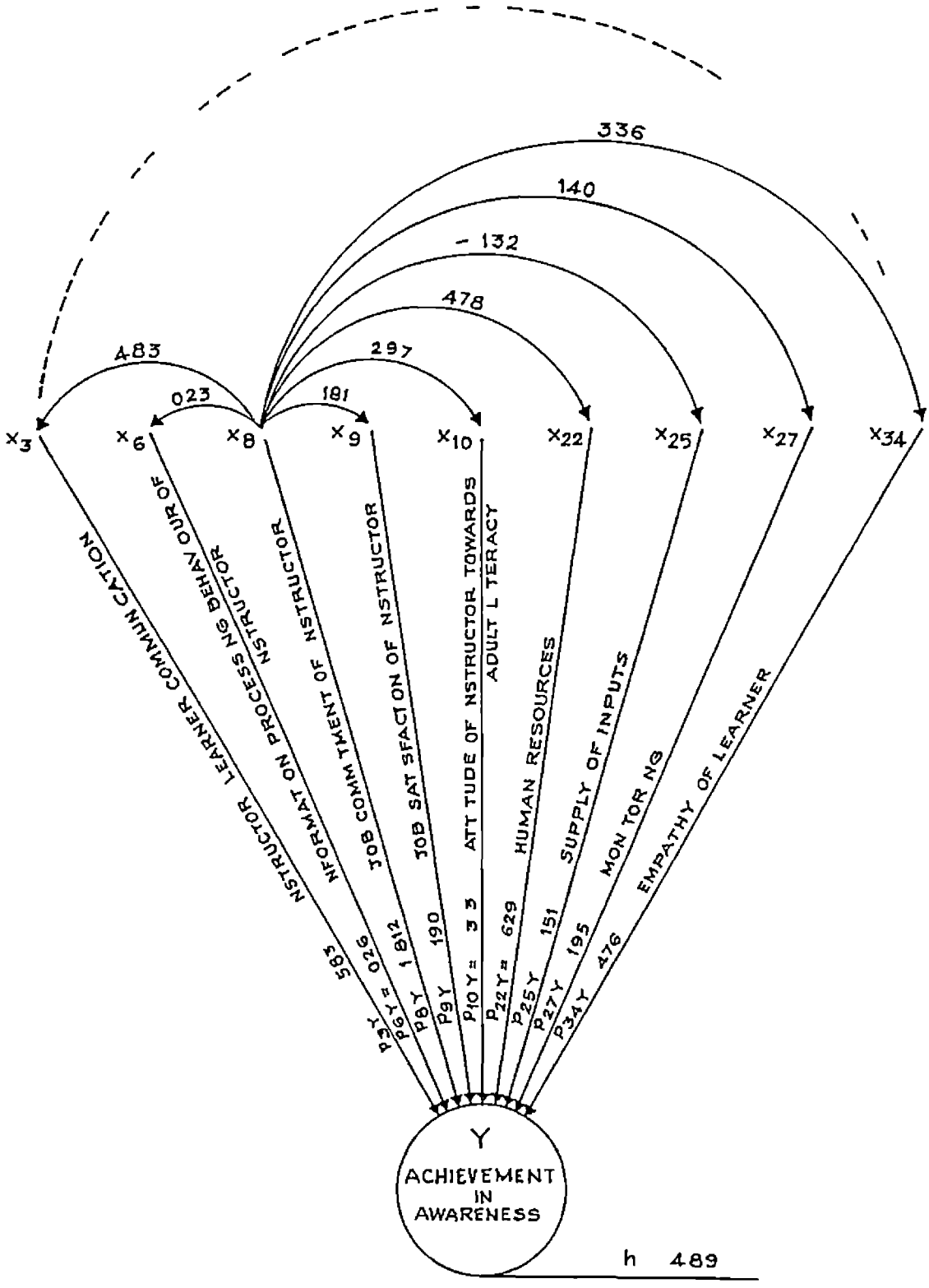
X_3 - Instructor-learner communication
X_6 - Information processing behaviour of instructor
X_8 - Job commitment of instructor
X_9 - Job satisfaction of instructor
X_{10} - Attitude of instructor towards adult literacy
X_{22} - Human resources
X_{25} - Supply of inputs
X_{27} - Monitoring
X_{34} - Empathy of learner

This trend was followed by the other variables also The variables such as empathy of learner, monitoring and information processing behaviour of instructor also exhibited positive direct effects on achievement in awareness but at lower degrees. These causal factors could not be expected to have a significant contribution in their relationship with achievement in awareness. Thus it is concluded that job commitment of instructor was the most significant factor contributing to achievement in awareness of learners.

The residual effect in the path coefficient analysis was found to be 0.489. The path diagram of independent variables and achievement in awareness of learners is presented in Fig.10.

The direct and indirect effects of the nine independent variables on achievement in functionality of learners were found out through path coefficient analysis. The results of the analysis are furnished in Table 4.9.

The data presented in the Table reveal that job commitment of instructor had the largest direct effect (0.418) on achievement in functionality of learners. Indirect effects of this factor through the other factors



F G 10 PATH D AGRAM OF THE N NE INDEPENDENT VAR ABLES AND AC EVEMENT N AWARENESS

Table 4.9 Direct and indirect effects of independent variables on achievement in functionality of learners

	X_3	X_6	X_8	X_9	X_{10}	X_{22}	X_{25}	X_{27}	X_{34}	Correlation coefficient
X_3	0 059	0 014	0.345	0 228	-0.207	-0.065	0.282	-0.118	0.197	0 735
X_6	0.044	0.019	0.366	0.246	-0.214	-0.075	0.288	-0.115	0.221	0.780
X_8	0 048	0.017	0 418	0.280	-0.252	-0 072	0 320	-0.130	0 231	0.860
X_9	0.046	0.016	0.396	0.294	-0.240	-0.058	0.303	-0.112	0.194	0.839
X_{10}	0 046	0.015	0.395	0.266	-0 265	-0.066	0.315	-0.127	0.250	0.829
X_{22}	0.040	0.015	0.317	0.181	-0.184	-0.095	0.251	-0.135	0.241	0.631
X_{25}	0.045	0.015	0.363	0.242	-0.227	-0.065	0.368	-0.131	0.223	0.833
X_{27}	0.038	0.012	0.300	0.183	-0.187	-0.071	0.266	-0.181	0.159	0.519
X_{34}	0.035	0 013	0.294	0.174	-0.202	-0.070	0.251	-0.088	0.328	0.735

X_3 - Instructor-learner communication
X_6 - Information processing behaviour of instructor
X_8 - Job commitment of instructor
X_9 - Job satisfaction of instructor
X_{10} - Attitude of instructor towards adult literacy
X_{22} - Human resources
X_{25} - Supply of inputs
X_{27} - Monitoring
X_{34} - Empathy of learner

were less. So it may be inferred that the high correlation (0.860) between this factor and achievement in functionality was largely due to its direct effect The direct effects of job satisfaction of instructor and attitude of instructor towards adult literacy were negative. The high positive correlations of these factors with achievement in functionality were due to their positive inter-relationships with job commitment of instructor. Similar trend was observed in the case of other variables also. Supply of material inputs, empathy of learner, instructor-learner communication and information processing behaviour of instructor also exerted positive direct effects on achievement in functionality but at lower rates. Hence it is concluded that job commitment of instructor was the most important factor contributing to variation in achievement in functionality of learners.

The residual effect in the path coefficient analysis was found to be 0.403. The path diagram of the nine independent variables and achievement in functionality of learners is given in Fig.11

Thus it can be concluded on the basis of the preceeding discussion that job commitment of instructor was the most important factor contributing to efficiency

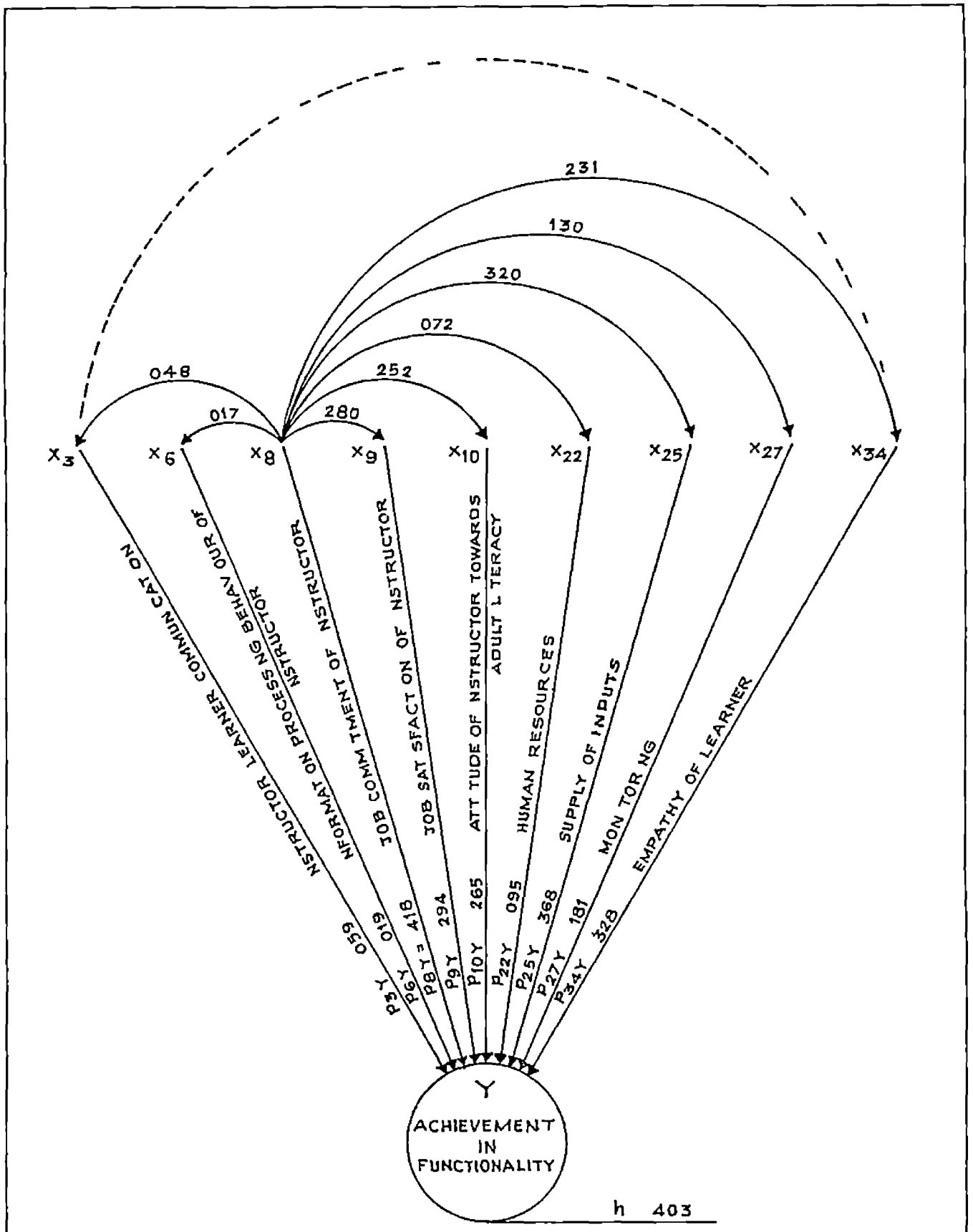


FIG 11 PATH DIAGRAM OF THE NINE INDEPENDENT VARIABLES AND ACHIEVEMENT IN FUNCTIONALITY

of AEC and its components, namely, literacy, awareness and functionality Eventhough a few other variables also exerted positive direct effects on efficiency of AEC and its components, they were not found to be consistent in their trends. Their rates of dependence were too small to include them in the final scale. The high positive correlations of all the other factors with efficiency of AEC and its components were due to their positive inter-relationships with job commitment of instructor Thus, job commitment of instructor has been arrived at to be the scale for measuring the efficiency of AEC. The components of the scale are given in Appendix XI

4.2 Standardisation of the scale

The efficiency scale was standardised by establishing its validity and reliability.

4.2.1 Validity of the scale

Three kinds of validity were established for the scale, namely, content validity, criterion-related validity and concurrent validity.

4 2.1.1 Content validity

The variables for the present study were identified through extensive review of literature and pilot study

conducted The variables were selected by subjecting the identified variables to the opinion of judges Thus, content validity was established in this study.

4.2 1.2 Criterion-related validity

The marks secured by each learner in the final evaluation test conducted by the Rural Development Department were collected. The marks secured by the learners were added up for each AEC. These were correlated with the scores obtained for the AECs through the efficiency scale. The calculated coefficient of correlation, 0.950 was statistically significant thereby establishing the criterion-related validity for the scale.

4 2.1.3 Concurrent validity

The supervisors of the AECs were asked to rate the AECs under their supervision for their efficiency by giving scores taking into consideration the five major factors contributing to efficiency, namely, instructor, instructional processes, material inputs, organisational aspects and learner. The total score for all the five major factors for each AEC was calculated by the summation of the individual five scores. The rating score given by the supervisor was correlated with the efficiency score obtained through the scale for

the AECs. The computed coefficient of correlation (0.964) was statistically significant. This clearly established concurrent validity for the developed scale.

4.2.2 Reliability of the scale

Two different procedures were used to establish the reliability of the scale, namely, test-retest method and split-half technique

4 2.2.1 Test-retest method

The scale was administered twice to the randomly selected 50 AECs in the Kodakara Block (non-sample area) of Thrissur district at an interval of three weeks period. Correlation between the first and second set of scores was worked out. The calculated coefficient of correlation (coefficient of stability) was found to be 0.997 which was statistically significant indicating test-retest reliability for the scale.

4 2.2.2 Split half technique

Split half technique was employed by dividing the scale into two halves using odd-even split technique applied to the eight statements. The odd numbered statements, 1, 3, 5 and 7 and the even numbered statements 2, 4, 6 and 8 formed two different sets of statements for

scoring. The estimated coefficient of correlation between the two sets (coefficient of consistency) was 0.899 which was statistically significant indicating a measure of high reliability of the scale.

The computed correlation, in this technique, was between two half-length scales. Hence the reliability coefficient of the whole scale was calculated by using the Spearman-Brown Prophecy formula as explained in the Methodology chapter. The reliability coefficient for the full length of the scale was found to be 0.947 which confirmed that the scale was reliable

4.3 Distribution of scores obtained by using the scale

Scores were obtained for the 50 AECs studied on the basis of the efficiency scale developed. The arithmetic mean, median and mode worked out for the set of efficiency scores were 22 7, 22 and 22 respectively The observed differences among the different measures of central tendency were relatively small indicating possible normality in the data The standard deviation of the set of scores was found to be 7.3

The β_1 and β_2 statistics were calculated as a preliminary step in testing normality of the distribution of scores They were found to be 0.0004692 and 2.1768 respectively For the theoretical normal distribution the expected value of β_1 is zero and that of β_2 is three The value of zero for β_1 indicates symmetry and the value of three for β_2 indicates mesokurtosis Since the value of β_1 was found to be almost equal to zero it is inferred that the distribution of efficiency scores is symmetric. The value of β_2 was found to be nearer to three which indicates that the distribution was mesokurtic. Since the symmetry and mesokurtosis of the distribution were indicated, it could be inferred that the distribution of scores obtained through the efficiency scale was normal.

