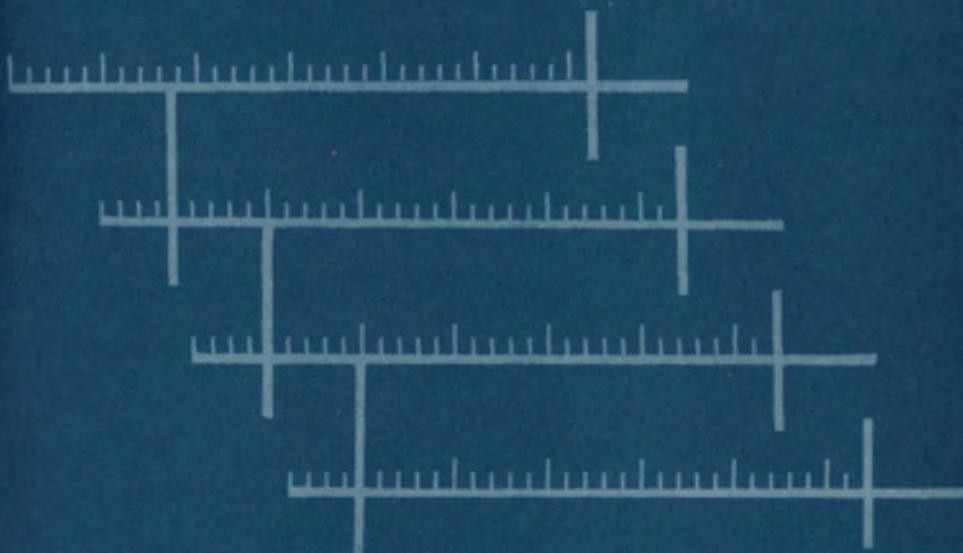


EVALUATION OF COOPERATIVE EDUCATION PROGRAMMES



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EVALUATION OF COOPERATIVE EDUCATION PROGRAMMES

By

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HUMAN RESOURCES DEVELOPMENT SERIES

01/89

334:370
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International Cooperative Alliance

Regional Office for Asia

'Bonow House,' 43 Friends Colony (E)

New Delhi - 110065

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15 Route des Morillons
CH 1218 Grand Saconnex
Geneva –Switzerland

Regional Office for Asia :
'Bonow House',
43 Friends Colony (East)
New Delhi-110 065

June 1989 (1000)

Typeset and Printed at
Fairfield Graphics Pvt. Ltd.
H.S.14, Kailash Colony Mkt.,
New Delhi-110 048.

CONTENTS

CHAPTER I

Introduction : The Term Evaluation 1

CHAPTER II

Why should Cooperative Education Programmes
be evaluated ? 5

CHAPTER III

The importance of Cooperative Education Programmes
Types of Cooperative Education Programmes 18

CHAPTER IV

How to Evaluate Cooperative Education Programmes 30

CHAPTER V

Methods (instruments/measurements) of evaluating
Cooperative Education Programmes 41

CHAPTER VI

Planning and writing an Evaluation Report 54

CHAPTER VII

The future of the problem of evaluating
Cooperative Education Programmes 62

APPENDIX I 66

APPENDIX II 68

FOREWORD

The International Cooperative Alliance has emphasized the need to launch an integrated programme of Human Resource Development activities. Until recent times, the emphasis has been in the field of cooperative education and training. With the re-structuring of the ICA and also with the introduction of new development policies, the function of the former Cooperative Education Materials and Advisory Services (CEMAS) has been decentralized to the regional level. The expectation is that the regional HRD projects could undertake activities which are more closer to the needs of member countries in the region and also to have more field oriented activities.

One of the major activities that would be undertaken under the new scheme would be to produce manuals, books, and other training materials for the benefit of cooperatives.

I am very happy to see that the present publication on 'Evaluation of Cooperative Education Programmes' would be achieved during the current year itself. The ICA-ROA will undertake more publications and reproduction of education and training materials in time to come. The ultimate objective of activity would be to cover the entire field of Human Resource Development.

I hope that this book will provide the trainers and education managers an important resource material to improve their performance in cooperative education programmes.

G. K. SHARMA
Regional Director
ICA Regional Office for Asia

FOR READERS

Evaluation is a much neglected subject in Cooperative Education Programmes. Generally, the routine evaluation forms used in these programmes confine themselves to immediate responses only. Considering the arrangement of cooperative education vested with ideological apex unions or government sponsored cooperative training institutions, introduction of scientific methods of evaluation is vital in order to bring the education programmes to the realistic needs of cooperative societies.

This manual is an attempt to provide the cooperative trainers and administrators with basic concepts of evaluation. A discussion has also been attempted as to the emphasis of evaluation; whether to emphasize on end results or the strategies are also to be evaluated. It doesn't need to mention that any evaluation experience which is comprehensive, provides realistic feedback not only to the education leaders but also trainees themselves in order to improve their programmes.

Mr. Maghimbi is an experienced evaluator of training programmes who looks at the evaluation subject in a broader perspective. I also thank Mr. Sam P. Mshiu, presently at ILO-MATCOM Project, Vienna, for editing the first draft of the manual.

20 June 1989

W U HERATH
Advisor
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CHAPTER I

Introduction: The Term Evaluation

Evaluation is a process that goes on in all areas of human life. Evaluation means to value carefully or to ascertain the amount of something. This something which is valued or its amount ascertained may be something physical like weight, height or volume. It may also be something non-material like attitude or knowledge. It is always easier to evaluate physical or material aspects of human activities than non-material aspects. This observation is arrived from experience with our daily lives. Sometimes it is hard to evaluate something, especially when it is non-material. This is overcome by using logic. That is we evaluate the consequences of the thing we have failed to evaluate whether these consequences are physical or non-physical. The assumption is that there is a causal relationship between the thing to be evaluated and what it affects.

This manual is concerned with how to evaluate co-operative education programmes. Since education is not a physical thing which can be seen with the eyes this means that the evaluation here is more difficult than evaluating physical things. Because evaluation of education programmes is so important it has been developed to the extent that it is now a technique and a science.

Common Sense Evaluation

Before evaluation took off as a technique and a science it existed in a rudimentary and haphazard form. Thus one can talk of common sense evaluation. It is important for cooperative trainers and education officers to understand this point right from the beginning. This is because it is too easy to resort to common sense

evaluation. Common sense evaluation is today resorted to because of many reasons and it is necessary to list the common ones.

1. Shortage of the necessary resources like time, manpower and money.
2. Laxity on those who make important decisions in co-operative education e.g. tutors, directors, education officers, committee-men and general meetings.
3. Suppression of evaluation by co-operative education trainers due to fear of some shortcomings in their courses becoming known.
4. The little emphasis put in co-operative education. This is common in some co-operatives in developing countries.
5. The tendency by some scholars to argue that evaluation of formal education is either impossible or unnecessary.

Some form of common sense evaluation is always taking place. There is nothing bad as such with common sense evaluation. Cooperative education programmes are always being evaluated informally. But co-operative education programmes cannot be left to such kind of evaluation. The choice is not between this kind of evaluation and scientific evaluation. The future of cooperative training programmes lies in proper scientific evaluation. Scientific evaluation of co-operative education programmes results is a key to many objectives. These important objectives include improving co-operative education programmes and cutting down the cost of training. Most of the co-operatives in developing countries are owned and run by poor people. Without proper scientific evaluation education programmes may waste co-operatives' time and money. There is thus the need for controlled study utilizing acceptable criteria i.e. evaluation.

Evaluation involves measurement. When we measure education programmes it means that our measurements must have acceptable levels of reliability, validity, precision and accuracy. Evaluation has developed into a complicated science involving sophisticated techniques. One reason for such a state is that there are educationists who are full time involved in developing evaluation techniques and methods to improve education programmes. Many

of these techniques developed have never been applied to co-operative education.

One of the aims of this manual is to overcome this problem. This manual aims at outlining evaluation techniques in simple language so that they can easily be used in co-operatives. Simplicity means reasonably easy application and does not mean that the methods of evaluation are diluted. In real life, simple and straight forward technology and language will yield better results. A technique which is too complicated has the obvious disadvantage that its applicability is limited. We should also remember that most co-operative members in developing countries are not very formally educated people. Yet it is co-operatives in these countries which need evaluation of their education programmes most.

The manual also develops the idea of evaluation. If the idea is not accepted to co-operative members it is of no use trying to apply evaluation techniques to co-operative education programmes. This means that no matter how refined our evaluation techniques may be, they are of no use if there is no acceptance that evaluation is important and necessary. When the whole idea of evaluation is not accepted even when evaluation of education programme is carried out, there will be no follow up. This would be a sad consequence resulting in wastage of resources. It would be like a case of seeing a doctor, having your ailment diagnosed but failing to turn up for treatment and further checkup.

Scientific Evaluation

Scholars and laymen within and outside the co-operative movement have accepted the technique and science of evaluation as a necessary component of co-operative education programmes. Some would go a step further and argue that evaluation is necessary even if outside assistance is needed for carrying it. Yet it is necessary that the evaluators in co-operatives (whether ordinary members or specialists) understand that there are people who are opposed or are indifferent to the idea of evaluation. Since the evaluators in co-operatives are likely to meet these people it is necessary to give the co-operative evaluators a brief summary of the opposing ideas.

The first group argues that it makes little or no difference to co-operatives whether or not their education programmes are evaluated. The payoff is not so much in what or how much people learn but what they do with what they have learnt. In other words, learning is not an end in itself but a means to an end. If what they learn is not reflected in changes (improvement) in their performance and in their attitudes then no amount of evaluation techniques, however efficient, will justify the money spent on education.

The second group is not so extremist. It recognizes the importance and inevitability of evaluating co-operative education programmes. However those who take this line of thinking have not arrived at any definite method of accomplishing evaluation. They take the common sense stand and argue that evaluation is constantly taking place informally. The important point made by this line is that there is no choice between evaluation or no evaluation. What matters is the quality of the evaluation method applied.

The third group can be termed the justification line of thinking. Those who think in this line never openly state their position. But their position can be gauged by observing education programmes in co-operatives. The idea is that to justify the resources spent in training, some form of evaluation must be done. Implicit in this line of thinking is that the evaluation done is biased since the purpose is to justify the money spent. This is an anti-co-operative spirit which should be discouraged.

Although this manual stresses the importance of evaluation in co-operative education programmes, we must caution that no evaluation should be done for its own sake. In view of the importance of these points, the next chapter will specifically take up the question: Why evaluate co-operative education programmes or should co-operative education programmes be evaluated?

We shall conclude this introduction by summing up evaluation as follows:

- Evaluation is the process of obtaining, and analysing useful information for the use in decision making and judging the worth of a programme, its objectives, procedures and outcomes in the educational process.
- Evaluation must be based on facts and not beliefs.

CHAPTER II

Why should co-operative education programmes be evaluated ?

(a) Why do we evaluate co-operative education programmes

Evaluation may be a new thing for many co-operatives especially in the developing countries. Consequently evaluation may carry with the strategic problems of introducing any sort of innovation. These problems may encourage co-operative members and trainers to adapt the attitude that the easy thing would be to just let things keep going as they have been. There is thus no need to justify evaluation so that it is accepted by anyone engaged in the education process.

The answer to the question "Why evaluate co-operative education programmes ?" may be very varied depending on the person's position in the co-operative movement. The manager of a fishery co-operative for example, may be more concerned with evaluating the specific results of training as measured in fish output after a short course be introduced on new fishing techniques. The members may evaluate the training differently. For example they may evaluate it in terms of reduction in the irksomeness and drudgery in the fishing work. The training committee of the same co-operative may evaluate the same course in terms of current spending priorities of the co-operative and how this particular spending is justified in the training budget. Still the education officer of the same co-operative may evaluate this course in terms of what the members have learned.

