A COMPARISON OF PARTICIPATORY-BASED AND LECTURE-BASED APPROACHES TO SHORT-TERM TRAINING FOR COMMUNITY EDUCATION FIELDWORKERS IN INDONESIA

By

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ABSTRACT

A COMPARISON OF PARTICIPATORY-BASED AND LECTURE-BASED APPROACHES TO SHORT-TERM TRAINING FOR COMMUNITY EDUCATION FIELDWORKERS IN INDONESIA

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This study attempted to determine whether significant differences exist between a participatory-based and a lecture-based approach to short-term training. Also it attempted to examine whether or not short-term training is effective in terms of increasing competencies in cognitive skills and job performance of the participants. Forty-five community education fieldworkers, referred to as *peniliks*, of West Java province, Indonesia, were randomly sampled to participate in this study. These forty-five *peniliks* were further randomized into three different treatment groups of fifteen people. These three groups were a participatory group, a lecture group and a control group. A one week training session was the major treatment of this study. The participatory group received training using a participatory-based approach or method, the lecture group received training using a lecture-based approach or method,

while the control group received no training and served as a control group in this study. The data were collected from three different sources. First, participants' scores on cognitive skills were derived from a cognitive test which was administered three times during the study, i.e., prior to treatment (training), immediately after the treatment and six months after the completion of the treatment. Second, participants' scores on self-reported performance of their job were derived from a self-disclosure type of test which was administered two times during the study, i.e., prior to the treatment and six months after the completion of the treatment. Third, scores on the participants' job performance in terms of the perception of their supervisors were derived from interviews of their supervisors. The interviews were conducted two times during the study, i.e., prior to the treatment and six months after the completion of the treatment.

Information on self-reported performance of the job was organized into five categories. These five categories are: (1) performance as an organizer; (2) as a consultant; (3) as an enabler; (4) as a facilitator, and (5) as a planner.

The data revealed by the three different sources were subjected to Analysis of Variance and a Multiple Range Test by the Tukey-HSD Procedure to see the difference between means. Results indicated that both approaches, participatory-based and lecture-based approaches to training, were equally significantly effective in terms of

increasing the cognitive skills of the participants. Small differences that supported the participatory-based approach were not found to be significant and could have been caused by chance. In terms of the retention rate of the participants or the long-term effect on the knowledge, understanding and skills derived from the training, the results indicated that both approaches were equally significantly effective. In terms of increasing the self-reported performance of the job of the participants, the results indicated that the participatory-based approach to training was significantly more effective than the lecture-based approach to training. However, supervisors' ratings of job performance of the participants failed to differentiate between the three experimental groups. Data from a feedback form used at the conclusion of the two training sessions indicated a strong preference by the participants in favor of the participatory-based approach to training over the lecture-based approach to training.

The study concluded that so far as achievement and retention are concerned in conducting training for the *peniliks*, both approaches could serve equally well. However, when job performance is the concern, the participatory-based approach is more effective than the lecture-based approach. Other implications of this study are: (1) using a pretest-posttest experimental design in the area of nonformal education can be extremely useful in examining different aspects of teaching/learning, (2) the findings

can create a strong base for the Community Education Directorate in developing further training programs for the *peniliks*.

To

the people who need help

to help themselves

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CHAPTER I

BACKGROUND OF THE STUDY AND STATEMENT OF THE PROBLEM

Community Education and Community Development in Indonesia

Indonesia is a developing country. It is an agricultural country in which approximately 80 percent of its population live in rural areas under subsistence agriculture (Central Bureau of Statistics, Indonesia, 1971). As is the case with many other developing nations in the world, Indonesia shares many common economic and social features and faces some common problems. Vaizey (1962, pp. 51-69) identifies as significant such common characteristics as low per capita income, overpopulation in relation to employment opportunities, heavy reliance on agriculture carried on by backward techniques, and shortage of foreign exchange with which to acquire capital equipment. Among their fellow citizens rural communities are, in many respects, deprived more than those of urban societies.

In developing countries per capita income is generally very low. In Indonesia, it is estimated that the per capita GNP is around $220 per annum in the year

1976 (World Bank, Indonesia, 1977, p. 2). Realizing the inequality of income distribution between people living in the rural and urban areas, it is easily understood that for the majority of people in rural areas their average income is estimated to be even far less than $100 per annum. For comparison it can be noted what Holdcroft (1976, p. 3) has argued that about one-half of the world's population neither contribute to nor benefit from the economic growth process and about one billion, or a quarter of the planet's population, subsist on less than $75 per year in abject poverty.

These two problems, poverty and equalizing educational opportunities for the whole nation, are major problems that the country has been confronting ever since the first day of its independence in 1945. These two problems are, in fact, interrelated one with the other in so complex a manner that it is difficult to separate the cause from the effect. In studies done by Harbison and Myers (1964) high positive correlations were found between the enrollment ratios at all levels of education and GNP per capita.

Realizing the complexity of the problems that the country has to face, the government has decided to gear every development effort to attack these two major problems. It was first stated in the First Five Year Development Plan (1969-1974), and very strongly stated in the Second Five Year Development Plan (1974-1979), that the main objective of national development is to raise the

standard of living of the Indonesian population (The Government of Indonesia, Five Year Plan, 1974).

One implication of this objective is to increase employment opportunities to achieve a more equitable distribution of income, especially that of the rural population.

Notwithstanding the general strategy of national development, the Ministry of Interior has outlined its major development policy as that of improving rural village life to reach a stable self-help level. It was identified that among the approximate 66,000 villages in the country there were only 1,745 villages, or less than 3 percent, which had already achieved a "self-help" level, or *swasembada* level. Of the rest, there were 38,800, or about 59 percent, which had the potential for development. This middle level with a potential for development is called the *swakarya* level. The lowest level of development is called the *swadaya* level, which comprises more than 25,000 villages, or about 38 percent (Colletta, Nat J., 1975, p. 11). The general objective of rural or community development is to move the *swadaya* (low level) and *swakarya* (middle level) villages to reach the *swasembada* level of development. In the meantime, the *swasembada* villages are constantly motivated using various kinds of incentives to maintain their status or even to further develop their potentialities.

Administratively, village or community development is under the jurisdiction of the Ministry of Interior. However, ". . . joint efforts among ministries and other community groups is needed," as Romli Suparman (1979, p. 4) pointed out, "to achieve the objective." He continued: "The most important thing, however, is the participation of the villagers themselves. Without their awareness, motivation, and willingness to participate, any self-help development program is doomed to failure."

To increase the people's awareness, motivation and willingness to participate in development is, in a sense, the problem of providing education for the people. The question is then one of what type(s) of education are best suited to the conditions of the people--the majority of whom are rural people?

As it has been realized, in many instances the problems of developing rural communities are not so much concerned with the lack of natural or human resources as they are concerned with the lack of managerial skills, technical know-how and organizational capabilities of the people to mobilize and more efficiently utilize the available resources. Curle pointed out that the basic reason that the economies of these countries are underdeveloped is that these are underdeveloped societies; that is, societies which for a variety of reasons fail to make adequate use of their human resources (1963).

Indonesia has realized that fact. It has also been aware of the type(s) of problems that it has confronted. It was, therefore, decided in the First, in the Second and in the Third Five Year Development plan that one of the main strategies of country development is to develop human potentialities through education.

In terms of economic growth, as the World Bank reported, between 1969 and 1976 the economy has grown at about 7 percent per annum. Average GNP per capita increased by 17 percent in real terms between 1970 and 1975 and reached about US $220.00 in 1976 (World Bank: Indonesia, 1977, p. 2). Another thought implied in the Five Year Plan was the fact that it would be almost impossible to raise the living standards of the bulk of the unemployed and underemployed by creating new jobs alone in the modern sector or in agriculture, especially in Java. Rather, it would be necessary to expand opportunities for self-employment to supplement farm incomes. The impact of this on education is the growing recognition of the nonformal education function for the improvement of rural communities and urban underprivileged. Nonformal education focusing on skill training related to cottage industries, home crafts, primary processing of agricultural produce and other nonfarm rural endeavors can be the vehicle for providing such opportunities.

But the problem is not that simple. It is further complicated by the fact that most of the rural population

and urban underprivileged are illiterate. Thirty-five out of every 100 adults in the country, men and women, aged eighteen years and above are illiterate. This 35 percent of the adult population comprises around 23 million people (World Bank, 1977; estimation based on 1775 statistical data). Among the 22.3 million primary school age population, from seven to twelve years of age, 3.3 million were found not to be enrolled in schools in 1975; and among the 18.4 million in the secondary school age group, from thirteen to eighteen years of age, 14.0 million were found not to be enrolled in any secondary school system (Government estimate, 1975).

Putting these two types of data together, the number of youths, between seven and eighteen years of age, who were not enrolled in any type of schooling and the number of adult population, eighteen years and older, who were illiterate, yields the number of more than 40 million Indonesian people who need basic education or literacy training (the total population was estimated at 135 million in 1975). Four out of five of those 40 million people live in rural areas, and many in situations beyond the direct reach of the central government and its programs due to the uniqueness of topography, communication, transportation and poorly functioning of infra structure.

It is the growing conviction in the country that unless some basic education or literacy training is provided for this populace, their participation in development

will not be effective and efficient. So, basic education or literacy training has become a national movement and is now considered as a basis for national development. Since most of the population are not being reached by formal schooling, in other words the formal school system does not fit their conditions and needs, nonformal education or community education specifically, is seen as a hope for the future.

In the organization setup of the Ministry of Education and Culture one directorate is assigned to develop and operate through the community education channel to provide educational opportunities to the more deprived population. Its responsibility extends from planning, through organizing, implementing and coordinating to supervising community education activities throughout the country. This directorate is popularly called the Directorate of Community Education or *Direktorat Pendidikan Masyarakat*, which is usually abbreviated to *Penmas*.

Undoubtedly *Penmas* is facing a large task. To carry out this job, though quite challenging, the *Penmas* directorate is supported by *Penmas* offices at the provincial level, at the district level and at the subdistrict level. The actual *Penmas* fieldworkers are those who work at the subdistrict level and are referred to as *penilik Penmas* or just *penilik*. Each subdistrict is assigned one *penilik* who is responsible for carrying out community education for the people in the subdistrict area. In the

country there are 3,323 subdistricts which encompass 60,645 villages. The number of villages in each subdistrict is not the same. They range from eight to twenty-two villages per subdistrict. The number of people in each village is, again, not the same. It depends on the population density of the area. In Java, where the density is quite high, most of the villages have populations of more than 10,000 people. Some of these include more than 25,000 people.

Penmas' capacity in terms of total staff is now at 6,500 which includes 2,500 professional or technical staff (World Bank: Indonesia, 1977, p. 7). One will easily notice that even with all of this technical staff, from the central office in Jakarta down to the subdistrict level *penilik*, there is not sufficient staff to meet the number of *penilik* needed for assignment to all subdistricts.

Penmas has been struggling very hard to build its internal capacities to handle the big job it is facing. Many foreign donor agencies have offered their help. Some are in the form of grants and some are in the form of loans. One large project has now been working with *Penmas* since 1977. This is a World Bank loan project where the total project cost is estimated at a little bit more than US $33 million for six years' duration. The foreign exchange component alone, that which does not include the Government of Indonesia's monetary commitment, represents 45 percent of the total project cost.

This World Bank project was designed primarily to strengthen the capacity of *Penmas* to provide effective non-formal education programs to the people. More specifically, "The project is designed to help overcome existing problems in administration, training, materials development, evaluation and budgeting in seven provinces comprising the majority of the population. The project will:

(a) strengthen the management and supervision capabilities of *Penmas* through reorganization;

(b) establish a system of regular in-service training for *Penmas* staff;

(c) create institutions to develop, produce and distribute improved learning materials;

(d) provide a source for direct and flexible funding of village-level learning activities by establishing local learning funds; and

(e) introduce continuous evaluation of *Penmas* programs" (World Bank: Indonesia, 1977, p. 12).

Statement of the Problem

For more than a decade sharp critiques have been launched against the effectiveness of using merely a lecture method or approach in teaching and learning situations in schools. Some research and development efforts have been done in the field of formal education in Indonesia.

In the meantime, the problem in nonformal education is no less serious. Compared to what has been done in

formal education, not much effort has been exerted in non-formal education which, for Indonesia, is considered a new area in the total framework of providing education for the people. In the area of training, for example, there is a concern for increasing the competences, knowledge and skills of staff employees for management and organization development, yet the lecture method is still commonly practiced in the country.

On the other side it is agreed by those who are involved in staff training design and in management organization development that some alternative approaches may be tried and developed in a more systematic way. The problem is where and how to begin. In this field, however, most of what is done is carried out in a haphazard way and on an ad hoc basis. There are more "trial-and-error" efforts to find out which approach is best fitted to the demands of organization management than more solid research efforts.

In the meantime another problem has also developed which needs more consideration. In many cases the budget for staff training is limited and time is pressing to keep pace with the advancement of science and technology in modern society.

Many supervisors, employers or management developers now plan to have their staff employees trained or totally retrained to be able to better perform their job in light of the ever increasing complexity of problems they face due

to the advancement of modern science and technology. *Penmas* is one substantial example for this issue.

Under the World Bank project *Penmas* has now planned to provide some 2,150 of its fieldworkers (the *penilik*s) with training and retraining (World Bank, 1977, p. 16). In the meantime some 1,800 new technical staff will be recruited during the life of the project (1977-1982) who, of course, also need training and retraining to better deal with their new job (World Bank, 1977, p. 7). So, training for the *Penmas* fieldworkers, especially within the period of 1977-1982, is considered as an ordinary sort of activity by those who are involved, in one way or another, with nonformal education activities in the country.

Effectively dealing with this type of massive project of training in a cost and time efficient manner is vitally important. In other words, to reduce cost per head trained of the staff employees, thereby reducing length of time used for training, is considered a large challenge.

These two problems, developing a more solid research based alternative approach to staff training and reducing the cost and time for the implementation of the training, are major problems that are dealt with by this study.

Purpose of the Study

There are two concerns that this study attempts to deal with. The first concern is to test whether an alternative approach to training is more effective than the

lecture method or approach which is commonly used in training in Indonesia. More specifically, this study addresses itself to the examination and comparison of effectiveness of the participatory-based approach and the lecture-based approach to training. The second concern of this study is to test whether or not short-term training is adequate for increasing desired competencies of the participants. Examinations are based on the analyses of the achievement and retention of cognitive skills or information of the participants, and also on their self-reported performance in accomplishing their job in the field.

Built into the design of the study is the appropriate selection of a location for conducting the research. The fact that this study was conducted in Indonesia can be potentially important. Potential Indonesian acceptance of the findings of a study of this nature can be improved due to the in-country location. There can often be a general negative feeling towards the importation to Indonesia of findings from studies conducted in other countries. This does not mean to suggest that the findings from studies done outside of Indonesia are not appropriate for Indonesia. It only suggests that acceptance of the findings may be increased when the studies are done in the country.

Other potential benefits of this study could be: first, using a pretest-posttest experimental design in the area of nonformal education introduces a model for a research procedure that can be used in Indonesia to validate

other techniques or approaches used in nonformal education; and second, the results of this study could provide *Penmas* with a more solid research based approach to training.

Basic Assumptions

Some basic assumptions were developed for the study to provide a common ground. These assumptions are:

1. It is assumed that local community participation in, and commitment to, development of their community is basic to making the community development process self-sufficient and self-sustaining.
2. It is assumed that to make community development activities self-sufficient and self-sustaining, internal leadership capacities of the local community must be stimulated and developed rather than maintaining outside leadership assistance as it has been commonly practiced.
3. It is assumed that the most effective way to develop and increase the internal leadership capacities of the local community is by directly involving members of the community in the development process from the very initial stages of goal setting, problem identification, program planning and continuing on through implementation.
4. It is assumed that the *penilik*, due to the nature of his job (i.e., educating the community people, developing and increasing their awareness and their

competences in dealing with their own problems, needs and development) can play a very important role in developing and increasing the internal leadership capacities of the local community.

5. It is assumed that the knowledge base of the *penilik* and also his capability to perform his job can be developed and increased through training.
6. It is assumed that short-term training can be effective if it uses an appropriate approach.

Research Questions and Hypotheses

Research Questions

There are six basic research questions that this study attempts to answer. These are:

1. Can short-term training have an immediate effect on the participants in terms of the increase in their cognitive skills? (Achievement)
2. Will two different approaches for short-term training have different immediate effects on the participants in terms of the increase in their cognitive skills? (Achievement)
3. Can short-term training have a long term effect on the participants in terms of retaining the cognitive skills derived from the training? (Retention)
4. Will two different approaches for short-term training have different long term effects on the

participants in terms of retaining the cognitive skills derived from the training? (Retention)

5. Can short-term training have a long term effect on the participants in terms of the job-performance of the participants? (Performance)
6. Will two different approaches for short-term training have different long-term effects on the participants in terms of the job performance of the participants? (Performance)

Research Hypotheses

There are eighteen research hypotheses that this study attempts to examine. These are:

Hypothesis #1. Short-term training is effective in increasing the cognitive skills (achievement) of the participants (Research Question #1).

Hypothesis #2. A participatory-based approach to training is more effective in increasing cognitive skills (achievement) than a lecture-based approach to training (Research Question #2).

Hypothesis #3. Short-term training has a long-term effect on the participants in terms of their cognitive skills (retention) (Research Question #3).

Hypothesis #4. A participatory-based approach to training will have a more positive effect on retention of cognitive skills than a lecture-based approach to training (Research Question #4).

Hypothesis #5. Short-term training is effective in increasing the self-reported performance (performance) of the participants in organizing community people for learning activities (Research Question #5).

Hypothesis #6. A participatory-based approach to training is more effective in increasing self-reported performance of the participants in organizing community people for learning activities than a lecture-based approach to training (Research Question #6).

Hypothesis #7. Short-term training is effective in increasing the self-reported performance of the participants in providing consultations with local community people (Research Question #5).

Hypothesis #8. A participatory-based approach to training is more effective in increasing self-reported performance of the participants in providing consultations

with local community people than a lecture-based approach to training (Research Question #6).

Hypothesis #9. Short-term training is effective in increasing the self-reported performance of the participants in promoting internal leadership capacities of the local people (Research Question #5).

Hypothesis #10. A participatory-based approach to training is more effective in increasing self-reported performance of the participants in promoting the internal leadership capacities of the local people than a lecture-based approach to training (Research Question #6).

Hypothesis #11. Short-term training is effective in increasing the self-reported performance of the participants in providing learning equipment and facilities for the local people (Research Question #5).

Hypothesis #12. A participatory-based approach to training is more effective in increasing self-reported performance of the participants in providing learning equipment and facilities for the local people than a lecture-based approach to training (Research Question #6).

Hypothesis #13. Short-term training is effective in increasing the self-reported performance of the participants in forward planning (Research Question #5).

Hypothesis #14. A participatory-based approach to training is more effective in increasing self-reported performance of the participants in forward planning for learning activities than a lecture-based approach to training (Research Question #6).

Hypothesis #15. Short-term training is effective in increasing the total self-reported performance of the participants (Research Question #5).

Hypothesis #16. A participatory-based approach to training is more effective in increasing the total self-reported performance of the participants than a lecture-based approach to training (Research Question #6).

Hypothesis #17. In terms of supervisor perception, short-term training is effective in increasing the ability of the participants to perform their jobs (Research Question #5).

Hypothesis #18. In terms of supervisor perception, a participatory-based approach to training is more effective in increasing the ability of the participants to perform their job than a lecture-based approach to training (Research Question #6).

Limitations and Importance of the Study

In this section both limitations and importance of the study will be discussed.

Limitations of the Study

First, it has been realized that training is only one among many devices to improve the job performance of staff employees. Other devices are, for example, the availability of funds for more effectively running programs; reinforcement by supervisors or other authorities; recognition of the success of staff through the supervisor; feedback and evaluation used in the management of development activities; and other similar things.

Second, the sample of the study was limited to one province in Indonesia. It could be expected that a difference might exist between the condition of the province where the study was conducted and the others. However, it is not feasible for a single researcher to sample all possible populations for a study of this nature.

Third, it is difficult to completely separate the approach used in the training from the personality of the

instructors who performed the training. Some general precautions were made, however, through the use of highly specified training procedures so as to limit as far as possible the personal biases of the instructors.

Fourth, due to the lack of ready made or standard instruments for this type of study, all instruments needed were prepared specifically for the study. This presents questions regarding the validity of the instrumentation.

Importance of the Study

In the total framework of community development the *penilik* holds a very frontier role. His job is concerned exclusively with educational activities in the field. As an implementer and as a change agent in the field of education his success will inevitably affect community development itself as one of the basic strategies of the government's total development plan. It is, therefore, realized that increasing the competence of the *penilik* for performing his job better is part and parcel of the total package of national development.

This study deals with increasing the competence of the *penilik* through a short-term training program. Two different types of approach are compared in terms of their effectiveness; one is a participatory-based approach and the other is a lecture-based approach to training. The results of this study can assist in providing direction and create a basis for future development of training programs for

the *penilik*s. It is hoped that the findings of this study will assist decision makers in this field in evaluating their work and in developing new strategies for their staff training activities. This is one of the key aspects as to why this study is considered important. The side effect of this type of study can go beyond the boundaries of educational field workers and embrace other program areas which can use the same type of activities related to efforts in community development. For instance, community health programs, agriculture extension service, manpower training programs, family planning and family life education could all benefit in terms of further development of their training programs.

Another key important aspect of this study is that information provided by this study not only examines different approaches used in training that might have different effects on the knowledge and understanding of the trainees, but also whether or not the different approaches to training will have different long-term effects in terms of the trainees' job performance in the field.

Viewed from the government's development plan, this study is urgent in the sense that the Government of Indonesia is continually increasing her reliance on the role of education in general and nonformal education in particular as an effective mechanism for developing human potentialities. For community education authorities within the Ministry of Education and Culture this study is even more

urgent due to the fact that work has already begun on the World Bank project to further develop the effectiveness of the *Penmas* technical field staff.

Another point of importance is the research process pursued in this study. A pretest-posttest experimental design for comparing two different types of approach is an innovative device in the field of nonformal education for Indonesia. The design of the study has created an experimental model for examining and comparing training effectiveness which can be utilized and further developed in other situations/problem areas.

These two points: (1) assisting the decision makers in the field of nonformal education in evaluating their work and in developing new strategies for their staff training activities; and (2) creating a replicable experimental model for examining and comparing relative effectiveness of two different approaches to training, are the main reasons underlying the importance of the study. It is hoped that this study can serve to stimulate other similar studies to further examine the developmental needs of nonformal education in Indonesia.

Definition of Terms

Following is a list of terms and phrases which are frequently used in the description of this study. The definitions for each term and phrase are therefore provided as a common ground of understanding.

Participatory-based approach

The term, as it is used in this study, includes any learning activity where the students are involved actively either in the planning process of a learning program he himself will be conducting and/or in the implementation of the program itself during the learning session.

Included in this term are those activities such as: participation in program planning (McLoughlin, 1971), some combinations of social interaction (David C. Dietrick, 1960) covering the recitation of question-answer technique, the quiz section, the lecture quiz (vs. straight lecture), discussion method, buzz session, group centered discussion, and discussion groups with participatory leadership.

This term also includes teaching-learning activities such as role-playing (H. R. Mills, 1977; Paul Bergevin et al., 1966), simulators (H. R. Mills, 1977), and field trips (Bergevin, 1966).

In general it can be stated that a participatory-based approach to teaching-learning situations stresses the activities on the part of the students who learn by the help and direction of the teacher. In other words, this is a student-centered approach as opposed to a teacher-centerer approach.

Lecture-based approach

The lecture-based approach includes primarily those teaching-learning activities where the students are receiving

(mostly passively) what the teacher or trainer is lecturing or presenting during the learning session. It also includes a small amount of other learning activities as unstructured question and answer sessions, unstructured small group discussion and small group working teams. This type of approach is a typical approach to teaching-learning activities in Indonesia and is commonly practiced.

The term lecture as proposed by Richard Hill (1960), H. R. Mills (1977) and Barton Morgan et al. (1960), or speech as proposed by Paul Bergevin et al. (1966) is a major part of the lecture-based approach.

In general, it can be stated that the lecture-based approach to teaching-learning situations stresses the activities on the part of the teacher or the trainer with little or no participation on the part of the participants.

Community

According to Melvin (Ernest E. Melvin, 1975, p. 53) a community might be conceived of as a group of people having basic interest in common and having a relatively permanent association with a particular place or geographical area. In this study the term community is defined as a group of people in a certain locality who share among them common values and norms, working together in an organized way to resolve their own problems and needs to further develop their own well-being.

Community development

Community development as used in this study refers to a process by which the efforts of the people themselves are united with those of governmental authorities to improve the economic, social and cultural conditions of the communities, to integrate these communities into the life of the nation, and to enable them to contribute fully to national progress.[1]

Community education

Community education in Indonesia is basically non-formal education, that is, education which is pursued outside the formal school system, where the main concern is with the process of increasing people's knowledge, understanding, skills and competences in dealing with their problems and needs.

The educational activities that community education encompasses range from learning basic literacy skills for children who are not enrolled in schools and adults through skill training courses, to learning activities in relation to family welfare education, family planning programs and community organizations for adults and older people in the community.

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[1]See also definition by United Nations, Administrative Committee on Coordination: Twentieth Report of the Administrative Committee on Coordination to the Economic and Social Council, Annex III, #E/2931, 1956; in Lee Cary, 1975, p. 20.

Penilik

This Indonesian word is used to label a community education field worker who works at the subdistrict level. The *penilik* is the implementer of the community education programs. In accomplishing the nationwide mission of providing nonformal education for the community, the *penilik* holds a frontier post.

Penmas

Penmas is an acronym for *Pendidikan Masyarakat.* It literally means Community Education. It is popularly used to refer to the Directorate of Community Education.

Cognitive skills

It is defined as to include those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills (Benjamin Bloom, ed., 1977, p. 7).

Cognitive test

This is a type of test designed to detect the level of cognitive skills of the training participants (e.g., the *peniliks*).

Self-disclosure type of test

This is an instrument designed to disclose the *peniliks'* job performance as reported by themselves. In this study five areas were identified to categorize the performance of the *peniliks* in the field. These include

the roles of the *penilik* as organizer, consultant, enabler, facilitator and planner.

Achievement

It describes the change in scores on a cognitive test from the pretest (administered immediately prior to training) to the posttest I (administered immediately following training).

Retention

It describes the stability of scores on a cognitive test from the posttest I (administered immediately following training) to the posttest II (administered six months after the completion of the training).

Performance

It describes specific activities of the participants in terms of their self-reporting of their activities.

CHAPTER II

SURVEY OF RELATED LITERATURE

This survey of related literature will focus on five major topics which include Community Development, People's Participation as a Basis for Development, the Role of the Fieldworker for Community Development, the Function of Training and the Relative Effectiveness of Participatory-based and Lecture-based Approaches to Training. Each topic in this chapter is designed to build on each preceding topic and to narrow in on the specific concern of the study--the relative effectiveness and efficiency of two different training techniques.

Community Development

In many developing countries community development is carried out as a government program. The major declared purpose of these programs almost invariably has been to increase the life standard of the people, primarily the rural poor and the urban underprivileged, to provide educational opportunities for those who for a variety of reasons are not able to benefit from formal schooling, to provide other social services like health care and to provide

equitable opportunities for employment through training. Some of these programs have been quite successful, but some have not. Vykuntapathy (1965) in his study of the community development program in India concluded hat the "community development program has awakened the village people from mental inertia and indifference."

In his study on community development in Northeast Thailand, Frederick Baker (1973) concluded that many community development programs have led to aroused interest among villagers. He also found five main factors which contribute to change. These factors are information input, cooperation, government support, individual initiative and media input. Miniclier (1961, pp. 72-73) argued that community development is not a method of doing economic development on the cheap and success cannot be measured by adding up the material projects completed. The chief end of successful community development is not wells, roads, school buildings and new crops. It is stable self-reliant communities with an assured sense of social and political responsibility.

In terms of what factors are likely the most dominant to the success of a program, Melvin (1975, p. 56) gave a positive answer when saying that the more people throughout the community that become involved in the community development process from the very initial stages of goal setting and problem identification through to the

implementation, the more likely community development is to succeed.