The Z_1 and Z_2 values were found out as 0.0664153 and -0.626 respectively. They were not statistically significant. This evidences that the values of β_1 and β_2 established symmetry and measokurtosis respectively indicating the distribution was normal.

Theoretical frequencies were calculated by fitting a normal distribution to the set of efficiency scores as described by Seetharaman (1965) The observed frequencies and the expected frequencies of the efficiency

scores are presented in Table 4.10

Table 4.10 Observed and expected frequencies of efficiency scores

Class	True class	Observed frequency (O_1)	Expected frequency (E_1)
8 - 12	7.5 - 12.5	7	5
13 - 17	12.5 - 17.5	4	7
18 - 22	17.5 - 22 5	15	13
23 - 27	22.5 - 27.5	11	11
28 - 32	27.5 - 32.5	5	9
33 - 37	32 5 - 37.5	8	5
	Total	50	50

Chisquare (χ^2) = 5 98

The goodness of fit of the distribution was established by the non-significance of the chisquare test (χ^2 = 5.98, df = 5) as observed from Table 4.10. Thus it could be inferred that the efficiency of AECs can be approximated by a normal distribution.

An important property of normal distribution is that about 68 per cent of the frequencies lie between $\bar{x} - \sigma$ to $\bar{x} + \sigma$. This was verified on the set of efficiency scores obtained by using the developed scale in the AECs of Ollukkara Block included under the study as well as on the set of efficiency scores obtained through the administration of the developed scale in the selected AECs of Kodakara Block.

4.4 Evaluating the selected Adult Education Centres by using the scale

The developed scale was administered in the randomly selected 50 AECs in the Kodakara Block of Thrissur district. The mean and standard deviation of the efficiency scores obtained were found to be 21.60 and 7.25 respectively. The AECs were categorised into three classes, namely, 'high efficient', 'medium efficient' and 'low efficient' with the mean efficiency score $\pm$ standard deviation as the cutting point.

The distribution of the AECs evaluated in Kodakara Block and those studied in Ollukkara Block is presented in Table 4.11

Table 4.11 Distribution of Adult Education Centres according to degree of efficiency

Sl No.	Degree of efficiency	AECs					
		Kodakara Block			Ollukkara Block		
		Score	Observed percentage	Expected percentage	Score	Observed percentage	Expected percentage
1.	High ($> \bar{x} + \sigma$)	>29	18	16	>30	18	16
2.	Medium ($\bar{x} - \sigma$ to $\bar{x} + \sigma$)	14 to 29	66	68	15 to 30	64	68
3	Low ($< \bar{x} - \sigma$)	<14	16	16	<15	18	16

The data furnished in the Table reveal that the observed percentage of AECs in the 'medium efficient' class in Kodakara and Ollukkara Blocks were 66 and 64 respectively. These values are nearer to the expected percentage of 68 in the 'medium efficient' class It can also be observed that the theoretical discrimination of the three classes is in agreement with the observed discrimination indicating a normal distribution of the efficiency scores.

DISCUSSION

CHAPTER V

DISCUSSION

The salient results of the present study are interpreted and discussed in this chapter in the following sequence

1 Development of scale to measure the efficiency of Adult Education Centres

2 Standardisation of the scale

3 Distribution of scores obtained by using the scale

4. Model for the efficient functioning of Adult Education Centres

5.1 Development of scale to measure the efficiency of Adult Education Centres

The results of the procedure followed in the development of scale to measure the efficiency of AECs are discussed in detail under the following sub-headings

5 1 1 Profile analysis of the Adult Education Centres

The profile of the 50 AECs included in the study with respect to range of observed scores, mean scores, standard deviation and coefficient of variation of the dependent

variable and the 41 independent variables studied presented in Table 4 1 unveil certain interesting findings Since the locations of the AECs are shifted every year and instructors from the local areas are recruited afresh, a low mean score of 2.5 years on experience of instructor is quite understandable. Evidences from the studies of Pillai (1984), Ramabrahmam (1988) and Pillai (1990a) support the finding of a low mean score on experience of instructor in adult education. As more number of teaching methods are desirable to be used at AECs, in line with the opinion of Chandra and Shah (1987), it is gratifying to note that the instructors were using on an average more than three methods of teaching It is also delightful to observe that nine teaching-learning materials were used at the AECs since the environment of AECs will be improved through the use of techno-pedogogical inputs like teaching-learning materials as opined by Saxena (1989)

The location of the centre was near to the residence for about 50 per cent of the learners only The practical difficulties experienced by the instructor in accommodating the AEC at a place near to the residence of great majority of the learners might be the reason

for this The average attendance of learners at the AEC was found to be 15 days per month which is rather low A similar result has been reported by Shah (1983) A good number of reasons can be attributed to the irregularity of the learners in attending the classes at the AECs A low level of motivation to attend the adult education programme as indicated by the low mean score of motivation observed in the Table may be one among the reasons for the low level of attendance of learners at the AEC.

The values of coefficient of variation of majority of the variables studied were low It indicates that there was more agreement among the scores of these variables The values of coefficient of variation of variables such as post-literacy facilities, empathy of instructor, experience of instructor, empathy of learner and community support were high which suggests that there was much variation among the scores of these variables

5 1 2 Simple linear correlation analysis

The nature and degree of relationship between the selected 41 independent variables and efficiency of AEC were worked out by using Pearson's product moment

correlation coefficient and the calculated 'r' values are furnished in Table 4.2 The revelations of the findings discussed hereunder are interesting and provide food for thought. The null hypotheses framed for the study are accepted or rejected on the basis of the findings

5 1 2 1 Instructor

The nature and degree of relationship between each of the selected 14 variables under the major factor, instructor and efficiency of AEC are discussed below

5 1 2 1 1 Experience

The value for 'r' indicated that there was no significant relationship between experience of instructor and efficiency of AEC The finding is in line with that of Barret (1926), Frutchey (1958), Salvi and Dudhani (1967), Sarang (1970), Rao and Dudhani (1971), Kolte (1972), Perumal (1975), Rajagopal (1977), Reddy (1982) and Reddy (1986b) Practice makes man perfect More the experience of the instructor, more is the efficiency of the AEC expected But the instructors are new to the field of adult education Hence they might be more thrillfull and entnusiastic to function as instructors in the novel field of adult education resulting in higher efficiency of the AEC The low mean score of

experience observed in Table 4 1 indicates that majority of the instructors were having less experience in adult education These might be the reasons for the lack of meaningful relationship between experience of instructor and efficiency of AEC

On the basis of the finding the null hypothesis that there is no relationship between experience of instructor and efficiency of AEC is accepted

5.1.2 1.2 Concept of communication

Concept of communication of instructor was found to have significant positive relationship with efficiency of AEC. The finding is in conformity with that of Pandyaraj (1978) and Joseph (1983) who reported that the clear concept about communication is an important factor related with the effectiveness of extension workers in the field of agriculture The teaching-learning process taking place at the AEC is basically a communication process The two-way channel between the instructor and learner operates effectively if the instructor has definite concept about communication process. Such an instructor will apply the principles and techniques of communication for teaching the adults effectively at the AEC This might have helped the

learners to acquire better achievements with respect to literacy, awareness and functionality resulting in the increased efficiency of AEC.

Hence the null hypothesis that there is no relationship between concept of communication of instructor and efficiency of AEC is rejected

5 1 2 1.3 Instructor-learner communication

A significant positive correlation was observed between instructor-learner communication and efficiency of AEC Similar findings have been reported in the past by Muthiah (1981) and Reddy and Reddy (1985) More the instructor-learner communication, more aware is the instructor of the problems of the learner related to learning, more are the chances for the learner to clarify his doubts while learning and better is the learning atmospherewhich might have resulted in greater achievement in literacy, awareness and functionality of the learner.

Based on the finding, the null hypothesis that there is no relationship between instructor-learner communication and efficiency of AEC is rejected.

5.1.2 1.4 Instructor-learner contact span

A significant positive correlation was found also between instructor-learner contact span and efficiency of AEC. More the contact between the instructor and the learner for discussing and solving the personal and family problems of the learner, more would be the rapport between them This might have created an atmosphere conducive to learning which has resulted in the higher efficiency of the AEC.

Thus, the null hypothesis that there is no relationship between instructor-learner contact span and efficiency of AEC is rejected

5 1.215 Information seeking behaviour

Information seeking behaviour of instructor manifested a significant positive relationship with efficiency of AEC. Similar findings have been reported by Bhatia and Sandhu (1975), Pandyaraj (1978) and Joseph (1983) More the information seeking behaviour of the instructor more would be his exposure to different sources of information on adult education aspects. The instructor might have effectively utilized these sources to gather relevant information and to pass it on to the needed learners This could be the

possible reason for the observed relationship with the efficiency of AEC.

Hence the null hypothesis that there is no relationship between information seeking behaviour of instructor and efficiency of AEC is rejected.

5.1.2.1.6 Information processing behaviour

Information processing behaviour of instructor showed a significant positive relationship with efficiency of AEC. The instructors who possessed more information processing behaviour had evaluated and stored information related to adult education using more number of methods. They might have used the information to a better extent for the benefit of the learners who needed it. This might be the reason for the manifested relationship with efficiency of AEC.

So the null hypothesis that there is no relationship between information processing behaviour of instructor and efficiency of AEC is rejected

5.1.2.1.7 Empathy

Empathy of instructor was found to have a significant positive relationship with efficiency of AEC which is in

possible reason for the observed relationship with the efficiency of AEC

Hence the null hypothesis that there is no relationship between information seeking behaviour of instructor and efficiency of AEC is rejected.

5.1.2 1.6 Information processing behaviour

Information processing behaviour of instructor showed a significant positive relationship with efficiency of AEC. The instructors who possessed more information processing behaviour had evaluated and stored information related to adult education using more number of methods. They might have used the information to a better extent for the benefit of the learners who needed it. This might be the reason for the manifested relationship with efficiency of AEC.

So the null hypothesis that there is no relationship between information processing behaviour of instructor and efficiency of AEC is rejected

5.1.2.1 7 Empathy

Empathy of instructor was found to have a significant positive relationship with efficiency of AEC which is in

agreement with the findings of Rogers (1986) An instructor having the quality of empathy would project himself in the role of the learner. He would be able to understand the abilities and limitations of the learner better This would have helped the instructor to teach the learners according to their pace which might have resulted in higher efficiency of AEC.

Based on the finding, the null hypothesis that there is no relationship between empathy of instructor and efficiency of AEC is rejected.

5.1.2.1 8 Job commitment

The high value of 'r' indicated that there was significant positive relationship between job commitment of instructor and efficiency of AEC. Similar findings have been reported by Sanoria (1977), Ambastha (1980) and Joseph (1983). A committed instructor would be more devoted and motivated to discharge his duties in the field of adult education. He would work hard ignoring all other difficulties. He will create conditions conducive for the learning with the specific objective of achieving what he wanted to achieve This might have helped the learners

to make better achievements in literacy, awareness and functionality resulting in higher efficiency of the AEC.

Hence the null hypothesis that there is no relationship between job commitment of instructor and efficiency of AEC is rejected.

5.1.2.1.9 Job satisfaction

Job satisfaction of instructor also showed a significant positive relationship with efficiency of AEC. This finding is in line with that of Laharia (1978), Talukdar (1984), Reddy (1986b) and Manandhar (1987). An instructor satisfied with his job would be deriving pleasure from functioning as the instructor of an AEC. Job satisfaction is the sum total of the mental feeling an instructor has towards his job It is reasonable to assume that the more satisfied an instructor with his job, the more will be his effort to teach the learners Thus the instructor might have taught the learners effectively which resulted in th increased efficiency of the AEC.

On the basis of the finding, the null hypothesis that there is no relationship between job satisfactio of instructor and efficiency of AEC is rejected

to make better achievements in literacy, awareness and functionality resulting in higher efficiency of the AEC.

Hence the null hypothesis that there is no relationship between job commitment of instructor and efficiency of AEC is rejected

5.1.2.1.9 Job satisfaction

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On the basis of the finding, the null hypothesis that there is no relationship between job satisfaction of instructor and efficiency of AEC is rejected

5.1.2.1.10 Attitude towards adult literacy

The high value of 'r' indicated that the attitude of instructor towards adult literacy had a significant positive relationship with efficiency of AEC. This is in conformity with the findings of Rajyalakshmi (1989) and Reddy (1989). The instructor having positive attitude towards adult literacy would be inclined to impart literacy effectively to the learners. Thus the learners might have advanced more with respect to achievement in literacy resulting in the higher efficiency of the AEC.

Thus, the null hypothesis that there is no relationship between attitude of instructor towards adult literacy and efficiency of AEC is rejected.

5.1.2.1.11 Attitude towards learners

Attitude of instructor towards learners was found to be significantly and positively related to efficiency of AEC. This finding is in line with the Tripathi (1977) and Seth et al (1983b) . The instructors having positive attitude towards the learners might be more interested in the welfare of them. Such instructors will make all efforts to teach them in order to make them more progressive and productive which ultimately will result in

their socio-economic development These instructors might have taught the illiterate learners effectively, thus resulting in the increased efficiency of the AECs.

Hence the null hypothesis that there is no relationship between attitude of instructor towards learners and efficiency of AEC is rejected

5 1.2 1.12 Attitude towards job

Attitude of instructor towards job manifested a significant positive relationship with efficiency of AEC which is in conformity with the findings of Vijaya-lakshmi (1985). An instructor possessing positive attitude towards job might be more enthusiastic to perform as an effective instructor. He might have imparted literacy, awareness and functionality to the adult learners in an effective manner resulting in higher efficiency of the AEC.

So the null hypothesis that there is no relationship between attitude of instructor towards job and efficiency of AEC is rejected.

5.1.2.1.13 Attitude towards social activities

Attitude of instructor towards social activities showed significant positive relationship with efficiency

of AEC. This finding is in agreement with the observations made by Naik (1980) and Nair (1980). Adult education activity is both an educational and a social activity Hence an instructor having positive attitude towards social activities might be more dedicated to perform his duties in the role of adult education instructor. He might have taken sincere efforts to enhance the achievement of the adult learners thereby causing increased efficiency of the AEC.

On the basis of the finding, the null hypothesis that there is no relationship between attitude of instructor towards social activities and efficiency of AEC is rejected.

5.1.2.1 14 Interest in adult education

Interest of the instructor in adult education was found to be significantly and positively related to efficiency of AEC which is in conformity with the findings of Nair (1980). The instructor who is more interested in adult education might be more aware of the advantages of adult education and more concerned to impart literacy,

awareness and functionality to the learners resulting in higher efficiency of the AEC.

Based on the finding, the null hypothesis that there is no relationship between interest of instructor in adult education and efficiency of AEC is rejected

5.1.2.2 Instructional processes

The nature and degree of relationship between each of the selected four variables under the major factor, instructional processes and efficiency of AEC are discussed below.

5.1.2 2.1 Method of teaching

A significant positive correlation was observed between method of teaching and efficiency of AEC. This finding is in line with that of Reddy and Reddy (1985) and Ananthasayanam (1990). When the instructor uses a variety of teaching methods, the learners will get rid of the monotony of attending to only one method The varied learning experiences gained by the learners through attending to more number of teaching methods

might have motivated them to make better achievements, the result being a high efficiency for the AEC.