We now understand that it is important to determine why

it is important to evaluate a co-operative education programme. Determining the reasons for evaluating a particular education programme is a critical point. This judgement must be made before the actual evaluation programme is planned and carried. The reasons for evaluating programmes vary depending on factors like the type of co-operative education, the duration of training and the kind of co-operative itself. But we can here list the most important reasons why co-operatives undertake evaluation of their training programmes. This task is simplified by the many researches done on evaluation. But these researches were never carried for co-operative education programmes in the first instance. The co-operative member, committeemen, tutor and trainer are thus warned that it is necessary to establish the specific reasons for evaluating a specific co-operative education programme.

Important reasons why co-operative education programmes are evaluated:

- To determine the impact of the education programme e.g. to determine whether the programme is accomplishing its assigned objectives and for determination of policy.
- To identify the strengths and weaknesses of training activities e.g. to make training more efficient and to improve performance.
- To determine the cost/benefit ratio of the education programme e.g. for allocation of resources and for programme justification.
- To determine co-operative members awareness.
- To arrive at decision making e.g. on personnel allocation and recruitment.
- To be more accountable for the education programmes.
- To compare various methods or approaches to education programmes.
- To make co-operative members aware of the benefits of co-operative education programmes.
- To help plan for future and different education programmes.
- To help determine how different inputs in co-operative education programmes work and the impact of each input.
- To help inform co-operative members on how to plan education programmes.
- To help establish a data base which co-operative members,

committeemen and managers can use in making rational business decisions.

It is clear now to the co-operative member and education officer or trainer that evaluation of a co-operative education programmes is not meant to justify the very existence of the programmes or to justify that it is necessary to pay for them. Evaluation is necessary to ensure that co-operative education programmes are used as effectively as possible in meeting members needs. Evaluation is not meant to justify the position of co-operative educators or those being educated. Evaluation should not be done for establishing and protecting a chain of short and long term co-operative education programmes. Evaluation must be done to establish firmly the merits of the education programmes in assisting co-operative members and staff to perform their duties more efficiently.

Evaluation is an investment by co-operatives. It is an investment that can produce more favourable returns like output, low costs of production and profit and reduce the cost of the education programmes themselves. However in co-operatives, the members and educators should not overlook the material benefit of evaluation. Co-operative members are entitled to education even when it does not bring immediate material reward. Member education is a principle which we cannot question in the same way a company manager evaluates his staff training. With or without increasing the co-operatives operational efficiency, reducing education costs and serving the management committee of the co-operative, evaluation is still necessary. Co-operative education itself is viewed by co-operators as something useful just as profit or efficiency. This means that the purpose of co-operative education is for both material and social/non-material advancement.

The co-operative member and educationist is here introduced to the concept of the social aspects of development. The co-operative always aims at the development of its members. The material aspect of development is more easily understood. This is also the major aim of the co-operative. The importance of material advancement is clearly grasped in the developing countries

where the majority or sometimes all members of a co-operative may be poor both in relative and absolute terms. The role of co-operative education programmes in achieving material/economic advancement is also more readily understood. The co-operative education officer should at this point from the list above list the reasons for evaluation which are directly related to material/economic advancement of the co-operative. The co-operative members should also do this exercise. The second exercise here is to list the reasons which are related to non-material/social development.

Education on its own is an element of development even when it does not directly contribute to material/economic advancement. Co-operative members, for example who are aware of the principles of their movement and its history are judged to be advanced socially even when this does not contribute to their immediate economic improvement. Co-operative members and education officers both at the co-operative level and at the co-operative college or co-operative education centre will thus constantly have to plan for many education programmes which may have no apparent relevance to economic/material benefit. This is also where the source of the problem begins. Since the funds of co-operatives are limited there is the need to constantly carry evaluation to determine the necessary and optimal combination of the two kinds of co-operative education programmes. Always the members and educators will find that education programmes of the two kinds have an element of each other. But because co-operative education for both purposes is important, constant evaluation is necessary to ensure that the need for material/economic advancement does not reduce the social advancement aspect to a bare minimal. Co-operative education for social advancement builds the co-operative culture among members. Thus in the long run the non-material element of co-operative education has a role to determine the future of the co-operative movement in the particular area and even country.

The need to build the cooperative culture and spirit among members should also not lead the members and educators to plan the education programmes in such a way that this element carries an unproportional amount of resources. This may lead to complain

from some members and educators that too many resources are spent without apparent economic return. Both members and educators should always emphasize on the reasonable combination of the two kinds of education programmes.

The cooperative member and the educator is now aware of the importance of evaluating cooperative education programmes. This however does not mean that everything in cooperative education programmes is evaluated. This may not only be unnecessary but may prove too expensive. Also there may not be the necessary knowledge, manpower and time to evaluate everything. We are thus faced with the question of what to evaluate in cooperative education programmes.

(b) What should we evaluate in cooperative education programmes

After reading the preceding section, the question most on the minds of the cooperative members and educators should no longer be whether evaluation is necessary but rather what to evaluate. This question need not be made hard. But the reader must be warned that he must avoid keeping the list of things to be evaluated from getting so long that evaluation becomes too formidable an activity to undertake. We must always remember that evaluation must be carried within a reasonably short time otherwise the results may be outdated or too late to work on. Also we must always remember that evaluation must be kept within reasonable costs which cooperative members can shoulder.

To the question what to evaluate some cooperative members and educators may rush to respond almost automatically that what is evaluated are the results of the training programmes. But the term "results" has little specific meaning in evaluating cooperative education programmes. The term results is so broad that it can easily have no meaning. In evaluation we have little time and resources and too broad and general terms have little use. The usefulness of a term in evaluation depends on its applicability. When a term is too general it has less or no applicability.

This manual stresses the importance of understanding the term

“results” in evaluating cooperative education programmes. We have already seen that it is easy to rush and decide that what we want to evaluate are the results of the particular cooperative education programme. Five examples are given below to show how some terms can be too general :

- What is evaluated are the results of the cooperative education programmes.
- What is achieved in economic programmes are increased standards of living.
- What medicine does is to promote health.
- What the institutions of law promote is justice.
- Housing policies ensure better housing.

In these examples the term results, standard of living, health, justice and better housing are used in such a way that they almost have no meaning. This is precisely what we aim at avoiding in evaluating cooperative education programmes. In stating what to evaluate we try to be as specific as possible. Putting as few elements as possible (even one when possible) is the best approach in determining what to evaluate. This is also the reason why broad terms like “results” are almost useless in evaluation. In any case every cooperative education programme has a wide variety of results which can effect different members in the cooperative in different ways. These results can also effect the activities of the cooperative (e.g. the business activities) in different ways. Some cooperative education programmes result in increased business in the cooperative, others in improved communication in the cooperative, others in better record keeping in the cooperative, others in more efficient manpower utilization etc. Other cooperative education training programmes results could have nothing to do with business directly. This is the case for example when member awareness is increased like when the cooperative members organize a cooperative adult education class.

What is clear is that the term “results” is too broad and whoever is responsible for evaluation in the cooperative must not rush to evaluate the “results” of education programmes. He must be specific and clear. He must also bear in mind that the results of a cooperative

education programmes include things which are not necessarily the final outcome. Elements like the quality of the education facilities and the educators and the attitudes of the students towards them are also outcomes of a cooperative education programme. These factors contribute to the results. They can also be important to evaluators in themselves. The case could be that the results of the education programme was too bad or unexpectedly too good and the educators want to analyse the reasons.

It is important to emphasize that although one can give endless examples in a real situation the evaluator has the function of deciding which aspects of the cooperative education programme to evaluate. Sometimes decisions of what to evaluate is reached by a different person other than the evaluator. This could be the cooperative managing committee, the members meeting, or the cooperative college principal. When it is not the members who are evaluating it means that another person (e.g. the cooperative education officer) is doing the job on behalf of the committee or members meeting. However the point still stands that somewhere someone must decide what to evaluate. He has to decide which aspects of the cooperative education programme to evaluate. Theoretically there is the choice between measuring all or some of these aspects. This depends on the nature of the cooperative education programme, what one wants to find out about the programme and the ability of the evaluator to gather and process the required information.

An accurate evaluation of cooperative education programmes requires systematic organization of the complex array of factors related to the success of the education programme. Factors like changes in attitudes, knowledge, skills, job performance, costs the quality of the education facilities, the quality of the educators, and the climate of the cooperative to which the students must return after the education must all be considered.

The readers mind should now be clear on the point that there is no formula on what to evaluate in cooperative education programmes. It is the responsibility of the cooperative members (or the committee or officers entrusted with the responsibility) and cooperative college principals to decide what to evaluate. What is evaluated

may not be the same for the two cooperatives even when the education programmes were the same. What is evaluated may also be different for the same cooperative at different times even when the education programme was the same. However most cooperative education programmes have similar objectives even when undertaken by different cooperatives. This is because cooperatives all over the world are based on similar principles. The same applies to cooperative colleges and training centres. These may be based in different countries or even owned by different cooperative unions or apex organisations in the same country. But they have the same basic objectives. What this means is that what is evaluated in cooperative education programmes is more often than less the same in different cooperatives and cooperative colleges and training centres.

The question "what should we evaluate in cooperative education programmes?" may still be too general to the user of this manual. The cooperative member and educator are warned that this question may be more important than the actual evaluation itself. When you are evaluating the wrong thing this is almost tantamount to a wastage of time, manpower and money. You may use very refined methods but the information so gathered will mislead you to arrive at wrong conclusions. When the evaluators in a cooperative have only general ideas on what to evaluate they should use the aid of second question : "What is important to evaluate in this cooperative education programme?" This question is significantly different from "What should be evaluated in this cooperative education programme?" The evaluator will thus have two lists. The first will be the list of "what to evaluate" and the second "what is important to evaluate". The second list will be extracted from the first and will be shorter and cleaner. This second list will be the working list. However there is no need of such a step when what is to be evaluated is clear and straight-forward. An example of a straight-forward case is now considered :

Koroboi cooperative society has just welcomed back five accounts clerks it sent for a nine months course in cooperative accounting at the Pweza cooperative college. The society's education committee in its normal meeting held after every education programme for review decided to evaluate this

programme. The key question on what to evaluate was "can the accounts clerks write books of accounts up to the trial balance stage."

This is a straight-forward case. The evaluators here had no much problem in deciding what to evaluate. You can easily finish the example here and suggest the methods which would be used in this evaluation. Although we will deal with the theory of evaluation in chapters four and five the reader can complete this example by suggesting the method. This will also help the user of the manual to determine whether himself, his students or fellow members are understanding the concept of evaluation. The user of the manual will also notice that the method of evaluating in this example is also relatively easy to determine and apply. Most of the readers for example are likely to suggest that :

The accounts clerks should be given an examination to measure if they can write account books upto trial balance stage

OR

Ask the accounts clerks to write the books of the society or another society up to the trial balance stage.

This example is also deliberately given to show the user of the manual how psychologists have dominated the field of education and evaluation. This is why evaluation has tended to focus on individual performance or achievement. There is nothing wrong in evaluating individual performance. When the cooperative society or union has spent resources on an individual it has the right to know his or her individual performance and use the information for decision making.

This manual appreciates the importance of evaluating individual performance. But it also encourages evaluating the other effects of an education programme. The learning process, though fundamentally psychological and person-centered is strongly influenced by non-psychological factors. Learning occurs within a real-life situation, one that is educational, political, social, cultural and economic simultaneously.