Batten (Batten and Batten, 1975, pp. 5-16) in The Non-Directive Approach in Group and Community Work differentiated the nondirective approach from the directive approach to community development. The directive approach, as the name implies, Batten argued, means that the agency which adopts it decides, more or less specifically, whatever it thinks people need or ought to value or ought to do for their own good, and sometimes even how they ought to behave. These decisions become the agency's betterment goals for people. It is the essence of this approach that the agency and its workers think, decide, plan, organize, administer, and provide for people. Always the main initiative, and the final say, remains with them. On the other hand, Batten continued his argument, in the nondirective approach the worker does not attempt to decide for people or persuade them to accept any of his own specific conclusions about what is good for them. He tries to get them to decide for themselves what their needs are; what, if anything, they are willing to do to meet them; and how they can best organize, plan and act to carry their project through. Thus he aims at stimulating a process of self-determination and self-help, and he values it for all the potential learning experiences which participation in this process provides.

There are many potential advantages that the non-directive approach has and the directive approach has not. There are four that Batten has pointed out, i.e., (1) it enables the local community people to accomplish more with their limited resources; (2) it helps to develop people, not only because it enables people to meet more of their own needs for themselves, but also because in the process of doing so they can increase their status and feeling of self-respect; (3) it helps the emergence of a "we-feeling" rather than "I" and "they." It is the change of attitude towards others, which may result from a project, which constitutes the core of all true community development. For the Indonesian nation this kind of feeling has been highly valued and has been an integral part of the Indonesian culture and way of life of the people for centuries. The fourth point (4) is that it provides many opportunities of educating and influencing people. It aims to educate them partly by asking questions intended to help them to think more systematically and relevantly than they otherwise would, and partly by providing any relevant information they need and would otherwise lack.

Developing a community is analogous with educating an individual child. The ultimate goal of educating a child is to help him to reach his maturity on a self-help basis and to help him to be able to self-support his life in the society. The ultimate goal of developing a community is to help it to reach the stage of self-determination and

self-help, and self-support for future development. As Holdcroft (1976, p. 5) discussed in Rural Development Today that community development is a process by which the majority of the rural people is assisted in solving their problems, and hence improve their level of living on a self-sustaining basis.

The Dependency-Liberation theory as it was discussed by Thomas LeBelle (in Richard Niehoff, ed., 1977, p. 216) confirmed this strategy. The key idea of the dependency-liberation theory is, using education in general and non-formal education in particular, to enable the individual, or the people, to overcome domination and vulnerability. It does not necessarily measure outcomes in terms of income or material benefits gained but instead by the process which takes place. Liberation is concerned with a more equitable distribution of decision making power leading to control over the change process rather than adjustment to it, as Goulet (1971, pp. 6-10) pointed out.

To help the people to liberate them from their dependency means to develop their own potentialities to be able to resolve their own problems and to fulfill their own needs.

As it is well noted, community development as it is discussed in this study is more concerned with the process rather than with the product. And as far as the process is concerned, education, in this case nonformal education, can play a very important role.

Richard Poston (1958) in Report of the Division of Community Development defined community development as an organized educational process which deals comprehensively with the community in its entirety, and with all of the various functions of community life as an integrated whole. It is clear from this definition that the objective of community development is to help evolve through a process of organized study, planning and action, development of human beings as individuals and as productive members of their community. Mezirow (1960) looked at the community development process as a planned and organized effort to assist individuals to acquire attitudes, skills, and concepts required for their democratic participation in the effective solution of as wide as possible a range of community problems in an order of priority determined by their increasing levels of competence. It is quite interesting to see what the United Nations thinks about community development. It views community development as the process by which the efforts of the people themselves are united with those of governmental authorities to improve the economic, social and cultural conditions of communities, to integrate these communities into the life of the nation, and to enable them to contribute fully to national progress (Lee Cary, 1975, p. 20).

Summary

Even though there is a close relationship between process and product in community development it has been, however, the basic strategy of most community developers, most of the governments of the developing countries and most of the national as well as international organizations like the United Nations, to view community development as more concerned with process than with product. The main objective for community development should not be in giving finished products to the people but rather in building their competencies, understanding and technical skills to be self-sufficient in dealing with their needs and problems.

The following section will discuss the importance of local people's participation in developing the community in which they live. As Cary (1975, p. 144) stressed, the concept that is basic to the community development process is participation by the people of the community in the process.

People's Participation as a Basis for Community Development

For the last two decades the participation of local people has been an issue in relation to community development. Some writers agree that local participation is basic for community development. Jean and Edgar Cahn (in Spiegel, 1968, p. 5) in their analysis entitled Citizen Participation reassert the importance of participatory action as an essential component of the faith we profess in the dignity and

worth of the individual, as a mobilizer of the energies and resources of the poor, as a source of insight, knowledge, and experience in social programming. Peter Marris and Martin Rein (Spiegel, 1968, p. 6) posit citizen participation as a counter-vailing force necessary to protect social and welfare programs against the encroachment of institutional self-interest.

Cary (1975, p. 147) discussed that participation should mean not merely quantitative but also qualitative measures. "Clearly," he said, "there is much more to participation than simply belonging." Murray G. Ross (in Cary, 1975, pp. 146-147) offered some suggestions with respect to this aspect of participation. First, and most fundamental, is a breadth of knowledge and a broad background that allows one to identify priorities and sees issues in context. "There is no substitute for informed citizens," he said. Secondly, is the ability to learn about problems to reach a decision. This precondition includes the ability to utilize resources effectively. Thirdly, is the ability to act effectively. Ross concluded that among these three, however, the first is the most basic to effective participation.

Besides those who agree that local participation is basic for the success of community development programs, there are some scholars who are skeptical about this. One of their basic arguments is that "participation" is a biased term and subjective. Another argument is that as

long as the majority of rural people are still illiterate and poor, it will not make any difference as to the degree of success of the programs whether or not these people are involved in the process of program planning and decision-making. Roberta Sigel (in Spiegel, 1968, p. 8) in Citizens Committee: Advice vs. Consent stated that the bulk of members on citizen committees must have discernible skills, and that while the poor can be mobilized for action and implementation, their role in the process of translating general goals into programatic detail is limited. In Community Status and a Dimension of Local Decision Making Rosenthal and Crain (1967, #32) hypothesized that there is a direct correlation between socio-economic status and the level of day-to-day citizen participation in community decision making. Roger Starr (in Spiegel, 1968, p. 8) found that citizen participation can plainly be a hindrance to attaining the goals of public programs. William Kornhauser in Power and Participation in the Local Community (see Spiegel, 1968, p. 8) stated his argument in somewhat different ways. Although he did not oppose citizen participation per se, he pointed out some weaknesses and suggested that democracy does not necessarily imply continuous participation in community affairs, that low-income people have fewer attachments to the community, hence fewer organizational ties and ultimately less incentive to support the rules according to which community affairs are generally conducted.

Considering the controversial issue as to the meaning of local participation to the process of community development, Hans Spiegel (1968, p. 4) wrote in his article entitled Citizen Participation in Urban Development, that "a scientific approach to citizen participation is extremely difficult, suffused as it is with normative judgments, value-laden preconceptions, lack of objective criteria and standards of measurement, and a host of differentiated perspectives from which anyone can draw just about whatever meanings his predialections desire." He continued when saying that "if one concludes, for example, that citizen participation is, by nature, good and desirable, then nearly every instance of it demonstrates a modicum of value, regardless of how much rationalization is accommodated in the process; conversely, if one has reservations about the efficacy of the process, it is not at all difficult to uncover situations which substitute such doubts."

Anderson (Robert Anderson, 1970, #2, p. 80) came to a similar conclusion and said that "participation" is like the word "cooperation"; it is neither good nor bad. He also concludes that the higher the socio-economic status of the population, the greater their level of participation in associations and in community decision-making.

On the other side, Edmund M. Burke (see Kramer and Specht, 1975, p. 196) strongly supports the idea of involving local people in decision-making and in the process of community development. He touched the issue in a more

fundamental way when saying "citizen participation is part of our democratic heritage, often proclaimed as a means to perfect the democratic process. Stated most simply, it views the citizen as the ultimate voice in community decision-making. Citizens should share in decisions affecting their destinies. Anything less is a betrayal of our democratic tradition."

He further argued that "local people participation" or "citizen participation" can be used as a basis for various strategies in relation to community development. He identified five strategies merited from "citizen participation," e.g., education-therapy, behavioral change, staff supplement, cooperation and community power (Ibid., p. 197).

Khinduka in his article entitled Community Development: Potentials and Limitations (see Kramer and Specht, 1975, p. 175) stressed the importance of the educative aspect of local participation in community development. He said, "Community development includes a composite of process and program objectives. As a process, it aims to educate and motivate people for self-help; to develop responsible local leadership; . . . to introduce and strengthen democracy at the grassroots level through the creation and/or revitalization of institutions designed to serve as instruments of local participation. . . ."

"Basic to community development process is participation by the people of the community in the process," Cary (Lee Cary, 1975, p. 144) argued. The emphasis, however,

does not deny the importance of individual effort nor does it preclude other approaches to the solution of community problems and the bringing about of community change. The three value assumptions presented here are: (1) people of the community should actively participate in community change; (2) participation should be as inclusive as possible; and (3) participation should be through democratic organizations. He added, three necessary conditions for participation must be present if these value assumptions are to be realized: (a) freedom to participate--autonomy; (b) ability to participate; and (c) willingness to participate.

In talking about aspects of participation, Stuart Chapin (in Cary, 1975, p. 147) developed a scale of five continuum which started with "membership" and included from low to high, "attendance at meetings," "financial contribution," "membership on committees" and "positions of leadership."

In his study done in Indonesia, Nat J. Colletta (1976, p. 36) found out that the crucial task of developing the community is how to mobilize and manage community learning resources into a prototype Community Learning System which connects community articulated learning needs to community-based learning resources in a comprehensive, integrated community education network. He added that an acute understanding and articulation of local needs and conditions must be directly linked to this management-resource-learning

system. This necessitates community participation in unveiling needs, conditions, and resources, and in planning meaningful ongoing development activities.

Summary

Besides those who support the importance of people's participation for community development, there are some who are skeptical about it. Their arguments are based on the fact that the lower the level of education and socio-economic status of the people the less contribution they can give to the process of development of their community. This is especially true when community development is merely meant as carrying out a specific program for community development. But in this argument something vitally important has been forgotten; i.e., the educative aspect of the process of development (Burke, 1975; Khinduka, 1975; Cary, 1975). In other words, in the short run the involvement of the people in the process of community development may be seen as a hindrance (Rosenthal and Crain, 1967; Starr, 1968) to completing the program as scheduled. In the long run, however, it could be a vital investment in terms of increasing the competences, self-confidence and internal leadership capacity of the local people to achieve a self-help and a self-determination level of development for their own community. The section that follows will discuss the roles of the community fieldworkers in dealing

with his job to achieve the development goal of the community.

The Role of the Fieldworker in Community Development

Edwards and Jones (1976, p. 15) in Community and Community Development pointed out that the social structure of a community consists of three types of units; i.e., individual persons; informal groups, such as friendship and other spontaneous groups; and formal groups, such as schools, churches, businesses, labor unions, and social welfare agencies. These three types of units are patterned into the subsystems of family, economy, government, religion, education and social welfare.

Community Education, as one subsystem of a community, has a specific role in dealing with community development. Due to the fact that its main job is concerned with increasing people's awareness of their own strengths and weaknesses, changing their attitudes and behaviors in relation to their present condition and the ideal future of their community, and developing their understanding, knowledge and competences necessary for development, community education holds a catalytic role for community development.

As a catalyst for community development, this role of community education will penetrate and influence the work of other community development agencies in the field. In other words, the education function in community development does not necessarily limit its effect only to the

people but extends it to affect other community development agents as well. It means that education and training programs to increase the job performance of community development agents in general are always considered important. While education as a function penetrates the working mechanism of all community development agents, community education as an agent shares similar characteristics with other community development agents in the field.

Different scholars seem to define characteristics of the role of community development agent differently. While defining the role of community development agent is an important issue, this in itself is not by any means simple. Edwards and Jones (1976, p. 271) mention three main characteristics for the role of community development agent. These are as enabler, consultant and advocate.

As an enabler, the agent concentrates his expertise on helping the people of a community become collectively "do-it-yourself" experts on dealing with community change. As a consultant, the agent brings to the community action his expertise in identifying community needs, diagnosing the underlying conditions that give rise to the needs, and interpreting in understandable terms alternative courses of action that can be taken to get the needs met. Though not responsible for making decisions on goals and procedures, the agent as consultant may be expected to provide recommendations to the persons who are the decision makers. As an advocate, the agent's expertise in organizing people

to achieve specific goals of a community action effort is aligned with some cause in which he is a partisan participant.

The roles of the community development agent are typically generalist in nature. At the present time the position of the community development agent is found most widely in developing countries which have what is called national community development programs or simply a national development plan. "In communities of such countries," as Edwards and Jones (1976, p. 229) point out, "the agent has the role of 'opening the eyes' of the indigenous residents to the way of life characteristic of communities that have moved further toward modernization." They further argue that "he," meaning the agent, "also has the linked roles of trying to get the national program adopted in the community while seeing to it that the objectives and procedures advocated by that program are adapted to the needs and value system of the community and are realistic in terms of the resources that are available."

Somewhat different from Edwards and Jones, Robert Morris (see Cary, 1975, pp. 179-185) mentions four characteristics in terms of the roles of the agent. These include enabler, consultant, advocate and planner. He describes clearly the enabler role when saying:

> He is that worker who is in immediate and continuous communication with the individuals of a neighborhood, area, or region. He it is who maintains the essential link between the external world of ideas, values, and resources and the internal situation that is subject

> to change. He it is who is most sensitive to the pull of tradition, to the values inherent in the society, and to their revered and painful evolution over the centuries in some symbolic relationship to the environment. He it is who is sensitive to the particular character of wants and desires expressed by the individuals.
>
> This agent may identify completely with society and grope for those means by which he can stimulate the people to take the steps necessary to achieve that which they desire.

As to the consultant role of the community development agent, Morris describes: "He is the advisor or consultant and is usually responsible to an external employer." He then continues by saying: "The advisor or consultant necessarily requires some knowledge of the local culture as well as of the external culture and acts as a bridge between the two."

By contrast with both the enabler role and the consultant role, the advocate is committed to the aspirations and desires of the local people in the effort of developing the area where he is working. He said, "he has identified himself with their needs and wants, regardless of the extent of 'mix' between his own perceptions and those of the native population. His main function is to press the views of local needs upon the external agency in order to secure a response--favorable and helpful, if possible."

The final characteristic of the community development agent role he describes is that of planner. "The planner usually functions at the external agent level," he said, "but is responsible for designing the details of any

program that seeks to alter a local situation, whether that locality be defined as a neighborhood of a city, a town, a region, or a nation. True, he is concerned with procuring some sounding of local wants and needs and local attitudes. However, his main concern is to fit local needs into some kinds of national or external agency plan. In this sense, the development planner is usually a combination of technician and advocate, in the sense that those local elements which he identifies as being relevant need to be ranked in relation to other demands on the nation's resources" (Ibid., p. 182).

Though not completely similar, Irving Spergel (1974, p. 59) also has four characteristics in defining the role of the community development agent. These four characteristics include the roles of enabler, advocate, organizer and developer. He says: "The role of the enabler derives from the social service tradition. Such a worker," he continues, "usually a professional, is expected to guide, advise, and assist representatives of community groups, often representing the dominant interests of the community, to work together to solve various agency and community problems. In this process the group, and theoretically the community itself, is expected to achieve a higher level of moral or value integration."

In the advocate role he argued that ". . . the worker directly represents or persuades other members of professional and elite groups to represent the interest

of an estranged, deviant, or less powerful and usually less articulate sector of the population" (Spergel, 1974, p. 60). He continues by saying that "He," meaning the community agent, "is more interested in innovation and plans for effective services, usually through the medium of demonstration programs than in traditional services" (Ibid., p. 60).

"As an organizer," Spergel (Ibid., p. 61) further argued, "he usually has strong ideological commitments and is concerned with the general change of a social system. While as a developer, his major aim is to nurture and develop the integrity of the community's pattern of adapting to social conditions."

Summary

Though not using exactly the same terms to describe the roles of a community development agent, many scholars seem to agree as to what characteristics need to be met by an agent in carrying out his task. These characteristics include that of enabler, consultant, advocate, planner, organizer or developer. A combination of some of these characteristics might be appropriate for one type of community, while another combination might fit another condition. Generally, community education agents have the same characteristics as community development agents.

The next section reviews literature concerned with the function of training for the agent so that he might be better able to carry out his job responsibilities.

The Function of Training

Within these last two decades training has become more and more important in the framework of human resource development. The advancement of science and technology has demanded that knowledge, skills and competencies should constantly be developed through education and training. This demand for continuing education and training for the staff member, employee or worker, is felt as an urgent need by almost every sector of management in the community, whether it is a government institution, social institution or private industry.

It is interesting to note here Havelock's explanation for the need for training in the area of resource utilization.

> We live in an age of expanding resources and expanding awareness of problem. However, it is also widely believed that we are entering a period of crisis in which resource capabilities will reach their limit while demands on resources continue to escalate. Regardless of the dimensions of this crisis, there is some consensus on the need to close the gap between available resources (knowledge, technology, products, services, facilities, etc.) and known human problems and needs (Havelock and Havelock, 1975, p. 1).

He further says:

> Both the problem and the opportunity are before us. On the other hand, there is rising tide of needs and expectations, proclaimed by many as an impending series of crisis. On the other hand, in this century there has been a fantastic acceleration on knowledge building,

> and in the growth of technological know-how. The question of the use of these capabilities to meet the rising tide of need therefore becomes ever more insistent (Ibid., 1975, pp. 1-2).

When Havelock insisted the application of training to close the knowledge gap, Blakely criticized it by saying, "Although training has been conducted since the days of the Pharaohs, there has been little advance in scientific development" (Edward J. Blakely, 1972, p. 32). In the meantime he also admitted that training is complex. "Presently," he said, "most large industries, government, the military and business have established in-service training departments. Training has become increasingly complex in the past decade" (Blakely, 1972, p. 32).

Most people agree that to lessen the gap between the existing knowledge, skills and competencies and the ever advancing field of science and technology, training and education must be considered as an urgent need of a modern society.

"With regard to education," Rosemary Springborn, (1977, p. 22) says, "we must recognize that our advancing technology will require most workers to obtain additional training throughout their careers. In some instances, complete retraining for new occupations may be necessary." She continues, "The rate of technological change has accelerated beyond our expectations, creating a concomitantly rising need for constant and continual adjustment and adaptability on the part of employees and organizations

alike. The organization that trains its workers now is safeguarding its position today. The organization that also educates them is preparing for its place in the identifiable tomorrow" (Emphasis added; Springborn, 1977, p. 22).

"Education and training," she adds, "is seen by management in more and more instances as an investment in human capita--an instrument for profit, growth, and corporate vitality--rather than as an onerous cost" (Ibid., p. 22).

Benjamin Tregoe (1975, p. 21), analyzing the situation that every one of us is facing right now, regardless of what type and kind of management we are responsible for, stated that we are in trouble. "We are living in a time of such rapid change," he said. "I think change is upending most professions, the training and development profession along with them" (Ibid., p. 21).

On the question of what the implications of this would be for training professionals, he answered: "I am focusing on the need to continuously update the knowledge a person has. I think the whole notion of continuing education has got to take on some real meaning. Up until now it has been something people talked about, a phrase. But I don't think people have taken it seriously enough. Continuing education has always been the low-status operation in a university--it's been night schools, it's been something less important than day-time activities--and far less

prestigious. It seems to me that's going to have to change. People will have to continue learning" (Ibid., p. 21).

While many people believe that staff training and education are not wasted investments in terms of organization and management development, what has been done in the field has not been promising. This idea was supported by Nammacher in his analysis of US industrial plants management development from the early 60s through 1977.

> In 1960, a Plant Engineering Magazine survey revealed that the number-one problem facing the plant engineer was finding and training maintenance craftsmen. A 1968 US Office of Education Study, which verified those findings, showed that 80% of US industrial plants were experiencing a maintenance employee shortage. That same year, Plant Engineering did a follow-up survey which showed the situation had deteriorated. While 97% of the respondents recognize the need for maintenance training, less than half (43.7%) were doing anything about it (Thomas J. Nammacher, ed., 1977, p. 7).

He continued by saying, "Today, nine years later, the statistics have not improved. Still less than half the US industrial plants do any training; and only 8.6% train maintenance craftsmen on a formal basis."

In spite of the fact that what has been done in the field of staff training and education needs to be improved, quantitatively as well as qualitatively, the importance of the training function for management and organization development is getting more and more recognition from the community. As Craig mentioned, ". . . organization management, in both public and private sectors, has come to have greater and greater expectations for the training and development function" (Robert L. Craig, 1976, p. xiii).

In the area of community development this phenomenon is even more substantial. John S. Bottum et al. pointed out in their report,

> Communities' needs and demands for people trained in community development are growing rapidly. As society becomes more complex, sound community decision making becomes more difficult and requires professional assistance to augment public and private efforts. The consequences of various courses of action are becoming more intricately intertwined and far reaching. Because of the complexities of modern society, it is becoming increasingly difficult to obtain adequate information and to maintain effective decision making structures. The desire for decentralization of decision making--that is, letting local people decide their future--augments the demand for professional community development workers (John S. Bottum et al., in A Task-Force Report, 1975, p. 4).

Gessaman points out, "Agency field personnel have key roles that they can perform in support of local community development activities:

1. They can provide extra skills, knowledge, and resources that may make possible local community development efforts;
2. Delivery of agency programs may provide an important component of resources needed to achieve local goals" (Paul Gessaman, 1978, p. 8).

And in fact, "The primary rationale for community development training is recognition of the importance to communities of these key roles of agency field personnel" (Gessaman, 1978, p. 8).

In concern with some difficulties that a teacher might have in teaching skills for the community education agents, Luke and Ulmer give their comments:

> Perhaps two areas where teachers have the greatest difficulty in extending their range of teaching skills are: (1) helping create meaningful experiences through which the student may develop insights and awareness--as differentiated from acquiring facts--and (2) in providing students frequent opportunities for practice (Robert A. Luke and Curtis Ulmer, 1971, p. 19).

It has also been a significant phenomenon within these last few years that people have been more and more concerned with the technical questions of conducting the training rather than with the policy question of whether or not training is important. In other words, people do not primarily focus on questions such as why should training be conducted or is training functional to developing organization management, rather, people are pursuing answers to technical questions such as what should be taught in training, and how it should be taught.

Regarding what should be taught in training, Broadwell gives his warning when saying, "One thing we've learned through organizational development is that not everything that employees are doing incorrectly can be eliminated by training (Martin M. Broadwell, 1975, p. 8).

He continues:

> The basic question is "How to determine the training needs?" In other words, "What can a supervisor do to see whether an employee really needs training and how can he determine exactly what the training need is?" First, we must recognize that training is needed when an employee <u>can't do a job</u>, <u>can't do it well enough</u> or <u>is doing it wrong</u>. These three training needs situations are the only <u>real</u> justification for spending training dollars. Any other are hard to justify when the boss asks "Why training?"
>
> The performance on the job becomes the only criterion for determining whether or not the employee needs training. The supervisor compares the standard with the employee's

> performance. Any deficiency indicates an area where training can help (1975, p. 8).

When asked whether a "standard" is the same thing as a "job description," his answer was quite positive.

> No. A job description or a procedure manual tells us specifically what an employee is supposed to do and how and when he or she is supposed to do it. By a "standard" we mean not only what job and how it is done, but how well, how often, how much, how many. We add a quality feature to the measurement.
>
> Any good trainer will want to know that his trainees' supervisors have looked at the employees' work in light of quality and quantity, not just procedures (1975, p. 8).

Much of the staff training that has been done in the field has been to fulfill an administrative requirement only and not to seriously produce improved performance. This critique was launched by Rummler when saying: ". . . , you must view the training function not as a keeper of the corporate 'school house' but as 'performance improver.' This means changing the mission of the training function from 'number of employees trained' or 'training program produced' to 'organization performance improved.' Naturally, this will lead to a difference in how management evaluates the training function" (Geary A. Rummler, 1977, p. 50).

> Under the current mission of "employees trained," evaluation of the training function is somewhat variant of "heads trained per training budget dollar." This, of course, emphasizes the volume of training conducted, not the value. Under the proposed mission of "organization performance improved," the evaluation will necessarily have to be a variant of "bottom line contribution per training-budget dollar." This will correctly emphasize the worth of the training, not the amount.
>
> Obviously, such a change in mission and evaluation of the training function will produce changes in how the training function operates (Rummler, 1977, p. 50).

At the conclusion of his comments he added that it was a promising phenomenon in these last five years that many training professionals have been moving in this direction.

Looking further along with what should be emphasized in staff training, the problems are of no less crucial. Benjamin Tregoe goes into further detail in pursuing this issue.

> Along with increased emphasis on continuous updating, I think, there is going to have to be more focus on the process of learning and not quite as much focus on the content of subject matter.
>
> . . . . . .
>
> That is because we see that while the problems of organizations are going to change with the times, the process for solving these problems are more likely to have a stable life. They don't go out of date so quickly (Benjamin B. Tregoe, 1975, p. 21).

On the question of how to define the "process" of training for management-supervisory levels, he explains:

> It involves two very fundamental things. First is information. No matter how you look at an organization, information is the basic raw material that makes it work. So process in management and supervisory development involves how you work with information, how you organize it, how you set priorities, how you recognize problems and analyze them and how you use information to come to conclusions.

He then continues:

> The other crucial aspect of process training at the management level, I would say, is the question of how people can work effectively together. An organization is not one person solving problems and making decisions. Training people to work effectively together involves work in interpersonal and intergroup relations, questions of feedback between people--those kinds of things (Benjamin B. Tregoe, 1975, p. 22).

Summary

Along with the advancement of science and technology, the function of training for management and organization development has become more and more important in modern society. The main function of training is to reduce the gap between the existing knowledge, skills and competences and the ever advancing field of science and technology. But in spite of the growing recognition of the importance of training, what has been done in the field has not been very promising.

It has also been a significant phenomenon within the last few years that people have been more and more concerned with the technical questions of conducting training rather than with the more basic policy question of whether or not training is important.

In terms of what should be emphasized in staff training, some writers agree that process rather than content is more important. This is due to the concept that the mastery of process has a more stable life and does not go out of date as quickly as the mastery of content or facts.

The next section reviews literature dealing with the question of what type of approach is likely to be more effective for training. In other words, what type of training is most likely to better equip the community development agent in performing his or her roles. More specifically, this section will discuss the relative

effectiveness of two types of approaches, i.e., the participatory-based or the student-centered approach and the lecture-based or the teacher-centered approach to training.

Relative Effectiveness of Participatory-based and Lecture-based Approaches to Training

In reviewing the literature concerned with the relative effectiveness of "participatory-based" and "lecture-based" approaches to training, two major difficulties arose. The first of these difficulties results from a lack of agreement in the definition of what is a participatory-based approach. Different writers or experimenters seem to like to use different terms. Some use such terms as "Student-centered approach" (vs. Instructor-centered approach--F. J. DiVesta, 1954); "Participative Action Groups" (Gibb and Gibb, 1952); "Group-centered" (vs. Teacher-centered--Haigh, 1956); "Participatory-Leadership" (vs. Supervisory-Leadership--M. G. Preston, 1956); or merely "Discussion" (vs. Lecture) as proposed by Richard Hill (1960) and also William Hill (1969) to denote more or less the same meaning of the term.

"The most notable of these divergent discussion procedures," or perhaps participatory-based teaching-learning procedures as David C. Dietrick pointed out, "are: (a) the recitation or question and answer technique, (b) the quiz section, (c) the lecture-quiz (vs. straight

lecture), (d) the reading-quiz method, (3) buzz sessions, (f) seminars, (g) group-centered and leader-centered discussion groups, (h) discussion-groups with 'participatory' and 'supervisory' leadership, (i) 'permissively' and 'directly' led discussion groups, (j) collections of persons who actually work as individuals, and (k) the 'true' discussion method" (Richard Hill, 1960, p. 90).