Hence the null hypothesis that there is no relationship between method of teaching followed by the instructor and efficiency of AEC is rejected.

5.1.2.2.2 Technique of teaching

This variable manifested a significant positive relationship with efficiency of AEC. Similar findings have been reported by Sambaiah (1983b), Prasad (1985) and Pillai (1990b). The use of audio-visual aids as technique of teaching might have provided environmental situation conducive for learning through the use of more number of senses involved on the part of the learner. Thus the learners might have gained better achievements in literacy, awareness and functionality which resulted in the increased efficiency of the AEC.

Thus ,the null hypothesis that there is no relationship between technique of teaching used by the instructor and efficiency of AEC is rejected

5.1.2 2 3 Approach of teaching

Approach of teaching expressed a significant positive relationship with efficiency of AEC. This finding compla-

cents to the findings of Rogers (1986). The instructor who gives personal attention to the learners while teaching them at the AEC might have been successful in establishing a good rapport with the learners and teaching them at their own pace. Such instructors might have solved the problems faced by the learners in the learning process and motivated them to make better achievements in their learning efforts. This might have been the reason for the high efficiency of such AECs.

So the null hypothesis that there is no relationship between approach of teaching adopted by the instructor and efficiency of AEC is rejected

5.1.2.2.4 Content of teaching

This variable expressed significant positive relationship with efficiency of AEC. This finding is in agreement with that of Hebsur et al (1981) , Aikara and Henriques (1982) and Rao and Rao (1982) The content of teaching should be useful to the learners Then only the adults will be interested to come to the AEC and learn The aspects of literacy,awareness and functionality taught to the adult learners should be related to their day-to-day affairs. The content taught should be

life-oriented to the learners. Then the learners will feel the usefulness of the content of teaching. The learners who feel such usefulness of the content will make better achievements in literacy, awareness and functionality resulting in the increased efficiency of AEC.

On the basis of the finding,the null hypothesis that there is no relationship between content of teaching and efficiency of AEC is rejected.

5.1.2.3 Material inputs

The nature and degree of relationship between each of the selected four variables under the major factor, material inputs and efficiency of AEC are discussed below.

5 1 2 3.1 Physical facilities

Physical facilities did not express any significant with efficiency of AEC which corroborates the findings of Rajyalakshmi (1989) The low mean score of physical facilities as observed in Table 4 1 indicates that majority of the AECs were having only limited physical facilities The AECs with committed instructors and motivated learners might have functioned efficiently

eventhough the physical facilities were poor. The adult learners who had come from lower socio-economic strata might have adjusted with the meagre physical facilities provided at the AEC. Lack of proper physical facilities might not have stood as a barrier in the learning efforts of the adults.

Based on the finding,the null hypothesis that there is no relationship between physical facilities provided and efficiency of AEC is accepted.

5.1.2.3.2 Lighting arrangements

A significant positive correlation was observed between lighting arrangements and efficiency of AEC which corroborates the recommendations of Chowdhury (1981), Prasad (1985), Chandra and Shah (1987), Directorate of Adult Education (1989) and Saxena (1989). Lighting arrangements were required at the AECs since majority of them functioned after the evening time. Lighting arrangement is a pre-requisite for the functioning of AECs after the evening hours. Provision of better lighting facilities created an environment conducive to learning The learners were able to read and write and gain achievements in their learning efforts. This migh have increased the efficiency of AEC.

Hence the null hypothesis that there is no relationship between lighting arrangements provided and efficiency of AEC is rejected.

5 1.2 3 3 Teaching-learning materials

Teaching-learning materials, quite presumably threw up a significant positive correlation with efficiency of AEC. Similar findings have been reported by Mali (1974), Reghu (1987c) and Rajyalakshmi (1989) The success of any literacy programme depends on the teaching-learning materials to a large extent. Provision of these techno-pedagogical inputs motivates the adult learners to make better achievements in literacy, awareness and functionality This might have been the reason for the observed relationship of this variable with the efficiency of AEC.

So the null hypothesis that there is no relationship between teaching-learning materials used and efficiency of AEC is rejected.

5.1.2.3.4 Human resources

This variable expressed a significant positive

Hence the null hypothesis that there is no relationship between lighting arrangements provided and efficiency of AEC is rejected.

5 1.2 3 3 Teaching-learning materials

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So the null hypothesis that there is no relationship between teaching-learning materials used and efficiency of AEC is rejected.

5.1.2.3.4 Human resources

This variable expressed a significant positive relationship with efficiency of AEC which complacents to the opinion of Chandra and Shah (1987). The learning experiences at the AECs will be appropriate only if the

human resources are judiciously made use of The learners of the AECs might have benefited much by the classes handled by different categories of resource persons. These resource persons might have exposed the adult learners to different aspects useful for their day-to-day life and motivated them to attain high levels of literacy, awareness and functionality through their classes at the AEC. This might have resulted in the higher efficiency of the AEC

Based on the finding, the null hypothesis that there is no relationship between human resources provided and efficiency of AEC is rejected.

5.1.2 4 Organisational aspects

The nature and degree of relationship between each of the nine selected variables under the major factor, organisational aspects and efficiency of AEC are discussed below.

5.1.2 4.1 Community support

The value of 'r' indicated that there was significant positive relationship between community support and efficiency of AEC. This finding is in line with the opinion of Mohanty (1988). The support and co-operation received from the local community in the organisation

and conduct of the AEC might have provided a feeling of social security and local guardianship which might have motivated the adult learners to make better achievements in their learning efforts This might be the possible reason for the observed relationship with efficiency of AEC.

On the basis of the finding , the null hypothesis that there is no relationship between community support received and efficiency of AEC is rejected.

5.1.2.4 2 Supervision

Supervision expressed significant positive relationship with efficiency of AEC. Supervision helps to ensure that the classes at the AEC are conducted as per the schedule. Thus there will be regularity in the conduct of classes which provides continuity for the learning efforts of the adults Whatever the adults learnwill be reinforced through the succeeding classes conducted regularly which enhanced their achievement in learning efforts The supervisor is more a friend to the instructor and learners than an inspector at the AEC. Often the supervisor handles classes for the adults at the time of his visits to the centre This provides assistance to the instructor and variety for the learners Thus, more

the number of visits of the supervisor to the AEC, more might have been the chances obtained for the learners to make better ahievements in learning. These might have been the reasons for the observed relationship between supervision and efficiency of AEC.

Thus, the null hypothesis that there is no relationship between supervision and efficiency of AEC is rejected.

5.1 2 4 3 Supply of inputs

Supply of inputs emitted a significant positive relationship with efficiency of AEC. This finding is in conformity with that of Hebsur et al (1981), Aung (1982), Directorate of Adult Education (1989), Dighe et al (1981), Aikara (1984) and Saxena (1989) Timely supply of relevant inputs like those for physical facilities and lighting arrangements and teaching-learning materials in adequate quantities creates a conducive atmosphere for learning at the AEC The same aspects are applicable with respect to resource persons also These might have provided the support for the learners to gain advancement in their learning efforts resulting in the increased efficiency of the AEC.

Hence the null hypothesis that there is no relationship between supply of inputs and efficiency of AEC is rejected

5 1.2.4 4 Training

Training quite strangely was found to be not significantly related with the efficiency of AEC. The finding is not in agreement with the findings of Debnath (1971), Dighe et al (1981), Mohankumar (1985), Rengaswamy (1985), Reddy (1985a) and Rahi (1989). The high mean score of this variable as revealed through Table 4.1 indicates that majority of the instructors were with high scores for training. The low value of coefficient of variation indicates that there was only little variation among the scores of this variable These might be the possible reasons for the lack of meangingful relationship between training and efficiency of AEC.

So the null hypothesis that there is no relationship between training undergone by the instructor and efficiency of AEC is accepted.

5.1.2.4.5 Monitoring

Monitoring expressed a significant positive relationship with efficiency of AEC which corroborates the finding of Pillai (1990a) Based upon the inspection reports made by the superior officers, the instructors might have effected improvement in keeping up-to-date records in

teaching methods, in rate of attendance and in evaluation programmes. The cumulative effect of all these might have accrued in the achievement of learners in literacy, awareness and functionality thereby resulting in the increased efficiency of the AEC.

On the basis of the finding, the null hypothesis that there is no relationship between monitoring and efficiency of AEC is rejected.

5.1.2 4.6 Evaluation

A significant positive relationship was manifested between evaluation and efficiency of AEC. The conduct of evaluation might have provided opportunity for the learners to practise the literacy skills they had acquired at the AEC. More the frequency of evaluation conducted at the AEC, more might be the chance received by the learners to practise the skills learnt . Thus the learners might have gained mastery over the skills learnt, resulting in the higher efficiency of the AEC. This might be the possible reason for the observed relationship of evaluation with efficiency of AEC.

Based on the finding , the null hypothesis that there is no relationship between evaluation and efficiency of AEC is rejected.

5 1 2 4.7 Reporting

Reporting was found to have significant positive relationship with efficiency of AEC This finding is in line with the opinion of Mohankumar (1985) and Pillai (1990b). The fact that the progress of the AEC has to be reported regularly every month, that too in the prescribed format compels the instructor to work as per the guidelines and to make progress for the centre. Since the attendance of the learners, the progress made by them in literacy, awareness and functionality, the details of the resource persons who handled classes at the centre and such other aspects are tobe reported the instructor will ensure that these aspects are taken care of. Regularity in reporting helps in monitoring of the centre by the authorities. The net result of all these will be the high level achievement of learners in their learning efforts.

Hence the null hypothesis that there is no relationship between reporting and efficiency of AEC is rejected.

5 1.2.4.8 Location of the centre

The value of 'r' indicated that there was significant positive correlation between location of the centre and efficiency of AEC. This finding is supported by the

findings of Sudame and Bastia (1981), Ganguli et al (1985), Chandra and Shah (1987), Directorate of Adult Education (1989), Cross (1981) and Sharma and Sharma (1981) Most of the AECs were functioning in the night. The learners might have been attending the classes regularly only at those AECs which were near to their residence. These learners might have made better achievements with regard to literacy, awareness and functionality resulting in better efficiency of the AEC.

Thus, the null hypothesis that there is no relationship between location of the centre and efficiency of AEC is rejected.

5.1.2.4.9 Post-literacy facilities

This variable did not establish any significant relationship with efficiency of AEC in this study This finding differed from the report of Ganguli et al (1985). Post-literacy facilities are those facilities for the learners to practise and retain the literacy skills after he leaves the AEC on completion of the course of one year period. The learners might have been interested only in the learning efforts they were making during the period of their course at the AEC They might not have bothered about whether facilities were available for

them to practise the literacy skills after the completion of the course period. This might have been the reason for the lack of significant relationship between post-literacy facilities and efficiency of AEC.

So the null hypothesis that there is no relationship between post-literacy facilities and efficiency of AEC is accepted.

5 1.2.5 Learner

The nature and degree of relationship between the selected 10 independent variables under the major factor learner and efficiency of AEC are discussed below.

5.1.2.5.1 Motivation to attend the programme

A significant positive relationship was observed between motivation of learner to attend the programme and efficiency of AEC. This finding is in line with the opinion of Abraham and Prasanna (1986) and Saxena (1989). For every action on the part of a human being, there isamotive behind it. The psychological, sociological, economical and religio-cultural factors might have motivated the learners to attend the adult education programme On attending to the programme the adults have made achievements in literacy,awareness and

functionality resulting in higher efficiency of the AEC

On the basis of the finding, the null hypothesis that there is no relationship between motivation of learner to attend the programme and efficiency of AEC is rejected

5.1 2.5 2 Mass media exposure

Mass media exposure of learner expressed a significant positive relationship with efficiency of AEC This finding corroborates the findings of Khajapeer (1978) and Sripal (1978). The contents of the programmes to which the adults are exposed through the different mass media studied, namely, radio, television and film might have been related to the aspects of adult education course content Thus the learners' exposure to these mass media might have helped them to increase their level of literacy, awareness and functionality.

Based on the finding, the null hypothesis that there is no relationship between mass media exposure of learner and efficiency of AEC is rejected

5.1 2.5.3 Empathy

A significant positive relationship was shown between empathy of learner and efficiency of AEC. A learner having more empathy might have adjusted more

with the instructor and other learners at the AEC The inter-personal relationships maintained by the learner with the instructor and other learners might have been conducive to promote his learning efforts This might have helped him to gain more achievement in literacy, awareness and functionality resulting in the high efficiency of the AEC.

Hence the null hypothesis that there is no relationship between empathy of learner and efficiency of AEC is rejected.

5.1.2.5.4 Attendance at the centre

This variable was found to have significant positive relationship with efficiency of AEC which corroborates the finding of Rao (1984). A learner having more attendance at the AEC will be more regular in attending to the adult education classes. There will be continuity in his learning efforts Whatever he learns will be reinforced without interruption. Regularity in attending the centre and regularity in learning efforts might have become a part of his habit for such a learner. He might have got more chances to practise the literacy skills learnt at the AEC. These might have helped him to make better achievements in literacy, awareness and functionality

So the null hypothesis that there is no relationship between attendance of learner at the centre and efficiency of AEC is rejected

5.1 2.5.5 Achievement aspirations in literacy,awareness and functionality

A significant positive relationship was manifested between this variable and efficiency of AEC. This finding is in conformity with that of Khajapeer (1978) and Prasad (1985) The learners who possess an eager desire to have achievement in literacy, awareness and functionality will be striving for it and will be continuing their efforts until they succeed. Achievement in literacy, awareness and functionality is the goal for such learners and they will make all earnest efforts to achieve their goal. This might be the possible reason for the observed relationship between achievement aspirations of learners in literacy, awareness and functionality and efficiency of AEC

Based on the finding,the null hypothesis that there is no relationship between achievement aspirations of learner in literacy, awareness and functionality and efficiency of AEC is rejected.

5.1 2.5 6 Interest in adult education

Interest of learner in adult education was found to be significantly and positively related with efficiency of AEC This finding is in agreement with that of Kundu (1986) A learner having more interest in adult education will be more concerned to attend the programme regularly. He will be learning with interest which makes his efforts fruitful. Because of his genuine interest in adult education, he might have developed intrinsic motivation to achieve high levels of literacy, awareness and functionality.

Hence the null hypothesis that there is no relationship between interest of learner in adult education and efficiency of AEC is rejected.

5 1.2.5.7 Awareness of the need, significance and advantages of adult education

This variable was found to express significant positive relationship with efficiency of AEC. A learner who is conscious of the need, significance and advantages of adult education will get more involved in the programme The learner will be aware of the applications of the literacy skills that he learns from the AEC, in his day-to-day life situations He will feel the usefulness of the

topics discussed at the AEC This will make him more interested and motivated to attend the classes regularly and make achievements in literacy, awareness and functionality

On the basis of the finding, the null hypothesis that there is no relationship between learners' awareness of need, significance and advantages of adult education and efficiency of AEC is rejected

5.1.2.5.8 Attitude towards adult literacy

Attitude of learner towards adult literacy showed significant positive relationship with efficiency of AEC which corroborates the finding of Khajapeer (1978). Attitude decides action. The positive attitude of a learner towards adult literacy might have created the 'will to learn'. He might have made his mind to be literate and worked hard to achieve a high level of literacy, thus increasing the efficiency of AEC.