The learning environment is embedded in supporting organisational setting. This supporting organisational setting is one of the sub-systems of the community. In our case the learning environment is the cooperative education institution. In the developing countries most cooperative education programmes have development aims which are designed to make a contribution to the community. It therefore follows that in order to evaluate the effort for development without distortion, the overall education programme and its influence on the community must be evaluated. Conversely, the reciprocal effect the community has on the cooperative education programme must also be evaluated. But this does not mean evaluating everything in the cooperative education programme.

The above view of what to evaluate in cooperative education programmes suggests new areas to consider when deciding where and how to intervene in a programme in order to improve it. The view suggests that we evaluate not only the formal learning process and its achievements, but also such different aspects of a cooperative education programme as its administrative features, and the relationships of the programme to other facets of social and cultural environment. For example cooperative members and educators will find that certain elements of the community are resistant to change. This problem is noted for example in short term courses (one day to six months) directed to cooperative members, committee members and staff of primary cooperative society. The primary cooperative society in the developing countries is normally situated in a social and cultural milieu of relative or absolute backwardness and the problem of resistance to change is quite often prevalent. Sometimes the multiplicity of culture and a skewed social structure causes the same problem. It is up to the evaluator of the cooperative education programme to ask and answer the question : Who are the elements in the cooperative and the wider community who are resistant to change? He must further ask and answer the question whether social and economic factors have hampered a cooperative education programme's ability to accomplish its goals. Although the question vary according to the particular case of evaluation, we can add the list of examples of the questions the evaluator need ask on the cooperative education programme :

- Are the consequences of the programme that were anticipated?
- How do competing agencies see the programme?
- Have the target group of the programme made gains or losses? What are these gains or losses?
- How has the attitude of the cooperative members and potential members been affected?

When these questions are properly posed, evaluation can free us from considering only what was intended in the cooperative education programme. It can allow us to look also at what was unintended, not only in terms of the results of the programme but also in terms of what actually goes into the programme. Evaluation of cooperative education programmes enables cooperative members and educators to look at political and economic factors that bear on the learning process and the results. Evaluation also enables the cooperative members and the educators to determine to what extent what is learned is actually used. It also enables the members and educators to learn where and how they must intervene to render a cooperative educational policy effective.

Knowing what to evaluate is thus a necessary step in evaluating cooperative education programmes. Besides determining what to evaluate it is also necessary to determine the stage in the education programme when you evaluate. Thus the question : When do we evaluate a cooperative education programmes is also a necessary one. Knowing what to evaluate is not enough, you need also to know when to evaluate. We now turn to this important question in evaluating cooperative education programmes.

(c) When are cooperative education programmes evaluated ?

Two important points need elaboration to help us understand our question and be able to decide when to evaluate cooperative education programmes on our own. The first point is that to answer the question "When are cooperative education programmes evaluated?" You need to make a time arrangement. Depending whether the courses are short or long term and whether they are college based or not you must come up with a time table of evalua-

tion. This is a must because evaluation can not be done all time because of the simple reason of the cost factor. An example is given below on time arrangement and type of cooperative education programmes which would apply :

| <i>When evaluation carried</i> | <i>Example of cooperative education programme</i> |
|--------------------------------|--------------------------------------------------------------------------------------------------|
| Daily | One week members course of principles of cooperation. |
| Weekly | One month committee members course on weighing and storing crops |
| Monthly | Six months accounts clerks course on elementary book keeping |
| Two months | One year assistant managers certificate course on cooperative accountancy and management |
| Six months | Two/Three years managers diploma course on cooperative management |
| Annually | Five year education plan covering all members in a cooperative society. |
| Bi-annually | Long term (ten years or more) plan to educate all members of a cooperative to a specified level. |

The second point is that you must also determine what stage in the cooperative education programme you want to evaluate. Having a time table for evaluation can be almost meaningless if you have no criteria for the timing. Here it means that you have to tell exactly which stage of the education programme is to be evaluated. There is no rule for determining the stage. This will depend on factors like the education programme's objectives and its duration. Some examples are given below to help you understand some of

the stages in an education programme when evaluation may be necessary :

- *At the planning stage.* There are many important things for the education programme's success you may need to know at this stage e.g. the level of skill of the students, their attitude to learning and their position in the cooperative.
- *At the trial stage.* Evaluation helps you to decide what is unsuitable to the particular education programme and what should be added.
- *At the implementation stage.* Evaluation helps to discover and correct faults or problems in the education programme.
- *When the cooperative education programme is underway.* Evaluation at this stage gives us the chance to assess the learners and the educators.
- *At the end of the cooperative education programme.* Evaluation at this stage helps us to assign grades (e.g. through examination), to determine the level of skills and abilities of the learners and to predict on success and failure of future cooperative education programmes. The evaluation at this stage can also be used for feedback purposes to both learners and educators, and for planning future courses. A good example of a planning measure is when you need the evaluation material for deciding on the starting point of future cooperative education programmes. Another planning point example is when this evaluation findings are used to correct difficulties in the teaching/learning process in future cooperative education programmes.

CHAPTER III

The importance of Cooperative Education Programmes Types of Cooperative Education Programmes

Evaluation of cooperative education programmes is the process of obtaining information of these programmes and using it to make judgement. These judgements are used in decision making. This decision making falls mostly on existing or future cooperative education programmes. It is thus important for the users of this manual to appreciate the importance of cooperative education programmes. This will help us in accepting the importance of evaluating these programmes. Further, understanding the various types of cooperative education programmes will also help us in planning them with the aid of evaluation findings.

(a) The importance of cooperative education programmes

Cooperative education programmes are viewed by both experts and laymen in the cooperative movement as contributors to economic, social and cultural development. This hypothesis makes the question of evaluating cooperative education programmes even of more importance. In the developing countries cooperatives have the important role of promoting rural development. Many governments have realized the importance of the role cooperatives can play in development. They have also realized that development through cooperatives is peoples'. As a result some of these governments have reserved important sectors of their economies for cooperatives. This manual is not concerned with the debate whether it is good or bad to give monopolistic economic powers to cooperatives. But the fact that some governments have gone to this point shows the faith in the cooperative as a members own tool of development.

Cooperative education possesses the capacity to contribute to changes in the life of the cooperative members. In the developing countries a single cooperative member has several dependents who are the members of his family. The unmarried member will also soon have many dependents. Thus cooperative education affects a substantial section of the nation's population. Cooperative education programmes have served as development tools for agricultural/rural development and also as a tool of development in the other sectors where cooperatives have been active. Cooperative education programmes will continue to serve this function and their proper evaluation is of utmost importance to perfect this purpose. Considerable amounts of resources have been used to promote cooperative education programmes. This is a beneficial investment. Some of these resources have come from governments when aiding cooperatives. Since these resources belong to the whole country the cooperative members and educators have duty to account for their use to their respective authorities like ministries of finance in each country. Evaluation of cooperative education programmes is the right step towards this accountability.

We can conclude from the observation of past and present experiences that there is a benign relationship between development and cooperative education. It is thus beneficial for cooperatives and governments to invest more resources in cooperative education programmes. Evaluation helps us to determine the link of the various cooperative education programmes to development. Evaluation also helps us to appreciate the very importance of cooperative education programmes we are discussing. With proper evaluation we can list education programmes according to their importance. The results of evaluation however can not be transferred for application from one cooperative college or one cooperative to another. Yet such results are of strategic importance in planning future cooperative education programmes.

Member education is a universal principle of the cooperative movement. Cooperators believe that cooperative education help members in attaining their independence. This means that cooperative education provides individuals and groups with the maximum awareness, knowledge and skills so as to enable them to manage

their personal and cooperative lives. Cooperative education provides members the opportunity to participate in the economic and cultural affairs of their societies. The images of cooperative education varies from educating all members, committeemen and the staff employed by the cooperatives.

By further analysing the functions of cooperative education programmes we can deeply understand the importance of cooperative education programmes and the importance of evaluating them. Below are listed some important functions of cooperative education programmes. These functions also help us in evaluation of cooperative education programmes, because we get points of starting evaluation by referring to them as regard to the particular cooperative education programme. Some important functions of cooperative education programmes :

- Translating the economic goals of the cooperative into effective programmes. Every cooperative has its economic goals. Sometimes there are no necessary skills for putting these goals into effective programmes. Cooperative education programmes can be designed for enabling the cooperative members, committeemen and staff to acquire the necessary skill in management accounting, engineering, administration, storing etc. The aim of every cooperative is always to move from general goals to more specific goals, policies, laws, programmes, division of responsibility, administrative structuring, manpower decisions, funding decisions and plans for evaluation and monitoring.
- Coping with major technical problems. For example, a fishery cooperative may want to move from simple tools like canoes to motorboats. The fishing members must receive the necessary education.
- Introducing social considerations. Some members of a cooperative may be in education terms at too low levels that it is necessary to arrange for special education programmes for them even of learning to read and write or to learn the abc of cooperation.

- Responding to gaps, fragmentations and other failures in the cooperative annual or long term business plan. Gaps, fragmentations and other failures may be discovered. When the cause is lack of a certain skill the necessary cooperative education programme can be arranged to correct the situation before more resources are wasted or to check stagnation or declining performances.
- Redesigning the services of the cooperative to reach all members. Some members of the cooperative may fail to utilize a certain service or participate in a certain economic activity because they lack the necessary skill or knowledge. The appropriate cooperative education programme should help these members to catch up with the rest.
- Reviewing the viability of new fields for the cooperative. The cooperative may feel that it has to venture its activities in new areas, for example business. When the necessary skill is lacking or inadequate it is necessary to organise the necessary cooperative education programme to be undertaken.
- Changing the whole business model. When there is need for changing the whole business model there must be the necessary skills for the change.
- Allocation of scarce resources. There are always new goals and competing demands for resource allocation in the cooperative. The members, committee-men and staff must have the necessary knowledge in accounting and economics. Sometimes non-economic factors are involved and it is necessary to have a cooperative education programmes covering fields like rural sociology and adult education.
- Promoting the migration of concepts from other fields to cooperatives. New concepts and business techniques are always being introduced in other sectors and cooperatives need education programmes to absorb them when they are useful to the movement.

- Absorbing new technology. Cooperatives always strive to absorb new technologies and the appropriate education programmes to enable the members, committee men and staff to cope with new technology are necessary. New technology can be useful in business and in helping the learning process itself.

(b) Types of Cooperative Education Programmes

Cooperative education programmes are quite varied in curriculum, duration and target population. Understanding the various types of cooperative education programmes also helps us in determining the evaluation methods for each of them. For example it is obvious that you cannot use the same evaluation methods for a one week members course conducted at the cooperatives education office and a two years managers course conducted at the cooperative college or a ten years members education programme through the mass media like a twice per week half hour radio programme. We can arrive at a quadripartite classification of cooperative education programmes.

- Cooperative education programmes conducted at the cooperative college.
- Cooperative education programmes conducted at the primary cooperative or union level.
- Cooperative education programmes conducted through the mass media.
- Cooperative education programmes conducted through extension.

The Cooperative College

For most countries this is the most specialized institution in cooperative education. Most of the courses take considerable time to attend (e.g. one year to three years) and the fees per student are quite high. Some governments do pay for the training as part of their subsidy to cooperatives. Some cooperative colleges are

owned by the governments and others by cooperative apex organizations. When cooperative colleges are owned by another agent more than the cooperatives a problem in evaluation is noted. It is not possible for cooperatives to evaluate the education programmes in the cooperative colleges as they may wish because of the fact that the ownership and operation is in another persons hands. This however does not mean that cooperatives never evaluate the cooperative education programmes at these colleges. You cannot avoid evaluation especially when you send your staff for training in these colleges. The staff of cooperatives are normally trained in cooperative colleges. The education is too expensive and specialized that most of the cooperatives can afford to send only some members of their staff. It would be irresponsible to send your cooperative staff for training without evaluating them. This irresponsibility could also lead to a waste of resources. This would be the case for example when the education offered is not upto the standard and when improperly trained people pass to senior positions because their education was not evaluated i.e. was taken for granted.