In contrast to these diversities and inconsistencies in using the term "participatory-based" approach or "discussion" method, the literature seems to reflect a general consensus regarding the definition of the lecture method or approach. As Stoval pointed out when saying: "About all that can be said is that the experimenters appear to have conceived the lecture to be a more or less continuous oral presentation of information and ideas by the teacher with little or no active participation by the members of the class" (Richard Hill, 1960, pp. 91-92).

The second difficulty encountered in reviewing the related literature arises from difference of criteria used in evaluating the effectiveness of the methods. Richard Hill (1960, p. 5) in his study comparing the relative effectiveness of "Lecture" and "Discussion" methods stressed that evaluation of the results should focus on three general classes of behavioral development or change. These include:

1. Development of mental abilities or skills;

2. Changes in values, interests or attitudes; and
3. Increased knowledge.

McLoughlin (1971, p. 30) in his study of participation of the adult learner in program planning focused on two variables to measure the effectiveness of the treatment. These two variables are change in attitudes and increase in achievement.

William Hill (1969) in his study on learning through discussion underlined three variables as a focus of comparison. These are performance, enthusiasm for learning and personality development. Three factors were also used by Daniel Solomon et al. (1963) as a focus of measurement, though these three lie in somewhat different areas than those proposed by Richard Hill and William F. Hill previously mentioned. These three factors used by Solomon include comprehension, general understanding and learning of facts.

Other writers or researchers still claim different categories of variables as a focus of comparison. William J. Cole (1977), for example, proposed that achievement, retention and attitude be the variables used as a comparison of the relative effectiveness of adult student perticipation; while Bergevin, Boyd, Dobbs and Douglas would stress knowledge, skills and retention rate as points of comparison (William J. Cole, 1977, p. 77).

While on the one hand divergent ideas as to the criteria of evaluation for relative effectiveness of the

"participatory-based" method are still continuing, on the other hand the results of research studies in the field are also confusing.

It is quite interesting to note what Richard Hill (1960, p. 84) had concluded in his study cited earlier:

> While many of the findings presented in the preceding chapters of this report require additional substantiation before they can be used as a basis for administrative action, the research as a whole gives little comfort or support to those with strong convictions about the superiority of either the discussion or lecture method of teaching. The overall impression that one obtains from these results is that the methods investigated are about equally the same.

On the other side, however, he admitted that individual differences might exist as to how much one could gain when a certain kind of method is used. He declared: "It may be that certain individuals derive more benefit from one method than from the other. On this issue, the present research sheds little light, for this was not the central problem of our investigation. A detailed study of the relationship between method-effectiveness and personality factors may be in order, and would be required if answers are sought to questions about who benefits most from what type of educational format" (Richard Hill, 1960, p. 85).

Two suggestions were made by Hill which are important to note here for further study. One is a question of recruitment of the training participant and the other is a question of the objective of the training. In other words, effectiveness of the educational format used in training

to a certain extent depends on who was recruited for the training and what types of objectives the training was attempting to achieve.

David Dietrick who made thorough comparisons of several studies of this nature gave very important remarks on the results of those studies in terms of three categories of criteria, i.e., acquisition of information, the retention of information and changing of attitudes (Richard Hill, 1960, pp. 92-95).

As to the acquisition of information he said:

> Most of the creditable research has employed the amount of information acquired as the criterion of relative effectiveness. The majority of these studies find that the lecture and discussion methods, including modified forms of the "true" discussion method outlined above, are equally effective in terms of information acquired. In general, studies comparing teacher-centered with group-centered classes also have found no significant differences between these two approaches.

About the retention of information he commented:

> This variable has received little attention in studies comparing the relative effectiveness of teaching methods. The few studies comparing lecture and discussion methods which have included this variable, however, reflect the general disagreement extant in the research on the acquisition of information.

He continued further that some studies found that knowledge acquired in discussion classes was retained to a greater degree than that gained from lectures without discussion.

As to the changing of attitudes as a criterion to measure effectiveness of methods, he said that:

> A number of studies have established clearly that both lecture and discussion methods are capable of affecting changes in attitudes. Comparative studies of the relative efficacy of these methods, however, are neither abundant nor entirely consistent in their implication. Those dealing with attitude change are less convincing than those dealing with informational variables. The methodology and measurement techniques used in attitude change studies are frequently subject to serious question. With these qualifications in mind, it appears that discussion methods are superior to lecture methods as a means of changing attitudes and behavior.

Instead of using acquisition of information, retention and changing of attitudes as criteria for measuring relative effectiveness of participation vs. non-participation approaches used in training, Solomon et al. (1963), in their study on teaching styles and learning preferred to use comprehension, general understanding and learning of facts as criteria. Notwithstanding the earlier suggestions they made, they added that:

> Student involvement is most suited for gaining comprehension and general understanding; while lecturing clearly is the most efficient way to promote the learning of facts (Solomon et al., 1963, p. 62).

It is interesting to note here that in a number of previous studies investigating the relationship of lecturing and learning of factual material, they found that positive relationships between these two did exist but were limited to only factual information and not for more complex learning. By the end of their analyses on this issue they concluded that:

> . . . the evidence shows a slight tendency for lecturing to be related to the attainment of factual information, but not more complex learning (Solomon et al., 1963, pp. 62-63).

Different with other researchers McLoughlin, in his study on participation of the adult learner in program planning, focused on dual criteria, achievement and attitude, as criteria for measuring method effectiveness. There are two conclusions that he suggested when he said:

> First, adults who participate in program planning appear to have more positive attitudes about their educational experience than those who do not. Second, no evidence was found to support the notion that participation in program planning affects achievement (McLoughlin, 1971, p. 30).

This finding supports what was suggested by Richard Hill and also Dietrick (Richard Hill, 1960), and seems to be consistent with the general trend of the research results of the study on participative vs. nonparticipative teaching methods. McLoughlin further suggested that:

> Based on this study, differences in achievement scores cannot be accounted for by knowledge of participants' involvement in deciding what and how they will learn. No evidence was found to support the notion that sharing the decision on course content and design at the cost of increasing the complexity of the educator's task will produce a measurable increase in achievement (1971, p. 34).

While on the one hand both methods, participative vs. nonparticipative, were equally effective in terms of increasing achievement of the training participants, on the other hand the impact of participation in program planning on attitude scores was more marked. As McLoughlin pointed this out when saying:

> Significant differences in attitude were found in favor of groups that had the opportunity to share in the decision on course content and design (1971, p. 34).

He himself was somewhat surprised with the finding since both groups, experimental as well as control, received exactly the same methods of teaching during the training sessions. He said:

> Most of the teaching methods used in both phases permitted considerable participation during the instructional periods, i.e., during discussions, small group work exercises, simulation games, and case studies (emphasis added).
>
> However, these opportunities to participate extensively during the instructional periods did not mask the attitude change resulting from the opportunities to participate during the course planning sessions. This fact suggests that the impact of participation in program planning on attitude change may be quite powerful (1971, p. 34).

It might be correct to conclude that the influence of the methods used during the instructional periods on the attitude change did not surpass the influence of the previous conditions experienced by the participants prior to training (in this case opportunities to participate during the course of planning sessions). But, on the other hand, these same methods of teaching used during the training sessions could also be assumed as the very reason why a significant difference did not occur in terms of achievement increase of the participants. It could be further argued if, and only if, the methods used during the training sessions differed from one group to another, the results on the achievement of the participants could possibly differ significantly. If this was the case, the final conclusion would be that the opportunities to participate extensively during the course planning sessions,

prior to training, did not mask the increase of achievement of the training participants resulting from the opportunities to participate during the instructional periods. But this is an experimental question which calls for further verification.

A similar study to that done by McLoughlin was also conducted by William J. Cole and Conrad J. Glass (1977) entitled The Effect of Adult Student Participation in Program Planning on Achievement, Retention and Attitude. They stated that the purpose of this study was to investigate the influence of adult student participation in program planning on student achievement, retention and attitude. They came to markedly different conclusions than did McLoughlin when they said:

> First, adult student participation in program planning appears to affect positively student achievement; second, no evidence was found to support the prediction that participation in classroom planning positively influences retention of information; and third, given a situation where prior attitudes are not firmly fixed, participating in program planning may have considerable impact on attitudes of adult students (1977, p. 75).

Another source of support for this study, as Cole (1977) indicated, ". . . is the personal testimony of practicing adult educators. The literature abounds with reputable professionals such as Bergevin (1967), Boyd (1969), Dobbs (1967), Douglas (1970), and Knowles (1970) who advocate the importance of involving adult learners in the planning process. If participants are successful in incorporating into their learning activities goals and

experiences which they feel are beneficial, then in all likelihood they will be more desirous of achieving these goals. The knowledge and skills will be more appropriate to their needs; hence, the learners will tend to retain and apply the new learnings more readily than if the content and skills are viewed as irrelevant (Cole, 1977, p. 77).

It should be emphasized, however, that the views cited above of adult educators are mostly opinions based essentially on intuition and experience rather than research findings.

Still other comments of this nature were coming from H. R. Mills (1977) who said:

> Methods of measuring training effectiveness are admittedly not very satisfactory and the human relations problem remains.
>
> The truth is that each method of instruction or mode of learning is effective within certain limits, and each has its own strength and weaknesses.

He continued:

> Lectures have several advantages, one instructor can handle a large class of a hundred or more, he can cover a great deal of ground in his own way, no equipment need be used, and a lecture well prepared can be repeated without any great effort on the part of the lecturer by way of further preparation (1977, p. 155).

And further:

> The main disadvantage is that knowledge gained by passive listening to a factual lecture, without some participation by the class, is not readily assimilated, and saturation sets in very quickly. The lecture offers no scope for class participation and is therefore of little use in the training of men in skills. The advantages benefit the instructor, the disadvantages penalize the class (1977, p. 156).

Finally he concluded:

> The least effective medium is one which uses only words--without the support of things to see or do. Skills cannot be taught by lecturing (1977, p. 157).

Summary

Three areas can be identified where researchers and experimenters are not in agreement in terms of this study. First, there is a lack of agreement in the definition used to connote more or less the same meaning of a "participatory-based" approach to training. Different writers or experimenters seem to have preference for different terms according to their own background, rationale and taste. Second, there is a diversity in identifying what criteria will be used as a basis of measuring the results of a particular treatment. For instance Richard Hill focused on three general classes of behavioral development or change as measurement criteria that include (1) development of mental abilities or skills; (2) changes in values, interests or attitudes, and (3) increased knowledge. McLoughlin preferred to use two variables as criteria of measurement which included (1) change in attitudes, and (2) increase in achievement. William Hill proposed three other variables as a focus of comparison. These are (1) performance; (2) enthusiasm for learning; and (3) personality development. Solomon also describes three variables for comparing the results of the treatment. These are (1) comprehension; (2) general understanding; and

(3) learning of facts. Still other writers claim different categories of variables as a focus of comparison. William Cole, for example, proposes that (1) achievement, (2) retention and (3) attitude be the variables used as a comparison; while Bergevin, Boyd, Dobbs and Douglas would stress (1) knowledge, (2) retention and (3) skills as points of comparison.

While the divergence of ideas as to the criteria of evaluation for relative effectiveness of the treatment is continuing, the results of research studies in the field are similarly divergent. This is the third area which can be identified where researchers or experimenters are not in agreement.

David Dietrick, from his thorough comparisons of several studies of this nature, concludes the results in terms of three categories of criteria. First, in terms of information acquired, both methods are equally effective. Second, in terms of retention of knowledge acquired, discussion classes did better. Third, in terms of changing attitudes, it seems that discussion methods are superior to lecture methods.

Solomon et al., in their study, concluded that student involvement is most suited for gaining comprehension and general understanding, while lecturing is the most efficient way to promote the learning of facts.

There are two conclusions derived by McLoughlin's study. First, adults who participate in program planning

appear to have more positive attitudes about their educational experience than those who do not. Second, no evidence was found to support the notion that participation in program planning affects achievement.

Cole and Glass in their study came to somewhat different conclusions with those done by McLoughlin, Solomon, Dietrick or Hill, when they said that:

first, student participation positively affects student achievement;

second, no evidence was found that participation influences retention;

third, participation may have considerable impact on attitudes.

From his study Mills concluded that each method of instruction or mode of learning is effective within certain limits and each has its own strength and weaknesses. But he added that skills cannot be taught by lecturing.

CHAPTER III

DESIGN AND METHODOLOGY

This chapter is organized in a series of separate sections. The first section, Setting of the Study, discusses the location of the study, administration by the local government in relation to the central government and background information about the population from which the sample was drawn. The second section, Random Sampling, discusses the reasons why randomization of sample was used and considered appropriate for this study. The third section, Sampling Procedures, discusses the size of the sample, how the sample was drawn and the grouping within the sample that was assigned. Research Procedures and Design, as the fourth section of this chapter, discusses the major design of the study, when the study was conducted and when and in what ways the data were collected. Dependent and Independent Variables, which makes up the fifth section in this chapter, discusses the types of variables measured in this study to yield quantifiable data and what types of treatments were implemented. The last section, Some Problems on Validity, describes the strengths and weaknesses of the

study due to the nature of the study and the ways in which it was designed and conducted.

Setting of the Study

Since the study involved fieldworkers from *Penmas* it was important, before its implementation, to receive approval from the *Penmas* Directorate. A number of conversations were held by the researcher with the Director of *Penmas* to get his confirmation as to the location of the study, when the study would be conducted and also the approximate number of *peniliks* who would be involved in the study. Probably the most important aspect of these conversations was to get his understanding as to the design and the expected results of the study.

In the structural organization of the Ministry of Education in Indonesia the Directorate of Community Education or *Penmas* works under the Directorate General for Out of School Education, Youth and Sports, within the Ministry of Education and Culture. Since the administration is centralized, the Directorate of Community Education is responsible for all community education activities throughout the country. To carry out its job, however, extension offices of Community Education are located in each province under the coordination of the Provincial Representative Office of Education and Culture. It was also important, therefore, for the purpose of this study, to get approval

and understanding from the Community Education Office at the provincial level where the study would be carried out.

Through a series of discussions with the Director of *Penmas* it was learned that several provinces were available as potential locations for the study. The available provinces were those that were not being utilized as test sites for the World Bank project. In order not to interfere with the *Penmas* training scheme under the World Bank project, West Java province was chosen as the location for the study. Another important factor which was also taken into consideration in the selection of this province was that the researcher lived in West Java. Hence, using the West Java province as the location of the study would considerably reduce the time and cost of the work and increase the efficiency.

The selection of West Java was also agreeable to the Director of *Penmas*. A list of all community education fieldworkers or *peniliks* in West Java province was then made available to the researcher as a basis of selection of subjects for the study.

There were altogether three hundred and ninety *peniliks* in West Java province who were considered as the sample frame or population for the study. West Java is one among the twenty-seven provinces in Indonesia. However, due to the density of the population on Java island in general, the population in West Java alone consists of

more than one-sixth (around 17.5 percent) of the more than 130 million people in Indonesia.

In the province of West Java there are a total of twenty *kabupatens* (comparable to district) and four municipalities as shown in the map on page 73 (Figure 3.1). Jakarta and its Special Region was excluded from the study, since this special region for the national capital city is administered as a separate region and is not a part of West Java province. Within these districts and municipalities there are 390 *kecamatans* or subdistricts where there is a *penilik* assigned and responsible for community education in the subdistrict.

The subjects selected for the study represent sixteen of the twenty-four districts and municipalities in the West Java province.

Random Sampling

For the purpose of this study randomization was used as a procedure in drawing the sample from its population. Random sampling was considered appropriate to use in this study for two major reasons. One, recruitment of *penilik*s is done through an administrative process where defined criteria must be met. So, those who are appointed as *penilik*s are considered to be at the same level of competence regardless of their differences in age, years of experience as a government employee and years of formal education. Two, the geographic location and type of

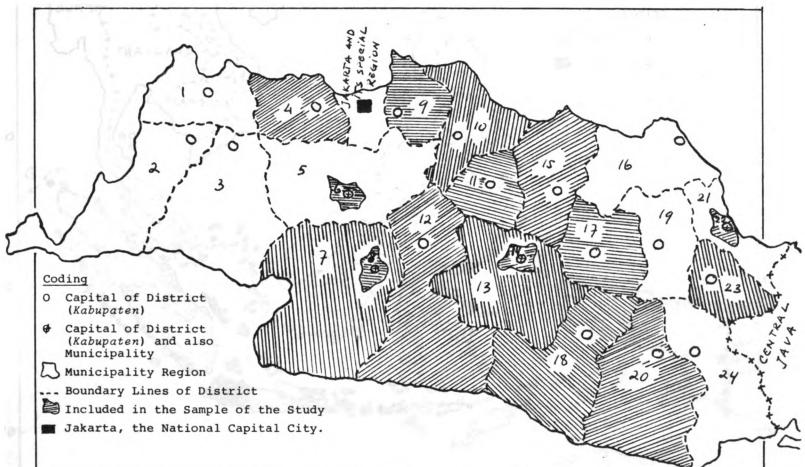


Figure 3.1.--Map of West Java Province.

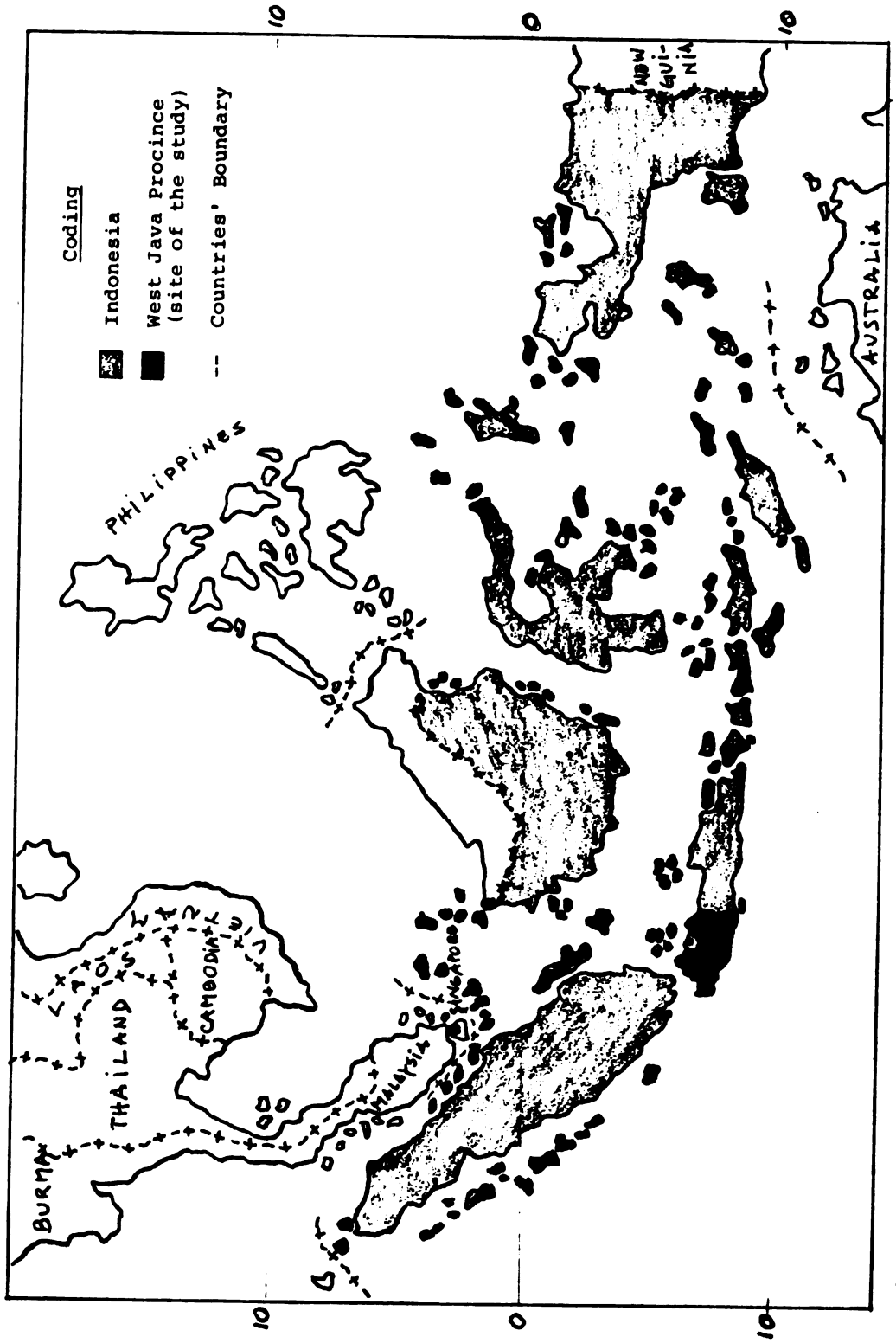


Figure 3.2.--Map of Indonesia.

community in which a *penilik* was appointed to work in was considered at random, in the sense that one was not considered better than the others. It is admitted, however, that differences might exist between the big city and the medium or small city situations. These differences, however, have their own advantages and disadvantages which are hard to control in a study of this nature. For instance, communication in big cities is relatively more simple and does not create as large a problem for a *penilik* to move about in carrying out his job. But life in a big city is more complex, and the people are relatively more individualistic in living their life. This can potentially create some difficulties for a *penilik* in performing his job. On the other hand, communication in small cities is relatively more difficult which also creates a problem for a *penilik* in performing his job. But the life of the people in small cities is relatively more simple which can assist the *penilik* in working closely with them.

Sampling Procedures

Forty-five out of the 390 *peniliks* were drawn randomly as subjects for the study. Again, these forty-five *peniliks* were randomly assigned to three different treatment groups. The first group of fifteen *peniliks* was assigned as group A to receive training using a participatory-based approach; the second group of fifteen *peniliks* was assigned as group B to receive training using

a lecture-based approach; while the third group of fifteen *penilik*s was assigned as group C to receive no training and to serve as a control group in the study.

Table 3.1 shows the names of the twenty-four districts and municipalities in West Java province, the number of subdistricts in each and the number of subdistricts assigned to each of the treatment groups for the study. A list showing the names of the districts included in the sample, and the names of the subdistricts selected for the study is shown in Table 3.2.

The randomization of the sample was done by using slips of paper each of which contained the name of one of the subdistricts in West Java. One at a time the slips were drawn and sequentially assigned to each of the three treatment groups. This drawing of slips of paper for assignment was repeated until the total number of fifteen subjects for each group was completed.

Research Procedures and Design

The "pretest-posttest control group" is used as the major design of the study. Issues which this section discusses include treatment, pretesting and posttesting as the major data collection procedures and interviews to get other data supporting the major data elicited by the tests.

Treatment

Two short-term training sessions, each of one week duration, were carried out for the two different

Table 3.1.--Names of the Districts and Municipalities in West Java Province, the Number of Subdistricts in Each and the Number of Subdistricts Assigned to Each of the Treatment Groups for the Study.

	District/ Municipality in West Java Province	Number of Subdistricts in Each District/ Municipality	Number Included in the Sample for Different Treatment Groups			
			Number	"A"	"B"	"C"
1.	Serang	26	-	-	-	-
2.	Pandeglang	16	-	-	-	-
3.	Lebak	15	-	-	-	-
4.	Tangerang	17	1	-	1	-
5.	Bogor (Munic)	5	2	-	-	2
6.	Bogor (Distr)	24	-	-	-	-
7.	Sukabumi (Munic)	2	1	-	-	1
8.	Sukabumi (Distr)	21	2	-	2	-
9.	Bekasi	13	1	-	1	-
10.	Karawang	12	1	-	1	-
11.	Purwakarta	7	3	1	-	2
12.	Cianjur	17	4	2	2	-
13.	Bandung (Distr)	29	7	3	-	4
14.	Bandung (Munic)	16	4	2	-	2
15.	Subang	11	3	1	2	-
16.	Indramayu	17	-	-	-	-
17.	Sumedang	14	4	2	-	2
18.	Garut	23	6	2	2	2
19.	Majalengka	17	-	-	-	-
20.	Tasikmalaya	25	2	-	2	-
21.	Cirebon (Munic)	4	2	2	-	-
22.	Cirebon (Distr)	21	-	-	-	-
23.	Kuningan	14	2	-	2	-
24.	Ciamis	24	-	-	-	-
	Total	390	45	15	15	15

Table 3.2.--Names of the Districts Included in the Sample and the Names of Sub-districts Selected for the Study.

District/Municipality	Treatment Groups		
	"A"	"B"	"C"
1. Bandung (Distr)	1. Rancaekek 2. Buahbatu 3. Soreang		1. Cipatat 2. Padalarang 3. Batujajar 4. Cimahi Tengah
2. Bandung (Munic)	1. Cibeunying 2. Kiaracondong		1. Bbk. Ciparay 2. Cidadap
3. Subang	1. Pagaden	1. Subang 2. Kalijati	
4. Sumedang	1. Tanjungsari 2. Cikeruh		1. Rancakalong 2. Cimalaka
5. Garut	1. Limbangan 2. Kadungora	1. Garut Kota 2. Tarogong	1. Cibatu 2. Malangbong
6. Cianjur	1. Ciranjang 2. Cianjur Kota	1. Warungkondang 2. Cugenang	
7. Purwakarta	1. Plered		1. Darangdan 2. Jatiluhur
8. Cirebon (Munic)	1. Cirebon Utara 2. Cirebon Timur		

Table 3.2.--Continued.

District/Municipality	Treatment Groups		
	"A"	"B"	"C"
9. Sukabumi (Munic)			1. Sukabumi Slt.
10. Sukabumi (Distr)		1. Cicurug 2. Cisaat	
11. Bogor (Munic)			1. Bogor Utara 2. Bogor Barat
12. Tasikmalaya		1. Tawang 2. Cipedes	
13. Kuningan		1. Cilimus 2. Kadugede	
14. Tangerang		1. Tangerang	
15. Bekasi		1. Bekasi	
16. Karawang		1. Cikampek	

experimental groups--group A and group B. In these two training sessions exactly the same texts were used. The topics of the texts were around issues and problems related to day-to-day's work of community education fieldworkers in carrying out their job. Eight topics were chosen and sanctioned by the Director of *Penmas* to be used in the training. These eight topics included: (1) What is Community Development?; (2) The Importance of the Local Needs; (3) Strategies for Understanding Local Needs; (4) Drawing Workable Conclusions About Community Developmental Needs; (5) Identifying the Available Resources; (6) Prioritizing Needs and Resources into a Workable Plan; (7) Facilitating the Learning Process; and (8) Evaluating Community Education Programs.

In performing the training, to reduce the researcher's bias, another trainer was hired as a cotrainer to conduct the training sessions together with the researcher. This cotrainer was an experienced teacher with experience working as a lecturer in the Institute of Teacher Training in Bandung. At the time when he was hired as a cotrainer for the study he was a staff member of the Center for Training and Community Learning Activities of *Penmas*. The cotrainer was fully briefed by the researcher regarding the nature of the study, strategies for conducting the training and the texts and other materials that were to be used.

Besides the use of identical printed materials for both training sessions, the allocation of time for each was

also the same. The primary difference that existed was the way in which the information was delivered to the training participants. In the participatory-based approach discussions among the participants themselves either in small groups or in large groups were very common features during the training characterizing a freedom to express ideas and thoughts. Lecturing was minimized in this first approach, and two-way discussions between the presenters and the participants were encouraged. Other participatory activities such as role playing, simulation, group project, field observation, field practice and mutual planning were also used as media to transfer the knowledge and skills presented in the printed materials.

The lecture-based approach was quite different. In this approach lecturing was the main vehicle for transfering knowledge and skills. One-way communication was promoted through lecturing with the training participants listening. Question and answer opportunities occurred only as demanded by the participants.

To avoid contact between the participants of the two different training sessions, the training sessions were conducted on different dates and in different locations. The participatory-based training for group A was conducted from May 19 through May 24, 1979, at the Center for Training and Community Learning Activities in Lembang. This is a small Center, in collaboration with *Penmas*, working under the jurisdiction of the Directorate General for Out of

School Education, Youth and Sports. This Center is responsible for running in-service training programs for all staff members working under the DG of Out of School Education, Youth and Sports.