Based on the finding, the null hypothesis that there is no relationship between attitude of learner towards adult literacy and efficiency of AEC is rejected

5 1.2.5.9 Attitude towards instructor

A significant positive relationship was found between attitude of learner towards instructor and efficiency of AEC This finding is in line with the opinion of Kundu (1986). The positive attitude of learner towards instructor indicates the liking for the instructor on the part of the learner In such a situation the rapport between the learner and the instructor will be better. The congenial human relations between the learner and the instructor provides a conducive environment for teaching-learning activities at the AEC. This might be the reason for the observed relationship between attitude of learner towards instructor and efficiency of AEC.

Hence the null hypothesis that there is no relationship between attitude of learner towards instructor and efficiency of AEC is rejected

5 1.2.5 10 Enthusiasm to attend the programme

Enthusiasm or learner to attend the programme was found to be significantly and positively related with efficiency of AEC. The learner having an eagerness to attend the programme will keep up his regularity in attending the adult education classes He will be up-to-date in his learning efforts and will continue them

without any break. This might have helped the learner to gain better achievement in literacy, awareness and functionality

So the null hypothesis that there is no relationship between enthusiasm of learner to attend the programme and efficiency of AEC is rejected

5 1.3 Multiple linear regression analysis

The extent of total variation in efficiency of AEC explained by all the 24 selected independent variables together, rather than in isolation was determined by employing multiple linear regression analysis, the results of which are presented in Table 4.3. The coefficient of determination (R^2) suggested that a substantial amount of variation in efficiency of AEC to the extent of 98.35 per cent, is accounted for by the 24 independent variables jointly. The test of significance for R^2 revealed it to be highly significant even at 0.01 level of probability Only a negligible, 1.65 per cent of the variation lies outside of the variables included in the study This indicates that almost all the important factors have been considered in the present study.

The partial regression coefficients tested for their significance indicated that nine variables out of the total 24 were significant in causing variation in the efficiency of AEC Of these nine variables, eight variables, namely, instructor-learner communication, information processing behaviour of instructor, job satisfaction of instructor, attitude of instructor towards adult literacy, human resources, supply of inputs, monitoring and empathy of learner were found to have statistical significance at 0.05 level of probability Job commitment of instructor was the only variable found to have statistical significance at 0.01 level of probability also. The partial regression coefficient of this variable was found to be 0.9995 which indicates that the rate of change of score on efficiency of AEC per unit change in job commitment score of instructor was almost equal to one. This means that for every unit change in job commitment of instructor, there will be a corresponding unit change in the efficiency of AEC

Multiple linear regression analysis was done at the second stage by using the nine variables which were found to be significant in contributing to the variations in the efficiency of AEC at the first stage

of multiple regression analysis. This was done to probe into the possibility of reducing the number of variables from 24 without causing substantial reduction in the coefficient of determination and the results of the analysis are presented in Table 4 4. All the nine independent variables taken together accounted for a fairly high amount of variation in the efficiency of AEC. The value of coefficient of determination was 0.9627 which suggested that 96.27 per cent of the variation in the efficiency of AEC could be explained by the nine independent variables together A comparison of the values of coefficient of determination of the first and second stage of regression analysis revealed that reduction in the number of independent variables from 24 to nine has not brought out a significant reduction in the coefficient of determination The observed reduction in the coefficient of determination was only upto the order of 2.08 per cent.

5 1 4 Step-wise regression analysis

It could be possible that the variables included in the regression equation differ with respect to their contribution to the variation in the efficiency of AEC To identify the best subgroup of variables

out of many for predicting the variations in efficiency of AEC the step-wise regression analysis was employed in the present study which incidentally also singled out the relative contribution of each of the variables included in the regression model in explaining this variation Table 4.5 highlights the results of step-wise regression analysis delineating all the relevant steps involved. The variable with the maximum contribution is entered into the regression equation in the first-step followed by the other variables in the order of their relative contribution in subsequent steps As could be observed from the Table, as much as 96.06 per cent of variation in efficiency of AEC was explained by the nine variables admitted into the step-wise regression model, out of a total of 98.35 per cent accounted for by the 24 variables together Hence it could be inferred that the eliminated 15 variables could explain as little as 2.29 per cent of total variation.

The results of multiple regression analysis done at the first and second stage revealed that the

eliminated 15 variables could explain only 2 08 per cent of total variation. Thus the results of multiple regression analysis and step-wise regression analysis are in agreement with respect to the high importance of the nine variables included in the step-wise regression analysis in explaining the variations in the efficiency of AEC.

Job commitment of instructor which was the first variable entered into the step-wise regression analysis stood out as the single most important factor among the selected nine variables in affecting the variations in efficiency of AEC, to the tune of 89.03 per cent This is further testimony to the significance of this variable already discussed at length earlier in this chapter under simple linear correlation analysis and multiple linear regression analysis in influencing the efficiency of the AEC.

5 1 5 Path coefficient analysis

Table 4 6 throws light on some of the finer aspects of the relationships between the selected variables and efficiency of AEC The path coefficient analysis is usually employed to out‿line the direct and indirect effects of predictor variables on the out‿come variables, unexplored by either correlation or regression analysis. In the present study, the nine independent variables which were found to have significant contribution to variations in the efficiency of AEC through multiple regression analysis (Stage I) were subjected to path coefficient analysis to sketch out their pattern of direct and indirect effects on the dependent variable

As may be observed from the Table, job commitment of instructor spoke of the largest direct effect on efficiency of AEC The variables, namely, empathy of learner, information processing behaviour of instructor and monitoring also exerted positive direct effects on efficiency of AEC but their extent of direct effect were found to be too small on comparison with that of job commitment of instructor. The direct effect of job commitment of instructor on efficiency of AEC was very high and positive Indirect efforts of this factor through the other factors were relatively small

Thus it is inferred that the high correlation between this factor and efficiency of AEC was mainly due to its direct effect.

The direct effect of attitude of instructor towards adult literacy on efficiency of AEC was rather small The high correlation of this factor with efficiency of AEC was due to its positive inter-relationship with job commitment of instructor. This might be the reason for this variable to get eliminated from the best prediction equation during the step-wise regression analysis The high correlations of the other seven variables were also due to their positive inter-relationship with job commitment of instructor Since the amount of positive direct effects exerted by the variables other than job commitment of instructor were relatively much less, the rates or dependence were too small to include them in the final scale to measure efficiency of AEC Hence it is to be concluded that the most effective method of measuring the efficiency of AEC is through measuring the job commitment of instructor

The residual effect in the path coefficient analysis was found to be negligibly small. It indicates that the contribution to variations in the efficiency of AEC by factors not included in the study is negligible

Hence it could be inferred that the important factors which contribute to variations in the efficiency of AEC have been included in the study This finding is in support of the results of regression analysis which revealed that a very high amount of variation in the efficiency of AEC could be explained by the factors included in this investigation. Thus the path coefficient model has been successful in explaining the causal mechanism satisfactorily

The efficiency of AEC was defined in this study as the power of the centre to produce achievements of adult learners in literacy, awareness and functionality The summation of scores obtained for literacy, awareness and functionality was taken as the score of the dependent variable for the study Since the single variable job commitment of instructor exhibited the largest contribution to the efficiency of AEC, its contributions to the components of efficiency of AEC, namely, achievements of learners in literacy, awareness and functionality were worked out through path coefficient analysis. The results of the path coefficient analysis using the nine variables including job commitment of instructor as the causal factors and achievement of learners in each of literacy, awareness and functionality as the effect factor are presented in Tables 4 7, 4 8 and 4 9 respectively

The data furnished in the Tables reveal that job commitment of instructor had the largest positive direct effect on all the three components of efficiency. Indirect effects of this factor through the other factors were less in all the three cases Hence it may be inferred that the high correlations between this factor and each of the three components were mainly due to its direct effect The direct effects of the other factors on the components of efficiency were relatively very small. These causal factors could not be expected to have a significant contribution in their relationship with achievement of learners in literacy, awareness and functionality The high correlations of these factors with the components of efficiency were due to their positive inter-relationships with job commitment of instructor. Hence it could be concluded that the most important factor contributing to variations in the components of efficiency, namely, literacy, awareres and functionality was job commitment of instructor The residual effects in the path coefficient analysis of all the three components were found to be small The efore the path coefficient models have been successful in explaining the causal mechan sms satisfactorily.

The independent variable, job commitment of instructor had been noted for its importance from the very beginning of the statistical analysis of data in the present study This variable had the highest coefficient of correlation in simple linear correlation analysis. Also, this was the only one variable which was found to have statistical significance at 0.01 level of probability in the first stage of multiple linear regression analysis. The partial regression coefficient of this variable indicated that the rate of change of scores on efficiency of AEC per unit change in job commitment score of instructor was almost equal to one. This was one among the four variables which were found to have statistical significance at 0 01 level of probability in the second stage of multiple correlation and regression analysis.

The results of step-wise regression analysis revealed that as much as 89 03 per cent variation in the efficiency of AEC was explained by job commitment of instructor alone out of a total 96 06 per cent accounted for by the nine variables together It was revealed through the results of path coefficient analysis that job commitment of instructor was the most important factor contributing to efficiency of

AEC and its components, namely, achievements of learners in literacy, awareness and functionality Even though a few other variables also exerted positive direct effects on efficiency of AEC and its components they were not found to be consistent in their trends Their rates of dependence were too small to include them in the final scale The high positive correlations of all the other factors with efficiency of AEC and its components were due to their positive inter-relationships with job commitment of instructor All the aspects in the preceeding discussion provide ample justification for arriving at job commitment of instructor as the scale to measure the efficiency of AECs.

5 2 Standardisation of the scale

The efficiency scale was standardised through establishing its validity and reliability

5 2 1 Validity of the scale

It is the degree to which the scale measures what it is intended to measure It is generally accepted that, of the several qualities expected of a sound measuring instrument, the most important perhaps is its ability to measure what it purports to measure The extent to which the device succeeds in this - the degree

of truthfulness of the test - is an indirect indication of the efficiency attained by it

The concept of validity is a relative characteristic Validity of a measuring device is highly specific in that it is connected with a purpose. Hence several kinds of validity may be identified depending upon the purpose for which the instrument has been developed or used. Three kinds of validity were established for the scale in this study, namely, content validity, criterion-related validity and concurrent validity

5.2.2 Reliability of the scale

Reliability of a scale is its trust-worthiness or its consistency It is the accuracy with which a test measures whatever it does measure Synonyms for reliability have been given as dependability, stability, consistency, predictability and accuracy Different procedures are available for computing reliability The reliability of the efficiency scale was established in this study through two different procedures, namely, test-retest method and split-half technique.

5.3 Distribution of scores obtained by using the scale developed

On the basis of the efficiency scale developed, scores were obtained for the 50 AECs studied The

measures of central tendency of the scores, namely, arithmetic mean, medium and mode were worked out for the set of efficiency scores. The observed differences among the different measures of central tendency were relatively small indicating possible normality in the data.

As a preliminary step in testing the normality of the distribution of scores, the β_1 and β_2 statistics were calculated For the theoretical normal distribution the expected value of β_1 is zero and that of β_2 is three. The value of zero for β_1 indicates symmetry and the value of three for β_2 indicates mesokurtosis Since the value of β_1 was found to be almost equal to zero it is inferred that the distribution of efficiency scores was symmetric. The value of β_2 was found to be nearer to three which indicates that the distribution was mesokurtic Since the symmetry and mesokurtosis of the distribution were indicated, it could be inferred that the distribution of scores obtained through the efficiency scale was normal. The Z_1 and Z_2 values were not found to be statistically significant This evidences that the values of β_1 and β_2 established symmetry and mesokurtosis respectively indicating the distribution was normal The goodness of fit of the distribution was established by the non-

significance of the chisquare test, the details of which are given in Table 4 10. Thus it could be inferred that the efficiency of AECs can be approximated by a normal distribution.

The efficiency scale developed was administered in the AECs of Kodakara Block and the centres were categorised into three classes, namely, 'high efficient', 'medium efficient' and 'low efficient' Such a categorisation was done for the AECs studied in Ollukkara Block also. It can be seen from Table 4 11 that the percentage of AECs under the 'medium efficient' category in Kodakara and Ollukkara Blocks are 66 and 64 respectively The medium efficient category contained AECs with efficiency scores ranging between mean efficiency score $\pm$ standard deviation taken as the cutting point An important property of normal distribution is that about 68 per cent of the frequencies lie between mean - standard deviation to mean + standard deviation. Thus the data presented in the Table reveals that the theoretical discrimination of the three groups is in agreement with the observed discrimination indicating the normal distribution of the efficiency scores Eventhough the efficiency scale was developed on the basis of the data collected from Ollukkara Block, the scale was able to

discriminate between the high, medium and low efficiency groups of AECs in Kodakara Block thereby establishing the applicability of the developed scale in a different situation

5.4 Model for the efficient functioning of Adult Education Centres

A model for the efficient functioning of AECs has been suggested based on the results of the present study and is shown in Fig. 12.

As seen in the Figure, the model is given in a circular form The central portion of the circle, which is considered as the most important part of it is represented by the efficiency of AEC That portion is composed of the three components of efficiency of AEC, namely, achievements of learners in literacy, awareness and functionality. The factors contributing to the efficiency of AEC are located in concentric rings around the central portion Closeness of the rings to the central portion indicates the larger extent of contribution of the factors contained in them to the efficiency of AEC There are five sectors for this circular model, each sector representing a major factor contributing to efficiency of AEC The sectors are identified in the circle by five arrows pointing towards the central

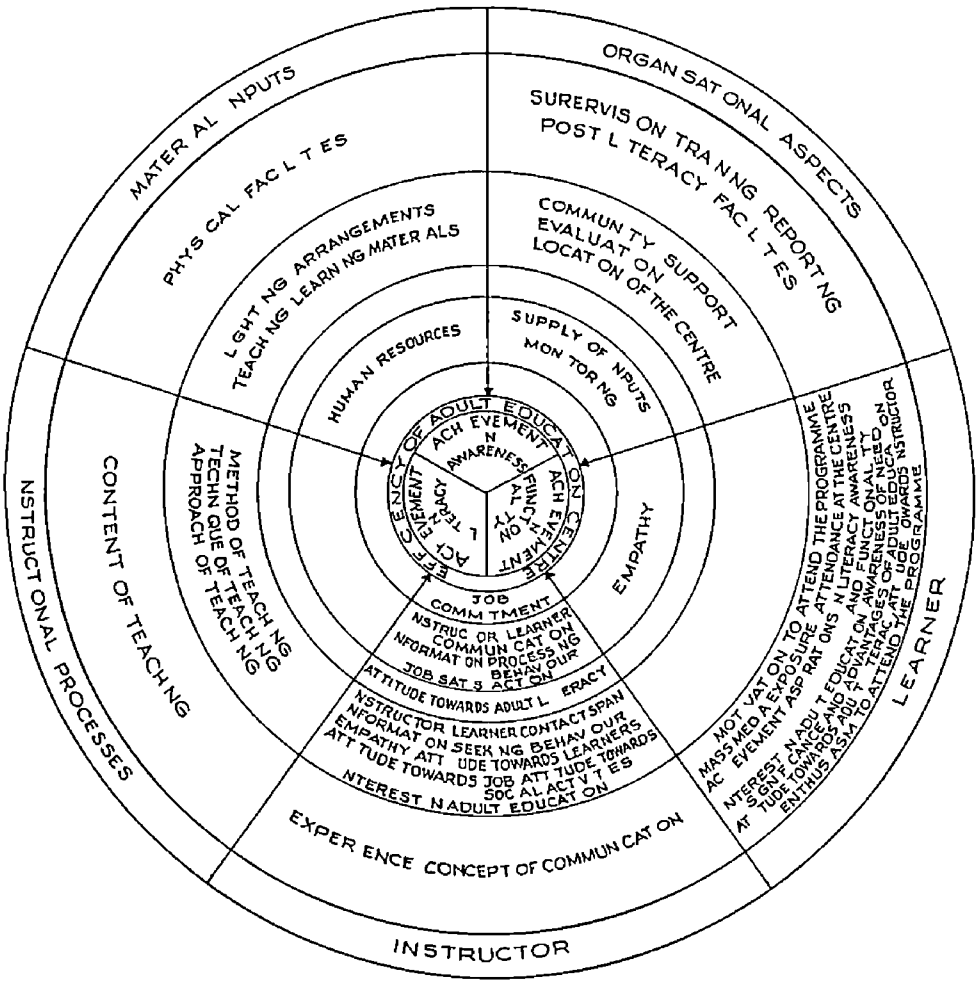

FIG 12 MODEL FOR THE EFFICIENT FUNCTIONING OF ADULT EDUCAT ON CENTRES

portion indicating that the extent of contribution of the factors to efficiency of AEC increases as the factors are located in closer rings.