Cooperatives can (e.g. through cooperative education officers) still evaluate the education offered to their staff at cooperative colleges they don't own. The cooperatives must for example get a constant supply of the prospectus and syllabus from the colleges. The evaluation results done by these colleges themselves (e.g. examination results) are available to cooperatives and can be used. The cooperatives can also carry their own evaluation when their staff are on leave and before they start and after they finish the courses. When the cooperative college is owned and run by cooperatives themselves such problems as noted above do not exist because the cooperatives have more easy access to the necessary information they may need for evaluation from the colleges. Also feedback from college to cooperatives and vice versa on evaluation done by the colleges and the cooperatives can more easily be arranged for.

One point needs to be emphasized here. The cooperatives should never take the evaluation done by the colleges and passed to them as something final. They should also independently evaluate the performance of their staff who are sent for studies in the various cooperative colleges. At the same time the cooperative colleges

should not be satisfied by the evaluations carried by the cooperatives on their students and ex-students and sent to them by the various cooperatives. Many graduates of cooperative colleges are employed by government ministries like the ministry responsible for cooperatives. These ministries and other non-cooperative institutions have their own personal structures and work structures. These institutions may or may not carry evaluation on the students or ex-students from cooperative colleges. Cooperative colleges have the responsibility of conducting their evaluation for purposes like improving their education programmes and cutting the cost of training.

Most cooperative colleges offer training leading to certificate (one year) and diploma (two years or advanced diploma three years) certificates. Some universities also offer courses in fields of cooperation. These courses in cooperative colleges and universities have developed well elaborated syllabuses and structures. From our point of view cooperative education programmes conducted in these cooperative colleges are relatively easy to evaluate because of this reason. These colleges also have their own inside evaluation carried for every course. When cooperatives fail to evaluate these cooperative education programmes they can at least borrow results of the colleges own evaluations. This is better than having no evaluation at all. This advantage does not apply to courses conducted by the cooperatives themselves. As pointed out earlier college based cooperative education is very expensive. Beside tuition and examination fees there is the cost of maintaining the students at the colleges and transport. Programmes conducted at the cooperative have the advantage of avoiding these two costs because the members stay at their own homes and walk to the class room which is normally situated in one of the cooperative buildings. Most cooperative members also cannot afford long term residential courses in cooperative colleges because they are too busy with their farms and other businesses. Many are also not qualified enough to undertake such courses. Few people in the cooperative movement, mostly staff, have thus attended cooperative colleges. The cooperative education programmes which have covered and benefited most members are those based at the cooperative itself.

Cooperative education programmes conducted at the primary cooperative or union level

These cooperative education programmes have been most useful and popular for cooperative members. They have attracted many cooperative members because they consume less time and the members can combine them with their daily economic and social activities. Also their cost is lower and they can be specially tailored to take into consideration the members literacy level.

The duration of these cooperative education programmes vary from very short courses of one day conducted for members to courses of three or four weeks for cooperative committee members and staff. These courses are not as formal as those conducted in cooperative colleges. The courses structures may not be very developed and varies very often depending on the cooperative members and employees. Most of these courses have no formal examinations and offer no certificates but may offer certificates of attendance. When such course are over there is less information collected (compared to college courses) on the students performance and level of understanding because of the short duration. Because of these reasons the user of the manual is cautioned that these cooperative education programmes are harder to evaluate. Only competent cooperative members and staff should carry out such evaluations. Sometimes the opinion of an expert (e.g. from the cooperative college or the local university) has to be sought.

Given the low level of education of cooperative members and the important role of cooperatives in rural development, short courses conducted at the cooperative are of strategic importance in the cooperative movement. When planning cooperative education programmes and their evaluation we should always bear in mind two points. Firstly, these are cooperative education programmes which most members can afford to attend. Secondly, these will be the only cooperative education programme most members would have attended in their lives. For some members these will also be the only education programme they will have attended in their lives. This has some methodological implications in evaluation. For example written examinations are ruled out in evaluation of

most of these cooperative education programmes. The sheer necessity to involve a large number of cooperative members in these education programmes make evaluation problematic. For example it means only little time can be spent on such cooperative member on evaluation. Some of these cooperative education programmes involve so many members that the evaluator has to use random sampling method and evaluate only some of the students and the courses. The cooperative education officer employed by the cooperative (or whoever is responsible for this function) should always strive to build his evaluating team by slowly and carefully selecting some members and staff for on the job training to prepare for future evaluations. This measure will finally solve the noted problem of evaluation when the courses involved too many learners.

Some of the cooperative education programmes conducted at the cooperative are long term in the sense that although the training period per member is brief they plan to cover time or all members over long periods of time sometimes up to ten years. A problem noted in evaluation here is that in large cooperatives you may not be able to trace the students and ex-students. The same problem is noted in areas where there is a high rate of outward migration. Thus you may be forced to concentrate the work of evaluation on those available students and ex-students.

Members of cooperatives will always turn up for attending cooperative education programmes. Some of them are already motivated but some need to be motivated to attend. In developing countries many of these members are small-scale farmers (peasants) or small-scale traders and fishermen. They are busy throughout the year and may not be able to attend some of the courses secessions. When the evaluation is done in classroom this may cause problems. Again the experienced evaluator must devise methods of overcoming this problem like investigating to know days with highest attendances, sampling or visiting the students at home.

Cooperative education programmes conducted through the mass media

These are the cooperative education programmes conducted

through newspapers, magazines, radio and television. In developing countries newspapers and magazines have limited circulation due to poor transport and low levels of literacy. Television is beyond the reach of most of the cooperative members due to cost and even if a cooperative wanted to purchase one for joint use by members many countries have no television networks. The cost factor also limits the use of radio.

Cooperative education programmes conducted through the mass media always focus on very large geographical areas and many members in different cooperatives. Pre-member cooperative education programmes are also conducted through the mass media. Some cooperative colleges have cooperative education centres which organise radio programmes and correspondence courses. Correspondence courses have one disadvantage in evaluation because if the evaluation is also by correspondence some students may be tempted to cheat. As far as possible evaluation should not be done by correspondence. A local agent like the cooperative union of a primary cooperative society could be used to help in the evaluation. Those running the correspondence course can evaluate the few cases they can visit physically and they should use random sampling to select these.

When evaluating cooperative education programmes conducted through the mass media the evaluator must always ask such questions as :

- Who reads newspapers ?
- Who reads magazines ?
- What do they read on the cooperative education programme ?
- Who watches T. V. ?
- What do they watch on the cooperative education programme ?
- Who listens the radio ?
- What do they listen on cooperative education programmes ?

It is not very easy to reach the cooperative members and potential members who use the mass media. Sometimes it is too expensive trying to reach all of them. The evaluator will thus in most cases have to depend on random sampling for deciding who should be

covered by the evaluation. Some of the mass media have the advantage of use for illiterate members and pre-members. These include the radio and T. V. Some cooperatives have also instituted their own magazines or newsletters for circulation to members. The advantage is that because the cooperative produce the magazine or newsletter itself, it has the flexibility of choosing what to produce for its members. Special cooperative education programmes can be tailored for all members and pre-members or for target groups. Many mass media based cooperative education programmes are informal and this rules out the use of examinations for evaluating them.

Cooperative education programmes conducted through extension

Extension has featured in many cooperative education programmes. The importance of extension can be gauged by the fact that in most developing countries the majority of cooperative members are small scale farmers. Cooperatives have used extension in their education programmes in their attempts to accelerate rural development through measures like increasing farm production. Cooperative agricultural extension education programmes have made significant and lasting contribution to the growth and development of both agriculture and rural people.

Extension cooperative education always cover many people e.g. all farmers growing a certain crop in a certain cooperative. It is not easy and desirable to give formal examinations to these farmers because of the informality of the courses. Examinations may also discourage many farmers especially peasants who are more pragmatic in outlook. When the aim is for example increasing crop production such a discouragement can have serious consequences on the cooperative and the rest of the economy. The evaluator of extension cooperative education programmes has thus to be careful. He must know exactly what he is looking for and carefully sample the respondents because in most cases he cannot reach all the participants in the education programme. When the evaluator has no technical knowledge on for example the crop he may have to seek for outside help.

Conditions are always rapidly changing in farming and other economic activities. Evaluation of extension cooperative education programmes is necessary to enable cooperative members make the right adjustments in changes in organisational structures and technology in farming and other economic activities. Evaluation also helps us in adjusting the extension cooperative education programmes to the rapidly changing conditions of society and economy.

Evaluation of extension cooperative education programmes can focus on both technical and attitude aspects of the courses. This can help in expanding the extension cooperative education programmes to cover as many cooperative members as possible. Extension cooperative education aims at covering everybody involved in the activity in a short period e.g. all farmers growing a certain crop. This is a difference from the other cooperative education programmes where it may not be necessary to cover all the members in a short period. This increases the challenge to the evaluator who may be required to complete his evaluation and provide the results to the cooperative education programmes planners and decision makers in a relatively shorter period.

CHAPTER IV

How to evaluate cooperative education programmes

In this chapter and the next we consider the evaluation process itself. We first discuss the criteria for effective evaluation and in chapter five proceed to the instruments of evaluation.

Criteria for effective evaluation of cooperative education programmes

Criteria are standards of quality against which something can be judged. They are rules, norms or conditions that are considered good or ideal. Criteria provide a description or image of what should happen. They thus facilitate comparisons between what should have happened with what actually happened.

The evaluation of cooperative education programmes must satisfy certain criteria or measures of effectiveness. When this is not the case the information or data in the findings of evaluation has no much use. Thus it is necessary to describe which criteria should be considered when we evaluate cooperative education programmes. There is no one single way of evaluating cooperative education programmes. In fact in the next chapter we will find that there are several methods of doing so but the best method depends on what is being evaluated. The point to remember is that the criteria for effective evaluation of cooperative education programmes is the same whatever method or instrument of evaluation is used.

From our knowledge of research methodology we can mention three basic criteria for effective evaluation of cooperative education programmes. Every evaluator of cooperative education programmes

should conduct evaluations that are valid, reliable and useable. Let us consider each of these concepts.

(i) Validity

Validity measures the potential accuracy of an evaluation method or instrument. It refers to the relevance of the method of evaluation to the purposes for which the evaluation is being conducted. The key question is whether the method or instrument in use can really measure what it is supposed to measure. When this is not the case the data produced from evaluation can not be a true indicator of whatever we are evaluating e.g. whether the training and social goals of the education programme have been achieved.

We always expect changes in the behaviour of students after the completion of a co-operative education programme. These changes include level of skills and general knowledge, work performance and communication skills. Evaluation tries to determine how much of these changes can be attributed to the cooperative education programmes and how much of these changes must be attributed to causes other than the training programme. Validity is concerned with isolating educational effects so that cooperative education programmes can be evaluated fairly.

There are factors which threat validity and evaluators always try to identify them and bring them under control. When the evaluator is not aware of these factors which threat validity his efforts for effective evaluation (e.g. of the cooperative education programme's effects) may be complicated and even frustrated. The threat to validity in evaluation can be classified under two categories i.e. threats to internal validity and threats to external validity. We analyse each of these categories so that we are ready for our own evaluations.