The Center was selected for a training site due to the availability of rooms for conducting meetings and discussions during the training, the availability of rooms for accommodating the participants, a cafeteria, and the fact that the Center is not very far from the researcher's home in Bandung.

The second training session, the lecture-based training for group B, was held from June 3 through June 8, 1979, at the Center for Inservice Training for Primary School Teachers in Bandung. The reason for using this Center for conducting the second training was, again, the availability of rooms when they were needed since the Lembang Center was not available at the time when the second training was to be held. In this Center, rooms for conducting meetings and discussions were also available, including rooms for accommodation of the participants during the training and a cafeteria. In general, both Centers were quite similar in their physical appearance and in the learning facilities they could provide.

The nine days after the first training was completed and prior to the beginning of the second training was used by the researcher and the cotrainer to make further preparations for the second training.

During the actual training periods, contact between trainers and participants beyond the daily training hours was minimized as far as possible. This precaution was made to reduce uncontrolled factors influencing the results of the treatment.

During the training all printed materials which were prepared in advance, were distributed one night before the day they were scheduled to be used. This allowed the participants to have time to review the information.

While group A and group B received one week of training, group C received no treatment and continued their normal work routine.

Pretesting and Posttesting

Two types of tests were administered for this study. The first one was a cognitive type of test and the second one was a self-disclosure type of test. Both types of test were administered prior to the training as pretests and after the training as posttests.

Cognitive Type of Test

This test was administered three times during the study. The first test was administered prior to the implementation of the training; the second test was administered immediately after the training as a posttest I, and the third test was administered six months after the completion of the training as a posttest II. The cognitive type of

test was concerned with the knowledge and understanding of the individual *penilik* participating in the study (Appendix A).

Self-disclosure Type of Test

In principle, the self-disclosure type of test was a self-reporting test where the *penilik*s were asked to report by themselves what job related activities they had done in the field within the last six months, what activities at that moment were still going on in the field and what activities were planned to be carried out in the next six months. The data from the self-disclosure test would have nothing to do with the administrative sanctioning of their work.

This type of test was administered two times during the study. The first test was administered prior to the implementation of the training as a pretest, and the second test was administered six months after the completion of the training as a posttest. Both pre- and posttests used the same test instruments. The self-disclosure type of test was concerned with the actual on-the-job performance of the individual *penilik* participating in the study (Appendix B).

The Pretest.--In administering the pretests for both types, group C, the control group, which did not receive any training, was also brought together to complete the tests. This strategy was taken to make sure that all

three groups completed the pretests before any training had started.

Group A and C were called upon first at the Center for Training and Community Learning Activities in Lembang one day before the day the training for group A was started. Group B was called upon to complete the pretests one day before the actual training for them was started.

Before starting on the pretests all *peniliks* were told that a series of activities would follow for about six months after the training was completed. These activities would have nothing to do with the administrative regulations of their work, and also would have nothing to do with their career planning. The only concern of the trainers was in trying to develop an effective and efficient way for delivering training for *peniliks*. Whatever the results of the tests or the training would be, they would provide a solid foundation for the development of future training programs. For completing each of the two types of test a two hour time period was provided.

The Posttest.--For the cognitive type of test the posttest was administered two times during the study. The first posttest, the posttest I, was administered for group A and B immediately after the completion of each of the trainings. The test instruments used in this posttest were the same with those used in the pretest. This posttest I was administered to measure any immediate effects of the

training on the cognitive skills of the participants. Group C, the control group which did not receive any training, was also posttested to see if there was any effect on their cognitive skills due to the experience of the completion of the pretest. But since group C did not attend any training session, this posttest I for group C had to be administered in the field. For this purpose two research assistants were hired to help the researcher to accomplish the posttest I for the group C. One was a graduate student of the Institute of Teacher Training in Bandung, and the other one was a technical staff member of the Regional Community Education Office.

After both training sessions were completed, a six month period was provided to allow the participants to resume their job in the field and to allow time for them to practice the knowledge and skills received from the training. At this time, posttest II of the cognitive type together with the posttest of the self-disclosure type were administered.

The posttest II of the cognitive type was administered to measure to what degree the knowledge and understanding achieved during the training was retained after the six month period of time. The posttest of the self-disclosure type of test was administered to see whether any effects occurred regarding the self-reported performance of the job of the *peniliks* due to the training they had completed.

As was done with the pretest of both types and the posttest I of the cognitive type, the instruments used in the posttest II of the cognitive type and the posttest of the self-disclosure type were exactly the same. However, different with the administration of the pretests and part of the posttest I of the cognitive type, the administration of the posttest II of the cognitive type and the posttest of the self-disclosure type was completed individually in the field for all forty-five *peniliks* participating in the study. A longer time period was needed, therefore, to accomplish both posttests since the examiners had to actually visit all of the forty-five *peniliks* in the field. It took a total of nineteen days from November 17 through December 5, 1979. Four people were involved in this activity, including the researcher himself, the coinstructor of the training and the two other research assistants mentioned earlier.

Interviews

Besides the major data collected through the testing of the participants of the study, other data were also collected from those who were not directly involved with the study, but whose job was seen as quite relevant to the job of the *peniliks*. These were the *peniliks'* immediate supervisors. The supervisor operates at the district or municipality level and supervises all of the *peniliks* who work within his area.

Data from the supervisors were collected by way of interview which was done twice during the study. The first interview was conducted prior to the implementation of the *penilik* training, and the second interview was conducted six months later at the same time as the administration of posttest II of the cognitive type and the posttest of the self-disclosure type for the *peniliks*.

All sixteen supervisors of the *peniliks* used in the study were interviewed to get their ideas about the job performance of their *peniliks* who were involved in the study. The results of the first and the second interviews were compared to see if any changes occurred in the job performance of the *peniliks* in terms of supervisor perception, due to the effect of training. The interview guides for the supervisors can be found in Appendix C.

Figure 3.3 shows the design of the study in terms of when the different types of data were collected.

Dependent and Independent Variables

The three major dependent variables that this study examined were achievement, retention and performance. Achievement level was measured using a cognitive type of test which was administered prior to training as the pretest and immediately after training as the posttest I. The *peniliks*' knowledge and understanding of problem areas of their job, their ability to find ways for solving critical problems they encountered, and analyzing situations to

Group	Pre-test	Treatment	Post-test I	Field Practice (6 months)	Post-test II
Exp. A	01	X1	01		01
	02				02
Exp. B	01	X2	01		01
	02				02
Cntr. C	01		01		01
	02				02
Supervisors	SI				SI

NOTES: (1) 01 -- Cognitive type of test;
(2) 02 -- Self-disclosure type of test;
(3) SI -- Supervisor interviews;
(4) X1 -- Participatory-based training;
(5) X2 -- Lecture-based training.

Figure 3.3.--Main Design of the Research Study.

apply the most effective strategies for efficiently accomplishing their job, were the factors which were measured by this cognitive type of test. Scores elicited by the cognitive posttest I were compared across the experimental groups to see any achievement increase due to the different approaches used in the training.

Retention level was measured using the same cognitive test. It was administered as posttest II six months after training. Scores elicited by this posttest II were compared across the experimental groups to see how much information was retained in terms of the different approaches used in the training.

Performance level was measured using a self-disclosure type of test which was administered prior to training and six months after the completion of the training. Factors included in the performance which were measured by the self-disclosure type of test were grouped into five categories according to the roles that the *peniliks* were supposed to perform in relation to their job in the field. These five categories include: (1) the role of the *penilik* as an organizer; (2) the role of the *penilik* as a consultant; (3) the role of the *penilik* as an enabler; (4) the role of the *penilik* as a facilitator, and (5) the role of the *penilik* as a planner.

The level of performance as an organizer was based on the *penilik's* self-reported activities in organizing learning groups of the people in the community, in

stimulating the people for further learning and in conducting group learning activities. The level of performance as a consultant was based on the *penilik's* self-reported activities in resolving community problems, in giving advice to the people on how to identify their own developmental needs, and in consulting with the people on how to utilize the available resources to meet their own needs. The level of performance as an enabler was based on the *penilik's* self-reported activities in promoting the internal leadership capacities within local learning groups and in promoting the self-help capacities of the local people to achieve a self-determination level of development of their own community. The level of performance as a facilitator was based on the *penilik's* self-reported activities in providing equipment and other educational facilities for learning. The level of performance as a planner was based on the *penilik's* self-reported activities in planning ahead what he will be doing for further development of the community. Scores on the *penilik's* performance in terms of these five roles were compared across the experimental groups to see the performance increase which might be due to the different approaches used in the training.

Besides these primary dependent variables (achievement, retention and performance), another dependent variable was also tested by this study. This was the *penilik's* job performance in terms of his supervisor's perception. Factors which contributed to the *penilik's* job performance

were initiative, ability to communicate with people, ability to organize learning groups, ability to motivate discussion in learning group activities and general ability in performing his job. Data for this dependent variable were collected through interviews with the supervisors of the forty-five *peniliks* participating in the study. The interview was conducted twice during the study: first, prior to the training, and second, six months after the completion of the training. Scores elicited by these interviews were compared across the experimental groups to see if there was some increase in the *penilik's* job performance as it was seen from his supervisor's perception.

Having some other dependent variables controlled, such as age, level of education, work experience, amount of salaries received, and characteristics of the communities where they were working, the different approaches used in the training were the independent variables that this study was interested in examining. There were two different training approaches which were used as treatment for three different experimental groups. Group A received training using a participatory-based approach, group B received training using a lecture-based approach and group C received no training and served as a control group in this study.

Some Problems on Validity

Efforts were made and precautionary steps were taken to prevent biases and other factors likely to affect the

validity of the study. As it is with other social studies, especially those involving human behavior, however, uncontrolled factors can affect and jeopardize the validity of the study. Some problems on validity as discussed by Campbell and Stanley were the main reference in analyzing the situation of the study (Donald T. Campbell and Julian C. Stanley, 1966, pp. 5-6):

Factors Jeopardizing Validity:	Ways Used to Control Them:
1. History	By using random sample procedures and random assignments the individual differences of the participants of the study (educational backgrounds, work experience, sex, age, place of work, etc.) were controlled.
2. Maturation	One of the reasons in using the control group in this study was to control the effect of maturation of the experimental groups due to compounded experience over time.
3. Testing	The fact that testing procedures were administered in the same ways to all three groups in the study, experimental as well as control, was designed to eliminate the possibility that testing would only affect the experimental group.

Factors Jeopardizing Validity:	Ways Used to Control Them:
4. Instrumentation	Testing instruments as well as printed materials were all prepared in written form. This was designed to control the researcher's biases. It was felt, however, that a mere glance of eyes or moving parts of the body differently during the treatment (the training) on the parts of the researchers (instructors) might be enough to affect the results of learning on the part of the participants. This is one of the inherent problems when dealing with social studies and human behavior.
5. Selection effect	Randomization procedures in selecting the samples were used to control the personal biases of the researcher over the participants of the study. Secondly, the researcher did not know anything about the personal backgrounds of the participants before they came to the training session.
6. Mortality	This could be controlled completely, since all participants in the study, the *peniliks*, are government employees, and government's approval of the study demanded their participation.

Factors Jeopardizing Validity:	Ways Used to Control Them:
7. Reactive arrangement	Until the end of the study, and most probably up to the present time when the report of the study was prepared, the participants of the study never realized the idea or the nature of the study. They never were told to which type of group they were assigned. They only knew that there were some other groups involved in the same study. Not realizing accurately what position they had in the study might help to reduce to a minimum their reactive arrangement which might jeopardize the validity of the study.
8. Interaction effect	The Indonesian setting would greatly limit if not eliminate this factor. The day-to-day work of the *penilik* was itself enough to prevent him from having contact with other *peniliks* who live and work in other areas some miles away from his own. The other factors would be communication problems, transportation and money which are all extremely limited for a great deal of the Indonesian population.

CHAPTER IV

ANALYSES OF THE DATA

In this chapter four sections will be presented. These four sections include: Description of the Training, Statistical Analyses of the Data, Summary of the Findings, and Feedback from the Participants on the Training.

The first section, Description of the Training, discusses how the different training approaches were implemented in two different experimental groups during the training, the major categories of the learning modes and the allocation of time. Section two, Statistical Analyses of the Data, displays and analyzes the data using standard procedures of statistical analysis. Section three, Summary of the Findings, summarizes the findings as those resulted from the analyses of the data. Section four discusses feedback from the participants on the training and their ideas and comments to improve another training session of the same kind.

Description of the Training

Training is the major treatment used in this study. The amount of time allocated for the training for both

experimental groups was exactly the same. The total time consumed for the teaching-learning activities during the training sessions amounted to 1,530 minutes or 25.5 hours. This does not include the time used for administering the pretests and posttests which totaled four hours for each type of test. It also does not include the one hour needed for completing the feedback form which asked for the participants' reactions at the conclusion of the training program. All activities, both instructional and data gathering, comprised six full working days.

The types of learning activities used during the training sessions can be characterized in terms of five major categories each of which differs in terms of structure and the amount of action demanded of the participant. These five major categories are as follows:

I. Lecture/speech or presentation by the lecturer

This is a type of teaching-learning activity where the teacher(s) is presenting something orally to the participants who are passively receiving (listening to) the information. As a general rule there is no interaction between the teacher(s) and the participants during the lecturing. The participants were often told at the outset that time would be provided at the conclusion of the lecture to ask questions or to make comments. This was conducted as a large group activity.

II. Question and answer (unstructured)

This type of activity can be carried out in a small as well as in a large group. The typical characteristic of this activity is that it is unstructured. In the large group situation this activity usually directly follows the lecture session where the participants are free to ask questions or make comments about the topic just presented.

In some cases participants are broken down into small groups of three to five people to freely discuss among themselves questions raised by themselves on the topic just presented by the lecturer or on issues just raised in the large group discussion. However, for this type of activity there are no guidelines or directions provided by the lecturer. Also, there is no follow-up to this activity. If the participants are asked to produce something as a result of their discussion there is no feedback provided.

III. Classroom exercise and discussion

This type of activity can be carried out in small as well as in large groups. The main characteristic of the classroom exercise is that there is no follow-up activity or application of the exercise. For instance, the exercise may focus on how to conduct an interview with village people to identify their problems and needs or how to make observations about the village life.

In some cases participants are broken down into small groups of three to five people to discuss among themselves the preparation of guidelines for fieldwork. The important aspect of this type of activity is that they will not go out to the field to do the real fieldwork. The participants were made aware from the outset that what they were going to do was just as an exercise.

IV. Group project, field trip and discussion with assignment

Different than the exercise activities, this type of activity has the participants doing real things. Activities in this category are primarily small group activities.

As a group project the participants work together to finish a certain project which the members of the group can actually use. For instance, they could develop an interview guide that could later be used in real fieldwork. The difference between a group project and a classroom exercise is that in developing a project the group received guidelines before the small groups were initiated. And also, the results of the group project sessions would be sanctioned by the large group meeting and the instructor(s).

In field trip activities the participants went out in teams or small groups to actually work with the people in the community, whether they were doing interviewing, observations or having informal discussions with the people.

Discussion with assignment characterizes activities that belonged to this category because they were structured. The assignments were formulated by and during the large group sessions, together with the instructor(s).

V. Role-play

This is structured activity. Three to five people were assigned to do the role-play. Each one of the small group members received a short written instruction telling him exactly what he should be doing during the role-play. The rest of the group watched. They were told, however, before the role-play began that they should carefully and critically observe what would be going on in the role-play. Later on they would be able to raise questions or comments on anything concerned with the role-play.

If more than one role-play was to be conducted, the general rule was that different participants were assigned to the different role-plays.

Table 4.1 shows how the total time of the training session was allocated in terms of these five categories. In the percentage column is shown the proportion of the time allocated for each category to the total length of time used during the training.

The table shows that for group B, the lecture group, almost half of the time during the training session was primarily used for lectures (49 percent). While for group

Table 4.1.--Allocation of Time of the Training Session According to the Category of the Learning Modes, by Different Treatment Groups.

Category of the Learning Modes	Participatory group:		Lecture group:	
	Minutes	% of Total	Minutes	% of Total
I. Lecture/speech or presentation by the lecturer:	240	16	750	49
II. Unstructured question and answer:	180	12	420	27
III. Classroom exercise and discussion:	420	27	240	16
IV. Group project, field trip and discussion with assignment:	525	34	120	8
V. Role-play:	165	11	0	0
Total:	1530	100%	1530	100%

A, the participatory group, the corresponding activities consumed only 16 percent of the total time.

For category II activities, unstructured question and answer, group B consumed as much as 27 percent of the total time, where group A consumed only 12 percent of the time. It is admitted, however, that in these activities there is interaction among the group members and there are some kinds of participation by the members in the learning activities. But it is assumed that this type of interaction and participation was not high. This is due to the fact that participants were told in advance that the outputs of this type of activity would not be sanctioned. The concept of sanctioning is an important motivator in the Indonesian context.

Working with the assumption that category II activities were nonparticipatory in nature, then category II and category I could be added together. For group B the figure comprises 76 percent as compared to only 28 percent for group A. In other words, more than three-fourths of the whole time during the training was used by group B for learning activities where the members did not fully and actively participate in the learning process. While for group A this type of activity consumed only a bit more than a quarter (28 percent) of the total time.

As has been described, the last three categories insure high interaction among the members of the group and full and active participation by the members in the learning

activities. If these three categories are added together the percentage figures yielded are 24 percent for group B and 72 percent for group A. These figures suggest that during the training session less than a quarter (24 percent) of the whole time was used by group B for active participation by the members in the learning activities. On the other hand, this same type of activity, for group A, consumed almost three-quarters of the total time (72 percent) of the learning activities.

Figure 4.1 shows the proportion of the learning modes of the participants in pictorial fashion.

Statistical Analyses of the Data

Assumptions for the Analysis of Variance

The data collected in this study were mainly analyzed using the analysis of variance (ANOVA) to see the difference between means across the experimental groups as affected by the treatment. Using ANOVA as the method of analysis implies the validity of the three basic assumptions held for this study which include normally distributed population, homogeneity of the variance of the groups under study and independent observation of each group in the study or individuals within each group (William L. Hays, 1973, p. 467).

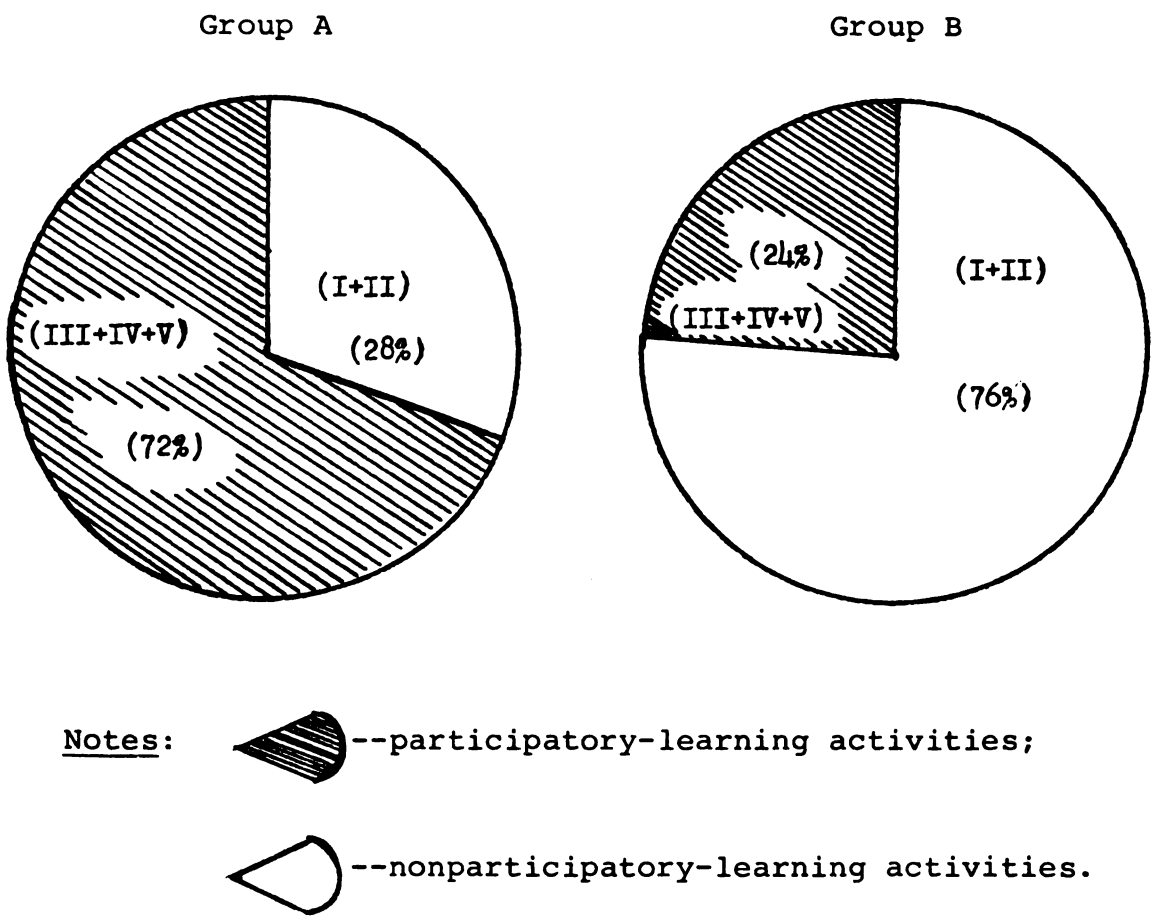


Figure 4.1.--Proportion of the Learning Modes of the Participants When Category I and Category II Were Added Together as Nonparticipatory Learning Activities.

Normally distributed population

The knowledge, understanding as well as the performance level of the *peniliks* are assumed to be normally distributed throughout the province.

Homogeneity of the variance of the groups under study

The sample was drawn randomly from the normally distributed population. The assignment for each experimental group and the assignment of each individual observation into each group were also drawn randomly. The variance of the *peniliks* for each experimental group is, therefore, assumed to be the same.

Independent observation

Selection of the samples comprising the experimental groups as well as the assignment of groups and of individuals into the groups were random. This gives a basis to assume that each group as well as each observation within each group is independent. It bears a consequence that the errors associated with any pair of observations are assumed to be independent.

As was described in the design of the study, pretests were administered before treatment was applied for all variables in the study, i.e., the cognitive skills, the self-reported performance and the perception of the supervisors of the participants' job performance. The results

of the pretest were mainly used to see whether the results of the posttests of related variables increased due to the treatment, decreased or were unaffected. The pretest scores, however, could not be used as covariates to adjust the post-test scores (analysis of covariance) since the value of β (beta) as the regression coefficient or the slope of regression of each dependent variable with related independent variable (for all variables and across the experimental groups) were not homogeneous. Table 4.2 shows the value of the constant β of each dependent variable with its independent variable across the experimental groups. These data support the use of the analysis of variance procedure rather than the analysis of covariance procedure.

The Effects of the Treatment

A central concern in the evaluation of any educational experience is the amount of learning that takes place. In the present study attention was directed toward ascertaining the extent to which participants increased their cognitive skills, retained the knowledge derived from the training and increased their level of performance on their job in the field. Each of these dependent variables will be considered. Another area that will be examined will be the effect of the training of the participants on the perception of their supervisors.

Table 4.2.--The Regression Coefficient (the Constant β) of Each Dependent Variable with Its Related Independent Variable.

Dependent with Independent Variable	Experimental Group A	Experimental Group B	Control Group C
C2 with C1	.549	.755	.465
C3 with C1	.832	.636	.227
P1 with S1	.401	-.166	.481
P2 with S2	.435	-.041	.090
P3 with S3	.600	.006	-.204
P4 with S4	.423	.409	-.019
P5 with S5	.333	.265	-.062
T2 with T1	.455	-.078	.628
I2 with I1	.679	.657	1.031

Notes: C1 -- Pretest Cognitive Total;
C2 -- Posttest I Cognitive Total;
C3 -- Posttest II Cognitive Total;
S1 -- Pre-Organizer; P1 -- Post-Organizer;
S2 -- Pre-Consultant; P2 -- Post-Consultant;
S3 -- Pre-Enabler; P3 -- Post-Enabler;
S4 -- Pre-Facilitator; P4 -- Post-Facilitator;
S5 -- Pre-Planner; P5 -- Post-Planner;
T1 -- Pre-Total Performance;
T2 -- Post-Total Performance;
I1 -- Pre-Interview of the Supervisor;
I2 -- Post-Interview of the Supervisor.

A. The Effect of Short-Term Training on Cognitive Skills

As described in the previous chapter the hypotheses were stated in a directional form. These hypotheses were treated here as the alternative hypotheses with appropriate null hypotheses developed for the purpose of the statistical analysis. Two hypotheses were tested to see the effects of treatment on cognitive skills.

Null Hypothesis (Ho) #1

There will be no significant increase in the cognitive skills of the participants immediately following short-term training.

Null Hypothesis #2

Cognitive skills will not be affected by different training approaches when examined immediately following short-term training.

As indicated in Table 4.3, a significant difference exists between the means of the cognitive scores of the three different experimental groups at greater than the .05 level of confidence (.0005). The Eta value (.30), however, indicates that the correlation is not high. In other words, as indicated by the value of Multiple R^2, only about 9.3 percent of the variance can be accounted for by the treatment. Further analysis using the Tukey-HSD (Honestly Significant Difference) procedure, i.e., the Multiple Range Test, for the .05 level of confidence indicates that the

Table 4.3.--ANOVA for Cognitive Skills When Measured Immediately Following Short-Term Training, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	1391.1111	695.5556	9.2424	.0005
Within	42	3160.8000	75.2571		
Total	44	4551.9111			

Variable/ Category	Mean			
	N	Pretest	Posttest I	
Group A	15	52.40	61.93	
Group B	15	55.60	59.93	Eta = .30
Group C	15	48.46	49.27	Multiple R^2 = .093

means difference between group A and group B is not significant since both means are within the same subset. This is shown in Table 4.4. The means of group A and of group B are within the homogeneous subset, where the means of the first and the last groups differ by less than the critical value for a subset of that size. Group C, on the other hand, lies in a different subset than group A and group B. This indicates that the means difference between group A and group C and between group B and group C are significant at the .05 level.

Table 4.4.--The Tukey-HSD Multiple Range Test on Cognitive Skills, By Groups (Alpha = .05).

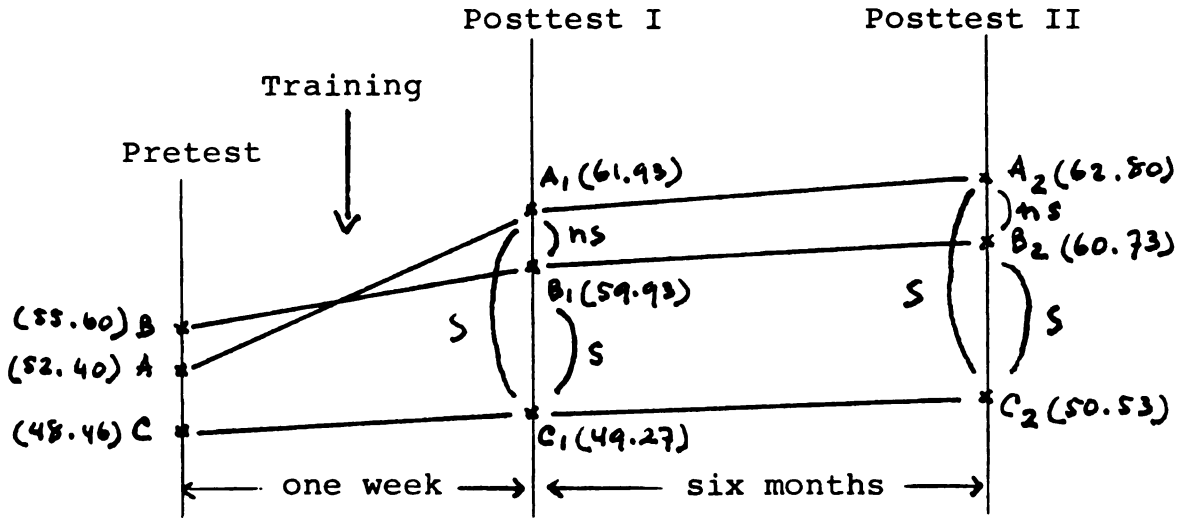
Subset 1			
Group mean:	Group C		
	49.2667		
Subset 2			
Group mean:	Group B	Group A	
	59.9333	61.9333	
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean (J) - Mean (I) is . . . .
6.1342 * range * sqrt(1/N(I) + 1/N(J)).