Thus, job commitment of instructor is the single factor included in the inner most ring indicating that this is the factor which has the largest contribution to efficiency of AEC This has been proved through the step-wise regression analysis done with efficiency of AEC and the path coefficient analysis done with efficiency of AEC as well as its three components The model suggests that job commitment of instructor is a pre-requisite for the efficient functioning of AEC. Even if all the other factors are there, it is the job commitment of instructor that decides the efficiency of the centre. Hence job commitment should be given the highest priority right from the very beginning of the selection of individuals as instructors Only those individuals with high degree of job commitment should be selected as instructors for the success of the adult education programme.

The next outer ring contains the other seven factors which were included in the best prediction equation revealed through tne step-wise regression analysis Though job commitment of instructor was one among the

total eight factors included in the best prediction equation, since it has already been located in the inner most ring, the second ring contains only the remaining seven factors, namely, instructor-learner communication, information processing behaviour of instructor, job satisfaction of instructor, human resources, supply of inputs, monitoring and empathy of learner Once the job commitment of instructor is taken care of these seven factors should be given the next priority for the AECs to function efficiently.

Attitude of instructor towards adult literacy is the only one factor included in the third ring Eventhough this factor was entered as the second one in the step-wise regression analysis it was eliminated from the best prediction equation Hence this factor is not included in the second ring, but located in the third ring Attitude of instructor towards adult literacy was one among the nine factors which were found to be significant in the multiple linear regression analysis Also,this factor had high correlation coefficient only next to job commitment of instructor in simple linear correlation analysis Hence this factor should also be looked into, eventhough at the third level of importance, for achieving high efficiency for the functioning of AECs

The fourth ring contains the 15 factors other than those 9 already included in the three rings out of the total 24 factors which were found to be significantly and positively related with efficiency of AEC in the simple linear correlation analysis These factors are instructor-learner contact span, information seeking behaviour of instructor, empathy of instructor, attitude of instructor towards learners, attitude of instructor towards job, attitude of instructor towards social activities, interest of instructor in adult education, method of teaching, techniques of teaching, approach of teaching, lighting arrangements, teaching-learning materials, community support, evaluation and location of the centre After giving due consideration to the factors included in the inner three rings, these 15 factors in the fourth ring should also be taken into account

The outer most ring contains the remaining 17 factors out of the total 41 factors selected for the study through judges' relevancy rating Eventhough these 17 factors were not found to be statistically significant in their correlation with efficiency of AEC, since the experts in the field of adult education have felt that these factors are also important in contributing to efficiency of AEC they have also been included

in the model These 17 factors are experience of instructor, concept of communication of instructor, content of teaching, physical facilities, supervision, training, reporting,post-literacy facilities, motivation of learner to attend the programme, mass media exposure of learners, attendance of learner at the centre, achievement aspirations of learner in literacy, awareness and functionality, interest of learner in adult education, learner's awareness of need, significance and advantages of adult education, attitude of learner towards adult literacy, attitude of learner towards instructor and enthusiasm of learner to attend the programme After satisfying the requirements of all the 24 factors in the inner four rings, these 17 factors in the outer most ring should also be considered for the efficiency of functioning of AECs

Thus the model is found successful in explaining the relevance of all the factors considered in the study in the efficient functioning of AECs

SUMMARY

CHAPTER VI

SUMMARY

Efficient functioning of Adult Education Centres (AECs) is to be ensured to achieve the avowed objectives of adult education programmes. A centre-based comprehensive study to identify the factors contributing to the efficient functioning of AECs has not been done so far For conducting such a study, the efficiency of AECs has to be measured. The present study was designed to develop and apply a scale to measure the efficiency of AECs The study was conducted in the Rural Functional Literacy Programme (RFLP) Centres of the Rural Development Blocks of Ollukkara and Kodakara in Thrissur district during 1989. The specific objectives of the study were

1. To develop and standardise a scale to measure the efficiency of AECs.
2. To evaluate the selected AECs by using the scale developed.
3. To suggest a model for the efficient functioning of AECs

A three stage sampling design was adopted with districts as the first stage units, Blocks as the second stage units and instructors and learners as the third stage units. The respondents selected for the collection of data were 50 instructors and 300 learners of Ollukkara Block for developing the scale and 50 instructors of Kodakara Block for applying the scale.

The dependent variable for the study was efficiency of AEC and its three components were identified as achievements of learners in literacy, awareness and functionality. Achievements of learners were measured by using achievement tests developed for the study. Forty one independent variables were selected for the study through review of literature followed by pilot study and judges' relevancy rating. Out of the 41 variables, six were measured by adopting the methods developed by others, nine were measured by adopting the methods developed by others with modifications and 26 were measured by using the methods developed for the study

The data for measuring the variables were collected from the instructors by using questionnaires and from the learners by using interview schedules developed for the study The collected data were analysed using appropriate statistical techniques including percentage analysis, simple linear correlation analysis, multiple linear regression analysis, step-wise regression analysis and path coefficient analysis. The salient findings of the study are as follows.

1. Twenty four independent variables were found to be significantly and positively related to efficiency of AEC at 0.01 level of probability These variables were instructor-learner communication, instructor-learner contact span, information seeking behaviour of instructor, information processing behaviour of instructor, empathy of instructor, job commitment of instructor, job satisfaction of instructor, attitude of instructor towards adult literacy, attitude of instructor towards learners, attitude of instructor towards job, attitude of instructor towards social activities, interest of instructor in adult education, method of teaching, technique of teaching, approach of teaching, lighting arrangements, teaching-learning

materials, human resources, community support, supply of inputs, monitoring, evaluation, location of the centre and empathy of learner

2. Thirteen independent variables were found to have significant positive relationship with efficiency of AEC only at 0.05 level of probability. These variables were concept of communication of instructor, content of teaching, supervision, reporting, motivation of learner to attend the programme, mass media exposure of learner, attendance of learner at the centre, achievement aspirations of learner in literacy, awareness and functionality, interest of learner in adult education, learner's awareness of need, significance and advantages of adult education, attitude of learner towards adult literacy, attitude of learner towards instructor and enthusiasm of learner to attend the programme.

3. The four independent variables which were found to be not significantly related to efficiency of AEC were experience of instructor, physical facilities, training and post-literacy facilities

4. Job commitment of instructor had the highest value of correlation coefficient with efficiency of AEC followed by attitude of instructor towards adult literacy, attitude of instructor towards learners, attitude of instructor towards job and job satisfaction of instructor in that order.

5 The 24 independent variables which were found to be significantly and positively related to efficiency of AEC at 0.01 level of probability taken together accounted for 98.35 per cent variation in the efficiency of AEC. The partial regression coefficients on testing for their significance revealed that nine variables out of the 24 were found to exert significant influence on efficiency of AEC at 0.05 level of probability. These variables were instructor-learner communication, information processing behaviour of instructor, job commitment of instructor, job satisfaction of instructor, attitude of instructor towards adult literacy, human resources, supply of inputs, monitoring and empathy of learner. Among them, job commitment of instructor was the only one variable found to have statistical significance at 0.01 level of probability. These nine independent variables taken together accounted for 96.27 per cent variation in efficiency of AEC

6. The best prediction equation was with eight variables which accounted for 93.97 per cent variation in the efficiency of AEC. These eight variables were instructor-learner communication, information processing behaviour of instructor, job commitment of instructor, job satisfaction of instructor, human resources, supply of inputs, monitoring and empathy of learner.

7 As much as 89.03 per cent variation in efficiency of AEC was explained by a single variable - job commitment of instructor.

8. Job commitment of instructor had the largest direct effect on efficiency of AEC and its components, namely, achievements of learners in literacy, awareness and functionality. The high positive correlations of all the other factors with efficiency of AEC and its components were due to their positive inter-relationships with job commitment of instructor.

9. The scale developed to measure the efficiency of AECs was found to have high validity (content, criterion-related and concurrent) and reliability (test-retest and split-half)

10. The distribution of scores obtained by using the scale was found to be normal. Sixty six per cent of the observed scores of the selected AECs evaluated by using the scale developed were found to lie between mean - standard deviation and mean + standard deviation which indicated normality of the distribution of scores.

11. A model was suggested for the efficient functioning of AECs based on the results of this study.

The results of the study imply multifarious considerations at the policy making level. The model suggested for the efficient functioning of AECs is an eye-opener for the different agencies involved in the field of adult education.

Suggested lines for future research

1. The scale developed may be applied to the AECs conducted by various other agencies and re-validated.

2 Case studies of more efficient and less efficient AECs may be taken up to probe into the intricacies of factors at the micro level

3. Action research studies may be taken up to identify the factors contributing to efficiency of AEC for specific groups of learners.

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APPENDICES

APPENDIX I

State-wise and Sex-wise literacy percentage in India, 1981*

	Percentage of literacy		
	Total population.	Male	Female
India	36.23	46.89	24.82
States			
01. Andhra Pradesh	29.94	39 26	20.39
02. Bihar	26.20	38.11	13.62
03. Gujarat	43.70	54.44	32 30
04 Haryana	36.14	48 20	22.27
05. Himachal Pradesh	42 48	53.19	31 36
06 Jammu & Kashmir	26.67	36 29	15 58
07 Karnataka	38 46	48 81	27.71
08 Kerala	70.42	75 86	63 73
09 Madhya Pradesh	27.87	39 49	15.53
10 Maharashtra	47.18	58.79	34.79
11. Manipur	41.35	53 29	29.06
12 Meghalaya	34.08	37 89	30.08
13. Nagaland	42 57	50 06	33 89
14. Orissa	34 23	47 10	21.12
15. Punjab	40 86	47.16	33 69
16. Rajasthan	24 38	36 30	11 42
17. Sikkim	34 05	43 95	22.20
18 Tamil Nadu	46.76	58 26	34.99
19. Tripura	42.12	51.70	32.00
20 Uttar Pradesh	27.16	38 76	14.04
21 West Bengal	40.94	50 67	30.25
Union Territories			
01. A & N Islands	51.56	58 72	42.14
02. Arunachal Pradesh	20.79	28.94	11.32
03. Chandigarh	64.79	69.00	59.31

(contd)

Appendix I (contd.)

	Percentage of literacy		
	Total population.	Male	Female
04. D & N Haveli	26.67	36.32	16.78
05. Delhi	61.54	68 40	53.07
06. Goa,Daman & Du	56.66	65.24	44 65
07. Mizoram	59.88	64.46	54.91
08. Pondicherry	55.86	65 84	45 71

* Source Directorate of Adult Education (1981).
Literacy Statistics of India 1981
Directorate of Adult Education, Government of India, New Delhi.

APPENDIX II

District-wise and Sex-wise Literacy percentage of Kerala, 1981*

	Percentage of literacy		
	Total population	Male	Female
Kerala	70 42	75 86	63 73
Districts			
01. Cannanore	65 74	72.20	59.48
02. Wyanad	58 33	64.81	51 51
03 Calicut	70.12	76.56	63.82
04. Malappuram	60.50	65.93	55.34
05. Palghat	58.00	64.81	51.55
06. Trichur	73.59	77.31	70.21
07. Ernakulam	76.82	80.75	72.88
08. Idukki	67.44	72.15	62.55
09 Kottayam	81.66	83.96	79.35
10. Alleppey	78.52	82.12	75.10
11 Quilon	74.11	78.10	70.21
12 Trivandrum	70.50	75.29	65.85

* Source Directorate of Adult Education (1981) Literacy Statistics of India 1981. Dirctorate of Adult Education, Government of India, New Delhi.

APPENDIX III

Rural Functional Literacy Programme Blocks in Kerala during 1988-89*

District	Sl. No	RFLP Blocks	No. of RFLP centres functioning.	No of JSNs functioning
Trivandrum	1	Parassala	50	12
	2	Athiyannoor	50	12
	3	Kazhakoottam	100	
	4	Chirayinkil	100	
Quilon	5	Anchal	50	12
	6	Mukhathala	50	12
	7	Anchalumoodu	100	
	8	Ithikkara	100	
Alleppey	9	Pattanakad	50	12
	10	Thycattussery	50	12
	11	Aryad	100	
	12	Kanjikuzhi	100	
Idukki	13	Arudai	50	16
	14	Devicolam	50	16
	15	Kattappana	100	
	16	Nadumkandam	100	
Ernakulam	17	Vadavucode	50	12
	18	Vypeen	50	12
	19	Mulanthuruthy	100	
	20	Pampakuda	100	
Trichur	21	Ollukkara	50	12
	22	Talikulam	50	12
	23	Chalakudy	100	
	24	Kodakara	100	

Appendix III (contd.)

District	Sl. No.	RFLP Blocks	No. of RFLP centres functioning	No. of JSNs functioning.
Palghat	25	Coyalmannam	50	12
	26	Kollengode	50	12
	27	Alathur	100	
	28	Palghat	100	
Malappuram	29	Nilambur	50	12
	30	Wandoor	50	12
	31	Manjeri	100	
	32	Perinthalmanna	100	
Wayanad	33	Kalpetta	75	16
	34	Manantoddy	75	16
	35	Sultanbettery	150	
Cannanore	36	Iritty	50	12
	37	Peravoor	50	12
	38	Koothuparamba	100	
	39	Payyannoor	100	
Kasaragod	40	Kasaragod	75	12
	41	Manjeswar	75	12
	42	Kanhangad	75	
	43	Nileswar	75	
11 Districts	43 Blocks		3,300	280

* Source Rural Development Department (1989) National Literacy Mission - Programmes of RFLP and Post-Literacy and Continuing Education through JSNs implemented in Kerala State by Rural Development Department -1988-89 - Progress as on 31-3-'89 A Report Rural Development Department, Government

APPENDIX IV

KERALA AGRICULTURAL UNIVERSITY

No.Ext. 140/86

Dr A M TAMPI
Professor and Head

Department of Agrl Extension,
College of Agriculture,
Vellayani, Trivandrum
Kerala - PIN 695 522

Dated 14-3-1989

Dear Sir,

Mr Padmanabhan, V B., a Ph D Scholar of this Department has taken up a study entitled " Development and Application of a Scale to Measure the Efficiency of Adult Education Centres" for his doctoral research programme, under my guidance

In this regard, some major factors and their specific factors contributing to efficiency of Adult Education Centre have been identified based on the review of literature and discussion with experts in this field The list is appended herewith.