Threats to Internal Validity

Internal validity is the basic minimum standard change without which it is not possible to evaluate the co-operative educational programme. There must be some changes which can be interpreted.

Otherwise there would be nothing to evaluate and consequently no need and no basis for evaluation. When we talk of threats to internal validity this means extraneous variables that have an impact on those who pursue co-operative education programme but go unmeasured by the instruments of evaluation. The result and the problem is that evaluators would then attribute greater or lesser effects to education programmes than is in reality warranted. When we evaluate we want to know to what extent the cooperative education programme has actually made a significant difference in the actions and attitudes of those who have attended the course. This assessment is threatened by:

- *History*. For example the trainees may perform better at the co-operative due to the change in the leadership rather than the course.
- *Testing*. The trainees may change their actions and attitudes due to the evaluation itself (e.g. examinations) rather than the education programme.
- *Maturation*. Co-operative members and staff performance and attitude may change due to the normal mental and physical growth rather than to participation in an education programme.
- *Measurement*. Some measurements of evaluation may produce better results e.g. because the evaluator is not properly experienced or likes a certain element of the education programme. Consequently the "good" results are wrongly attributed to factors like the quality of the co-operative education programme, the competence of teachers and students positive attitude to learning.
- *Bias in selection*. Sometimes there is a bias in selection of co-operative members or staff for training. For example "too good" or "too bad" members or staff may be selected for an education programme. This may have an independent effect on the outcome of the education programme more than the programme itself. This is the same phenomenon which is known as statistical regression.
- *The planning of the course*. Some courses select students randomly, others ask for volunteers and for some co-operatives every staff and member must go through a certain edu-

cation programme after a certain fixed period. The process of selection may affect the performance independent of the co-operative education programme. For example those who volunteer or started work or membership in the same period could have the same educational background or attitude towards learning.

Mortality. Some participants in an education programme drop out prematurely. Sometimes the co-operative education officer may recruit students when the course is underway due to pressure from committee members or due to the pressure to build good public relations. New students may push average performances down or even up independent of the course. Sometimes one class is combined with another because for example the teacher has left. Serious errors may result when evaluating the new class as if it were one.

Threats to External Validity

Threats to external validity are factors that hinder the evaluator's ability to generalize conclusions about one co-operative education programme or group in the programme or another programme or group. Evaluators would always want to make generalizations to other co-operative education programmes or groups at the same or different times. Evaluators also may want to make generalization to the same group during other times. All these steps help in predicting, planning (e.g. to cut costs) and perfecting co-operative education programmes. The threats which reduce or eliminate the extension of evaluation findings to other contexts are:

Testing. Sometimes the evaluation method or instrument is pretested to check errors. This may bias the students and other participants in the co-operative education programme. The result of the evaluation may thus not be representative of the unpretested population. The evaluation may for example give a false picture of the effects of the education programme.

Bias in selection. The students selected for a co-operative education programme in their initial stages may be the best

i.e. much above average. Sometimes this is done deliberately by co-operative education officers to solicit funds or to justify the existence of the education programme after initial success. The evaluation of the first batch may justify more funds and the expansion of the programme for the whole cooperative and other cooperatives. After the original "success" disappointment follows because the old success was due to the quality of the students and not the education programme.

Bias on the respondents. The evaluator may get answers which are not influenced by the actual effectiveness or ineffectiveness of the education programme. The answers may have nothing to do with the learning process. For example the students or ex-students may be influenced by location of classes or even the behaviour of teachers outside the class. The best example is maybe when students or ex-students tell the evaluator they never understood a certain topic or subject because they feel the teacher was or is arrogant. They would have reported positively if the same topic or subject was taught by another teacher with the same level of knowledge and same style of presentation.

Minimizing Threat to Validity

Over time scholars have developed techniques of trying to reduce the threats to internal and external validity to minimum. These techniques are:

- Selection of control groups in evaluation
- Random selection of trainees and random application of cooperative education programmes.
- The application of appropriate research designs in evaluation.

The last technique is more expensive and requires more manpower and is more complicated to use. Thus we tend to mostly use the first two in evaluating cooperative education programmes.

The use of control groups protects an evaluation against threats to internal validity. In evaluating cooperative education

programmes a control group is a group of cooperative members, committeemen or staff who do not participate in the education programme but who are similar in most respects to those who participate. The group which undergoes the course is called the experimental group.

The rationale of having a control group is that it constitutes a baseline standard against which to measure changes in the experimental group. The idea is that the experimental group, chosen from the same cooperative as the control group, would have performed the same as the control group had it not been in the cooperative education programme. Many of the threats to internal validity (maturation, history etc.) affect the experimental and control groups equally. Thus any differences measured between the two groups should be a result of the cooperative education programme.

Below is an example of the conclusion the evaluator may arrive at after comparing the results of evaluation between the experimental group and the control group when evaluating the effect of a cooperative education programme.

| <i>Experimental Group</i> | <i>Control Group</i> | <i>Effect of the Cooperative Educational Programme</i> |
|---------------------------|------------------------|--------------------------------------------------------|
| Improved | Improved even more | Negative |
| | Improved the same | No |
| | Remained the same | Positive |
| | Deteriorated | Positive |
| Remained the same | Improved | Negative |
| | Remained the same | No |
| | Deteriorated | Positive |
| Deteriorated | Improved | Negative |
| | Remained the same | Negative |
| | Deteriorated the same | No |
| | Deteriorated even more | Positive |

An evaluation based on a random selection of participants in a training programme will help enhance its external validity. The principle of random selection (or randomization, as it is sometimes referred to) is borrowed from statistics. It means that every member of a group has an equal chance of being selected. Group members with opposing characteristics such as high and low intelligence are both selected and this counter balances the bias. This method guarantees that an evaluation's findings can be generalised. In a cooperative training situation this is even more so as the participants in a programme are roughly representative of the cooperative establishment and would not usually include many people with one interest or background.

This method of random selection is highly recommended to cooperative education/training evaluators. Students in a programme should be selected at random. Those who are assigned to experimental and control groups in evaluation should also be selected randomly. It is also advisable that where member education is involved, selection of members and committee-members to courses should be done randomly.

(ii) Reliability

Reliability here means that both the instruments used and data collected for the purpose of evaluation is dependable, stable, consistent, predictable and accurate. If data collected by an evaluator is not reliable then that data is valueless and the whole evaluation exercise is meaningless. An evaluation that produces unreliable data is nothing more than a waste of time and resources. When an evaluation instrument is reliable, the same or comparable instrument can be used to measure similar groups and obtain the same or comparable results. A reliable evaluation method or instrument should be able, for example, to gather data about two students who have achieved equally and reflect this.

An evaluation method or instrument (also known as an "evaluation measurement") must satisfy three criteria :

- It must differentiate among things that are different. An ins-

trument may at first be able to measure only large differences. But as it is developed it should indicate with precision smaller differences.

- It must not be responsive to changes not related to performance. Not all changes will affect the performance of a cooperative education programme, and a good measure must take this into full account.
- It must accurately reflect changes in performance in a cooperative education programme. It should also be so designed that similar degrees of change among other cooperative education programmes will result in similar changes in measurement. This quality is essential if one is to be able to compare various cooperative education programmes.

If the evaluation instruments we use are reliable, we can depend on them to assess cooperative education programmes consistently. A reliable evaluation measurement will tell the same thing regardless of when or where it is applied.

An unreliable measure will vary results even for the same programme being evaluated. It is unstable. At the same time we have to be careful not to repeat errors and think that our evaluation measure is reliable. For example if you are measuring weight but your pound stone weigh only 15½ ounces instead of 16 ounces you may think that your weighing is reliable. If you use the same stone for all the measurements of weight this measurement is to an extent reliable and accurate. You can roughly with this measure tell for example peoples' weight. But the measurement is not precise. You should always try to be precise. That is as far as possible use pound stones that weigh 16 ounces. When you increase accuracy and precision you also increase reliability.

There are three ways by which we can try to increase reliability to a point of precision :

- Writing the items or questions for an evaluation instrument unambiguously. Items that can be interpreted in more than

one way by each respondent tends to lower reliability of the entire instrument.

- Using clear and standard instruction to reduce errors of measurement. The conditions of a measure administration should not differ because the results too may differ.
- Pretesting the evaluation instrument provisionally. A sample population drawn from the same cooperative as the students should be used. This sample population should not later be chosen for experimental or control groups as this will result in biasing the results. Pretesting allows us to correct faulty measures, ambiguous items or unsatisfactory testing conditions prior to beginning the actual evaluation with a real pretest. For example from the above example you should be able after provisionally pretesting to tell that your pound is only 15½ ounces and not 16 ounces.

(iii) Useability

The evaluation of cooperative education programmes must produce findings and analyses relevant to the persons, problems and institutions in the particular cooperative at a particular time. Validity and reliability are important preconditions to useful evaluations of cooperative education programmes. Although validity and reliability are necessary conditions they are not sufficient conditions to the usefulness of an evaluation. A useful evaluation also depends on the useability of the methods or instruments employed by the evaluator. An evaluation scheme can have high validity and reliability but it can be too expensive or difficult to use. As a result many evaluators in the cooperative movement may not be able to use it. For these people the theoretical perfection and abstract refinement of a method or measure is irrelevant. The limit to resources and knowledge will prevent the application of the evaluation method to cooperative education programmes. Useability is thus also a criteria for effective evaluation. Useability consists of three components :

- Ease of administration
Ease of scoring

– Ease of interpretation.

Ease of Administration

This means that the method of evaluating cooperative education programmes must produce results which can be used to evaluate with minimum difficulty. The information gained must meet the expectations given the money, time and other facilities spent. The evaluation measure should not for example call for more cooperation from the students or ex-students than they are comfortably able to give. Time consuming interviews and overly detailed questionnaires should be avoided. The evaluation method or instrument must contain clear instructions and be relatively easy to complete.

Ease of Scoring

When for example the outcome of a cooperative education programme is measured by use of an objective test, accurate scoring presents no problem. But other kinds of evaluation instruments like observations and interviews introduce an element of judgement. The scoring can now become quite subjective unless specific criteria are established for assigning credit. The evaluator must be very careful with score like good/very good or bad/very bad. When no specific values and lines of demarcation are assigned to them this results will have little use for evaluating. Scoring some evaluation instruments takes too much time to require too much statistical skill to be justified in terms of the information the evaluator hopes to gain. When this is the case the evaluator should seriously consider using other evaluation methods or instruments with fewer scoring problems.

Ease of Interpretation

✓ The results of any evaluation of any cooperative education programme should be interpretable with relative ease. This does not necessarily mean that the evaluation should produce results which every member of the cooperative can interpret. This would be ideal but in many cases it would dilute the evaluation and make its results too primitive. The decision on whether or not an evaluation scheme's

data are interpretable easily enough to justify the scheme's implementation depends on the educational level the cooperative members, teachers, committeemen and staff have attained. The decision also depends on the purpose the cooperative is going to use the data for.

The graphic display of score distribution, the calculation of various statistical tests and the determination of the worthness of the education programme are examples of steps which can be undertaken to ease the interpretation of a cooperative education programme. Such data or information make possible quick comparison of the students or ex-students achievement with specific goals and objective, the achievement of other students in previous cooperative education programmes, or established standards. Where an equivalent pretest has been used, such data can also help the evaluator to determine the progress which the students in the cooperative education programme have made from their pre-cooperative education programme performance levels.

CHAPTER V

Methods (instruments/measurements) of evaluating Cooperative Education Programmes

From experience we know that you cannot borrow evaluation results. You may be evaluating two identical cooperative education programmes. However you can not use the results of the first evaluation and skip the second one. In evaluation we are evaluating the actions of human beings and unfortunately or fortunately human action cannot be so easily predicted. We must thus understand the methods of evaluating cooperative education programmes, and we must be able to apply them.