The results of this Multiple Range Analysis leads to two major conclusions. One, that short-term training is effective in terms of increasing the cognitive skills of the participants regardless of what approach is used in the

training; and two, that there is no significant difference in the cognitive skills of the participants due to the different approaches used in the training. Though the participatory group shows a somewhat higher achievement level than the lecture group, this difference may be due to chance. These findings suggest that the null hypothesis #1 is rejected. The probability is less than 5 percent that the differences were due to chance. The null hypothesis #2, however, could not be rejected on the basis that the difference is less than the critical value for a subset of that size. The data also show that there was a slight increase in the cognitive skills of group C, the control group. This increase is assumed to be due to a maturity effect, since group C did not receive any training.

When each group is examined independently in terms of cognitive skill change from pretest to posttest I, not assuming equality on the pretest, a partial rejection of null hypothesis #1 is found and a complete rejection of null hypothesis #2 is found. As is shown in Figure 4.2, group A (participatory group) shows a significant increase in cognitive skills and group B (lecture group) and group C (control group) show no significant increase.



Notes: s = significant
ns = not significant

Figure 4.2.--The Effects of Short-Term Training on Achievement and Retention of the Cognitive Skills of the Participants, By Groups.

B. The Long-Term Effects of Short-Term Training (Retention)

For the purpose of statistical analysis the following null hypotheses were developed on the basis of the rival hypotheses (alternative hypotheses) mentioned earlier.

Null Hypothesis #3

Short-term training has no long-term effect on the participants in terms of their cognitive skills derived from the training (retention).

Null Hypothesis #4

Cognitive skills will not be affected by different training approaches when examined six months following short-term training (retention).

The analysis of variance and the Tukey-HSD multiple range test were used to test these hypotheses. As Table 4.5 reveals, the difference in the mean scores of the post-test II (retention) among the three experimental groups was highly significant (.0002). This means that there is a significant effect of short-term training on retention of the knowledge derived from the training beyond the 5 percent level of confidence. All three groups under study show a slight increase in the scores on posttest II as compared with the scores on posttest I. Since all three groups have approximately the same proportion of increase, these increases on the posttest II scores can be explained as a maturity effect due to the elapsed time. Further analysis using the multiple range test indicates that the difference between group A and group B is not significant since both are in the same subset. Group C is in a different subset. This implies that the difference between group B and group C and the difference between group A and group C are significant.

The results of the analyses suggest that short-term training affects retention significantly at greater than the 5 percent level of confidence. In other words, after a six month period, there is still seen a significant increase in cognitive skills for those groups that received training. This further implies that the null hypothesis #3 is rejected with a high level of confidence. The probability is less than 5 percent that the differences were due to

Table 4.5.--ANOVA on Cognitive Skills When Measured Six Months Following Short-Term Training, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	1293.9111	645.9555	10.4869	.0002
Within	42	2591.0667	61.6921		
Total	44	3884.9778			

Variable/ Category	Mean		
	N	Posttest I	Posttest II
Group A	15	61.93	62.80
Group B	15	59.93	60.73
Group C	15	49.27	50.53

Eta = .33

Multiple R^2 = .110

chance. The Eta value (.33), however, is not high which indicates that only about 11 percent of the variance can be accounted for by the treatment.

The different approaches used in the training, however, did not seem to affect retention differently. In other words, in relation to retention both approaches are equally effective. This is shown in Table 4.6 where the differences between group B and group C and the differences between group A and group C both are significant, while the difference between group B and group A is not significant. This explanation leads to the conclusion that the null hypothesis #4 is not rejected. The difference between group B and group A is, therefore, due to chance.

Table 4.6.--The Tukey-HSD Multiple Range Test on Cognitive Skills When Measured Six Months Following Short-Term Training, By Groups (Alpha = .05).

Subset 1			
Group mean:	Group C 50.5333		
Subset 2			
Group mean:	Group B 60.7333	Group A 62.8000	
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
5.5539 * Range * Sqrt(1/N(I) + 1/N(J)).

Figure 4.2 graphically demonstrates how short-term training affects achievement and retention in terms of the cognitive skills of the participants.

C. The Effects of Short-Term Training on Self-Reported Performance

Five roles were identified as areas of performance of the *penilik* for carrying out his job. These five areas of performance include the roles of the *penilik* as organizer, as consultant, as enabler, as facilitator and as planner. Combining these five areas of performance comprises the general performance or the total performance of the *penilik* in carrying out his job. The data made available by the present study were analyzed according to these five areas of performance and also for the total performance of the *penilik*.

Data on performance were elicited by a Self-Disclosure Type of Test as shown in Appendix B. There were nine questions in this test which provided the data for analysis in this study. The other questions provided information primarily related to the background of each individual participant which might be important for further in-depth study (i.e., name, age, sex, education, training experience, work experience, etc.).

The information provided by these nine questions were categorized in terms of the five areas of performance as follows:

1. organizer role comprises questions #11, #16, #17 and #18;
2. consultant role comprises questions #14 and #15;
3. enabler role comprises question #12;
4. facilitator role comprises question #13; and
5. planner role comprises question #20.

For the purpose of statistical analysis, null hypotheses were developed on the basis of the rival hypotheses described earlier. The analysis of the data is presented along with the appropriate null hypothesis for each of the *peniliks'* roles.

1. Organizer Role.

Null Hypothesis #5

Short-term training will have no significant effect on the self-reported performance of the participants in organizing community people for learning activities.

Null Hypothesis #6

Self-reported performance in organizing community people for learning activities will not be affected by different approaches used in short-term training.

The results of the statistical analyses show that there was an increase in the self-reported performance of the participants in organizing community people for

learning activities among the experimental groups. This increase was highly significant beyond the 5 percent level of confidence (.0007). The analysis suggests that this difference was due to the previous short-term training received by the participants. The Eta value (.29) is not high, however, which indicates that only about 8.6 percent of the difference could be accounted for by the previous treatment. The analysis is shown in Table 4.7.

The original test scores, Table 4.7, indicate a number of things. One, group C, the control group, shows a decrease from 51.86 on the pretest to 37.73 on the post-test. There was not enough evidence, however, to indicate what might have caused the decrease. For instance, there might have been changes in the work situation during the last six months, the government policy on education in general or financial factors. Whatever it was, it is assumed that those kinds of situations would be shared by all education field workers in West Java province. This assumption was supported by the fact that even though group B, the lecture group, received intensive training for one week, the training did not greatly affect their posttest scores (from 53.13 on the pretest to 53.40 on the posttest). Further, regardless of what external situations might have occurred, group A, the participatory group, did show a great deal of change. This was clearly indicated by the fact that the mean for group A was 52.06 on the pretest and increased to 67.80 on the posttest. However, analysis using

Table 4.7.--ANOVA for Self-Reported Performance as an Organizer, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	6784.0444	3392.0222	8.7569	.0007
Within	42	16268.9333	387.3556		
Total	44	23052.9778			

Variable/ Category	Mean		
	N	Pretest	Posttest
Group A	15	52.06	67.80
Group B	15	53.13	53.40
Group C	15	51.86	37.73

Eta = .29

Multiple R^2 = .086

the Tukey-HSD Multiple Range Test reveals that the difference between group A and group B was not significant at the 5 percent level of confidence. The difference between group B and group C was also not significant, while the difference between group A and group C was significant. This is shown in Table 4.8.

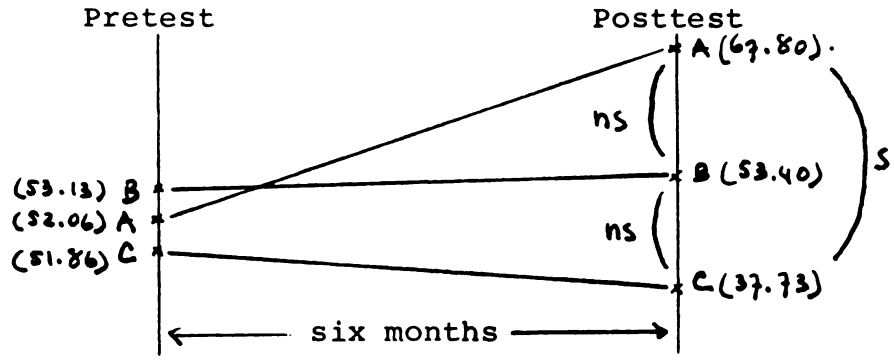
Table 4.8.--The Tukey-HSD Multiple Range Test for Self-Reported Performance as Organizer, By Groups (Alpha = .05).

Subset 1			
Group mean:	Group C 37.7333	Group B 53.4000	
Subset 2			
Group mean:	Group B 53.4000	Group A 67.8000	
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . . 13.9168 * Range * Sqrt(1/N(I) + 1/N(J)).

The results of these statistical analyses suggest (1) that the null hypothesis #5 is rejected, in the sense that short-term training does create a significant increase in the self-reported performance of the *penilik* in organizing community people for learning activities if the participatory-based approach rather than the lecture-based approach was used in the training; and (2) that the null hypothesis #6 is not rejected since the different approaches

used in the training did not have a significantly different effect on the organizer-role performance. Figure 4.3 graphically demonstrates these findings and provides further clarity to the analyses.



Notes: s = significant
ns = not significant

Figure 4.3.--The Effects of Short-Term Training on the Self-Reported Performance of the Participants as an Organizer, By Groups.

2. Consultant Role.

Null Hypothesis #7

Short-term training will have no significant effect on the self-reported performance of the participants in providing consultations with local community people to overcome their problems.

Null Hypothesis #8

Self-reported performance in providing consultations with local community people to overcome their problems will not be affected by different approaches used in short-term training.

The results of the analysis of variance, as shown in Table 4.9, indicate that differences between mean scores among the three groups under study were not significant (.4787). This suggests that self-reported performance in providing consultations with local community people is not affected by the short-term training. Further analysis using the Multiple Range Test, the Tukey-HSD procedure, as shown in Table 4.10, confirmed that differences between means of the three groups under study were due to chance and not affected by the difference of the approaches used. As the table shows, all three groups were in the same subset. The results of these statistical analyses suggest that both null hypotheses, Ho #7 and Ho #8, were not rejected at alpha = .05.

Figure 4.4 graphically demonstrates these findings.

3. Enabler Role.

Null Hypothesis #9

Short-term training will have no significant effect on the self-reported performance of the participant in promoting internal leadership capacities of the local people.

Null Hypothesis #10

Self-reported performance in promoting leadership capacities of the local people will not be affected by different approaches used in short-term training.

Table 4.9.--ANOVA for Self-Reported Performance as a Consultant, By Groups (Alpha = .05).

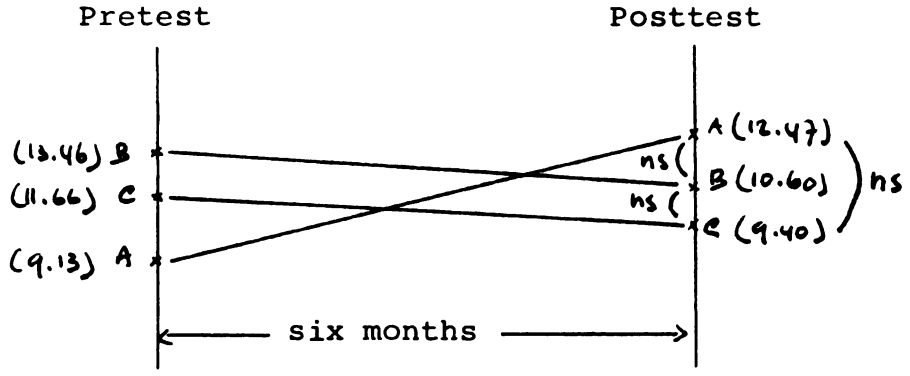
Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	71.6444	35.8222	.7497	.4787
Within	42	2006.9333	47.7841		
Total	44	2078.5778			

Variable/ Category	Mean			
	N	Pretest	Posttest	
Group A	15	9.13	12.47	
Group B	15	13.46	10.60	Eta = .03
Group C	15	11.66	9.40	R^2 = .001

Table 4.10.--The Tukey-HSD Multiple Range Test for Self-Reported Performance as Consultant, By Groups (Alpha = .05).

Subset 1			
Group mean:	Group C 9.4000	Group B 10.6000	Group A 12.4667
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
4.8880 * Range * Sqrt(1/N(I) + 1/N(J)).



Note: ns = not significant

Figure 4.4.--The Effects of Short-Term Training on Self-Reported Performance of the Participants as Consultant, By Groups.

The results of the analysis of variance to test the difference between means of the posttest scores of the three groups under study are presented in Table 4.11. The information revealed by this analysis indicates that a significant difference exists between means of posttest scores of the three groups under study. The significant level is greater than 5 percent (.0114) which indicates that the probability of the difference among the means tested to be a chance is less than 5 percent.

The Eta value (.19) is, however, not high which indicates that only about 3.9 percent of the variances were accounted for by the treatment.

Information revealed by the Tukey-HSD Multiple Range Test for the .05 level, as shown in Table 4.12, indicates that a significant difference between means exists between group A and group B, but it does not exist between group A and group C and also does not exist between group B and group C. This finding is not very common in experimental studies, where one of the treatment groups (in this case, group B) shows a decrease in the posttest as compared with the pretest score, while the control group (group C) remains constant.[1] The reason why group B decreased on the posttest as compared to the pretest score is something which is hard to explain due to the

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[1]As a matter of fact, group C also shows a decrease, from 8.13 on the pretest to 8.00 on the posttest. But since the decrease is very small (.13), it can be considered negligible.

Table 4.11.--ANOVA for Self-Reported Performance as an Enabler, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	120.7111	60.3556	4.9913	.0114
Within	42	507.8667	12.0921		
Total	44	628.5778			

Variable/ Category	N	Mean Pretest	Mean Posttest	
Group A	15	7.73	9.73	
Group B	15	7.73	5.73	Eta = .19
Group C	15	8.13	8.00	Multiple R^2 = .039

Table 4.12.--The Tukey-HSD Multiple Range Test for Self-Reported Performance as Enabler, By Groups (Alpha = .05).

Subset 1			
Group mean:	Group B 5.7333	Group C 8.0000	
Subset 2			
Group mean:	Group C 8.0000	Group A 9.7333	
Ranges for the .05 level:		3.43	3.43

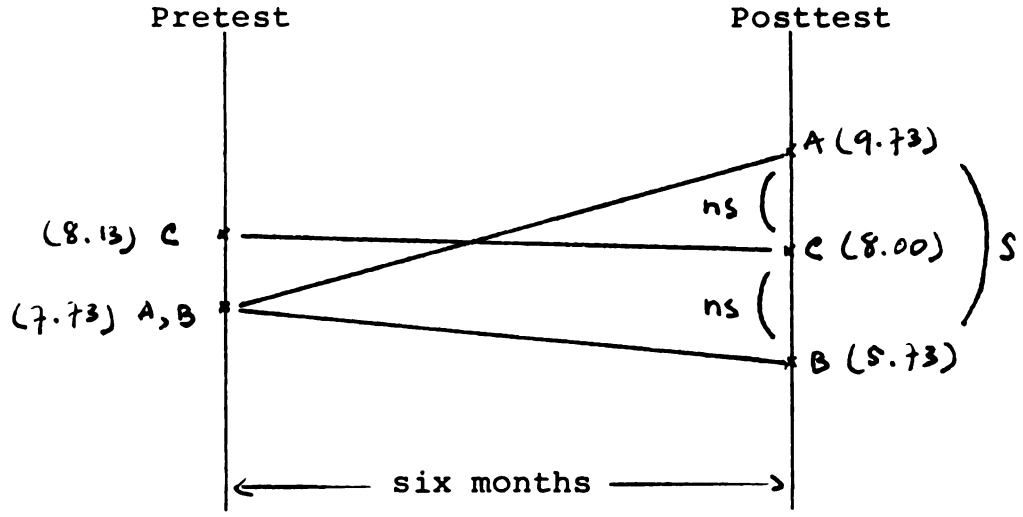
The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
2.4589 * Range * Sqrt(1/N(I) + 1/N(J)).

uncontrolled factors which might have affected the treatment groups during the six month period following the treatment (short-term training). However, while group B has decreased, group A shows a considerable increase on the posttest as compared to the pretest score. This supports the hypothesis that the participatory-based approach to short-term training is more effective than the lecture-based approach to short-term training for self-reported performance as an enabler.

The results of the statistical analyses suggest that the null hypothesis #9 cannot be rejected since neither approach is significantly different than the control group mean for self-reported performance as an enabler.

There is a strong basis for rejecting the null hypothesis #10 at greater than the 5 percent level of confidence (.0114). This suggests that the different approaches used in the short-term training had different effects in promoting the internal leadership capacities of the local people. The findings favor the participatory-based approach over the lecture-based approach to training. The probability is less than 5 percent that the difference was due to chance.

Figure 4.5 graphically demonstrates these findings.



Notes: s = significant
ns = not significant

Figure 4.5.--The Effects of Short-Term Training on the Self-Reported Performance of the Participants as an Enabler, By Groups.

4. Facilitator Role.

Null Hypothesis #11

Short-term training will have no significant effect on the self-reported performance of the participants

in providing learning equipment and facilities for the local people.

Null Hypothesis #12

Self-reported performance in providing learning equipment and facilities for the local people will not be affected by different approaches used in short-term training.

The results of the analysis of variance to test the difference between means of the posttest scores of the three groups under study are presented in Table 4.13. The information revealed by this analysis indicates that the differences between means of the three groups under study were not significant. This suggests that null hypothesis #11 was not rejected. In other words, the probability that the differences between the mean scores of the three experimental groups were due to chance is very high (91.90 percent).

The Eta value (.004) was also very small, which indicates that far less than 1 percent (R^2 = .000016) of the variances were accounted for by the treatment.

Further analysis using the Tukey-HSD Multiple Range Test confirms that differences between means of the three groups under study were due to chance since the three means were in the same subset. This suggests that null hypothesis #12 was also not rejected. In other words, the different approaches used in the short-term training did not have a

Table 4.13.--ANOVA for Self-Reported Performance as a Facilitator, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	.1333	.0667	.0847	.9190
Within	42	33.0667	.7873		
Total	44	33.2000			

Variable/ Category	N	Mean Pretest	Mean Posttest	
Group A	15	.86	.87	
Group B	15	.73	.80	Eta = .004
Group C	15	1.20	.73	R^2 = .000016

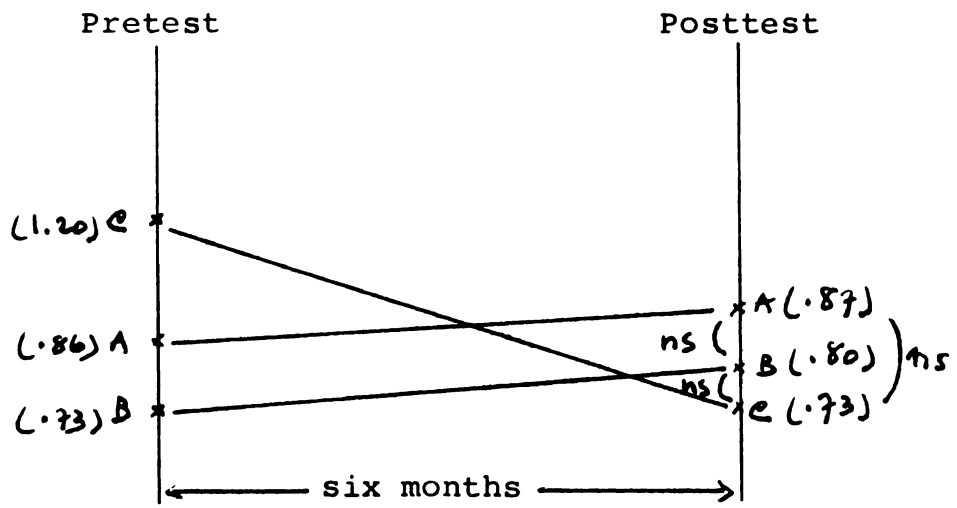
different effect in terms of the self-reported performance in providing learning equipment and facilities for the local people. In this respect both approaches were equally not effective.

Table 4.14.--The Tukey-HSD Multiple Range Test for Self-Reported Performance as Facilitator, By Groups.

Subset 1			
Group mean:	Group C .7333	Group B .8000	Group A .8667
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
.6274 * Range * Sqrt(1/N(I) + 1/N(J)).

Figure 4.6 graphically demonstrates these findings.



Note: ns = not significant

Figure 4.6.--The Effects of Short-Term Training on the Self-Reported Performance of the Participants as a Facilitator, By Groups.

5. Planner Role.

Null Hypothesis #13

Short-term training will have no sigificant effect on the self-reported performance of the participant in forward planning for his job.

Null Hypothesis #14

Self-reported performance in forward planning will not be affected by different approaches used in short-term training.

Analysis of variance was used to test the difference between means of the three groups under study. The information resulting from this analysis can be found in Table 4.15.

The information reveals that a significant difference exists between means of the posttest scores of the three groups at greater than the 5 percent confidence level (.0077). In other words, the probability that the difference was due to chance was less than 5 percent. The Eta value (.21) was not high which indicates that only around 4.3 percent of the variance was accounted for by the treatment. Further analysis using the Tukey-HSD procedure to test the multiple comparisons in the analysis of variance revealed that significant differences exist between the means of group A and group B and between the means of group A and group C, but not between the means of group B and group C. This information is shown in Table 4.16.

Table 4.15.--ANOVA for Self-Reported Performance as a Planner, By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	317.3778	158.6889	5.4756	.0077
Within	42	1217.2000	28.9810		
Total	44	1534.5778			

Variable/ Category	Mean			
	N	Pretest	Posttest	
Group A	15	9.66	15.13	
Group B	15	7.33	9.53	Eta = .21
Group C	15	9.46	9.46	R^2 = .043

Table 4.16.--The Tukey-HSD Multiple Range Test for Self-Reported Performance as Planner, By Groups (Alpha = .05).

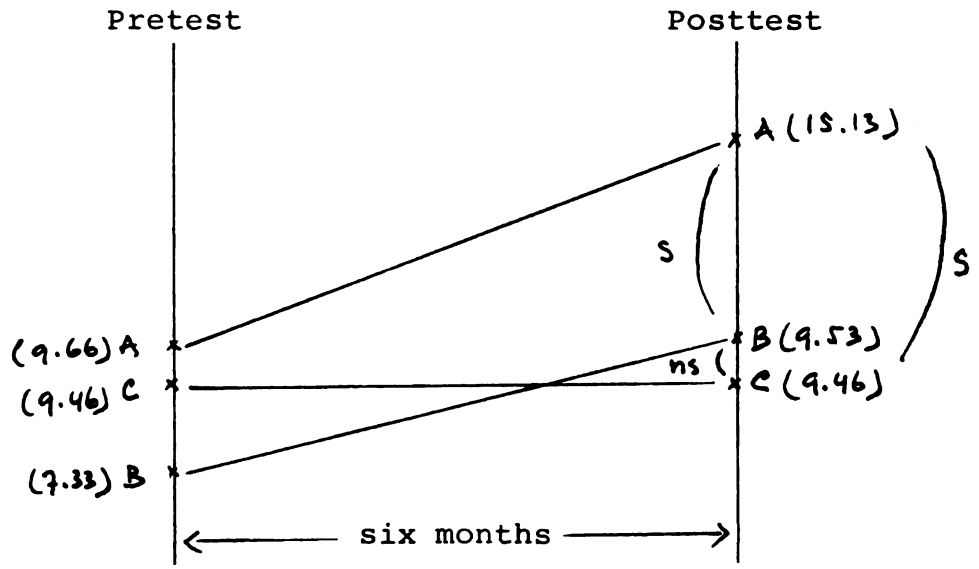
Subset 1			
Group mean:	Group C 9.4667	Group B 9.5333	
Subset 2			
Group mean:	Group A 15.1333		
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
3.8066 * Range * Sqrt(1/N(I) + 1/N(J)).

As shown in the Table 4.16, the means of group B and group C are both in the same subset (subset 1), while group A is in different subset (subset 2).

The results of these statistical analyses suggest two things. One, that the null hypothesis #13 is rejected on the ground that short-term training did make a significant difference on the means of the self-reported performance planner scores if a participatory-based approach to training is used. Two, that the null hypothesis #14 is also rejected at greater than the 5 percent level of confidence. This supports the participatory-based approach as being more effective than the lecture-based approach in short-term training in terms of increasing the self-reported performance of the participant in planning ahead. The

probability that the difference between the two means was due to chance is less than 5 percent (.0077). Figure 4.7 graphically demonstrates these findings.



Notes: s = significant
ns = not significant

Figure 4.7.--The Effects of Short-Term Training on the Self-Reported Performance of the Participants as a Planner, By Groups.

As shown in the figure (Figure 4.7) control group C functioned appropriately with both the pretest and post-test scores exactly the same. The lecture group (group B) did increase its posttest score slightly. This increase, however, was not significant as compared with the increase achieved by the participatory group (group A).

The Effects of Short-Term Training on the Total Self-Reported Performance of the Participants

It was felt that by bringing together the scores of the five variables which have just been discussed (organizer,

consultant, enabler, facilitator and planner) it would be helpful in seeing the general trend of the participants' self-reported performance. Especially, in terms of the effect of short-term training using two different approaches.

As the results of the previous analyses suggest, the effect of short-term training and the effect of the different approaches used in the training were different for different variables. These differences could be partially attributed to uncontrolled factors which is one of the major weaknesses when dealing with social and human behaviors in an experimental context. As it was built in the design of this study, a six month practice period was provided for the training participants after the completion of the training to allow them to apply the knowledge and skills that they received from the training. During this six month period there was no other treatment, and there was no form of control assumed by this study. It is highly probable that during that time some outside and uncontrolled factors came to influence the individual observations under the study. But in spite of the fact of the differences that occurred, and in spite of the fact that some uncontrolled factors may have influenced the results of the study, the researcher was eager to see the effects of short-term training and the effects of the different approaches on the general performance (total performance) of the *penilik* in carrying out his job in the field. For the purpose of

statistical analysis, the null hypotheses were developed on the basis of the rival hypotheses described earlier.

Null Hypothesis #15

Short-term training will have no significant effect on the total self-reported performance of the participants.

Null Hypothesis #16

Total self-reported performance will not be affected by the different approaches used in short-term training.

To test the difference between means of the three groups under study, the analysis of variance was used. The information revealed by this analysis is shown in Table 4.17. Information resulting from this analysis reveals that a significant difference exists between the means of the posttest scores among the three groups under study beyond the 5 percent level of confidence (.0002). In other words, the probability that the difference was due to chance was less than 5 percent, or even far less than 1 percent.

As is shown in Table 4.17, the probability of the difference being not a true difference is 2 out of 10,000 (.0002). This is unquestionably very significant. The Eta value was also considerably high (.33), which indicates that about 11 percent of the variance can be accounted for by the previous treatment.

Table 4.17.--ANOVA for Total Self-Reported Performance By Groups (Alpha = .05).

Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	12940.0444	6470.0222	10.4053	.0002
Within	42	26115.6000	621.8000		
Total	44	39055.6444			

Variable/ Category	Mean			
	N	Pretest	Posttest	
Group A	15	79.46	106.33	
Group B	15	82.40	80.07	Eta = .33
Group C	15	82.33	65.33	R^2 = .11

Further analysis by the Tukey-HSD procedure to test the multiple comparisons in the analysis of variance indicates that significant differences exist between the means of group A and group B and between the means of group A and group C, but not between the means of group B and group C. This information can be seen in Table 4.18, where the means of group B and group C were both in the same subset (subset 1), while the mean of group A was in a different subset (subset 2).

Table 4.18.--The Tukey-HSD Multiple Range Test for Total Self-Reported Performance, By Groups (Alpha = .05).