The listed specific factors have to be judged for their relevancy in contributing to the efficiency of Adult Education Centre. Here, efficiency of Adult Education Centre is the power of the centre to produce achievements of adult learners in literacy, awareness and functionality

Considering your academic qualifications and experience in the field of adult education, I have pleasure to inform that, you are recognised as a judge for the present study. I request you to kindly spare some of your valuable time out of your busy schedule of work to do the following.

1. Examine and rate the relevancy of the specific factors in contributing to the efficiency of Adult Education Centre by putting a (✓) mark against each in the

(contd)

appropriate column (Very much relevant/ Very relevant/ Moderately relevant/ Slightly relevant / Irrelevant) in the appendix enclosed

2. Add any other specific factors which you feel relevant in contributing to the efficiency of Adult Education Centre under each major factor and also rate them.

3 Ensure that all the specific factors are rated by you.

4 Kindly return the relevancy-rated appendix to Mr. Padmanabhan in the self-addressed stamped envelope enclosed

Soliciting your kind co-operation and with regards

Yours sincerely,

Sd/-
(A M TAMPI)

To

LIST OF SPECIFIC FACTORS CONTRIBUTING TO EFFICIENCY OF ADULT EDUCATION CENTRE SENT TO JUDGES FOR RELEVANCY RATING AND RELEVANCY WEIGHTS SECURED

Sl. No.	Specific factor	Relevancy weight secured
	Major Factor I INSTRUCTOR	
1	Nature of family (joint, nuclear, size,etc)	0.69
2	Nature of house (thatched, tiled, terraced, owned, rented etc.)	0.64
3	Size of land cultivated (area owned, leased etc)	0.64
4.	Occupational status	0.70
5	Educational status	0.72
6.	Caste	0.68
7	Rural-urban background	0.71
8.	Educational status of the members of the family	0.71
9.	Mode of selection/recruitment as instructor	0.73
10	Facilities at home for preparation of classes	0.72
11.	Self-possession of materials which help in the conduct of classes	0 72
12	Age	0 70
13	Sex	0 69
14	Marital status	0 68
15.*	Experience in adult education activities	0 83
16	Motive behind being instructor	0.78

(contd)

Sl. No	Specific factor	Relevancy weight secured
17.	Altruism (principle of considering the well-being and happiness of others first)	0.77
18.	Community	0.79
19.	Opinion leadership	0.78
20.	Gregariousness (liking the company of others)	0.76
21	Resourcefulness	0 78
22.	Teaching ability	0 77
23.	Mass-media exposure	0.75
24.	*Concept or communication	0.91
25.	Communication ability	0.78
26.	*Instructor-learner communication	0.96
27.	*Instructor-learner contact span	0.91
28	Innovativeness	0.78
29.	*Information seeking behaviour	0.92
30.	*Information processing behaviour	0.91
31.	Authoritarianism - non-authoritarianism	0.73
32.	*Empathy (ability to experience the feelings of another person)	0 92
33.	Conservatism - liberalism	0.71
34.	Cosmopolite - localite	0.70
35	Secular orientation	0 78
36	Scientific orientation	0 77
37	Extension orientation	0.77

(contd)

Appendix IV (contd.)

Sl. No.	Specific factor	Relevancy weight secured
38.	Management orientation	0.76
39.	Work orientation	0.70
40.	Perception on the job of instructor	0.78
41.	Performance in the job of instructor	0.78
42	*Commitment in the job of instructor	0.95
43	*Satisfaction in the job of instructor	0.92
44	Need achievement	0.75
45.	Self reliance	0.76
46.	Extroversion (nature of interacting freely with other persons)	0.77
47.	Credibility	0.77
48.	Integrity	0.78
49	Enthusiasm	0.74
50.	Initiative	0.75
51.	Foresight	0.73
52.	Intelligence	0.76
53.	Tact	0.77
54.	Physical endurance	0.69
55	Emotional stability	0.70
56.	Ability to be humerous	0.69
57	Social participation	0.70
58	Political affiliation	0 64
59	Self-evaluation	0.77

(contd)

Sl. No.	Specific factor	Relevancy weight secured
60.	Personification of ideals (nature of practising what he is preaching)	0 77
61	Knowledge on adult education programmes	0.78
62.	*Attitude towards adult literacy	0.94
63.	Attitude towards the content to be taught	0.76
64.	*Attitude towards learners	0.94
65.	Attitude towards self	0.71
66.	Self concept	0.69
67.	*Attitude towards the job of instructor	0.91
68	Knowledge on the content to be taught	0.78
69.	*Attitude towards social activities	0.92
70.	*Interest in adult education	0.92
71.	Information about learners	0.76
72.	Information about the locality	0.75
73	Knowledge on the objectives of the programme	0.78
	Major Factor II INSTRUCTIONAL PROCESSES	
1	*Method of teaching	0 94
2.	*Technique of teaching (use of audio-visual aids)	0.93
3.	*Content of teacn ng(usefulness to learners)	0.93
4.	Duration of teaching	0.70
5.	Time of teaching	0.73
6.	Frequency of teaching	0.69
7.	*Approach of teaching(learner-centred)	0.92
8.	Purpose of teaching(examination-oriented, life-oriented, etc)	0.68

(contd)

Sl. No	Specific factor	Relevancy weight secured
	Major Factor III MATERIAL INPUTS	
1.	*Physical facilities	0.91
2.	Audio-visual aids	0.78
3.	*Teaching-learning materials	0.92
4.	*Lighting arrangements	0.93
5.	Finance	0.68
6.	*Human resources	0.93
7.	Reference materials	0.65
	Major Factor IV ORGANISATIONAL ASPECTS	
1.	*Community support	0.93
2.	Co-operation from Govt.Depts	0.75
3.	Co-operation from voluntary sector	0 77
4.	Promptness in maintaining records	0.76
5.	*Supervision	0.93
6.	*Supply of inputs	0.93
7.	*Training	0.94
8.	*Monitoring	0.94
9.	*Evaluation	0.94
10.	*Reporting	0.92
11.	Recruitment of workers	0.73
12	Duration of the centre	0.74
13.	Allied activities at the centre	0.73
14.	Target group of learners	0.75

(contd)

Sl. No.	Specific factor	Relevancy weight secured
15.	*Location of the centre	0 90
16	Attendance of learners	0.76
17.	Objectives of the centre	0.78
18.	Agency running the centre	0.71
19.	Local committee	0.76
20	Publicity	0.77
21.	Mass-media support	0.77
22.	*Post-literacy facilities	0.82
23.	Communication	0.78
	Major Factor V. LEARNER	
1.	Nature of family (joint, nuclear, size,etc.)	0.71
2.	Nature of house (thatched, tiled, terraced, owned, rented,etc)	0 65
3	Size of land cultivated (area, owned, leased etc)	0.66
4.	Occupational status	0 68
5.	Occupational status of the head of the family	0 67
6.	Urban occupational pull	0.69
7.	Educational status	0.78
8.	Educational status of the members of family	0.66
9.	Caste	0.65
10.	Material possession	0.67
11.	Repeated success at the adult education centre	0.78
12	Parent's encouragement	0.69
13	Age	0.77

(contd)

Sl. No.	Specific factor	Relevancy weight secured
14.	Sex	0.75
15.	Marital status	0.69
16.	*Motivation to attend the programme	0.94
17.	Source of information about the programme	0.78
18	*Mass media exposure	0.85
19.	Outside contact	0 77
20.	*Empathy (ability to experience the feelings of another person)	0.84
21.	*Enthusiasm to attend the programme	0.92
22.	Conservatism-liberalism.	0.76
23.	Cosmopolite-localite	0.75
24.	Secular orientation	0.79
25.	Self reliance	0.77
26	*Attendance at the centre	0.93
27.	Social participation	0.77
28.	Political affiliation	0.64
29.	*Achievement aspirations in literacy, awareness and functionality	0.93
30.	Optimism	0.77
31.	Authoritarianism- non-authoritarianism.	0.65
32.	*Interest in adult education	0.94
33.	Lack of apathy	0.68
34	Expectations of learners on the role of instructors	0.77
35	Lack of economic constraints like low income, indebtedness, etc	0.69

(contd)

Appendix IV (contd.)

Sl. No.	Specific factor	Relevancy weight secured
36.	Health	0.76
37.	Rapport with the instructor	0.77
38	Flexibility on the part of the learner to adjust with the programme.	0.79
39.	Migration from one place to another	0.69
40.	Feeling that the education the learner possesses is not sufficient for his occupation	0.75
41.	Feeling that it is possible to learn through adult education centres.	0.74
42.	Feeling that somebody will take interest in adult education centres in villages.	0.68
43.	Attitude towards female literacy	0.78
44.	The need of the learner to relax and enjoy after a day's hard work	0.69
45.	*Awareness of need, significance and advantages of adult education.	0.93
46.	*Attitude towards adult literacy	0.92
47.	Knowledge on literacy programmes	0.78
48.	*Attitude towards instructor	0.92
49.	Attitude towards the content to be learnt	0.79

* Specific factor selected for the study

APPENDIX V

KERALA AGRICULTURAL UNIVERSITY

No Ext 140/86

Dr A M TAMPI,
Professor and Head

Department of Agrl.Extension,
College of Agriculture,
Vellayani, Trivandrum.
Kerala - PIN 695 522

Dated 17-6-1989

Dear Sir,

Thank you for your response to my letter of even number dated 14-3-1989

As stated in my earlier letter, Mr.Padmanabhan, V B, Ph.D Scholar of this Department has taken up a study entitled "Development Application of a Scale to Measure the Efficiency of Adult Education Centres" for his doctoral research programme, under my guidance.

In this regard, the specific factors contributing to the efficiency of Adult Education Centres selected through relevancy rating by judges have to be correlated with the achievements of learners of Adult Education Centres For this, the achievements of learners have to be measured

The dimensions of achievements of learners have been identified through review of literature and discussion with experts as literacy, awareness and functionality. The components of literacy have been identified as oracy, reading ability, writing ability, numeracy and technicacy.

The proportion of marks to be allotted to these dimensions and components have to be assessed

Considering your academic qualifications and exper ence in the field of adult education, I request for your valuable suggestions regarding the proportion of marks to be allotted

(contd)

to the dimensions and components for measuring the achievements of learners

I request you to be kind enough to spare some of your valuable time out of your busy schedule of work and to give your valuable responses in the proforma enclosed.

Please return the filled-up proforma to Mr Padmanabhan in the enclosed, self-addressed stamped envelope

Soliciting your kind co-operation and with regards,

Yours faithfully,
Sd/-
(A M Tampi)

To

Appendix V (contd.)

PROFORMA

The dimensions of achievement of learners of Adult Education Centres have been identified as literacy, awareness and functionality These dimensions have been identified based on information collected utilising a variety of procedure including review of literature and discussion with experts in the field of adult education. You are requested to suggest the proportion or marks to be allotted to each of the dimensions for measuring the achievements of learners so that the total marks for all the dimensions adds upto 100.

Dimension	Proportion of marks to be allotted
Literacy	-
Awareness	-
Functionality	-
Total	100

The components of literacy have been identified as oracy, reading ability, writing ability, numeracy and technıracy (technical literacy). These components were identified through review of literature and discussion with experts in the field of adult education You are requested to suggest the proportion of marks to be allotted to each of the components for measuring the achievements of learners so that the total marks for all the components adds upto 100.

(contd.)

Component		Proportion of marks to be allotted
Oracy	-	
Reading ability	-	
Writing ability	-	
Numeracy	-	
Technıracy	-	
Total	-	100

You are also requested to suggest any other dimenion(s) and / or their component(s) for measuring the achievement of learners In such case, kindly re-allot the marks incorporating the new dimenion(s)/ component (s) following the above formats (total marks 100 for each format) in the space given below

Signature of the respondent

Name .
Designation
Address

APPENDIX VI

Achievement test for Learners (English version)

Name of the centre .

Address of the centre :

Panchayat . Ward

Name of the learner

Address of the learner :

Total scores. 100

Reading ability test

a) Kindly read aloud a paragraph of your choice from the primer (5 scores)

b) Read aloud the caption of the poster. (½ score)

What is the meaning of it? (½ score)

c) Kindly read and understand the paragraph in the neo-literate book

Answer the two questions on it (4 scores)

Writing ability test

a) Kindly copy write a paragraph from the primer (4 scores)

(contd.)

b) Take dictation of the 10 words from the primer (5 scores)

1. 6.

2. 7.

3. 8.

4. 9.

5. 10.

Numeracy test

a) Read aloud the following numbers (1 score)

27 43 56 98

b) Take dictation of the following in digits (1 score)

Fourteen

Twenty three

Forty five

Eighty nine

c) Calculate the following -

1) Add (1 score)

45 +	325 +
30	673

2) Subtract (1 score)

54 -	251 -
22	125

(contd)

3) Multiply (1 score)

44 x 3	89 x 16

4) Divide (1 score)

22-2 = 72 -12 =

d) Fill up the blanks (1 score)

1. One kilogram = . grams
2 Half metre = centimetres
3 Half rupee = paise
4. One hour = minutes

Technical literacy test

a) Change the position of needles in the dial of the watch and read the time. Do it for four times (2 scores)

1 2 3. 4

b) Kindly replace the used up cells with new cells in this electric torch (2 scores)

c) Please operate this transistor radio (1 score)

Oracy and awareness test (28 scores)

a) Answer any seven questions, each in three or four sentences (Oracy -7 scores awareness -21 scores)

	Wrong answer	Partly correct answer	Almost correct answer	Fully correct answer
1. What is the first-aid for burns and scalds?				

	Wrong answer	Partly correct answer	Almost correct answer	Fully correct answer
. What is the first-aid for snake-bite?				
What are the hazards of consuming liquor?				
. What are the important vaccinations to be given to children?				
. Mension a few radio programmes				
. What are the desirable changes in you after you joined the centre?				
. What are the benefits available from Rural Development Block Offices?				
. Mention the benefits from ration shops				
. What are the hazards of smokings?				
. Mention the hazards of chewing habit.				
What are the programmes in the T.V?				
. Mention the methods to save money.				

(contd.)

	Wrong answer	Partly correct answer	Almost correct answer	Fully correct answer
13. What are the advantages of having co-operative societies?				
14. What are the advantages of having reading rooms and libraries in a locality?				
15. What are the services available from post-offices?				
16. What are the services available from Banks?				
17. Why is a small family called as a happy family?				
18 What are the methods of population control?				

b) Listen to the following statements and mention whether you agree or disagree with each of. (13 scores)

	Agree	Dis-agree
1. Utilising the right to vote is our duty.		
2. We should keep our premises clean.		
3. Learned persons need not be respected.		

(contd.)