There are four levels where you can evaluate the cooperative education programme. Depending on the purpose of your evaluation you can measure all the four levels or three or two or even one. You can evaluate at the level of :

- Reaction
- Learning
- Behaviour
- Results

Reaction may be defined as how well the students or trainees liked a particular cooperative education programme. Evaluating at this level is the same as measuring the feelings of the students. This does not include a measurement of any learning. This level is quite easy to measure.

Learning means the facts, principles, theories and techniques taught in the education programme. But at this level the concern

is their understanding and not the on the job or daily life use of the knowledge. There are several guide points which we can use in establishing a procedure for measuring the amount of learning that takes place :

- /
- The learning of each student or trainee who participated in the cooperative education programme should be measured so that quantitative results can be determined.
- A before-and-after approach should be used so that any learning can be related to the cooperative education programme.
- As far as possible the learning should be measured on an objective basis.
- Where possible a control group should be used to compare with the experimental group.
- Where possible the evaluation results should be analyzed statistically so that learning can be proven in terms of correlation or level of confidence.

Behaviour means the behaviour of the cooperative members and staff when they go back to their working places after the education programme. This is not easy to measure like learning. It is more hard to measure for cooperative members (including committeemen) than for staff. In the developing countries most cooperative members beside doing some work for the cooperative are mainly engaged in their small farms, workshops etc which may not be easy to reach and measure work performance. The following guidepoints should be used when we measure behaviour :

- A systematic appraisal should be made of on the job performance on a before and after basis.
- The appraisal of performance should be made by these people also and not the evaluator alone :
- The person receiving the education

- His supervisor and superior (in case of cooperative staff)
- His subordinates (in case of cooperative staff)
- His peers (in case of cooperative members and committeemen)
- A control group should be used
- The post-education programme evaluation should be made some time after the course so that the students or trainees have an opportunity to put into practice what they have learned. (Subsequent evaluations may add to the validity of the findings.) For example if you had a short course on proper methods of pruning coffee you must wait at least for one pruning season before you can measure behaviour of the cooperative members in their farms

The objectives of most cooperative education programmes can be stated in terms of the results desired. From the standpoint of evaluation it would be best to evaluate cooperative education programmes directly in terms of results desired. There are, however, so many complicating factors that it is extremely difficult to evaluate certain kinds of cooperative education programmes in terms of results. Some cooperative education programmes have no immediate and apparent results. To overcome this problem we can always evaluate the other three levels first. We can measure the reaction of the students or trainees first and then we can measure what learning has taken place and measure the changes in on the work place behaviour. Then we can measure results if it is possible or just compare the three.

It is difficult to measure results in evaluating cooperative education programmes because of the technical problem called the separation of variables. This is the question of how much of the improvement is due to the cooperative education programme as compared to other factors. This is the problem that makes it very difficult to measure results that can be attributed directly to a specific cooperative education programme. That is why evaluators are warned not to equate evaluation with the measuring of results. But certain kinds of cooperative education programmes are relatively easy to evaluate in terms of results. For example in teaching the principles of accountancy or the principles of cooperation you

can measure whether the students have used them on a before and after basis. Again if you are trying to reduce grievances in your cooperative shop, you can measure the number of grievances before and after the education programme for the shop staff. If you are trying to reduce loss in a cooperative you can measure it with relative ease before and after training.

We are now faced with the task of analysing the methods or instruments (measures) of evaluating cooperative education programmes. We can list ten methods of evaluating cooperative education programmes.

- Questionnaire
- Interview
- Assignments
- Testing
- Observation
- Expert opinion
- Informal feedback
- The use of documents
- Group discussion
- Index.

Questionnaire

A questionnaire is a series of written questions answered by a respondent. Questionnaires offer respondents an opportunity to express directly their feelings on any aspect of the cooperative education programme. Questionnaires are used mainly to assess the respondents attitudes towards the education programme and their observation on the organisation of the programme. Questionnaires are not used to measure the respondents knowledge or skills in general or in relationship to job performance.

Questionnaires are in writing and comparatively impersonal. They avoid most of the embarrassment and anxiety of face to face interview. The respondents are given more time to think before answering. The questionnaire can reach many people quickly and at reasonable expense. There is for example no cost or headache of

field interviews. Well designed questionnaires can yield data that can be processed speedily and used statistically, especially when the questions have fixed alternative answers. Generally questionnaires are easier to analyse and compute than most interviews.

Questionnaires are used to evaluate cooperative education programmes, but they have their shortcomings. The evaluators can get answers only to the questions posed thus there is less chance for the free expression of unanticipated responses. Unless follow up questionnaires are sent out the evaluators may be unable to probe deeply into the cause of problems and respondents' true feelings. Questionnaires have a low return rate. Many cooperative members and staff (like other people) never bother to fill questionnaires even when they are not too busy. Few responses may make cost per usable questionnaire exorbitant.

In the developing countries many cooperative members are still illiterate or sub-literate. This is a further limit to the use of questionnaires for the cooperative based, mass communication, and extension education programmes. It is strongly advised that questionnaires should only be used for evaluation college based cooperative education programmes.

Interview

An interview is a face to face verbal exchange in which one person (the interviewer) tries to elicit information from another person (the interviewees). Because of the face to face meeting the interview is the most obstructive measure and has the highest reactive effects. The age, sex, appearance, mannerisms, and other personal characteristics of the interviewer can affect the interviewee's responses and contaminate the interviewer's accuracy. Because the interviewer can put off the interviewee, good rapport is always necessary. Like in questionnaire, in the interview the evaluator can only get the information the respondent is willing to offer.

The interview however has the advantage of the personal contact it affords. It is also a flexible means of obtaining data. Interviewees answer in their own words and are not restricted to fixed

alternatives. Probe questions can be used to seek clarification and more information.

The interview is used as an instrument in the evaluation of cooperative education programme but it can be expensive and time consuming. When the respondents are many the evaluator may have to train other people to help in the interviews.

Quite often, travel and special arrangements have to be made to enable the evaluator to meet the respondents. Like in the questionnaire, there is nothing the evaluator can do if some respondents refuse to answer all or some questions. In developing countries the interview has an advantage which maybe over-runs its disadvantages. Many groups of cooperative members and committeemen go through cooperative education programmes. Because of their low literacy level sometimes the only way you can evaluate their attitude to the programme and what they have learned is through interviewing. The same point applies to the courses conducted through the media like radio to cooperative members and committeemen.

Assignments

Assignments are an effective means of evaluating the progress of learners. It is more appropriate when assignments are used in combination with tests. Assignments should be arranged to systematically lead to a test on a particular topic or theme. The cooperative college tutor and the person responsible for operationalising cooperative education programmes at the level of the cooperative society or union should understand the importance of assignments for evaluation. He should keep proper records so that evaluators from the cooperative college and the cooperatives can have access to them in future evaluations.

Assignments should be relevant to the topic under discussion. Instructors should avoid general topics assignments, they must be specific. This means that the instructor (i.e. the cooperative college tutor or the cooperative education officer or another person hired to run a short course at the cooperative) must himself have the objective of the assignment clear in his mind before giving it to the

learners. Group assignments can also be used in short courses conducted at the cooperative or in the media and through extension. The advantage of group assignments (e.g. group discussion assignment) is that in very short courses they may provide the only opportunity for the instructor or another evaluator to measure the learning by the students.

Testing

This include final examinations and the weekly, monthly or term tests. Tests are also used for short courses conducted at the cooperative but are unsuitable for very short courses and situations where some participants are illiterate. Sometimes the oral test is used for illiterate participants or as the only test to save time and other resources.

Evaluation is part of teaching. All college based courses depend heavily on tests for evaluation. But testing should never be considered the only means of evaluation for there are many factors that determine the validity of the test itself. The tests must be clear and fair. They must help to meet the stated educational goals in the cooperative education programme. They must provide useful information about the individual learner and the class. They must help in the learning process and not for example leading students to creaming only. Finally the tests must support the expectations of the particular cooperative education programme.

Tests are comparatively cheap and easy to obtain or compose and administer. They have the advantage of measuring all the learners under the same condition and with the same standard measure and time.

Observation

Observation is organised surveillance and appraisal of the behaviour of others. Observation can be direct or indirect. The observation must have very clear and specific objectives to be useful as an instrument of evaluation. It must also be planned and executed systematically and must be subjected to checks on its accuracy and

consistency. The observation must be recorded systematically and related to aspects of the cooperative education programme rather than being presented as a series of random short stories of events.

Observation is very useful in evaluating some types of cooperative education programmes. These are the short courses of instruction conducted at the cooperative. For example the cooperative may organise a one day course for members on how to weigh cotton. The cooperative may want to protect its members against cheating when their product is sold to the cooperative itself or to another agency. By using the same weighing scales like those used in the market the instructor can in a short time observe after the instruction if the members can weigh and correctly read the weight of their cotton. Observation can thus extensively be used to evaluate cooperative education programmes oriented towards practical instruction. Most of the cooperative education programmes based on extension have to be evaluated by using the observation method.

Observation has the advantage that the evaluator can record the behaviour of the learner as it occurs. Observation need not depend on the respondent's retrospective or anticipatory report of his own action. This may lead to the respondent wanting to justify what happened as is the case with example the questionnaire, interview, test and expert opinion. For the experienced evaluator there is the tendency to place more confidence in his own eye-witness account of an event than if he heard about the event from the learners or their instructors.

The presence of the observer may bias the respondents. This is the case especially in simple observation. In this type of observation the observer just arrives at the event and starts watching what is taking place. Reactive effects are high because simple observation has no structure and clear rules for interpreting the observed events. Simple observation can be casual and even haphazard. To overcome the noted problems participant observation is recommended. In this type of observation the observer assumes, at least to some extent, the role of the group or individual being evaluated and participates in their or his activities. The observer becomes a member of the group or a "partner" of the individual under observation. The indivi-

dual or the group observed may or may not be told about evaluation. The observer should take care not to be obstructive and not to give the people the impression that negative judgements are being made. When this condition is met, even if the respondents know that they are being observed, individuals, and groups seem to adapt quickly to the observer's presence and to behave as they would normally behave.

The problem of the presence of the observer can be overcome by using contrived observation. Contrived observation is made possible by electronic equipment or other secret devices. Its main quality is the anonymity of the identity or attendance of the observer to be observed. Due to the use of modern recording facilities contrived observation can provide a permanent record of almost everything that goes on and allows an unhurried examination by evaluators later. There is no problem of reactive effects because of the almost total secrecy. Though attractive, we never use this kind of observation in evaluating cooperative education programmes. This kind of observation is considered unethical and contrary to the spirit of cooperation and can easily be branded as spying.

Expert Opinion

Expert opinion is assessment reached by people basing on their expert knowledge and experience in a particular area in cooperative education programmes. The expert opinion is the measurement. The expert may seek information from the education programme to make his judgement but what he gives credit is credited and what he downgrades is downgraded. The expert can be from within the cooperative or cooperative college or he could be from outside.

Experts are very highly trained academically and have also much practical experience in their fields. They can evaluate elements like the suitability of the cooperative education programme, the level of knowledge of the instructors and the skills of the instructors of presenting their material.

The expert can consider simultaneously many aspects of the cooperative education programme. No questionnaire, interview or

test can offer a comprehensive coverage of all the aspects of the cooperative education programme. Experts can also be useful when value judgements are involved. From their experience, for example, experts can tell good and bad instructors, an assignment the ordinary evaluator would find very difficult.