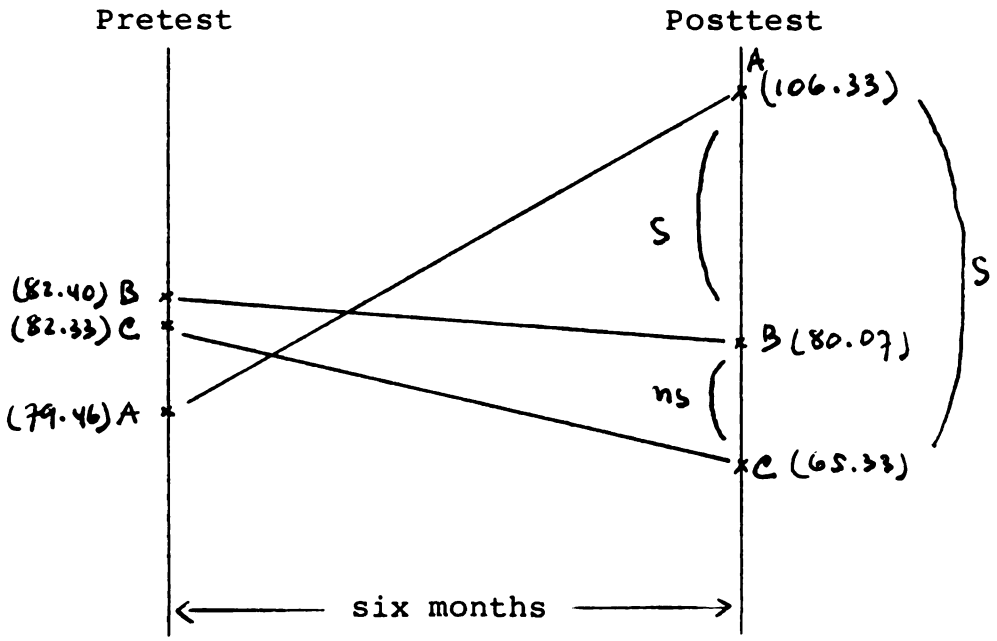
Subset 1		
Group mean:	Group C 65.3333	Group B 80.0667
Subset 2		
Group mean:	Group A 106.3333	
Ranges for the .05 level:	3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
17.6324 * Range * Sqrt(1/N(I) + 1/N(J)).

There are two things suggested by the results of these statistical analyses. One, that the null hypothesis #15 is rejected. The short-term training did cause a significant increase in the job performance of the participant. However, since the difference between means of group

B and group C is not significant (Tukey-HSD Multiple Range Test), the short-term training caused a significant increase only when the participatory-based approach was used. Two, that the null hypothesis #16 is again rejected beyond the 5 percent level of confidence showing that the participatory-based approach is more effective than the lecture-based approach for short-term training in terms of increasing the total self-reported performance of the participants. The probability that the difference between means of both treatment groups was not a true difference is less than 5 percent (.0002).

Figure 4.8 graphically demonstrates these findings.



Notes: s = significant
ns = not significant

Figure 4.8.--The Effects of Short-Term Training on the Total Self-Reported Performance of the Participants, By Groups.

As Figure 4.8 indicates, both group B (lecture group) and group C (control group) show a decrease in the posttest as compared with their scores on the pretest. The posttest was administered six months after the time the pretest was taken. It is quite probable that during that period some uncontrolled factors came to influence the observations under study. It is assumed, however, that the uncontrolled factors also came to influence group A as well. In spite of the fact that some factors might have had a negative influence, group A still indicates a large increase on the posttest as compared with the pretest scores. The results of the analyses strongly suggest that the participatory-based approach is far more effective than the lecture-based approach in terms of increasing the total self-reported performance of the participants. Also, short-term training is seen as effective only when the participatory-based approach rather than the lecture-based approach is used.

D. The Effects of Short-Term Training on the Performance of the Participants in Terms of the Perception of Their Supervisors

What is discussed in this section is something which is not necessarily directly related to the outcomes of the treatment yet is important to examine. This section examines what other people (the *penilik's* supervisor) perceive regarding the effects of the training on their

subordinates. It should be noted that in this study the supervisors were purposefully not provided with a clear picture of what the study was attempting. The supervisors only knew that some of their *peniliks* were called upon to participate in a special program.

The data analyzed in this regard were revealed through interviews with each supervisor who had one or more *peniliks* participating in the study. The Interview Guides that were used are shown in Appendix C. Not all of the information revealed by the interviews were, however, analyzed, since the validity of their responses were quite questionable. After some scrutinizing of the data it was decided that only information concerned with the supervisors' perception were analyzed. This type of information included questions #11, #15, #16, #18 and #20 of the Interview Guide.

For the purpose of the statistical analysis null hypotheses were developed on the basis of the rival hypotheses described earlier.

Null Hypothesis #17

Short-term training will have no significant effect on the ability of the participants to perform their job in terms of the perception of their supervisors.

Null Hypothesis #18

The perception of the supervisors regarding the ability of the participants to perform their job

will not be affected by the different approaches used in the short-term training.

Analysis of variance was used to test the difference between the mean scores of the supervisors' perception of the participants' ability to perform their job. The information resulting from the analysis of variance is shown in Table 4.19.

The information resulting from the analysis of variance reveals that the difference between the mean scores of the supervisors' perception among the three groups under study was not significant. The Eta and the Multiple R^2 values were also very small. Further analysis using the Tukey-HSD procedure to test the multiple comparisons of the difference between means also revealed that all three groups were in the same subset. This means that the difference between the mean scores of the supervisors' perception among the three groups under study was not significant. The information revealed by the Tukey-HSD analysis can be seen in Table 4.20.

The results of the statistical analyses suggest that both null hypotheses, Ho #17 and Ho #18, are not rejected. In other words, the supervisors' perception of the *peniliks'* ability to perform their job was not affected by the short-term training. Further, the different approaches used in the training did not have an effect on the supervisors' perception on the *peniliks'* ability to perform their job. Figure 4.9 graphically demonstrates these findings. As it

Table 4.19.--ANOVA for Supervisors' Perception of the Participants' Ability to Perform Their Job, By Groups (Alpha = .05).

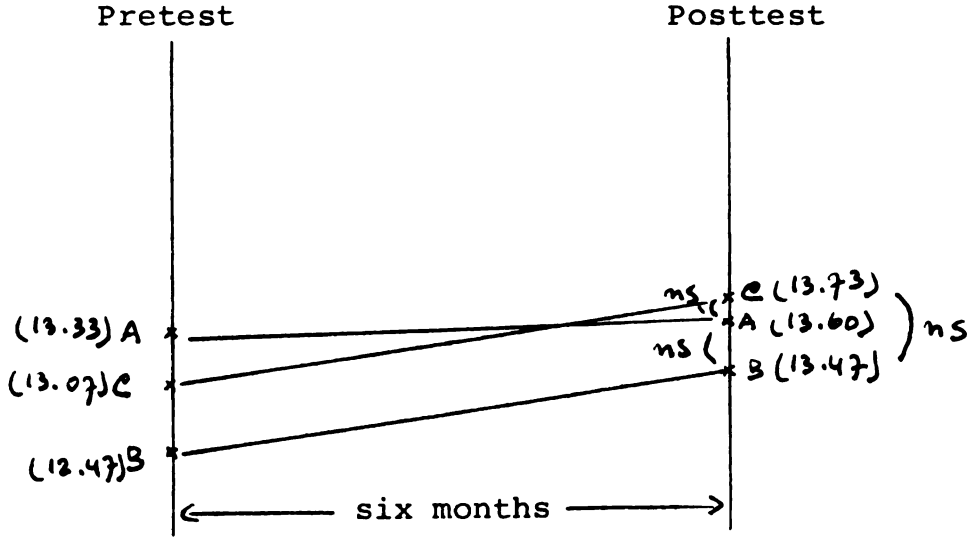
Source	d.f.	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	.5333	.2667	.0474	.9538
Within	42	236.2667	5.6254		
Total	44	236.8000			

Variable/ Category	N	Mean Pretest	Mean Posttest	
Group A	15	13.33	13.60	
Group B	15	12.47	13.47	Eta = .0022
Group C	15	13.07	13.73	R^2 = .000005

Table 4.20.--The Tukey'HSD Multiple Range Test for Supervisors' Perception of the Participants' Ability to Perform Their Job, By Groups (Alpha = .05).

Subset 1			
Group mean:	Group B 13.4667	Group A 13.6000	Group C 13.7333
Ranges for the .05 level:		3.43	3.43

The ranges above are tabular values. The value actually compared with Mean(J) - Mean(I) is . . . .
1.6771 * Range * Sqrt(1/N(I) + 1/N(J)).



Note: ns = not significant

Figure 4.9.--The Effects of Short-Term Training on the Ability of the Participants to Perform Their Job in Terms of the Perception of Their Supervisors.

can be seen from Figure 4.9 the supervisors' responses between the pre-interviews and the post-interviews were only slightly different. One possibility of this nondifference could be that the supervisors do not receive information regarding their subordinates that would be appropriate for the questions asked in the interviews. Or, the information they receive is not accurate. Obviously, a number of social, cultural or political explanations could also be offered as a basis for this finding.

Summary of the Findings

Short-term training was the major treatment in this study. Two different approaches were used for this treatment and their comparative effectiveness was tested in terms of the participants' achievement in cognitive skills, retention and job performance. The two approaches were a participatory-based approach and a lecture-based approach to training. The findings of the study can be summarized as follows:

(1) regardless of the approach used, short-term training is effective in increasing the cognitive skills of the participants;

(2) regardless of the approach used, short-term training is effective for retaining the cognitive skills derived from the training;

(3) there are a significantly greater number of self-reported activities during the six months following

training by the participants of the participatory-based approach than the participants of the lecture-based approach.

Figure 4.10 presents these three main findings of the study.

Independent Variable / Dependent Variable	Short-term Training	
	Participatory-based Approach	Lecture-based Approach
Achievement	effective	effective
Retention	effective	effective
Performance	effective	not effective

Figure 4.10.--The Three Main Findings of the Study.

In this study the performance variable was further broken down into five categories of role performance. These included the organizer-role performance, consultant-role performance, enabler-role performance, facilitator-role performance and planner-role performance variable. The following statements summarize the findings regarding these five variables:

(a) For improving the organizer-role performance, short-term training is effective only if the participatory-based approach to training is used. The

participatory-based approach is not significantly more effective than the lecture-based approach.

(b) For improving the consultant-role performance and the facilitator-role performance, short-term training is not effective. The participatory-based approach is not significantly more effective than the lecture-based approach.

(c) For improving the enabler-role performance, short-term training is not effective. The participatory-based approach is significantly more effective than the lecture-based approach.

(d) For improving the planner-role performance, short-term training is effective only if the participatory-based approach to training is used. The participatory-based approach is significantly more effective than the lecture-based approach.

Figure 4.11 shows these findings.

Feedback from the Participants on the Training

In addition to the main data collected through various procedures (i.e., testing for cognitive skills, self-reporting by completing a self-disclosure type of test for field performance and interviews of the *penilik's* supervisors), subjective feedback on the training was also collected. Participants were asked about their impressions of the training, their observations and their personal

Category of Role Performance	Is Short-Term Training Effective?	Is Participatory-based Approach More Effective?
Organizer-role	Yes*	No
Consultant-role	No	No
Enabler-role	No	Yes
Facilitator-role	No	No
Planner-role	Yes*	Yes

*If the short-term training uses a participatory-based approach.

Figure 4.11.--Findings Associated with the Five Role Performance Variables.

judgment as to whether the training they have completed was interesting, useful and helpful for them.

This section discusses this feedback from the participants at the conclusion of the training session. The first part of this section deals with a closed feedback format that consisted of a check list where their responses were fixed according to predesigned questions or statements. In this format the participants were asked to check one point on a five point scale. The highest was a double-plus sign and the lowest was a double-minus sign. The second part of this section deals with an open format where the participants were free to give their comments, judgments or observations on the training they had just completed.

A copy of the feedback format is found in Appendix D.

(1) Closed Feedback

In this part of the feedback form comments of the participants are guided by questions or statements covering four variables which, presumably, have direct impact on the process of learning. These four variables include the materials or text for the training, the system of delivery used in the training, the teaching-learning situation and general impressions.

Table 4.21 indicates what the two groups, participatory group A and lecture group B, favored in relation to the specific questions or statements. Since there were no dropouts during the training and everyone responded to each item, the number of responses for each group for each specific question or statement were constant at fifteen.

As shown in the table their responses can be summarized as the following:

1. About the materials for the training, the table indicates that twenty-seven out of forty-five participants (60 percent) for group A felt very positively. The corresponding figures for group B are thirteen out of forty-five (28 percent). However, it should be noted that no participant

Table 4.21.--Feedback from the Participants on the Training.

			++	+	±	-	=	Total
A.	ABOUT THE MATERIALS FOR THE TRAINING							
1.	Were the materials for the training worth to learn to increase knowledge and understanding of the *penilik* in relation to his job?	A	10	5	-	-	-	15
		B	6	9	-	-	-	15
2.	Were the materials learned helpful to a *penilik* in performing his job?	A	11	4	-	-	-	15
		B	5	9	1	-	-	15
3.	Was the sequence of the materials good so that the relationship of one topic to another was clear and easy to learn?	A	6	9	-	-	-	15
		B	2	9	4	-	-	15
	Sub-total:	A	27	18	-	-	-	45
		B	13	27	5	-	-	45
B.	ABOUT THE SYSTEM OF DELIVERY USED IN THE TRAINING							
1.	Was the system of delivery used in the training interesting?	A	11	4	-	-	-	15
		B	3	10	2	-	-	15
2.	Was the lecture or the presentation of the materials clear?	A	5	10	-	-	-	15
		B	3	10	2	-	-	15
3.	Were the practical exercises experienced during the training adequate to improve the *penilik's* job performance in the field?	A	10	5	-	-	-	15
		B	4	8	3	-	-	15

Table 4.21.--Continued.

		++	+	±	-	=	Total
4. Were the examples used during the training relevant to the actual setting and therefore made learning earier?	A	7	8	-	-	-	15
	B	1	9	5	-	-	15
Sub-total:	A	33	27	-	-	-	60
	B	11	37	12	-	-	60
C. ABOUT THE TEACHING-LEARNING SITUATION DURING THE TRAINING							
1. Was the teaching-learning situation lively to stimulate learning activities during the training?	A	9	6	-	-	-	15
	B	5	9	1	-	-	15
2. Were the trainers sensitive enough and responsive to any ideas exposed during the training so that problems that were raised got their fair consideration?	A	12	2	1	-	-	15
	B	4	8	3	-	-	15
3. Were the attitudes of the trainers quite open to make the participants free to talk and to express their ideas?	A	14	1	-	-	-	15
	B	3	10	2	-	-	15
4. Was the learning situation favorable for developing new innovative ideas?	A	10	4	1	-	-	15
	B	4	8	3	-	-	15
5. Was the teaching-learning situation flexible (not rigid) to accommodate variability of ideas?	A	10	5	-	-	-	15
	B	3	11	1	-	-	15

Table 4.21.--Continued.

			+ +	+	±	-	=	Total
6.	Did the sphere of the discussions (large group as well as small group) held during the training give enough opportunity for the participants to express their ideas?	A	7	6	2	-	-	15
		B	14	1	-	-	-	15
	Sub-total:	A	62	24	4	-	-	90
		B	33	47	10	-	-	90
D.	GENERAL IMPRESSIONS ABOUT THE TRAINING							
1.	In general, what do you think about the training just completed in terms of achieving its intended objectives, i.e., to increase understanding, knowledge as well as technical skills of the *penilik* in performing his job in the field? Was it or was it not successful?	A	7	7	1	-	-	15
		B	3	11	1	-	-	15
2.	If this kind of training is repeated again next time, are you interested in participating?	A	13	2	-	-	-	15
		B	14	1	-	-	-	15
	Sub-total:	A	20	9	1	-	-	30
		B	17	12	1	-	-	30
	GRAND TOTAL:	A	142	78	5	-	-	225
		B	74	123	28	-	-	225

indicated any negative feeling about the learning materials.

2. About the system of delivery used in the training, the figures indicate that more than half of the participants of group A (55 percent) favored very much the system used in the training, while for group B only eleven out of sixty (18 percent) indicated their favor in concern with the delivery system used in the training.
3. In spite of the fact that group B provided an unexpected response to the last question on the section about the teaching-learning situation during the training (C-6), the subtotal of this section indicates that group A very much favored their training approach (sixty-two out of ninety, or 69 percent), while group B did not as greatly favor their approach (only thirty-three out of ninety, or 37 percent).
4. On the question of whether or not the training just completed was successful in terms of achieving its intended objectives (question #1, section D), seven out of fifteen of group A (47 percent) agreed that the training just completed was quite successful, while in group B only three out of fifteen (20 percent) confirmed the idea. But when they were asked whether or not they would be interested in participating in the same kind of training in the future,

both groups positively answered that they were very much interested in participating (thirteen out of fifteen for group A, or 87 percent, and fourteen out of fifteen for group B, or 93 percent).

As a summary, the grand total of Table 4.21 shows that 142 out of 225 for group A (63 percent) very much favored the method or approach they had experienced during the training as compared with only 74 out of 225 (33 percent) for group B who favored the method or approach they themselves had experienced during the training.

(2) Open Feedback

All fifteen members of participatory group A provided additional comments, while for lecture group B only thirteen did. Some of their comments were quite relevant to the topic being discussed, while some others were not. Both, the relevant and the not relevant comments, are discussed. However, there was no way to compare between their comments since there was no standard or criterion previously developed to frame their comments. From their comments one could learn a lot to improve the next training session to be better suited to the aspirations of the participants.

Translated freely, their comments are as follows:

One from group A wrote:

> The materials and the methods used in the training are both valuable and helpful to the *penilik* to perform his job in the field. It is therefore suggested that this kind of training should be available to all *peniliks* in the country.

Two participants from group A commented:

> The approach used in the training is quite interesting. It is new experience for me. If there is any other training of this kind in the next time I will be quite willing to participate.

Some of the participants said that one week training was too short as compared with the amount of materials covered during the training. Further, they suggested that in the future training of the same sort expanding the time to at least ten to fifteen days should be considered (four participants from group A and five participants from group B).

Some gave the following comments:

> From my experience with this training I am convinced that *penilik* will learn a lot and benefit much from this kind of training. I therefore propose that this kind of training could be repeated again and again in the time to come (three participants from group A and two participants from group B).

Some other comments are:

> I would think that some kind of follow-up action should be considered for this training, such as developing some Consultative Bureaus for community education which are capable of understanding the aspirations of and giving some technical assistance needed to the *peniliks* in performing their job in the field (two participants from group B).
>
> If this kind of training could be carried out in a longer period of time I would propose that materials for the training could include more on program development for community education, evaluation procedures including developing criteria for success for nonformal education programs in general (two people from group B).

Two participants from group A proposed that more intensive practical exercises should be further considered in the next training, while one other participant

recommended that developing some other innovative delivery systems was to be considered.

Four participants from group A proposed the following:

> It is important to consider giving a kind of certificate for those who have completed the training. This is a kind of credit for the *peniliks* concerned.

Other comments which are not quite relevant to the topic of discussion are here included, e.g.:

1. Budget for the training should be increased.
2. This kind of training seminar should be mobile from one place to another.
3. Activities should also be conducted at night time.
4. The texts for the training should be bound and not in the form of loose papers, and were distributed to the participants before they were called upon for the training.
5. The complete schedule of the training should be given to the participants before the training began.

CHAPTER V

CONCLUSION AND RECOMMENDATION

The discussion in this chapter will be focused on three topics. These are Conclusions and Implications, Recommendations and Concluding Remarks. In the first topic, Conclusions and Implications, the discussion will be focused on the major findings of the study as revealed by the statistical analyses discussed in Chapter IV, and the implications of those findings in terms of their practical consequences. The second topic, Recommendations, will discuss how to bring the findings of the study into application; especially those applications which relate generally to developing nonformal education in Indonesia and more specifically the development of community education. In the third topic, Concluding Remarks, some future possibilities will be considered regarding other ideas and/or the conducting of other studies based on what was learned from this study. Strengths and weaknesses of the present study will be taken into consideration.

Conclusions and Implications

Two concerns that this study attempted to deal with were (1) comparing the relative effectiveness of the participatory-based approach and the lecture-based approach to short-term training for community education fieldworkers--*peniliks*, and (2) testing whether or not short-term training is adequate for achieving the desired results, i.e., increase in achievement of cognitive skills, retention and increase in field performance.

The following conclusions are drawn from the results of the data analyses presented in Chapter IV.

1. Both approaches to short-term training, the participatory-based approach and the lecture-based approach, are effective in increasing the cognitive skill level of the participants.

Discussion and Implication

This conclusion seems to agree with the findings of some other studies of this nature (Richard Hill, 1960; David Dietrick, in Richard Hill, 1960; McLoughlin, 1971). It should be noted, however, that in terms of the increase in scores the participatory group gained a larger increase than the lecture group. Figure 4.2 shows that the lecture group increased its mean achievement score from 55.60 on the pretest to 59.93 on the posttest I. This means that the lecture group gained 4.33 points. The participatory group, on the other hand, increased its mean achievement score

from 52.40 on the pretest to 61.93 on the posttest I with a gain of 9.53 points. Comparing the gains of these two experimental groups (the participatory group A and the lecture group B) it was found that the difference between the posttest I and the pretest was significant for participatory group A, but not significant for lecture group B. This further supports the use of a participatory-based approach to training.

The implication is that both approaches could be used equally well as far as the increase of the achievement level in cognitive skills is concerned. However, where a choice is possible, the participatory-based approach is favorable to the lecture-based approach. Also, a one week training session is indeed adequate to increase the achievement level of the participants.

2. In terms of the retention rate of the participants, both approaches used in short-term training are equally effective.

Discussion and Implication

Different than what Cole and Glass (1977) found out in their study on The Effect of Adult Student Participation in Program Planning on Achievement, Retention and Attitude, the conclusion of this study suggests that both approaches could have a positive effect on retention. This conclusion seems to confirm the ideas expressed by Bergevin (1967), Boyd (1969) and Dobbs (1967) when saying that "The

knowledge and skills will be more appropriate to their needs; hence, the learners will tend to retain and apply the new learnings more readily than if the content and skills are viewed as irrelevant" (William J. Cole, 1977, p. 77).

The higher score achieved by the participatory group on posttest II as compared with the score achieved by the lecture group can only be attributed to chance.

The implication of this conclusion would, again, be that both approaches are equally effective in terms of retention of the knowledge and understanding derived from the short-term training. If everything else could be held constant, however, the participatory-based approach to short-term training should receive a higher priority than the lecture-based approach when training sessions are planned.

3. The participatory-based approach to short-term training is significantly more effective than the lecture-based approach in terms of increasing the performance level of the training participants--the *peniliks*.

Discussion and Implication

The differences between the participatory group and the lecture group and between the participatory group and the control group both are significant beyond the 5 percent level of confidence (see Figure 4.8). This provides an extra comfort to those with strong convictions about the

superiority of the participatory-based approach over the lecture-based approach for short-term training.

There are some variances, however, in terms of the increase of the role performance variables as they were affected by the different approaches used in the short-term training. In the present study, five categories of role performance were developed. These include the organizer-role performance, consultant-role performance, enabler-role performance, facilitator-role performance and planner-role performance.

Looking at the increase of each of these five categories of role performance as they were affected by the different approaches used in the short-term training, the results of the analyses can be summarized as follows:

(a) For the organizer-role performance variable, the participatory-based approach to training has a significant effect, while the lecture-based approach has not. The difference between the participatory-based approach and the lecture-based approach, however, is not significant (see Figure 4.3).

(b) For the consultant-role performance variable and the facilitator-role performance variable, both approaches, participatory-based and lecture-based, are not effective (Figure 4.4 and Figure 4.6).

(c) For the enabler-role performance variable both approaches used in short-term training are not effective. However, the difference between the

participatory-based approach and the lecture-based approach is significant.

(d) For the planner-role performance variable, the participatory-based approach to short-term training is significantly effective. The lecture-based approach is not effective. The difference between the participatory group and the lecture group is significant at higher than the 5 percent level of confidence (see Figure 4.7).

While two out of five of the role performance variables (the organizer-role performance and the planner-role performance variables) were significantly affected by the short-term training and two out of five of the role performance variables (the enabler-role performance and the planner-role performance variables) were significantly affected by the different approaches used in the training, two role performance variables (the consultant-role performance and the facilitator-role performance variables) were not affected by both either short-term training or the different approaches that were used. The primary reasons considered relate to the social and cultural backgrounds of the people and of the community where the study was carried out.

About the Consultant-role Performance Variable

The effectiveness of the performance of this type of role does not merely depend on the capacity of the *penilik*,

but also on the awareness of the people in the community for utilizing one of the available community resources (in this case the expertise of the *penilik*). Even though a *penilik* is quite skillful in providing advice or consultations to the people in how to resolve their problems, he will not have many things to do or to say if nobody comes to him to ask for help. In the Indonesian culture the village people in many cases are reluctant to come to the government agents and ask for help. They still have an image that the government agents are, in fact, different from their own standard of life. This background seems to be a reason why only a few activities of this nature were reported by the *peniliks* when they completed the self-disclosure type of test. Hence, the competencies as a consultant were not affected by the training.

About the Facilitator-role Performance Variable

It seems that providing learning equipment and other educational facilities for the community people, like village libraries, sports facilities, etc., is not something which merely deals with individual competencies, but deals with something beyond the individual capacities of the agents (the *penilik*). It is more related to the availability of funds, sites, buildings and government policies rather than on the individual capacities of the *peniliks* in handling their job. This could be a strong reason why the competencies of the facilitator-role performance was

not greatly affected by the training and also by the different approaches used in the training. In other words, talking about providing learning equipment and other educational facilities seems to be different than talking about individual competencies of the *penilik*.

About the Organizer-role, the Enabler-role and the Planner-role Performance Variables

The three performance roles which were strongly affected by either the short-term training or the different approaches used in the training were the organizer-role, the enabler-role and the planner-role. These three roles were, in fact, those which to be effectively carried out demand a high degree of participation by the *penilik* with members of the local community. The results of the study seem to suggest that when competences of promoting community participation in learning activities are the main concern, then a participatory-based approach to training is favored.

4. In terms of the perception of the supervisors, both approaches, the participatory-based and the lecture-based approaches, used in short-term training were equal. Both are not effective.

Discussion and Implication

There are two ways to look at this issue. One, either the information disclosed by the *peniliks* or

information revealed by the supervisors at the interview were not true; or two, there was misinformation between the *peniliks* and the supervisors.

Based on the experience of the study that provided close contact with the *peniliks* during the training and also through talking with the supervisors during the interviews, the researcher had an impression that supports the validity of the second possibility, i.e., that some level of misinformation exists between the *peniliks* on the one hand, and the supervisors on the other. There are a number of field activities that were disclosed by the test which are not in the records of the supervisors' offices. It seems that the monitoring systems in the office of the supervisors are still minimal. This is probably due to the large job load whereby one supergvisor cannot possibly supervise so many *peniliks* in an adequate fashion.[1] This is further confounded because the *peniliks* are spread over wide areas where communication is still a big problem.

The implication of this conclusion is that the data from the interviews of the supervisors can be used only as supporting information to the primary data revealed by the *peniliks*.

---

[1]The proportion of supervisors to *peniliks* is 24:390 = 1:16. Besides community education agents or *peniliks*, one supervisor also supervises field agents for sports and field agents for cultural activities.

5. In general, the participatory-based approach used in short-term training is more desirable to the participants than the lecture-based approach.

Discussion and Implication

Feedback on the training given by the participants indicates that in almost every aspect of the training the participatory group responded more positively than the lecture group. There were four aspects disclosed by the feedback form which includes the materials for the training, the system of delivery, the teaching-learning situation and general impressions of the participants. The feedback suggests that the participatory-based approach used in short-term training is better suited to the desires and aspirations of the participants--the *penilik*, and is preferred over the lecture-based approach.

Recommendations

Two concerns will be considered in this section. One is the concern for developing nonformal education in Indonesia; and two is the concern for best utilizing the findings of this study for developing training programs for the *penilik*.