	Agree	Dis-agree
. Rules made should be applicable and useful to people.		
. We should know the reasons for our backwardness.		
. We should actively participate in development programmes		
. We should organise and co-operate to find remedies to our backwardness		
. Lost articles if found out need not be given back to the owner		
). All Indians are brothers and sisters		
0.We should preseve our eco-system.		
1 Small family is a happy family.		
12.Men and women are not equal.		
13.Giving or accepting dowry is a crime.		

Functionality test

a) Santha is Sankaran's wife. Sankaran got 32 rupees and Santha got 28 rupees as wages What is the total wages got by them?
(3 scores)

(contd.)

b) Thankamma got 30 rupees as wage She spent 18 rupees and 50 paise to buy provision items from the market What is the balance amount with Thankamma? (3 scores)

c) One kilogram of rice costs 5 rupees and fifty paise What is the cost of 10 kilograms of rice? (3 scores)

d) Four persons went for a film. They spent 28 rupees If they equally divide the expenses, what is the per head expense? (3 scores)

e) Write a letter to an Officer requesting him to include you in a scheme that brings economic benefit to you (16 scores)

APPENDIX VII

Questionnaire for Instructors (English version)

This questionnaire is in connection with a research study. Kindly fill up the questionnaire The details furnished will be used for research purpose only

Name of the centre

Address of the centre

Panchayat . Ward

Name of the instructor.

Address of the instructor

Part I (Instructor variables)

1 Experience

Total number of years you have functioned as the instructor of an adult education centre

2. Concept of communication

Below are given some statements regarding the communication process Please indicate your degree of agreement or disagreement with each of these statements by tick (✓) mark.

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. Communication is the art of sending message through gestures, talking and/or writing					

(contd)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
2. Communication process is sending as well as receiving of message without changing the meaning.					
3. Communication is a process of transmitting ideas from a source to a receiver					
4. Communication serves as a means for establishing commonness with someone					
5. Communication is the vital element of modernisation and economic development.					
6. Communication is a give and take of ideas which help in mutual understanding of ideas or principles					
7. Training in communication is essential to become an efficient communicator					
8 For effective communication certain principles and techniques are to be followed					

3. Instructor-learner communication

Indicate by tick mark the extent of inter-personal communication taking place between you and the individual learners in the adult education class on the problems related to learning

Very high / High / Moderate / Low / Very low

(contd.)

4. Instructor-learner contact span

Indicate by tick mark the frequency of you getting contacted by the learners for discussing and solving their personal and family problems

Once a day

Twice to six times a week

Once a week

Twice to three a month

Once a month

Once in two months

Once in three months.

5. Information seeking behaviour

Indicate by tick mark how frequently you are seeking information regarding adult education from the following sources.

	Always	Sometimes	Never
1) Radio			
2) Newspaper			
3) Text books			
4) Journals			
5) Seminars			
6) Training programmes			
7) Exhibitions			
8) Superior officers			
9) Experts from State Resource Centre.			
10) Dicussion with colleagues			
11) Television			
12) Any other (specify)			

(contd)

6. Information processing behaviour

When you receive new information on adult education aspects, how do you react to it? Please put a tick mark against only those applicable to you

1) Accept it unreserved

2) Weigh it in the light of past experience

3) Discuss with other instructors

4) Discuss with experts

5) Discuss with superior officers

6) Any other (specify)

How do you preserve the information for future use? Please put a tick mark against the method you adopted

1) By memorizing

2) By making note in a note book

3) Consciously relate the new information with already known things, so as to make the recall easy

4) Any other (specify)

7. Empathy

If you were to be in the following positions, write down what you would do to disseminate a new information you receive which is useful to the learners

1) Learner

2) Supervisor

3) Project Officer

(contd)

	Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
1) I feel a sense of responsibility in carrying out my duties as an adult education instructor.					
2) I devote all my working time for carrying out adult education activities.					
3) I try to bring up the learners with the least ability to learn upto the level of other learners.					
4) I am careful in collecting up-to-date information and giving them to the learners					
5) If given a chance I will opt for job other than that of instructor					
6) I am attending to the learners because of the supervision of my superior officers					
7) If time permits, I try to serve people other than the learners in my area.					
8) I try to discuss with, motivate and bring back to class the learners who drop-out from the adult education centre					

(contd.)

9. Job satisfaction

Below are given a few questions regarding your job. Please answer the questions as how much you are satisfied/ dissatisfied with your job by tick marks

	Very much satisfied	Satisfied	Undecided	Dissatisfied	Very much dissatisfied
1) Are you satisfied that you are given enough freedom to do your job?					
2) Are you satisfied with the progress you are making towards one goals which you had set for yourself in your present position?					
3) How satisfied are you with your present position when you compare it with similar positions elsewhere?					
4) Are you satisfied that the people in the area give you proper recognition to your work as an adult education instructor?					
5) How satisfied are you with your honorarium?					
6) How satisfied are you with your superior officers?					

(contd)

	Very much satis-fied.	Satis-fied	Un-deci-ded	Dis-satis-fied	Very much dis-satis-fied
7) How satisfied are you with the learners at your centre?					
8) How satisfied are you with the amount of time and energy you are devoting to your present position and the satisfaction you derive from your position?					

10. Attitude towards adult literacy

Indicate by tick mark your extent of agreement or disagreement on the following statements

	Strongly agree	Agree	Un-deci-ded	Dis-agree	Strongly dis-agree
1) Everybody should become literate for national development.					
2) Literacy is not related to economic prosperity.					
3) Literacy gives freedom from exploitation.					
4) Money spent on literacy is a sheer waste					
5) Literacy helps to improve knowledge.					
6) Literacy does not improve living conditions					

(contd)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
7) Illiteracy is a curse for the society.					
8) Literacy is not necessary for rich persons					
9) An illiterate cannot discriminate the difference between right and wrong easly.					
10) Attending literacy class is beneath the dignity of adults					
11) Literacy is as important as eyes for a person.					
12) Adults cannot learn anything as tney crossed the age of learning, ie. youth.					
13) Illiterates cannot easily understand the modern agricultural methods					
14) Literacy leads to arrogance					
15) An illiterate suffers from a feeling of inferiority					
16) Adult literacy does not help to improve occupational skills.					
17) Literacy enables one to learn good habits.					
18) Literacy has no use in daily life.					
19) Literacy is a mark of civilization.					
20) Literacy does not encourage independent thinking.					

(contd.)

11. Attitude towards learners

Below are given some statements regarding the learners of our adult education centres Give your extent of agreement/ disagreement with the statements by tick mark

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1) The learners of our centres can be compared with the learners of the centres in the progressive nations of the world.					
2) Even if God wants to improve the life of our learners, they will not be able to do so					
3) If given a chance, our learners will show their ability for economic improvement.					
4) The adult education instructors are the most unfortunate group as they have to work with the learners					
5) I am proud that I am working with the learners					
6) Our learners will not become literate even if they are made aware of the advantages of being literates					

12 Attitude towards job

Following are some remarks made by adult education instructors. Please indicate by tick mark to what extent you aree or disagree to each statement

(contd)

Appendix VII (contd.)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1) The job of adult education instructor is one of the best jobs that I can get in my circumstances					
2) The job of instructor is a dull one					
3) I like doing the job of instructor than any other occupation.					
4) The job of instructor has low social status					
5) I like my children also becoming adult education instructors in the future					
6) I feel no loyalty to the job of instructor.					
7) Even if the honorarium is not increased in the near future, I will continue in this job					
8) Because I did not get any other job, I have accepted this one.					
9) I feel much pride in doing the job of instructor.					
10) Any other job is better than this one.					
11) The job of adult education instructor is a useful one					
12) I wish to give up this job and accept any other job					

(contd.)

13. Attitude towards social activities

Please go through the following statements carefully and indicate your response by putting tick mark in one of the five appropriate columns on the right hand side against each statement.

	Strongly agree	Agree	Un-decided	Dis-agree	Strorgly dis-agree
1) Sincerity should be an essential requirement for any social worker.					
2) Social activity is an ornamental one.					
3) Social service is a source of income.					
4) Social service should be acknowledged as a noble profession					
5) Social service should be made compulsory for the student community.					
6) Social service is a waste of time.					
7) Social service is a hindrance to comfortable private life.					
8) Social service is a short-cut to achieve private ends.					
9) It is a programme which requires expenditure of money from one's own pocket.					
10) It is a field of activity where honesty is supreme concern					

(contd

Appendix VII (contd)

	Strong agree	Agree	Un-decı-ded	Dıs-agree	Strongly dıs-agree
11) It ıs a fıeld of actıvıty that gıves room for crıtıcısm.					
12) Socıal servıce ıs a crown of thorns.					
13) Other's grıef ıs one's own grıef.					
14) Socıal servıce ıs good for those who have no other means or lıvıng					
15) Socıal servıce need not be gıven too much of ımportance					
16) Those who have enough tıme alone need enter the fıeld of socıal servıce					
17) Socıal actıvıty ıs not suıted to luxurıous people.					
18) Socıal actıvıty ıs a paıns-takıng affaır.					
19) Socıal work helps to end exploıtatıon					
20) Despaır and abuse are the rewards of socıal work.					
21) Our personal problems remaın unsolved ıf we work for others					
22) Socıal servıce should not be a way of lıfe.					
23) 'Selfıshness' ıs not good for socıal workers					

(contd.)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
24) The spirit of social service cannot be achieved by training.					
25) Social workers should not have desire for power.					

14. Interest in adult education

Please read through all the following statements and record your responses by putting a tick mark on the left side of the response which you think is most appropriate in each case

1) What I consider inevitable for the progress of the nation is

A literate people

B healthy people

C. well equipped defence force

2) In our development budget priority should be given to

A. the provision of housing facilities for the citizens

B making all the citizens literate

C. the programme of effective distribution of food grains

3) I wish to become a member of

A a library

B. a dramatic club

C a political party

4) What I consider most desirable is

A. good health

B a lot of wealth

C. maximum knowledge

(contd)

5) The most essential need of my village is

A. a market
B a bank
C a study centre

6) It is my ardent desire to

A. attend to house-hold affairs
B enjoy making humerous comments
C do some sort of help to others

7) Radio programmes are good for rural development because

A there are agricultural broadcasts
B educational programmes are included
C. regional news are regularly relayed

8) To discuss matters with elders is

A very difficult for me
B. very pleasant for me
C. against my wish

9) I wish to build with my own efforts

A. a fair-price depot
B a centre of worship
C. a study centre

10) For the sake of others

A. I will work without accepting any allowance
B I will work only when enough allowances are granted
C. I don't like to do anything

11) In listening to the radio, I am more interested in

A. 'Radio Gramarangam' (Rural programme)
B 'Vartha Pathrika' (News coverage- District-wise)
C (Kayika Rangam' (Sports programme)

(contd)

12) To become a social worker is

A. my ardent desire
B acceptable to me if I have no other vocation
C. not my desire

13) As regards social service,

A. I wish to take it up as an important profession
B I wish to take it up as a supplementary vocation
C. I consider it a farce

14) In order to improve any academic qualification

A. I wish to study by attending classes in a college
B. I wish to study privately by utilising my leisure time
C. I have no desire for it

15) I am willing to suffer a lot

A. for the welfare of others
B. for my own financial profit
C for the sake of my personal reputation

16) If there is a fire accident in a house in my village

A. I will co-operate with others for putting out the fire
B. I will take part in all activities concerning the reconstruction of the burnt house in addition to my co-operation with others for putting out the fire
C I will merely inform the nearest fire station

17) Visiting houses

A. is a difficult for me
B. seems to be good
C. is not good

(contd)

) It is my conviction that

A. We have to create good reading habit among the citizens
B ration must be distributed freely to the consumers
C. employment must be provided for all

) Daily I

A. read out news to at least one illiterate man.
B read news only for myself.
C. do not read newspapers.

)) If I see injustice

A I will intervene actively
B I will pretend as if I haven't seen it
C. I won't intervene

1) For public activities

A. I will spend only a short time
B. I will devote my entire life time
C. I have no interest

2) For the sake of disabled persons

A. I am willing to collect funds
B I don't agree with the scheme of fund collection
C. I will simply offer donations

3) If weddings are to be celebrated in my place

A. I will abide by the wishes of the parties concerned.
B I will advise the parties to organise the functions in a simple manner
C. I will advise them to organise the functions luxuriously

4) If quarrels arise in my place

A. I will interefere and produce peaceful settlement.
B I will try to make others interfere in the matter.
C I will not interfere

(contd)

25) By utilising more time, the schools should
   A. make the illiterate educated
   B increase the reading habit of pupils
   C improve the reading ability of students

26) For a nation a library is
   A. a holy temple of learning
   B a centre of entertainment
   C. a place of luxury

27) If all adults become literate
   A. there will be no one available for manual labour
   B the country will progress
   C they will get their right share without getting duped

28) I wish to approach others
   A. only to explain matters on behalf of others
   B. to fulfil my own selfish purposes
   C in order to protect the interest of the society

29) For a social worker, "sensitiveness" is
   A. quite appropriate
   B. not good
   C. appropriate to some extent

30) For a good social worker, the important condition for success is his
   A. punctuality
   B. sense of dedication
   C. cheerfulness

(contd)

Part II (Instructional processes variables)

1. Method of teaching

What are the methods followed by you in teaching the adults at the centre? Kindly indicate by tick mark.

1) Chalk and talk method
2) Lecture method
3) Dialogue method
4) Discussion method
5) Role play method
6) Any other (specify)

2. Technique of teaching

Indicate by tick mark your frequency of using audio-aids, visual aids and audio-visual aids for teaching adults at the centre.

	Regularly used	Some times used	Rarely used	Very rarely used	Not at all used
1) Audio-aids					
2) Visual aids					
3) Audio-visual aids					

3. Approach of teaching

Indicate by tick mark the extent of personal attention given by you to the learners while teaching them at the centre.

Very much given
Much given
Moderately given
Slightly given
Not at all given

(contd.)

Part III (Material inputs variables)

. Physical facilities

Indicate the answer to the following questions by tick mark

) Is there enough space at your centre for the 30 learners to sit and learn?

Yes/ No

) What is the seating arrangement provided for the learners at your centre?

Ground

Mat / gunny bags / plated coconut leaves

Bench

Bench with back-rest

chair

. Lighting arrangements

Indicate the answer to the following questions by tick mark

) What is the source of light for the functioning of your centre?

Day light / Artificial light

) If the centre is functioning on artificial light, indicate the type of lighting provided

Electric light

Petromax light

Hurricane lamp

Kerosine oil lamp

Candle light

. Teaching-learning materials

Identify by giving tick mark in the list given, the different materials used at your centre for the teaching and learning of adults

1) Primer
2) Work book
3) Guide book
4) Black board
5) Chalk
6) Writing paper
7) Pen
8) Pencil
9) Note book
10) Text book
11) Periodicals
12) Calender
13) Slate
14) Any other (specify)

(contd.)

4. Human resources

Indicate by tick mark the different categories of resource persons who have handled class at your centre.

1) Doctor
2) Nurse
3) Compounder
4) Post-master
5) Agricultural Officer
6) Agricultural demonstrator
7) Block Development Officer
8) Village Extension Officer
9) Panchayat member
10) Teacher
11) Social worker
12) Local committee member
13) Any other (specify)

Part IV (Organisational aspects variables)

1. Community support

Indicate by tick mark the activities in which your centre received community support.