Although we use experts in evaluation we should always remember that the science of evaluation, like other sciences, emphasizes that human judgement should be minimized in the data collecting process in order to avoid human error and bias. The opinion of experts cannot be counter-checked or replicated because most of them never tell how they arrive at their conclusions i.e. how they collected their data. It is hard to determine the authenticity and impartiality of the experts source of information. An internal expert can be more biased and it is always better to use an expert who has no connection with the cooperative or the cooperative college.

Informal Feedback

The evaluator can use unofficial transmission of evaluative comments on a cooperative education programme. This method should never be used on its own as the only measuring instrument in an evaluation and should not be extended to the level of "spying" for evaluative opinions and comments.

The evaluator must be careful to distinguish between those interested to talk good and those interested to talk bad on a particular cooperative education programme. The evaluator should not solicit for informal evaluative comments. In any case he will have enough gossip on the particular cooperative education programme at the cooperative college's canteen or at the cooperative shop or canteen. Informal feedback is inexpensive compared to other evaluation methods. The experienced evaluator who desires to collect informal feedback more systematically can experiment with a suggestion box, participant observation or anonymously returned questionnaires. The evaluator should be careful because the more systematic this collection of information becomes, the less informal it becomes.

The use of Documents

The cooperative and the cooperative college stores many original and official papers that constitute written records of administration. These documents can be used to evaluate learners before and after the cooperative education programme. Generally they are used to supplement information from other methods of evaluation.

Documents are useful to evaluate the job performance of cooperative staff and the results of education programmes. The reports of the cooperative contain the recorded changes on the staff at the level of behaviour and results before and after he has attended a cooperative education programme.

The information from documents was not necessarily collected for evaluation and can be trusted for accuracy. Documents are an obtrusive measure. The respondent is not aware of the evaluation process and documents can thus avoid the reactive effects of a respondent tailoring his answer to what he thinks the evaluator wants to hear. This may be the case in example interviews and questionnaires. From documents in the cooperative organisations the evaluator can collect data which is not biased to impress the evaluator or improve the evaluation.

Documents have no much cost to collect and to administer and analyse as other instruments. They can save time and are very useful in pre-promotion evaluations for cooperative staff. However care should be taken in case a senior officer is biased against a member of the staff and writes biased reports on him.

Group Discussion

Group discussion can also be used to evaluate cooperative education programmes. This is a very useful method when evaluating very short education programmes conducted at the cooperatives and education programmes conducted through the media. Many of the media programmes and the very short programmes conducted for members and potential members at the cooperatives are very informal. Informal feedback may not provide enough and reliable evalua-

tion information. Group discussion may be the only method of getting the necessary information for evaluation especially given the fact that tests are not suitable for such cooperative education programme.

For the group discussion to be meaningful for evaluation, it is necessary to plan well in advance. The questions posed for discussion must be related to one another and presented in a sequence. The evaluator must have a list of all the questions to be discussed. The discussion must focus on what was learned in the co-operative education programme. The evaluator should help the learners or ex-learners not to wander in interesting topics which were not taught or which are only marginally related to the particular co-operative education programme being discussed. He should do this without offending the group and he must make sure that all the members of the group participate in the discussion. The evaluator must also be an expert in the particular field of education as he must from the discussion judge how much the group has learned from the particular co-operative education programme. He must also be able to generalize from his sample (i.e. the groups he discussed with): It would be a wastage if the evaluator fails to tell how much was learned by the group or groups in the sample and the whole population in the particular co-operative education programme.

Index

An index can also be used in evaluating co-operative education programmes. The index combines the results of more than one method of evaluation to obtain one composite result for all measures. Different instruments of evaluating are administered, the results are computed for each instrument but a single number is derived to summarize e.g. the level of learning or the effects of the co-operative education programme.

The advantage of index in evaluating the co-operative education programmes is that it combines the results of several measurements. This can increase the accuracy of the evaluation. The index is also flexible in the sense that the evaluator can combine the

weight to give each method of evaluation according to the advantages and disadvantages of each. Like in other methods care must be taken because using several methods of evaluation at the same time is no guarantee of avoiding error. The error of measurement can be repeated in all the methods although the chances of reducing or eliminating the error are higher than when only one method of evaluation is used.

CHAPTER VI

Planning and Writing an Evaluation Report

At this stage the user of the manual should be able to evaluate most co-operative education programmes. For exercise the user can begin with evaluating the current or the planned education programme in his co-operative or college. The user must also be able to plan the evaluation and write its report. These two are also important steps and should be considered to be part of the evaluation process. Poor planning or no planning at all may result in wastage of resources and the evaluation findings being shelved somewhere. And good evaluation findings are not useful unless they are properly communicated to the co-operative members, staff and tutors.

(a) Planning an Evaluation

The knowledge on evaluation methods is expanding very rapidly. Evaluation is constantly being fed with knowledge from psychology, statistics, sociology and methods of social science research. The evaluator must keep speed to cope with the changes in the knowledge basis for evaluation. When the evaluator is from the co-operative college he may be in luck that he will have access to the latest books, journals, manuals and reports on evaluation of co-operative (and even non-co-operative) education programmes. The evaluator at the co-operative society or union (who is in most cases also the co-operative education officer) may not be so lucky. This may be the same problem with the evaluator assessing radio and magazine programmes.

It is strongly advised that the evaluator should not try to do

the work by trial and error or guesses. The result of this is disaster and tying manpower to unproductive work. The evaluator must be properly equipped with the necessary scientific knowledge on evaluation. When such a person is not available the co-operative will have to hire evaluators until it trains its own. Apex organisations in the co-operative movement and co-operative colleges can undertake the function of training evaluators for the co-operative unions and societies and for themselves. Again apex organizations and co-operative colleges must organise for the "evaluation of evaluators".

Evaluation of evaluators is the biannual or triannual conference of all the senior evaluators from the co-operative movement in a region or in a country. They should be joined by senior experts from the relevant institutions like universities, institutes of education and teachers colleges. The purpose of such a conference is for the evaluators to evaluate the level of development and competence in their field in relationship to the international level. This is a form of an updating seminar and if the papers, reports and discussions presented are honest the evaluators should quickly discover if the science of evaluation in the co-operatives and other institutions is up to date or behind in all aspects or in some areas. The main job then becomes how to update themselves. When the senior evaluators go back to the co-operatives their duty is to disseminate the new knowledge to the evaluators in the field.

The evaluator must plan the timing of his work. He must have a timetable of all the education programmes in his co-operative or college for the next five years and when exactly they will be evaluated and the report made ready. He must plan in such a way that there is space for unplanned co-operative education programmes. These are the very short courses and the co-operative education programmes which go with conferences. These very short courses and conferences must also be evaluated in time without interfering with the five year evaluation plan. The evaluator should under no circumstances ignore to have a work plan and try to do the work as it comes. Unfortunately my extensive experience with co-operatives and co-operative colleges has revealed that this is the case in many co-operative institutions.

Co-operatives never operate in their own isolated world. They have to face local and international competition for business and for reputation. They thus can never afford to do their duties in a haphazard manner. When evaluation is unplanned and carried haphazardly even new innovations and new knowledge and new business techniques become hard to impart on co-operative members and staff. That is why it is important to emphasize that every evaluator must have a work plan.

The work plan for the evaluator helps in a very important function in co-operative education. This is feedback which must also be planned for by the evaluator. It is almost unnecessary to conduct evaluation if there is no feedback of the findings to those who manage the co-operative institution and to the rest of the staff and members. When the evaluation is not properly planned for we may not be sure whether the aspect of feedback will be included in the muddling through by the evaluator. The result is that the evaluation report will never reach the necessary people or will end up in the wrong hands and be shelved. In such a situation the evaluation report may never be acted upon.

The evaluator must also plan for the resources to be spent in the evaluation. This includes the money and manpower. Some evaluations require considerable sums of money and manpower to assist the evaluator. Money can be available in short time than manpower. It is not easy especially in the developing countries to obtain trained manpower even when the money is available. Having five year plan will help the evaluator to get the necessary manpower and money. It will give enough to the co-operative board or the college board to find and allocate the necessary funds. The evaluator himself will have enough time to train other staff and co-operative members to help him. Or he will have enough time to hire outside help. A proper plan will also enable the evaluator to select the most effective and least expensive method(s) to use in evaluating the various co-operative education programmes.

The evaluator must remember that those who plan the co-operative education programmes will depend on his findings to improve them. The element of improvement must always be clear

when planning evaluation. Planning feedback only may not help in this aspect. Feedback can easily fall in the trap of being routine. In fact I have noticed many officers in various institutions (including co-operative institutions) writing their reports by copying from old reports or merely by updating the previous report. The evaluator must avoid writing routine reports. He must for example clearly state in his report if the co-operative education programme lacks specific measurable goals; if it lacks plausible, testable assumptions linking the programme stated objectives to the learning process in the programme; whether the instructors are able to instruct properly; and whether the learners and instructors lack motivation.

Finally the evaluator must always remember to draw up his next plan before the current one expires. For example if a five year plan is used the next five year plan should be ready at least one year before the current five year plan of evaluation expires.

(b) Writing an effective Evaluation Report

Experience has shown evaluators who have done good evaluation studies but failed to communicate the results of their evaluation. When the report is oral the evaluator can be asked questions but when it is written (as is normally the case) but bad, time has to be wasted by sending the evaluator to re-write. Since most evaluation communication is done through reports, improving evaluation communication means improving evaluation reports.

Nobody wants to pay for something he cannot understand or act upon. The cooperative members in the various committees need to cope with the evaluation reports in full. Some evaluators believe that their work is too complex and technical to be understood by ordinary cooperative members. They claim that only those on their level of formal training can understand. This is not true because evaluation reports are not understood only because they are abbreviated and condensed into a particular format and style that is intelligible only to other evaluators. Cooperative members can understand evaluation reports if the reports are written in common languages, are properly organised, include information which provides the members with a context for understanding the report and avoid jargons.

The evaluator must only write and send the report when it is appropriate. The decision makers in the cooperative union or society or at the cooperative college receive many reports from the other sectors of their institutions. The evaluator should only present a formal written report when it is appropriate. This does not mean that he should write the report at all. He must write it (as is indicated in his work plan) on time and make it available to his superiors and the cooperative members. But he should present it when it is not necessary. In fact when the evaluator is not the right person to present the report to his superior or to the education committee of the cooperative he should let the right person to send the communication.

In his report the evaluator must know who he is writing to. He must select the proper format for his report. He must clearly state the method of evaluation he used and the data collected and whether he covered the whole population in the cooperative education programme or only a sample. The basis of his conclusion must be clearly stated and the sample described. If an experiment and a control group are used they must be clearly described. The analysis of the data should be clear and if too many value judgements are involved the evaluator should let the data speak for itself to the decision makers.

The evaluator must remember that when he is writing his report he is trying to communicate his findings to other people. In the cooperative movement the majority of members and committeemen are not very educated people (in the formal meaning of education). Simple sentences can drive the message at home. The evaluator must in his report be able to succinctly state his message. A message which can never be understood may be as good as no message at all and encourages the decision makers not to read evaluation reports. No idea is so complex that it cannot be expressed in common language.

Experts in written communication have come up with principles of effective communication. This is now almost a discipline on its own but we can mention four important principles of effective communication which the evaluator of cooperative education pro-

grammes must enhance :

- Setting expectations
- Assuming the readers point of view
- Not overloading the reader
- Avoiding overly authoritative reports.