(1) The Concern for Developing Nonformal Education in Indonesia

Using a pretest-posttest experimental design in the area of nonformal education in Indonesia is a new and

innovative device. In this case, it is not only the findings that matter but also the procedure for getting the findings. Also, different than other previous studies in comparing the different methods or approaches used in training, the present study introduced field performance as one of the dependent variables to be measured (see Richard Hill, 1960; McLoughlin, 1971; Solomon, 1963; William Cole, 1977; Bergevin, 1967; Boyd, 1969; Dobbs, 1967).

A new type of test instrument was also introduced. This test was called a "self-disclosure type of test" which is, in principle, a self-reporting device whereby the participants report or disclose the activities they have conducted, are conducting or are planning to conduct within a certain period of time in the future. This type of test relates especially to the field performance variables. This type of test instrument was quite effective in disclosing a great deal of valuable information concerned with the field performance of the participants. While some defects could be found easily in this new type of test, since this is not a standardized test, applicability to other areas of nonformal education in Indonesia could be recommended with some adjustments and modifications.

It is also recommended that, in spite of the fact that some of the results of this study need to be substantiated, the design of this study is in itself something which could be further developed and applied in other aspects of nonformal education in Indonesia.

(2) The Concern of How to Best Utilize the Findings of This Study for Developing Training Programs for *Peniliks*

The primary concern of conducting training for staff employees is either to maintain or to increase the quality of their job performance. This is also the case with training for the *penilik*. The results of the present study indicate that, as far as job performance is concerned, a high preference was given to the participatory-based approach rather than to the lecture-based approach to training.

From the analyses of the data it was learned, however, that two out of five role performances of the *penilik* were not affected by the approach used in the training. It was also learned that, by looking at the issue more deeply using other variables for further consideration the two role performances were, in fact, those which were not primarily determined by the individual competencies. Hence, instead of minimizing the validity of the findings this fact provides further support. In other words, where training is concerned with maintaining or increasing the quality of job performance and where job performance is only a function of the individual performer, then the participatory-based approach to training is even more highly favored than the lecture-based approach.

It is admitted that science and technology is developing over time. What is considered new for today will be

considered old by tomorrow. This is also true with the training materials used in this study. It is therefore suggested that when applying the findings of this study, adjustment and modification of the training materials should always be considered necessary.

The allocation of time during the training sessions should not be considered rigid. It should be flexible to accommodate necessary modifications. It is not the number of minuts that counts but the value of how the time is spent.

Also, the kinds and number of learning activities implemented in this study should not be considered as rigid. Adjustment and modification should also be possible when the situation demands. Included in the term of "situation" are the training objectives, the conditions of the sites and the conditions of the trainees.

In general, while on the one hand the use of the participatory-based approach in the training for the *penilik* is recommended, on the other hand it is also recommended that adjustment and modification of the training materials should always be made whenever necessary. In other words, the findings recommend more regarding the process than the content of the process.

Concluding Remarks

While some aspects of the findings are quite promising the researcher has to admit, however, that some

discrepancies exist in this study which, hopefully, will be overcome in other future studies of this nature.

First, the sampling procedures. In this study, group assignment was done prior to the implication of the pretest. By so doing, the variability of means and the heterogeneity of variances between groups existed. Based on this experience it is suggested, if this kind of study will be repeated, that pretesting be administered prior to the group assignment. Group assignment could then be done based on the results of the pretest to establish homogeneity for means and variances between groups. This design will, presumably, produce stronger findings.

Consideration should also be given to the question of stratification of the sample. Though the randomization used in this study yielded an uneven distribution across experimental groups on the basis of municipality versus nonmunicipality (location of *penilik*) it is not known whether this caused an effect. Further research should carefully examine other factors (age, education, location, experience, etc.) and their potential effects on a study such as this.

Second, the site of the study. The present study was conducted in West Java province. West Java province is one of the most developed provinces of Indonesia. The applicability of the findings to other areas/provinces where the conditions are quite different is therefore questionnable. Some other studies of this nature conducted

in communities with different backgrounds and conditions are recommended.

Third, validation of the test instruments. The test instruments used in the present study were developed by the researcher himself. To increase precision of the results these instruments need to be further developed and validated before they are used for other studies. In fact, the validation of the test instruments is in itself a research study. The researcher is anxious to see this.

APPENDICES

APPENDIX A

COGNITIVE TEST

APPENDIX A

COGNITIVE TEST

Instruction of how to do the test:

1. Please read carefully before you start.

2. There are two types of questions: one, is objective type; and two, is essay type question.

3. For the objective type of test what you should do is just circle one of the four options which, according to your judgment, is the most appropriate answer for the respective question.

4. Instead of a pen use a pencil to make it easier for you to erase when you want to change your answer. But erase carefully and completely if you do need to change your answer.

5. Do not spend too much time on one question.

6. Give a concise answer for each question of the essay type. Remember that you are not going to write a paper.

7. For completing both the objective and the essay type of test TWO HOURS will be provided. Adjust the time for yourself for finishing the objective type in about 60% of the allocated time.

8. Good luck, and now you may start.

Do not write in this column:

A. OBJECTIVE TYPE

1. The important key characteristic(s) of a community is (are):

   a. People who live together in a given geographic area.
   b. Shared values among the people.
   c. Interaction among the people.
   d. All of those mentioned above.

2. The reason why different persons may have different perceptions about community is:

   a. That every person knows quite well about the community where he lives.
   b. That they have different backgrounds.
   c. That they do not quite understand what is the meaning of "community."
   d. That they are not all government agents.

3. Every community is undergoing change over time, because:

   a. A community is always an open community.
   b. In this 20th century there is no traditional community anymore.
   c. There is no one community could resist from its contact with other communities.
   d. All of the above mentioned is true.

4. Comparison between community development and community change:

   a. Both are the same.
   b. Community development means more than just community change.
   c. Community development is less than community change.
   d. Community development is not comparable to community change.

Do not write in this column:

5. A community change agent is:

   a. A government employee who is responsible for community development.
   b. A volunteer who is concerned with community development.
   c. An informal leader from within or without the community.
   d. All the above mentioned is possible.

6. Community development is:

   a. Always cross-sectoral development.
   b. Social development.
   c. Economic development.
   d. Physical development.

7. A community is called having reached the *swasembada* level of development whenever:

   a. All people in the community are already literate.
   b. The community is rich in resources.
   c. The community is already able to fulfill their own needs.
   d. None of those mentioned above is true.

8. In order for the work of the change agent to be effective and efficient he should:

   a. Be able to understand the aspiration of the people.
   b. Understand that every need is to be fulfilled.
   c. Be able to follow his instructions.
   d. Be able to relate his job with the general goal of community development.

Do not write in this column:

9. The speed of change in traditional societies is:

   a. Slower than in modern societies.
   b. Just the same as in modern societies.
   c. Faster than in modern societies.
   d. Not comparable to modern societies.

10. The *swasembada* level of development implies:

   a. That community is capable of identifying the resource gap in relation to particular community needs.
   b. That the people are capable of effective utilization of either internal or external resources.
   c. That the community has "bargaining" power for pulling in the needed resources from outside the community.
   d. All of those mentioned above.

11. One of the important factors influencing community change is:

   a. The availability of manpower supplies in the community to make the change.
   b. The people are civic minded.
   c. The people are intelligent.
   d. Maintaining open contact with other communities.

12. Why should the *penilik* understand the local needs?

   a. Because they are important.
   b. Because from understanding the local needs they can understand the people.
   c. Because needs should be fulfilled.
   d. Because it could be the basis for program development.

Do not write in this column:

13. What is the difference between needs and wants?

    a. Both are the same.
    b. Needs are for adults whereas wants are for children.
    c. Needs are more thoughtful whereas wants are more spontaneous.
    d. All above mentioned are not true.

14. Understanding the local needs and problems is important for the *peniliks*, because:

    a. Every locality has its own unique needs and problems.
    b. Those are the *peniliks* main task.
    c. Those are the major entry points to make the teaching-learning activities start.
    d. Those are the goals of any development program.

15. The role of a *penilik* as it is compared with the role of a teacher is that:

    a. Both are the same, since both are dealing with teaching profession.
    b. Both are different, since a *penilik* deals mostly with adult people, whereas a teacher deals mostly with younger children.
    c. Both are not comparable.
    d. The role of a *penilik* is harder than the role of a teacher.

16. Basically nonformal education is:

    a. Different with formal school system.
    b. The same with formal school system.
    c. Not comparable to the formal school system.
    d. More simple than formal school system.

Do not write in this column:

17. Basically the adult learners have:

    a. The same characteristics with those of child learners.
    b. Different characteristics with those of child learners.
    c. More complex characteristics than those of child learners.
    d. Less adequate characteristics than those of child learners.

18. Every mature individual has a unique self-concept which:

    a. Is good for his career.
    b. Is relatively more simple than those of small children.
    c. Is difficult to understand.
    d. Differs from person to person.

19. The adult learner will be more motivated to learn if he could see that what he learns:

    a. Fits to solving his problems and to fulfilling his needs.
    b. Is more simple than what he thought.
    c. Is more complex than what he thought.
    d. Is important.

20. People will participate more fully in the implementation of a program if they know that the program is:

    a. A government program.
    b. Concerned with community development.
    c. Organized around the people's needs and problems.
    d. Good for their health.

Do not write in this column:

21. The job of *penilik* in particular and the community development agent in general should be:

    a. Reactive to the people's needs and problems.
    b. Proactive to link in one way or another the needs of the people with the developmental needs of the community.
    c. Active in dealing with the instruction from the central government.
    d. Easy enough to handle.

22. Since individual's expectations of the community and his experiences differ from one person to another, it follows that:

    a. It is quite difficult to talk with them.
    b. Programs of activities should be in variance to fit in those individual's expectations and experiences.
    c. Programs of activities should be prioritized in such a way to accommodate some commonalities among them.
    d. The job of the *penilik* becomes even more difficult.

23. For a new *penilik* who has just been appointed by the government for a certain area, the first thing to do is:

    a. To make a very detailed plan in concern with community development.
    b. To go to the central government to ask for a budget.
    c. To ask the supervisor what kind of job he should be doing.
    d. To learn about the local conditions and to meet the community people he is serving.

Do not write in this column:

24. If the people's needs do not conform with the needs of the community agent, than:

    a. The people should abandon their favor and follow whatever the agent brings to them.
    b. Alternative ways should be developed to release the conflict.
    c. The people should be trained to be able to understand the aspirations of the community agent.
    d. None of those three mentioned above is true.

Questions 25 through 32 are related to the following statement:

There are some techniques which could be used to identify local needs and problems. Each of those techniques has its own advantages and disadvantages. Those techniques include: interview, questionnaire, informal group discussion and observation.

25. Interview is a technique where information is gathered through:

    a. Questioning/answering.
    b. Learning what has actually happened in the community.
    c. Direct contact between the information collector and the information resource.
    d. Believing in whatever the people give to the information collector.

26. Perceptiveness is very important if for the information collected one is using a (an) _____ technique:

    a. Interview.
    b. Questionnaire.
    c. Informal group discussion.
    d. Observation.

Do not write in this column:

27. The difference between questionnaire and interview technique is that in using the questionnaire technique the list of questions which needs to be answered:

    a. Is prepared before the activity has been started.
    b. Is presented to the person who is going to answer the question.
    c. Can be sent to the person who is going to answer the questions by mail.
    d. Is developed in such a way that all people will not have any difficulty to complete.

28. In a questionnaire one question is formulated as the following: In your opinion what is the most important community problem to be resolved as soon as possible?

    According to its type this question is said to be:

    a. Simple.
    b. Open.
    c. Closed.
    d. Complete.

29. The most subjective technique among those four mentioned above is:

    a. Interview.
    b. Questionnaire.
    c. Informal group discussion.
    d. Observation.

30. One problem in sampling is a decision on the size of sample to be drawn from its population. In most cases when fund is limited a _____ technique can cover a relatively bigger sample than the other three:

    a. Interview.
    b. Questionnaire.
    c. Informal group discussion.
    d. Observation.

Do not write in this column:

31. One of the disadvantages of the questionnaire technique as compared with interview technique is that:

    a. There is no way for the researcher to further clarify the crucial issue.
    b. The questions are closed.
    c. In questionnaires the questions to be answered must be formulated clearly.
    d. Questionnaire is more subjective than interview.

32. To get good and accurate results from interview:

    a. The interviewer should have enough time to do the job.
    b. The interview guides should be well prepared.
    c. The interviewees should have been well trained.
    d. The interviewers should be university graduates.

Leadership is a very important factor in accomplishing any community development program. Leadership may come from formal or from informal authorities.

33. When leadership comes from formal authorities it is called:

    a. Formal leadership.
    b. Informal leadership.
    c. Authoritative leadership.
    d. Democratic leadership.

Questions 34 through 40 are related to the following statement:

There are some approaches which could be used to identify leadership in a community. These could include: positional approach, decision making approach, reputational approach and social participation approach.

Do not write in this column:

34. When identification of leadership is done through identifying the formal power in the community, the approach is called:

    a. Positional approach.
    b. Decision making approach.
    c. Reputational approach.
    d. Social participation approach.

35. On the contrary, when the identification of leadership is done through identifying informal organizations where a person is participating voluntarily, the approach is called:

    a. Positional approach.
    b. Decision making approach.
    c. Reputational approach.
    d. Social participation approach.

36. When leadership is derived from reputation a person has gained, it is called:

    a. Formal leadership.
    b. Informal leadership.
    c. Authoritative leadership.
    d. Democratic leadership.

37. If you are to identify leadership in your own community using the positional approach, the first thing you should do is:

    a. Interviewing formal authorities.
    b. Interviewing people or villagers whom they respect most.
    c. Calling a meeting with the villagers to discuss who would be the community leaders.
    d. Identifying all formal positions in the community.

Do not write in this column:

38. If you are to identify leadership in your own community using the reputational approach, the first thing you should do is:

    a. Interviewing people in formal authorities.
    b. Interviewing people or villagers whom they respect most.
    c. Calling a meeting with the villagers to discuss who would be the community leaders.
    d. Identifying all formal positions in the community.

39. Identifying formal leaders is a relatively more simple endeavor than identifying informal leaders, because:

    a. All formal leaders are government employees.
    b. Informal leaders are persons coming from outside the community.
    c. Formal leaders can be identified through their formal position in the community.
    d. All the three mentioned above are true.

40. Several techniques can be used to identify leadership, such as: interview, questionnaire, informal group discussion and observation. But in most cases observation is the most fitting instrument if used in the:

    a. Positional approach.
    b. Reputational approach.
    c. Decision making approach.
    d. Social participation approach.

Do not write in this column:

41. Drawing a conclusion of needs to be fulfilled is not a simple job, because:

    a. Not all needs expressed by the people are real developmental needs.
    b. All people's needs are false.
    c. The government development plan is also to be carried out.
    d. The people's needs are complicated.

42. The most serious problem which sometimes hinders the implementation of the program is:

    a. The availability of a good plan.
    b. The availability of a good consultant.
    c. That most of the village people are still low educated.
    d. None of those mentioned above is true.

43. The ideal situation is when the needs expressed by the people could:

    a. Be fulfilled immediately.
    b. Match with the development plan.
    c. Be delayed until money is available.
    d. Be discussed at length prior to their implementation.

44. To facilitate the realization of the regional development program a system called "UDKP" has been developed. This UDKP is coordinated by:

    a. The *camat*.
    b. The *bupati*.
    c. The village head.
    d. The head of the education regional office.

Do not write in this column:

45. If the people's needs have already been identified, the next thing to do is:

    a. To check with the authorities in the province whether these needs are important.
    b. To check with the village head whether or not he agrees with these identified needs.
    c. To check with other development agents in the area to see if the needs expressed by the people are congruent with the developmental needs of the government plan.
    d. To check with the central authorities whether or not the government agrees that these needs should be fulfilled.

46. If you are given a list of tentative programs by the *camat* which will be carried out in your region, what person or group of persons should you consult first to check the priority of the list?

    a. Authorities in central government.
    b. Authorities in provincial level.
    c. Authorities in *kabupaten* level.
    d. The local people and their functional leaders.

47. If the priority of the people's needs has been checked with those it is concerned, the next step to do would be:

    a. To ask the central government for detailed instructions of how to implement the program(s).
    b. To identify the available local resources to make the implementation of the programs possible.
    c. To ask the *bupati* if he has other alternatives.
    d. To wait until the more detailed plan has been worked out by experts.

Do not write in this column:

48. Resources should not necessarily be financial, but they could also be:

    a. Learning materials and people's motivation.
    b. People's motivation and understanding.
    c. People's motivation and human resources.
    d. Learning materials and human resources.

49. Financial resources could come from:

    a. Central government.
    b. Regional or local government.
    c. Donations from private agencies or individual persons.
    d. Either one or some combinations of the three mentioned above.

50. Expertise or human resources could be found either:

    a. Outside or inside the community.
    b. From central or local government.
    c. From groups or individual members of the community.
    d. One or some combinations of those mentioned above.

51. It is the task of the *penilik* to effectively and efficiently utilize the available resources to fulfill the felt needs of the local people, because in many of the cases resources are:

    a. Available only outside the community.
    b. Available only within the community.
    c. Limited.
    d. Not so good.

Do not write in this column:

52. The prioritized community needs are said to be ready to carry out whenever:

    a. The local authorities have confirmed them.
    b. Functional leaders have agreed upon them.
    c. Financial, learning materials as well as human resources are available.
    d. All of those factors mentioned above are available.

53. The job of *penilik* is best defined as:

    a. To facilitate the learning activities among the people he serves.
    b. To carry out whatever instruction he gets from his authorities.
    c. To find some money or funding to run the activities the people have proposed.
    d. None of those mentioned above.

54. As a consultant the *penilik* needs:

    a. To deliver any instructions he gets from his authorities to the people he is serving.
    b. To force the people to do whatever they have been instructed to do.
    c. To provide recommendations and/or advice to the people in the community who are the decision makers.
    d. To let the people in the community do whatever they want to do.

Do not write in this column:

55. Whatever systems the *penilik* uses in carrying out his job the objective remains that by the end of the process the learners should be able to:

    a. Read and write.
    b. Master some technical skills.
    c. Help themselves in solving their problems and in fulfilling their needs.
    d. All of those mentioned above are not true.

56. One of the main tasks of the internal facilitator (*Pamong belajar*) in learning group activities is:

    a. To teach the group to read and write.
    b. To stimulate learning activities where the members of the group could learn from each other.
    c. On behalf of the group, to do the job as they were assigned to do by the *penilik*.
    d. None of those mentioned above is true.

57. Program evaluation is one integral part of planning, and it is developed:

    a. Prior to the implementation of the program.
    b. During the implementation of the program.
    c. After the program has been completed.
    d. Any time whenever the planner is pleased to do.

Do not write in this column:

58. For program evaluation to be efficiently carried out:

    a. The objectives of the program should be clearly defined and the criteria should be quantitatively measurable.
    b. The objectives should be developed from the government development plan.
    c. The criteria should be derived from the government development plan.
    d. It depends on the planner which he wants to choose.

59. Evaluating the program could be done:

    a. Whenever the project is finished.
    b. Any time during the implementation period of the project.
    c. Both during the implementation period and also by the end of the project.
    d. It depends on the implementer and also the planner when they want to do the evaluation.

60. Doing an evaluation is:

    a. The same thing with checking on the spot.
    b. Controlling the implementation of a program.
    c. Writing a final report for a program which has just been completed.
    d. Comparing between "WHAT IS" and "WHAT SHOULD BE."

B. ESSAY QUESTIONS

1. Using your own words elaborate further the following statement in somewhat detailed explanations:

   "In Nonformal Education in general and in Community Education in particular learning is not for the sake of learning, but learning is to gain something useful for life."

2. "A good and workable plan of community development is not only that which is based on the most popular needs expressed by the community people, but ideally those which are also supported by the available resources."

   Explain further what this means.

3. To facilitate the learning process among the people in the community the *penilik* should promote the emergence of internal facilitators (*Pamong belajar*) in every learning group the people and he himself as a consultant have created.

   Why?

4. A community education program, say, literacy activities, is going to be carried out in your area. One of the objectives is formulated as to increase the literacy capacity of the local people. If you are assigned to do an evaluation for this program, what kinds of steps are you going to take to complete your task. Please be specific; for instance:

   Step one:_____

   Step two:_____

   Step three:_____

   Etc.

Cognitive Test

A. Objective Test: Answers key.

1 --- d	16 --- a	31 --- a	46 --- d
2 --- b	17 --- b	32 --- b	47 --- b
3 --- c	18 --- d	33 --- a	48 --- d
4 --- b	19 --- a	34 --- a	49 --- d
5 --- d	20 --- c	35 --- d	50 --- d
6 --- a	21 --- b	36 --- b	51 --- c
7 --- c	22 --- c	37 --- d	52 --- d
8 --- d	23 --- d	38 --- b	53 --- a
9 --- a	24 --- b	39 --- c	54 --- c
10 --- d	25 --- c	40 --- c	55 --- c
11 --- d	26 --- d	41 --- a	56 --- b
12 --- d	27 --- c	42 --- a	57 --- a
13 --- c	28 --- b	43 --- b	58 --- a
14 --- c	29 --- d	44 --- a	59 --- c
15 --- b	30 --- b	45 --- c	60 --- d
a = 13	b = 14	c = 15	d = 18

Concepts to be Included in the Answers of the Essay Type of Cognitive Test

Question 1: Using your own words elaborate further the following sentence in somewhat detailed explanation:

"In NFE in general and in community education in particular learning is not for the sake of learning, but learning is to gain something useful for life."

Answer:
(1) Learning in NFE is practical.
(2) It relates to life's problems and needs.
(3) The learners are mostly adults who have immediate problems to be solved and needs to be fulfilled. And most of those problems and needs are related to the social and economic problems of the adults.
(4) Learning in NFE is not for pleasure or for killing time.
(5) It is therefore designed that learning in NFE is tailor-made to fit the individual's expectations and experiences.

Question 2: "A good and workable plan is not only that which is based on the most popular needs expressed by the people, but ideally those which are also supported by the available resources."

Explain further what this means?

Answer:
(1) A plan to fulfill needs which is not based on available resources is theoretical.
(2) If this plan is also based on the available resources, it could be a long enduring and a self-sufficient plan.
(3) The plan will not only solve the problems and fulfill the needs but also will utilize the community resources for the benefit of the people.
(4) The realization of the plan will not be expensive since the community does not need to invite outside resources.
(5) It saves time since it can be realized soon without any unreasonable delay due to the readily available resources (funds, expertise and also material resources).

Question 3: To facilitate the learning process among the people the community education worker should promote the emergence of voluntary facilitators in every learning group that the people and he himself as a consultant have created. Why?

Answer: Because:

(1) It will develop activities on a self-sufficient basis;
(2) It reduces local dependency on outside expertise which, in turn, becomes a ground stone for developing the *swasembada* condition;
(3) It will help to develop a sense of responsibility among the people themselves on matters concerned with their own problems;
(4) It will help to develop managerial skills of the people which, in fact, is one of the main objectives of community education;
(5) It will help to develop the hidden capacity among the people themselves, since the *malu* persons could act more freely and openly whenever the leader of the group is a person who also comes from their side.

Question 4: A community education program, say literacy, is going to be implemented in your area. One of the objectives is formulated as to increase the literacy capacity of the local people. If you are assigned to do an evaluation for this program what kind of steps need to be taken to complete your task? Please be specific, for instance:

Step one:_____

Step two:_____

Step three:_____

Etc.

Answer: Steps could include:

(1) To formulate the objective(s) in more specific terms, such as what level of literacy is going to be achieved (third grade, fifth grade or sixth grade, or else?).
(2) To gather data on the population before the implementation of the program.

(3) To develop criteria for measurement in terms of subject matter areas, such as: reading, writing, math, skills and others.
(4) To develop the plan of action: Where (in terms of locality), when and how to do an evaluation, the sampling procedures, etc.
(5) To do an evaluation: collecting and analyzing the data and draw conclusions from them.

APPENDIX B

SELF-DISCLOSURE TYPE OF TEST

APPENDIX B

SELF-DISCLOSURE TYPE OF TEST

Please read carefully:

We are trying to learn more from your experience as a *penilik* who works directly with people in the community. We would, therefore, like to get information from you as much as you can give to us.

Whatever information you give to us will not affect your job and/or your career, since nobody else except the researcher of this study will have access to it. Also, there will be no administrative relationship of any kind between the information you give to us and the work of either the local, regional or central office in Jakarta.

Your information could be an invaluable base for developing short-term training program for the *penilik*s in the future. Your cooperation will, therefore, be very much appreciated.

TWO HOUR TIME will be provided to complete this test. If you have any problem in completing this test, please do not hesitate to come to us.

Thank you.

Please Complete the Following Information as Best You Can.

Please Do as Directed:

Fill in and/or check the box you think is appropriate

Do not write in this column:

1. Name: _____

2. Address: _____

_____

_____

3. Age by last birthday: _____ yrs.

4. Sex: Male ☐

Female ☐

5. Education: (check one to indicate the level of formal education you have completed)

Primary Education ☐

Junior Secondary ☐

Senior Secondary ☐

Bachaloriate degree ☐

Master degree ☐

Do not write in this column:

6. In-service training: (Fill in with the type or topic and duration of the training(s) you have had since you were recruited as community education staff)

(1) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

(2) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

(3) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

(Additional Sheet if Necessary)

7. If you have never had in-service training of any kind since you have been working with the Community Education office you should check here:

☐

Do not write in this column:

8. Attending workshops/seminars/conferences or group discussions among the community education workers in relation with job-performance:

(1) Activity attended: workshop ☐
seminar ☐
conference ☐
other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

(2) Activity attended: workshop ☐
seminar ☐
conference ☐
other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

Do not write in this column:

(3) Activity attended: workshop ☐

seminar ☐

conference ☐

other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

(Additional Sheet if Necessary)

Work Experience:

(number of years you have been working with the Office of Community Education)

9. The total number of years you have been working with the Office of Community Education:

_____ years

10. The total number of years you have been working as the community education field worker:

_____ years

THE FOLLOWING INFORMATION that you are going to tell us is related to your job performance in the field. Please tell us the type and number of activities and the nature of each activity that you have done or completed, those which are still underway and also those which you plan to do.

ACTIVITIES that you are going to describe should relate, in one way or another, to the learning activities of the people in the community. And for the sake of convenience we will group them into eight categories as follows:

Category A Activity

Stimulating and/or facilitating learning activities such as organizing learning groups for youth and adult members of the community, facilitating group discussions among themselves, facilitating learning groups for certain topics such as studying the *Koran* or other community issues such as waste disposal, irrigation, cooperatives, etc.

Category B Activity

Stimulating and/or facilitating the emergence of voluntary internal facilitators (*pamong belajar*) within learning groups who, from then on, would become internal leaders and internal consultants to get the group activities going and developing.

Category C Activity

Providing and/or developing facilities or units of equipment for learning activities such as village libraries, sports and/or cultural activities, reading materials such as magazines and newspapers, etc.

Category D Activity

Providing consultations needed by the people, finding out ways for helping the people solve their problems, giving information as necessary or providing access for people to find information from other units or agencies (referral function), etc.

Category E Activity

Giving suggestions to people in order for them to learn more through various ways not specified above such as organizing workshops or seminars among community members either done individually or in collaboration with other community development agents.

Category F Activity

Increasing people's knowledge and understanding which include courses in basic literacy skills, courses in general knowledge of citizenship education, courses which relate to family life welfare programs, family life education, nutrition, sanitation, etc.

Category G Activity

Increasing technical skills related to specific type of competences such as home economics, gardening, child raising or other kinds of courses or activities which include domestic animal husbandry, woodwork, bamboo-work, arts, sports, dancing, etc. Activities belonging to this category are not primarily for employment purposes, but rather for hobbies or secondary business.

Category H Activity

Increasing technical skills related to job opportunities or employment. These kinds of activities might be done in collaboration with other units or agencies such as Manpower, Home Industries, Agriculture, Health, and others.

NOW THINK for a moment about the kinds of activities that you have done, completed or initiated within THE LAST SIX MONTHS. And then please complete the information below using categories A through H for your reference.