1) in conducting literacy survey
2) in providing place for the centre
3) in the teaching -learning process
4) in allied activites
5) in providing resource persons
6) in motivating learners
7) Any other(specify)

2. Supervision

Indicate by tick mark the answer to the following questions

1) What is the frequency of visit of supervisor to your centre in a month?

Once a month
Twice a month
Thrice a month
More than thrice a month

2) Has the supervisor made any surprise visit to your centre?

Yes / No

(contd)

3 Supply of inputs

Write down in the appropriate column whether the following inputs were supplied to your centre at the proper time and in adequate number and whether they were useful at the centre.

	Inputs			
	Lighting equipments	Teaching-learning materials	Seating facilities	Resource persons
1) Whether supplied at the proper time (Yes / No)				
2) Whether supplied in adequate number (Yes / No)				
3) Whether it was useful at the centre (Yes / No)				

4. Training

1) Write down the number of days of training undergone by you in adult education during the current year or adult education programme days

2) Indicate by tick mark the extent of usefulness felt by you in the training undergone

Very much useful

Much useful

Moderately useful

Slightly useful

Not useful

(contd.)

5. Monitoring

1) Write down the total number of inspections made at your centre by the superior officers

2) Indicate by tick mark the items on which you have effected modifications based on the inspection reports

a) keeping the records
b) securing progress in learning
c) methods of teaching
d) ensuring attendance of learners
e) evaluation of learners
f) Any other (specify)

6 Evaluation

Answer the following questions by giving tick marks.

1) What is the frequency of evaluation conducted for the learners at your centre?

Once a month
Once in two months
Once in three months
Once in six months.

2) What are the methods of evaluation used at your centre?

a) using questionnaire
b) through oral tests
c) Any other method (specify)

3) Which are the different categories of evaluators involved in the conduct of evaluation at your centre?

Learner (self evaluation)
Instructor
Supervisor
Any other (specify)

(contd.)

7. Reporting

1) Have you sent monthly reports on the activities of your centre regularly in all the months?

Yes / No

2) Whether all the reports sent were in the prescribed proforma?

Yes / No

8. Location of the centre

Indicate by tick mark the proportion of learners for whom your centre is near to their residence

Near to residence for majority of learners

Near to residence for about half of learners

Near to residence for a few learners

9. Post-literacy facilities

Are there any facilities near your centre for the learners to practise the acquired literacy skills after the completionof the course period at your centre? (Indicate by tick mark)

Yes / No

Part V (Learner variables)

Attendance at the centre and enthusiasm to attend the programme

Calculate and write down the average attendance per month of each of the following six learners of your centre by refering to the attendance register for the previous 10 months. Also indicate by tick mark the extent of eagerness of each learner to attend the adult education programme

(contd.)

Sl. No	Name of the learner	Average attendance per month	Eagerness to attend the programme				
			Very much eager	Much eager	Moderately eager	Slightly eager	Not at all eager
1							
2.							
3.							
4.							
5.							
6.							

APPENDIX VIII

Interview schedule for learners (English version)

Name of the centre

Address of the centre

Panchayat Ward

Name of the learner

Address of the learner

Part I (Learner variables)

1 Motivation to attend the programme

Please listen to the following statements and mention how far these statements are true, as far as you are concerned

Section I (Psychological factors)

	Very true	True	Un-true
1) The desire 'to be educated' is fulfilled through adult education centres			
2) I prefer adult education centres because nobody criticizes my age			
3) The centres provide the opportunity for relaxation, helping one to forget his/her worries at home			
4) I get the opportunity to share my problems with others			
5) The organisers of the centre respect my opinions			
6) I participate in the discussion according to my convenience			
7) Adult education centres help in cultivating a sense of security			

(contd)

	Very true	True	Un-true
8) The topices discussed at the centre are to my liking			
9) I get sufficient opportunities to realise my potentialities and bring in progress			
10) Unnecessary restrictions are not imposed on the learners by the organisers of the centre			
Section II (Sociological factors)			
1) By going to the adult education centre, I get the opportunity to learn just as my neighbours			
2) The centre enables me to live without being subjected to the evils of the society.			
3) I am now able to enjoy whatever food I have in a clean, healthy and happy manner			
4) The centre provides me with the opportunity to meet and interact with the leaders of the locality			
5) I no longer depend on others to read my letters.			
6) Politicians are no longer able to mislead me.			
7) The classes at the centre help me to understand man-woman relationship			
8) The discussion on family planning organised at the centre gave me a fresh insight into life			
9) The discussions at the centre made me aware of the facts to be borne in mind when choosing a life-partner			
10) I am no longer misled by people who try to exploit me			

Section III (Economical factors)	Very true	True	Un-true
1) At the adult education centre, one becomes better informed and educated at no cost to himself			
2) The centre helped me to learn the ways and means of making my work more profitable			
3) The discussions at the centre helped me to learn the ways of escaping from money lenders who charge high interests.			
4) I am now able to spend my leisure hours profitably.			
5) I am now able to understand the procedure of obtaining the loans and other privileges from the Government			
6) I can read the newspapers at no cost to myself.			
7) The discussions at the centre helped me to budget my expenses.			
8) I am now capable of checking the balance amount after shopping.			
9) I am now able to learn the ways of attaining financial security.			
10) Children have opportunity for getting free food from the centre.			
Section IV (Religio-cultural factors)			
1) Adult education centres ard in developing religious attitude			
2) Literacy classes enable one to read religious books.			
3) The discussions at the centre are helpful in improving one's cultural level			

(contd.)

	Very true	True	Un-true
4) Participation in adult education programmes help me to understand the life style of people of different places			
5) The learning at the centre enables me to save myself from sorcerers			
6) Guidance is provided at the centres for safe guarding oneself from irrational fears, anxiety etc.			
7) The classes at the centre gave me an idea about the uniqueness of Indian culture			
8) The discussions at the centre are helpful in creating an awareness in people that fighting in the name of religion is meaningless.			
9) The centres provide the opportunity to get familiarised with famous authors and their works			
10) The classes at the centre help us to gain sufficient knowledge about great personalities of our nation			

2 Mass media exposure

Kindly mention your frequency of exposure to each of the following three mass media sources.

Mass media source			Frequency of exposure
Radio	Television	Film	
			Twice or more a week
			Once a week
			Once a fortnight
			Once a month
			Never

(contd)

3. Empathy

If you were to be in the following positions, please mention what you would do to disseminate a new information you receive which is useful to the learners.

Position	Level of empathy		
	Low	Medium	High
1) Instructor			
2) Supervisor			
3) Project Officer			

4. Achievement aspirations in literacy, awareness and functionality

Kindly mention your extent of desire to have achievement in the following

	Very much desirous	Desirous	Undecided	Not desirous	Not at all desirous
1) Literacy					
2) Awareness					
3) Functionality					

5. Interest in adult education

Please listen to the following statements For each statement, there is provision to make three responses, but only one among the three is appropriate. Choose the appropriate response for each statement

1) What I consider inevitable for the progress of the nation is

A. literate people

B healthy people

C well equipped defence force

(contd.)

Appendix VIII (contd.)

2) In our development budget, priority should be given to

A the provision of housing facilities for the citizens

B making all the citizens literate

C the programme of effective distribution of foodgrains.

3) I wish to become a member of

A. a library

B. a dramatic club

C. a political party

4) What I consider most desirable is

A good health

B a lot of wealth

C. maximum knowledge

5) The most essential need of my village is

A. a market

B a bank

C a study centre

6) In listening to the radio, I am more interested in

A. ' Radio Grama rangam' (Rural Programme)

B. 'Vartha Pathrika' (News coverage - District-wise)

C 'Kayika Rangam' (Sports Programme)

7) It is my conviction that

A we have to create good reading habit among the citizens

B ration should be distributed freely to the consumers

C. employment must be provided for all

(contd)

8) If all adults become literate

A. there will be no one available for manual labour

B the country will progress

C. they will get their right share without getting duped

9) By utilising more time, the schools should

A make the illiterate educated

B. increase the reading habit of pupils

C. improve the reading ability of students

10) For a nation a library is

A. a holy temple of learning

B. a centre of entertainment

C. a place of luxury

6. Awareness of need, significance and advantages of adult education

1) Please mention how much is the need for adult education

Very much needed / needed / Undecided / Not needed/ Not at all needed

2) Kindly mention how much significant is adult education

Very much significant / Significant/ Undecided/ Not significant/ Not at all significant

3) Please mention how much advantageous is adult education

Very much advantageous/ Advantageous/ Undecided/ Not advantageous/ Not at all advantageous

(contd)

7. Attitude towards adult literacy

Some statements will be read out. Please listen to each statement and mention your extent of agreement or disagreement with each statement

	Strongly agree	Agree	Un decided	Disagree	Strongly disagree
1) Everbody should become literate for national development					
2) Literacy is not related to economic prosperity					
3) Literacy gives freedom from exploitation					
4) Money spent on literacy is a sheer waste.					
5) Literacy helps to improve knowledge					
6) Literacy does not improve living conditions					
7) Illiteracy is a curse for the society.					
8) Literacy is not necessary for rich persons					
9) An illiterate cannot discriminate the difference between right and wrong easily					
10) Attending literacy class is beneath the dignity of adults					
11) Literacy is as important as eyes for a person					

(contd)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
12) Adults cannot learn anything as they crossed the age of learning, ie. youth.					
13) Illiterates cannot easily understand the modern agricultural methods.					
14) Literacy leads to arrogance					
15) An illiterate suffers from a feeling of inferiority					
16) Adult literacy does not help to improve occupational skills.					
17) Literacy enables one to learn good habits.					
18) Literacy has no use in daily life					
19) Literacy is a mark of civilization.					
20) Literacy does not encourage independent thinking.					

8. Attitude towards instructor

Please state whether you agree or disagree with the following statements.

	Agree	Disagree
1) The instructor has no interest in the welfare of the learners		

(contd)

	Agree	Disagree
2) The instructor is not able to impart knowledge to the learners		
3) The instructor tries to impart knowledge to the learners.		
4) The instructor motivates the learners to learn.		
5) The instructor realises the limitations of each learner and helps him/her accordingly in the learning process		

Part II (Instructional process variables)

Content of teaching

Kindly mention the extent of usefulness of the topics discussed at the adult education centre in your day-to-day life

Very much useful/ Much useful / Moderately useful/

Slightly useful/ Not at all useful

APPENDIX IX

No.44828/Trg.4/89/CRD

Commissionerate of Rural Development,
C S.I Building, L M.S Compound,
Trivandrum, dated 5-10-1989.

From

The Commissioner for Rural Development

To

The Asst.Development Commissioner (FLP)
Trichur.

The Block Development Officer, Ollukkara

Sir,

Sub - Ph D Programme - Research project- data collection on RFLP Centres- Request for permission - reg.

I am directed to inform you that Shri V.B.Padmanabhan, Ph.D.Scholar is doing his research project entitled 'Development and application of a scale to measure the efficiency of adult education centres'. The RFLP block selected for the study is Ollukkara I am to request you to extend necessary help to Shri Padmanabhan.

Yours faithfully,

Sd/-

For Commissioner

Copy to. - Dr.A.M.Thampi,
Professor & Head,
Dept. of Agricultural Extension,
College of Agriculture,
Vellayani.

APPENDIX X

Questionnaire for Supervisors

The major factors contributing to efficiency of Adult Education Centres have been identified as instructor, instructional process, material inputs, organisational aspects and learner. You are requested to rate the Adult Education Centres under your supervision for their efficiency by giving scores taking into consideration the major five factors. The maximum score that can be given with respect to each factor is 10 and minimum is zero. Kindly evaluate the Adult Education Centres under your supervision in the following format

Name of the centre	Name of the instructor	Score for the efficiency of the centre with respect to					Total score
		Instructor	Instructional processes	Material inputs	Organisational aspects	Learner	

Name of the Supervisor

Address

APPENDIX XI

Scale for measuring the efficiency of Adult Education Centres

(Responses to be collected from instructors)

Indicate by tick mark your extent of agreement or disagreement on the following statements

	Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
1) I feel a sense of responsibility in carrying out my duties as an adult education instructor					
2) I devote all my working time for carrying out adult education activities.					
3) I try to bring up the learners with the least ability to learn upto the level of other learners.					
4) I am careful in collecting up-to-date information and giving them to the learners					
5) If given a chance I will opt for job other than that of instructor.					
6) I am attending to the learners because of the supervision of my superior officers					
7) If time permits, I try to serve people other than the learners in my area					
8) I try to discuss with, motivate and bring back to class the learners who drop-out from the adult education centre.					

DEVELOPMENT AND APPLICATION OF A SCALE TO MEASURE THE EFFICIENCY OF ADULT EDUCATION CENTRES

BY

PADMANABHAN, V B

ABSTRACT OF A THESIS

submitted in partial fulfilment of the
requirement for the degree
DOCTOR OF PHILOSOPHY
Faculty of Agriculture
Kerala Agricultural University

Department of Agricultural Extension
COLLEGE OF AGRICULTURE
Vellayani – Thiruvananthapuram

1990

ABSTRACT

This study on the development and application of a scale to measure the efficiency of Adult Education Centres (AECs) was designed to develop and standardise a scale to measure the efficiency of AECs, to evaluate the selected AECs by using the scale developed and to suggest a model for the efficiert functioning of AECs. The study was conducted in the Rural Functional Literacy Programme (RFLP) centres of the Rural Development Blocks of Ollukkara and Kodakara in Thrissur district during 1989.

A three stage sampling design was adopted for the study. Instructors and learners of the AECs were the two types of respondents included in the study. Efficiency of AEC (dependent variable) and selected 41 factors (independent variables) were the variables for the study. The data were collected from the instructors by using questionnaires and from the learners by using interview schedules. The collected data were analysed using appropriate statistical techniques including percentage analysis, simple linear correlation analysis, multiple linear

regression analysis, step-wise regression analysis and path coefficient analysis. The salient findings of the study are as follows.

1. Thirty seven independent variables out of the 41 were found to have significant positive relationship with the efficiency of AEC. Job commitment of instructor had the highest value of correlation coefficient.

2. The selected 24 independent variables taken together accounted for 98.35 per cent variation in the efficiency of AEC. The nine variables which were found to exert significant influence on the efficiency of AEC when taken together accounted for 96.27 per cent variation in the efficiency of AEC.

3. The best prediction equation was with eight variables which accounted for 93.97 per cent variation in the efficiency of AEC. These variables were instructor-learner communication, information processing behaviour of instructor, job commitment of instructor, job satisfaction of instructor, human resources,

supply of inputs, monitoring and empathy of learner.

4. Job commitment of instructor alone explained 89.03 per cent variation in the efficiency of AEC.

5. Job commitment of instructor had the largest direct effect on the efficiency of AEC and its three components, namely, achievements of learners in literacy, awareness and functionality. The high positive correlations of all the other factors with the efficiency of AEC and its components were due to their positive inter-relationship with job commitment of instructor.

6 The scale developed to measure the efficiency of AECs was found to have high validity (content, criterion-related and concurrent) and reliability (test-rest and split-half).

7. The distribution of scores obtained on evaluating the selected AECs by using the scale was found to be normal.

8. A model was suggested for the efficient functioning of AECs based on the results of this study.