Setting expectations means that the evaluator of the cooperative education programme should establish the reader expectations about the nature and content of the report both before the report is delivered and within the report itself. The purpose and format of the report must be made explicit in the report's introduction and should be reflected in the table of contents. The reader will benefit if the report has an abstract or an executive summary. This summarizes the main points of the report for the reader. The evaluator must clearly indicate in the table of contents and abstract what is contained in the report. The opening pages should also indicate what the report is not and what it does not contain. The reader expectations must be established in the opening pages. This may determine the reader continuing to read the whole report or giving up after reading the first few pages.

The evaluator must continually update the reader with respect to where he is within the logical flow of the paper. There must be continuity in the report and it should not consist of disconnected short stories or narration of events related to evaluation. Clear communication requires this and the evaluator must avoid repetitive language. Repetitive language can be avoided by having proper introduction of parts or chapters and summaries of the main parts.

The evaluator assuming the readers point of view temporarily is a necessary step in trying to attain clear communication. This is because the object of any report is to communicate ideas so that they are comprehensive within the reader's own context of understanding. The evaluator must ask himself questions like : What does the reader consider important in the cooperative education programme ? What experience have they had with similar education programmes? What do they want to know about the cooperative education programme? What type of information from the evalua-

tion would have most meaning and must be useful to the readers? The answers to such questions will help the evaluator to produce a report which has salience within the readers own conceptual framework.

Putting yourself in the readers position for some time is not an easy task. But the more the evaluator, attains this step the more he is able to produce a better report. Assuming the readers point of view is especially important with respect to the use of technical language. The evaluator must be careful with technical and philosophical terms. They should be presented in a language the reader understands. The experienced evaluator should know that terms which may sound common to him may seem technical and hard to the layman and even to an expert of a different field. The evaluator should understand that most people never like interrupting their reading of a report to look for meanings and clarification of terminologies in other sources. When a report requires the reader to consult many other sources for understanding he may give up reading it. The reader may even find an excuse for not attending the meeting when the report will be discussed or he will simply not participate in the discussion but vote against the recommendations in the report. The evaluator must be able to communicate in clear and straight forward language without dropping any necessary information from the report.

Not overloading the reader means that the evaluator should have a single (or as few as possible) clear message in his report rather than have a large number of vague or ambiguous messages. The evaluator must be sure of what he wants to tell the readers. When it is absolutely necessary the evaluator could have more than one message but the priority must be clear. Some messages may involve recommendations whose implementation necessitates the allocation of resources like money and manpower. It is thus necessary that the evaluator presents his messages or recommendations in a priority sequence. This may induce the reader to accept some. When the recommendations are muddled in the report the reader may reject all of them after loosing his sense of their priorities.

Evaluators have been known for frequently overwhelming

their readers with pages of undifferentiated hypotheses, tables, charts, statistical analyses and summaries of verbal comments. There is nothing wrong with these elements but they must be well ordered around one or few central messages. The evaluator must highlight throughout the report the primary message that he wants the readers to remember. He must devote most of the pages to the most important topic and remember that since most people prefer short reports, he can communicate more by using fewer words.

Avoiding overly authoritative reports means that the evaluator should understand his position and avoid overestimating it. The evaluator should not take advantage of the report to "push" something to the decision makers. Even if the evaluator is asked to provide definitive answers in problems of cooperative education programmes he should say there is no evidence to support such certainty. If he has the evidence he must show its source but avoid encouraging the decision makers to think that there are definitive answers to problems. The evaluator should not fall into the temptation and trap of offering "prophetic" statements. Such judgments always go beyond the evaluators data and experience. When the "prophecy" is not fulfilled the evaluator loses his credibility and some readers of his reports may even be suspicious of his motives. The blame in the failure of the "prophecy" may wrongly be put on the evaluator. If the evaluator is not careful and produces a new "prophecy" to correct the old one he may end up disrupting and even messing up part of or the whole cooperative education programme.

Authoritative reports may lead to defensive reactions from the report readers. They may feel that the evaluator wants to control or manipulate the cooperative education programmes. Effective communication is not easy when the decision makers are on the defence. Evaluators should not take advantage of their positions or profession in the cooperative to produce excessively authoritative reports. Evaluators of cooperative education programmes should only depend on empirical and logical evidence of their analysis to support their conclusions.

CHAPTER VII

The Future of the Problem of Evaluating Cooperative Education Programmes

We need in the conclusion to look at the current state of evaluation in cooperatives. We also need to project on the future and we can do this by analysing the current situation of the problem. If we look at the cooperative movement in the developing countries there is a form of a false assumption in some of the cooperative institutions. It is assumed that the person with the responsibility of evaluation will always carry out his duty and report to the decision makers. In real life many cooperative institutions are faced with either :

- Complete absence of evaluation of cooperative education programmes.
- Haphazard or unsystematic evaluation of cooperative education programmes.
- Cooperative educationists who deliberately keep off evaluation on the fear of some weaknesses in their work being exposed.
- Easy going attitude among decision makers in cooperatives resulting in underutilization or complete ignoring of evaluation findings.

This state of affairs need not go uncorrected because we have seen how useful evaluation of cooperative education programmes can be. This state of affairs may have something to do with the history of evaluation. Not long ago evaluation in education was used exclusively for grading and ranking students. Evaluation was administered only in the form of examinations. After the second

world war you had a boom of adult education. Methods developed in adult education were also extensively applied in cooperative education. As knowledge accumulated experts in the field of andragogy found that evaluation could have wider and useful application in education more than the original use of grading and ranking. It was found that evaluation could be used to evaluate the four levels we studied in chapter five. It was found also that evaluation could be used to define the broader educational needs. A boom in evaluation resulted.

As evaluation became routine many teachers rushed to use it to improve their training rather than just ranking the participants. Teachers also tried to use evaluation to make teaching more enjoyable and to control the effectiveness of their teaching. Many teachers were frustrated when they saw no quick improvement in performance. They forgot that evaluation with high validity and reliability are expensive and time consuming to produce. They also forgot that simple evaluation tools were easy to design and administer but were scientifically unreliable. Those evaluators who could not improve their methods of evaluation gave up. Thus evaluation was put aside in many areas including cooperative institutions or was considered as routine or a sector of little importance. This is why evaluation of cooperative education programmes is in its present state.

Many in the cooperative movement are not aware of the history of evaluation and some take it for granted that evaluation is being done regularly and its findings utilized. My experience with cooperatives and cooperative colleges shows just the contrary. Many, and in some cooperative institutions all, education programmes go unevaluated. I have witnessed cooperative colleges which never evaluated their courses. You will be surprised how many things in the education world we take for granted to occur but never occur.

Some teachers both in and outside the cooperative movement have resorted to tradition. To justify their not evaluating they argue that an experienced teacher who has mastered his field of study can always detect problems in his course and know where to do what to correct problems. This is a tragic approach to education.

Experience is good (though experience can also be based on erroneous assumptions) but it should not replace organized scientific study. Any teacher who has conducted evaluation knows that much useful information can be collected by means of simple evaluation instruments.

Evaluation need not be a source of confusion. Young and ambitious cooperative teachers may be disappointed after the first few evaluation attempts. Evaluation is an applied science and nobody expects first class results from the first few evaluations. Due to lack of experience and knowledge on application many teachers in the cooperative movement may actually even fail to utilise their evaluation findings for some time even when given a go ahead by the decision makers. These teachers may have to ask for outside help but they will discover that as they build their experience and study more about evaluation they will face less frustrations. The science of evaluation should be fully utilized to perfect and advance cooperative education programmes.

The 1950s witnessed a boom in cooperative education in Asia and Latin America. Africa witnessed the boom in the 1960s. These booms have resulted into thousands of cooperative education programmes being organised in the three continents. There is need for wider and fuller application of the science of evaluation to assess all these programmes. My experience with cooperatives in the developing countries would suggest that there is need for extensive training of evaluators. Cooperative education programmes should include training cooperative teachers, committee members, members and education officers in evaluation.

I have noticed that in many countries at the cooperative society level there is nobody who can conduct evaluation. Those who can conduct proper evaluation are available at union and apex level and in cooperative college level. Since these people are too few and there are so many cooperative societies there is no way they can do evaluation for all the cooperative education programmes down to the cooperative society level. This manual throws a challenge to cooperative unions, apex organisations and cooperative colleges to begin an evaluation boom by starting with training

evaluators.

Except in very few cases (as when you have an exceptionally important cooperative education programme) the existing expert evaluators should only concentrate in training and not evaluating themselves. Those trained can slowly begin evaluating in their respective cooperative institutions (especially primary cooperative societies) and in turn train cooperative members and committeemen in evaluation. Large cooperative societies or groups of cooperatives can also organise their own training beginning with members of their education committees and education officers if they have any. This training can be organised at the local cooperative college or education centre. When this is too expensive someone from the cooperative college or education centre should travel to conduct the training at the cooperative.

There are those who argue that evaluation should be left to experts. But there is no any reason why ordinary cooperative members cannot learn the science of evaluation and apply it to cooperative education programmes. The cooperative spirit discourages an elitist approach to knowledge and the belief that some areas of knowledge are too hard for the ordinary cooperative member. If cooperative members cannot learn evaluation then they cannot learn anything and we should not bother them with the other education programmes.

Given time and proper training a cooperative member can learn first how to interpret evaluation data collected by experts and later how to collect at least some of these data themselves. When many cooperative members know the science and technique of evaluation we can attain our ultimate goal in evaluation in cooperative education programmes—we can move towards COOPERATIVE EVALUATION. The principles of cooperation will by then be applied to evaluation. Several cooperative members will evaluate the same cooperative education programme. They can use the same or different methods and they can do the work together or independently so that they can use each others results for comparison and counter-checking.

APPENDIX I

(Example of a thirty minutes interview schedule used in evaluating attitude for a one week cooperative members course.)

1. How long did you participate in the programme?
.....
.....
2. Did the orientation of the programme bring up the objectives?
.....
.....
3. Was the social atmosphere congenial and enjoyable?
.....
.....
4. Were the teachers friendly, hostile or indifferent?
.....
.....
5. Explain answer for question 4
.....
.....
6. Were you given enough time to discussing the topics?
.....
.....
7. Were you given enough time for asking questions?
.....
.....
8. Did you find the course demanding too much in terms of time?
.....
.....

9. If YES for question 8, give reasons :

10. What part of the course interested you most?
.....

11. What is the reason for the answer in No. 10?
.....

12. What part of the course was of least interest to you?
.....

13. Give reasons for answer in No. 12.....

14. Would you prefer to attend a similar course for a different topic?
.....

15. What are your suggestions on how to improve future cooperative education programmes like the one you attended?
.....

APPENDIX II

(Example of a fifteen minutes questionnaire used to evaluate attitude for a six months cooperative staff course).

[Instruction ; Please tick appropriate box or write in blank space]

1. How long did you participate in the course.
.....

2. Was the objective of the course outlined ?

- Outlined very clearly
- Outlined clearly
- Outlined vaguely
- Not outlined

3. How was the social atmosphere in the college in regard to fellow students ?

- Very friendly
- Friendly
- Very hostile
- Hostile

4. How did you find the teachers in the class ?

- Proud
- Arrogant
- Friendly
- Indiferent

5. How did you find the teachers outside the class ?

- Proud
- Arrogant

- Friendly
- Indiferent
- No contact

6. Did you always understand your teachers ?

- Yes, without any difficulty
- Yes, with difficulty
- No

7. Did the college provide satisfactory facilities like shops and restaurant services ?

8. Comment on the recreation facilities provided by the college (e.g. sports, films etc.)

9. How did you find the course in terms of time tabling

- Too tight on subjects
- Tight on subjects
- Well balanced between subjects and non-academic activities
- Some time wasted
- Too much time wasted

10. What would be your suggestions to the college's principal on how to improve future cooperative education programmes like this ?