For your convenience, preceding each form is repeated the description of the related category.

NOTES: Not Every Form is Necessary to be Completed If, in Fact, No Activity is Going on or Has Been Carried Out.

Do not write in this column:

11. Category A Activity

Stimulating and/or facilitating learning activities such as organizing learning groups for youth and adult members of the community, facilitating group discussion among themselves, facilitating learning groups for certain topics such as studying the *Koran* or other community issues such as waste disposal, irrigation, cooperatives, etc.

Information to be completed would include:

Do not write in this column:

Activity #1

(a) Topic:_____

(b) Frequency within six months:

_____ times
(How many times this specific activity has been repeated within the last six months)

(c) Average number of people involved in each activity:

_____

(d) Recurrent: yes ☐; no ☐
(Will this specific type of activity be repeated over and over again in the next six months)

Activity #2

(a) Topic:_____

(b) Frequency within six months:

_____ times

(c) Average number of people involved in each activity:

_____

(d) Recurrent: yes ☐; no ☐

Activity #3

(a) Topic:_____

(b) Frequency within six months:

_____ times

(c) Average number of people involved in each activity:

_____

(d) Recurrent: yes ☐; no ☐

Do not write in this column:

NOTES:

(1) Use additional sheet if necessary.

(2) If the specific types of activities have been done collaboratively with other units/agencies or voluntary organizations, please mention all of them ranging from the highest to the lowest degree of their involvement according to your own judgment, starting with the initiator of the activity. Do not forget to mention your own unit/agency:

(i) _____

(ii) _____

(iii) _____

(iv) _____

etc.

12. Category B Activity

Stimulating and/or facilitating the emergence of voluntary internal facilitators (*pamong belajar*) within learning groups who, from then on, would become internal leaders and internal consultants to get the group activities going and developing.

Information to be completed would include:

(a) Number of learning groups which already have their own internal facilitators during the last six months:

_____

Do not write in this column:

(b) Average number of people (including the internal facilitators) involved in each learning group:

_____ people.

(c) Average length of time each activity is going on:

_____ days/weeks

13. Category C Activity

Providing and/or developing facilities or units of equipment for learning activities such as village libraries, sports and/or cultural facilities, reading materials such as magazines and newspapers, etc.

Information to be completed would include:

Activity #1

(a) Topic/Unit:_____

(b) The date when it was initiated:

_____

Activity #2

(a) Topic/Unit:_____

(b) The date when it was initiated:

_____

Activity #3

(a) Topic/Unit:_____

(b) The date when it was initiated:

_____

Do not write in this column:

NOTES:

(1) Use additional sheet if necessary.

(2) Units/agencies or voluntary organizations which were also involved in this type of activity ranging from the highest to the lowest degree of involvement according to your own judgment, starting with the initiator of the activities. Do not forget to mention your own unit/agency:

(i)_____

(ii)_____

(iii)_____

(iv)_____

etc.

14. Category D Activity

Providing consultations as needed by the people, finding out ways for helping the people solve their problems, giving information as necessary or providing access for people to find information as necessary or providing access for people to find information from other units or agencies (referral function), etc.

Information to be completed would include:

Activity #1

(a) Consultation/helping people/ giving information on:

_____

_____

Do not write in this column:

(b) Number of times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

Activity #2

(a) Consultation/helping people/ giving information on:

_____

_____

(b) Number of times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

Activity #3

(a) Consultation/helping people/ giving information on:

_____

_____

(b) Number of times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

Do not write in this column:

NOTES:

(1) Use additional sheet if necessary.

(2) If these specific activities have been done collaboratively with other units/agencies or voluntary organizations, please mention all of them ranging from the highest to the lowest degree of involvement according to your own judgment, starting from the initiator of the activity. Do not forget to mention your own unit/agency:

(i)_____

(ii)_____

(iii)_____

(iv)_____

etc.

15. Category E Activity

Giving suggestions to people in order for them to learn more through various ways not specified above such as organizing workshops or seminars among community members either individually or in collaboration with other community development agents.

Information to be completed would include:

Activity #1

(a) Suggestion on:_____

_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

Do not write in this column:

(c) Average number of people involved in each activity:

_____ people

Activity #2

(a) Suggestion on:_____

_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

Activity #3

(a) Suggestion on:_____

_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

NOTES:

(1) Use additional sheet if necessary.

Do not write in this column:

(2) If these specific activities have been done collaboratively with other units/agencies or voluntary organizations, please mention all of them ranging from the highest to the lowest degree of their involvement according to your own judgment, starting from the initiator of the activity. Do not forget to mention your own unit/agency:

(i)_____

(ii)_____

(iii)_____

(iv)_____

Etc.

16. Category F Activity

Increasing people's knowledge and understanding which includes courses in basic literacy skills, courses in general knowledge of citizenship education, courses which relate to family life welfare programs, family life education, nutrition, sanitation, etc.

Information to be completed would include:

Activity #1

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

Do not write in this column:

(d) Recurrent: yes ☐; no ☐
(Will this specific type of activity be repeated over and over again in the next six months)

Activity #2

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

Activity #3

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

NOTES:

(1) Use additional sheet if necessary.

Do not write in this column:

(2) Units/agencies or voluntary organizations which were also involved in this type of activity ranging from the highest to the lowest degree of their involvement according to your own judgment, starting with the initiator of the activity. Do not forget to mention your own unit/agency:

(i)_____

(ii)_____

(iii)_____

(iv)_____

Etc.

17. Category G Activity

Increasing technical skills related to specific types of competences such as home economics, gardening, child raising or other kinds of courses or activities which include domestic animal husbandry, woodwork, bamboo-work, arts, sports, dancing, etc. Activities belonging to this category are not primarily for employment purposes, but rather for hobbies or secondary business.

Information to be completed would include:

Activity #1

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

Do not write in this column:

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

Activity #2

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

Activity #3

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

NOTES:

(1) Use additional sheet if necessary.

Do not write in this column:

(2) Units/agencies or voluntary organizations which were also involved in this type of activity ranging from the highest to the lowest degree of their involvement according to your own judgment, starting with the initiator of the activity. Do not forget to mention your own unit/agency:

(i)_____

(ii)_____

(iii)_____

(iv)_____

Etc.

18. Category H Activity

Increasing technical skills related to job opportunities or employment. These kinds of activities might be done in collaboration with other units or agencies such as those Manpower, Home Industries, Agriculture, Health, and others.

Information to be completed would include:

Activity #1

(a) Topic:_____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

Do not write in this column:

Activity #2

(a) Topic: _____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

Activity #3

(a) Topic: _____

(b) How many times this specific type of activity occurred within the last six months:

_____ times

(c) Average number of people involved in each activity:

_____ people

(d) Recurrent: yes ☐; no ☐

NOTES:

(1) Use additional sheet if necessary.

(2) Units/agencies or voluntary organizations which were also involved in this type of activity ranging from the highest to the lowest degree of their involvement according to your own judgment, starting with the initiator of the activity. Do not forget to mention your own unit/agency:

Do not write in this column:

(i)_____

(ii)_____

(iii)_____

(iv)_____

Etc.

NOW REVIEW ONCE AGAIN ALL ACTIVITIES which you have already put under #11 (Category A) through #18 (Category H). Inducate which of those activities are at the moment still going on or are still being implemented. Refer to their titles under each category.

19. Enumerate all activities which are at this moment still going on or are being implemented according to the categories:

Under Category A Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Under Category B Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Do not write in this column:

Under Category C Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Under Category D Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Under Category E Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Under Category F Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Do not write in this column:

Under Category G Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

Under Category H Activity:

(1)_____

(2)_____

(3)_____

(4)_____

Etc.

NOTES: Use additional sheet if necessary.

AS A *PENILIK* PLEASE TAKE A LITTLE TIME to think by yourself about what kinds of activities you are going to carry out in the next six months. But please be honest. You do not have to feel compulsive about completing every category of activities (from A through H) if, in fact, no activity or program is planned to be carried out.

20. Please write down only the titles of every activity or program under each category (from A through H) which you are going to carry out in the next six months.

Do not write in this column:

Under Category A Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category B Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category C Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category D Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Do not write in this column:

Under Category E Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category F Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category G Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

Under Category H Activity:

(1) _____

(2) _____

(3) _____

(4) _____

Etc.

NOTES: Use additional sheet if necessary.

APPENDIX C

A GUIDE FOR INTERVIEWING THE SUPERVISORS

APPENDIX C

A GUIDE FOR INTERVIEWING THE SUPERVISORS

Introduction

To better understand the nature of the job performance of those *peniliks* who participated in the training program your additional information about them is extremely helpful.

The information which you are going to give us in this interview is completely confidential. No one will have access to your answers except the researchers of this study. There is no relationship between the information you give us and the administrative workings either of your regional office at the provincial level or your central office in Jakarta. After the data have been completely coded, your answer sheets will be thoroughly abandoned.

Please help us by giving information as completely as you can. You do not need to respond to any question that you feel is irrelevant. But please be sure that any information you give to us is supported by objective judgments.

Your cooperation is very much appreciated.

Thank you.

Please Complete the Following Information as Best You Can.

Please Do as Directed:

Fill in and/or check the box you think is appropriate

Do not write in this column:

1. Name: _____

2. Address: _____

_____

_____

3. Age by last birthday: _____ yrs.

4. Sex: Male ☐

Female ☐

5. Education: (check one to indicate the level of formal education completed)

Primary Education ☐

Junior Secondary ☐

Senior Secondary ☐

Bachaloriate degree ☐

Master degree ☐

6. In-service training: (Fill in with type or topic and duration of the training(s) you ever had since you were recruited as a staff member of the Community Education Office)

Do not write in this column:

(1) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

(2) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

(3) Training on:_____

_____

offered in: 19____

duration: _____ days, or

_____ months

Etc.

ADDITIONAL SHEET IF NECESSARY

7. If you have never joined the in-service training of any kind ever since you worked with the Office of Community Education, in considering your recent position, you should check here: ☐

Do not write in this column:

8. Attending workshops/seminars/conferences or group discussions among the community education workers or on behalf of the Community Education Office attending workshops/seminars/conferences held by other unit(s) discussing about community development issues:

(1) Activity attended: workshop ☐
seminar ☐
conference ☐
other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

(2) Activity attended: workshop ☐
seminar ☐
conference ☐
other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

Do not write in this column:

(3) Activity attended: workshop ☐

seminar ☐

conference ☐

other ☐

The topic was:_____

_____

Offered in: 19____

Duration: _____ days

Etc.

ADDITIONAL SHEET IF NECESSARY.

Work Experience:

(Number of years you have been working with the Office of Community Education)

9. The total number of years you have been working with the Office of Community Education, whether you had been working with the central, provincial or either regional Office of Community Education:

_____ years

10. The total number of years you have been in the recent position (as community education supervisor or education supervisor at regional level):

_____ years

NOW THINK FOR A MOMENT about your subordinates' job performance. Think specifically about their initiative, eagerness to follow through activities having been initiated, ability to communicate with villagers/people, ability to organize learning groups, ability to stimulate group discussions among villagers, ability to facilitate the emergence of voluntary-internal facilitators in learning groups' activities and finally their overall performance in doing their job.

PLEASE complete the following information according to your objective judgment.

Do not write in this column:

11. According to your perception how would you rank your subordinate's initiative: (Please check one)

Low High

☐ ☐ ☐ ☐ ☐

12. According to your best estimate or records that you have how many programs of activity that your subordinate has initiated within the last six months:

_____
(fill in with figure)

13. How many of those initiated have been completed within the last six months:

_____
(fill in with figure)

14. According to your records how many activities that your subordinate plans to be implemented in the next six months:

_____
(fill in with figure)

Do not write in this column:

15. According to your observation how would you rank your subordinate's ability to communicate with villagers/people in performing his/her job? (Please check one)

Low ☐ ☐ ☐ ☐ ☐ High

16. According to your observation how would you rank your subordinate's ability to organize learning groups among the villagers/people he/she serves? (Please check one)

Low ☐ ☐ ☐ ☐ ☐ High

17. According to your record how many learning groups have been created or developed within the last six months? (Not necessarily that all those learning groups are now still in operation/active. But be sure that you just mention the figure of the learning groups that have been or had been in active use within the last six month period)

_____
(use your best estimate)

18. According to your perception how would you rank your subordinate's ability to stimulate group discussions among the community people to make the learning groups active by themselves? (Please check one)

Low ☐ ☐ ☐ ☐ ☐ High

Do not write in this column:

19. According to your observation as well as your record how many voluntary-internal facilitators or informal group facilitators have been growing (or had been growing) within the last six months? This informal group facilitator emerges voluntarily or informally in each learning group from its members who, by then, will facilitate group activities even without the presence of the community education worker. It is not necessarily that once this informal group facilitator emerges he/she will hold the position continuously in every group activity. Instead, it is most likely that in each group activity a new informal group facilitator will emerge, since everyone has his own expertise which differs one from the other.

_____
(use your best estimate)

20. Finally, as an overall rating how would you rank your subordinate's general performance in accomplishing his/her job? (Please check one)

Low High

☐ ☐ ☐ ☐ ☐

APPENDIX D

FEEDBACK FORMAT FOR THE TRAINING

APPENDIX D

FEEDBACK FORMAT FOR THE TRAINING

Your observations, impressions and comments on the training just completed are very important and would be very helpful to improve the next training of the same sort and character.

Please, therefore, complete the following information according to your own judgments.

NOTES: ($^{+}_{+}$) means very good or super;

(+) means just good;

(±) means average;

(-) means not so good;

(=) means bad or the least.

Just circle one:

$^{+}_{+}$	+	±	-	=
a	b	c	d	e

A. About the Materials for the Training

1. Were the materials for the training worthwhile to learn to increase knowledge and understanding of the *penilik* in relation to his job?

	Just circle one:				
	++	+	±	-	=
2. Were the materials learned helpful to a *penilik* in performing his job?	a	b	c	d	e
3. Was the sequence of the materials good so that the relationship of one topic to another was clear and easy to learn?	a	b	c	d	e
B. <u>About the System of Delivery Used in the Training</u>					
1. Was the system of delivery used in the training interesting?	a	b	c	d	e
2. Was the lecture or the presentation of the materials clear?	a	b	c	d	e
3. Were the practical exercises experienced during the training adequate to improve the *penilik*'s job performance in the field?	a	b	c	d	e
4. Were the examples used during the training relevant to the actual setting and therefore made learning easier?	a	b	c	d	e
C. <u>About the Teaching-Learning Situation During the Training</u>					
1. Was the teaching-learning situation lively to stimulate learning activities during the training?	a	b	c	d	e
2. Were the trainers sensitive enough and responsive to any ideas exposed during the training so that problems that were raised got their fair consideration?	a	b	c	d	e
3. Were the attitudes of the trainers quite open to make the participants free to talk and to express their ideas?	a	b	c	d	e

	Just circle one:				
	++	+	±	-	=
4. Was the learning situation favorable for developing new and innovative ideas?	a	b	c	d	e
5. Was the teaching-learning situation flexible (not rigid) to accommodate variability of ideas?	a	b	c	d	e
6. Did the sphere of the discussions (large group as well as small group) held during the training give enough opportunity for the participants to express their ideas?	a	b	c	d	e
D. General Impressions about the Training					
1. In general, what do you think about the training just completed in terms of achieving its intended objectives, i.e., to increase understanding, knowledge as well as technical skills of the *penilik* in performing his job in the field? Was it or was it not successful?	a	b	c	d	e
2. If this kind of training is repeated again next time, are you interested in participating?	a	b	c	d	e

E. Some Additional Comments

If there is any other additional comments that you want to give to improve this kind of training in the future, would you kindly write them in the space available below.

_____

_____

_____

_____

_____

_____

Note: Additional sheet if necessary.

APPENDIX E

THE TRAINING SCHEDULE

APPENDIX E

THE TRAINING SCHEDULE

Group A: Participatory Group

		Minutes
First Day		
	Pre-testing	
1.	Cognitive test	120
2.	Self-disclosure type of test	120
	Training Session	
Topic 1:	Conceptual Framework of Community Development	
	What is Community Development?	
1.	Short lecture about the topic	30
2.	Unstructured question and answer	30
3.	Small group discussion (structured) on questions presented in the self-checking test	30
	Sub-total (the first day)	330
Second Day		
4.	Large group discussion (structured) as the conclusion from what has been discussed in the small groups	30

		Minutes
Topic 2:	The Importance of the Local Needs	
	The position of understanding local needs in relation to the conceptual framework of community development.	
5.	Short lecture about the topic	30
6.	Unstructured question and answer	30
7.	Role-playing A small group of three was assigned voluntarily to do the role-play. While each of the small groups was doing the play, the rest were watching. However, they were told that they should observe carefully and critically, since afterwards time would be provided for them to give their ideas and comments.	45
8.	Large group discussion to discuss the role-plays just conducted.	
Topic 3:	Strategies for Understanding Local Needs	
	In this session different strategies for understanding the local needs were discussed.	
9.	Short lecture about the topic	30
10.	Unstructured question and answer	20
11.	Role-playing. Two small groups of three were assigned voluntarily to the plays to simulate discussions held wi h the community people and with the community leaders in the effort of understanding the local needs.	40
12.	Large group discussion to discuss the role-plays just conducted.	30

		Minutes
13.	Small group activities/exercise The whole group was divided into four small groups, each to discuss one among the four strategies discussed in the lecture, i.e., interview technique, questionnaire, informal group discussion and observation.	45
	Sub-total (the second day)	330

Third Day

14.	Large group session to discuss the results of the small group activities.	30
15.	Group project To prepare interview guides for conducting needs assessment.	45
16.	Large group discussion to sanction the interview guides resulting from the small group project.	20
17.	Conducting the actual needs assessment using interview strategy. The group was divided into small groups of three. Each group did their interviewing independently.	120
18.	Return to the class to discuss the results.	30

Topic 4: Drawing Workable Conclusions About Community Development Needs

The importance of understanding the community leaders, formal and informal, were discussed. Four approaches could be used to identify community leaders, i.e., positional approach, reputational approach, decision making approach and social participation approach.

19.	Short lecture about the topic	30

		Minutes
20.	Unstructured question and answer	20
21.	Small group discussions with assignment	
	Discussion about the approaches for identifying community leadership	45
	Sub-total (the third day)	340

Fourth Day

22.	Large group session to discuss the results of the small group meetings	20

Topic 5: Identifying the Available Resources

Different community has different resources available. The important thing is how to identify those available resources and to pull them together to meet the community needs.

23.	Short lecture	30
24.	Unstructured question and answer	20
25.	Role-playing.	
	The role-play was about talking with community people to discuss community resources available for development.	40
26.	Large group discussion about the role-play just conducted.	20
27.	Group project	
	Developing a guideline to do the field-work for identifying community resources.	60
28.	Large group session to sanction the results of the group project.	30
29.	Field-work conducting the resource assessment	120
	Sub-total (the fourth day)	340

	Minutes
Fifth Day	
30. Large group session to discuss the results of the field work.	30
Topic 6: Prioritizing Needs and Resources Into Workable Plans	
How to draw a workable plan from the identifiable needs and resources.	
31. Short lecture	30
32. Unstructured question and answer	20
33. Small group exercises	
Given the hypothetical data on community needs and resources, the small groups exercised to draw a workable plan on community education activities.	30
34. Large group session to discuss the results from small group exercises.	30
35. Small group session to accommodate comments from the large group session.	30
Topic 7: Facilitating the Learning Process	
The main objectives of community education and the major roles of the *penilik* were discussed.	
36. Short lecture	30
37. Unstructured question and answer	20
38. Role-play	
Simulating the roles performed by the *penilik*.	40
39. Large group discussion to discuss the role-play just conducted.	30

		Minutes
Topic 8:	Evaluating Community Education Program	
	Developing criteria for evaluation and planning for an evaluation of a community education program.	
40.	Short lecture	30
	Sub-total (the fifth day)	320
Sixth Day		
41.	Unstructured question and answer	20
42.	Small group exercises developing an evaluation program for community education.	30
43.	Large group session to discuss the results of the small group exercises.	30
44.	Small group session	20
45.	Large group session for conclusion	10
	Post-testing	
1.	Cognitive test	120
2.	Filling out the Feedback Form	60
	Sub-total (the sixth day)	290
	GRAND TOTAL:	1950
	For Testing	420
	For Training Session	1530

Group B: Lecture Group

	Minutes
First Day	
Pre-testing	
1. Cognitive test	120
2. Self-disclosure type of test	120
Training Session	
Topic 1: Conceptual Framework of Community Development	
What is Community Development?	
1. Lecture about the topic	60
2. Unstructured question and answer	30
Sub-total (the first day)	330
Second Day	
3. Small group discussions. Participants were broken down into small groups of three to five to discuss among themselves problems raised in the large group session. No feedback was provided.	30
4. Large group discussion Unstructured question and answer on problems resulting from the small group sessions.	30
Topic 2: The Importance of the Local Needs	
The position of understanding local needs in relation to the conceptual framework of community development.	
5. Lecture about the topic	60
6. Unstructured question and answer	30

		Minutes
7.	Small group exercises To develop guidelines for identifying local community needs.	30
8.	Large group session To discuss the results from the small group exercises.	30
9.	Guest lecture From Community Education Office.	60
	Topic 3: Strategies for Understanding Local Needs In this session different strategies for understanding the local needs were discussed.	
10.	Lecture about the topic	60
	Sub-total (the second day)	330

Third Day

11.	Unstructured question and answer	30
12.	Guest lecture from the Community Education Office	60
13.	Small group project Developing strategies for identifying the local needs.	45
14.	Large group session to discuss the results of small group project.	30

		Minutes
Topic 4:	Drawing Workable Conclusions About Community Development Needs	
	The importance of understanding the community leaders, formal and informal, were discussed. Four approaches could be used to identify community leaders, i.e., positional approach, reputational approach, decision making approach and social participation approach.	
15.	Lecture about the topic	60
16.	Unstructured question and answer	30
17.	Small group discussion/exercise How to draw a workable conclusion from the hypothetical data on the community development needs.	45
18.	Large group session To report the results from the small group exercise.	30
	Sub-total (the third day)	330

Fourth Day

19.	Small group session To discuss the comments from the large group session.	30
20.	Large group session Conclusion about Topic 4.	20
Topic 5:	Identifying the Available Resources	
	Different communities have different resources available. The important thing is how to identify those available resources and to pull them together to meet the community needs.	

		Minutes
21.	Lecture about the topic	60
22.	Unstructured question and answer	30
23.	Guest lecture From Community Leaders.	60

Topic 6: Prioritizing Needs and Resources Into Workable Plans

How to draw a workable plan from the identifiable needs and resources.

24.	Lecture about the topic	60
25.	Unstructured question and answer	30
26.	Small group exercise	30
	Sub-total (the fourth day)	330

Fifth Day

27.	Large group discussion Sanctioning	45
28.	Small group session To discuss comments raised by large group discussion.	30
29.	Large group session Conclusion	15

Topic 7: Facilitating the Learning Process

The main objectives of community education and the major roles of the *penilik* were discussed.

30.	Lecture about the topic	60
31.	Unstructured question and answer	30

		Minutes
32.	Small group exercises	
	Topic: Roles of the *penilik*.	45
33.	Large group discussion as the conclusion of Topic 7.	30
	Topic 8: Evaluating Community Education Program	
	Developing criteria for evaluation and planning for an evaluation of a community education program.	
34.	Lecture about the topic	60
35.	Unstructured question and answer	30
	Sub-total (the fifth day)	345
Sixth Day		
36.	Small group session/exercise	
	Planning an evaluation program.	45
37.	Large group session	
	Discussion about the results from the small group exercise.	30
38.	Back to small group session to accommodate the comments from the large group session.	20
39.	Large group session	
	Conclusion	10
	Post-testing	
1.	Cognitive test	120
2.	Filling out the Feedback Form	60
	Sub-total (the sixth day)	285

	Minutes
GRAND TOTAL:	1950
For Testing	420
For Training Session	1530

APPENDIX F

TABLES

APPENDIX F

TABLES

Table I-A.--Scores on Cognitive Test for Different Groups--Group A: Participatory Group.

Training Participant	Pre-test	Post-test I	Post-test II
1	52	61	61
2	59	71	68
3	42	55	60
4	45	52	52
5	53	62	64
6	51	53	58
7	49	59	62
8	44	70	61
9	56	67	73
10	61	66	73
11	54	64	53
12	57	68	74
13	58	62	67
14	54	58	62
15	51	61	54
Total	786	929	942
Average	52.40	61.93	62.80

Table I-B.--Scores on Cognitive Test for Different Groups--Group B: Lecture Group.

Training Participant	Pre-test	Post-test I	Post-test II
1	69	68	65
2	60	76	81
3	59	55	64
4	49	56	55
5	55	61	58
6	50	52	56
7	53	47	56
8	49	58	57
9	51	65	56
10	76	75	69
11	53	45	59
12	51	63	70
13	58	59	55
14	57	69	66
15	44	50	44
Total	834	899	911
Average	55.60	59.93	60.73

Table I-C.--Scores on Cognitive Test for Different Groups--Group C: Control Group.

Training Participant	Pre-test	Post-test I	Post-test II
1	44	51	52
2	49	41	55
3	48	64	52
4	60	46	53
5	53	49	45
6	56	53	45
7	49	60	50
8	41	39	34
9	39	33	39
10	47	30	55
11	51	57	53
12	44	62	64
13	48	53	61
14	54	52	48
15	44	49	52
Total	727	739	758
Average	48.46	49.27	50.53

Table II-A.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Organizer--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	16	54
2	60	79
3	49	92
4	84	78
5	78	90
6	87	97
7	44	49
8	24	60
9	87	55
10	46	75
11	34	84
12	35	51
13	78	60
14	53	65
15	6	28
Total	781	1017
Average	52.06	67.80

Table II-B.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Organizer--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	86	43
2	37	83
3	60	7
4	15	90
5	7	50
6	42	78
7	86	64
8	33	18
9	48	64
10	56	44
11	99	41
12	12	64
13	96	59
14	23	48
15	97	48
Total	797	801
Average	53.13	53.40

Table II-C.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Organizer--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	34	19
2	96	86
3	66	49
4	43	29
5	22	24
6	25	38
7	72	35
8	39	48
9	48	39
10	51	26
11	94	42
12	61	53
13	61	25
14	20	20
15	46	33
Total	778	566
Average	51.86	37.73

Table III-A.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Consultant--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	7	16
2	4	7
3	14	14
4	9	12
5	7	9
6	16	21
7	20	8
8	0	14
9	9	7
10	2	0
11	14	15
12	12	32
13	8	12
14	5	14
15	10	6
Total	137	187
Average	9.13	12.47

Table III-B.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Consultant--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	7	7
2	49	12
3	0	6
4	3	16
5	8	17
6	7	1
7	12	13
8	31	9
9	0	14
10	14	17
11	24	12
12	24	0
13	5	16
14	9	6
15	9	13
Total	202	159
Average	13.46	10.60

Table III-C.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Consultant--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	5	0
2	24	14
3	25	8
4	6	10
5	4	0
6	13	12
7	6	30
8	24	6
9	4	7
10	4	9
11	9	11
12	9	3
13	20	6
14	6	6
15	16	19
Total	175	141
Average	11.66	9.40

Table IV-A.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Enabler--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	5	12
2	8	4
3	9	9
4	10	12
5	10	15
6	5	5
7	10	10
8	10	6
9	12	20
10	8	7
11	3	14
12	11	11
13	3	7
14	8	10
15	4	4
Total	116	146
Average	7.73	9.73

Table IV-B.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Enabler--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	2	4
2	23	11
3	0	5
4	3	5
5	2	12
6	6	5
7	8	7
8	6	2
9	3	8
10	5	8
11	5	2
12	20	5
13	24	2
14	7	6
15	2	4
Total	116	86
Average	7.73	5.73

Table IV-C.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Enabler--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	8	10
2	5	5
3	10	10
4	4	11
5	5	9
6	3	10
7	8	10
8	20	7
9	5	12
10	12	5
11	7	10
12	6	4
13	8	6
14	6	6
15	15	5
Total	122	120
Average	8.13	8.00

Table V-A.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Facilitator--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	1	1
2	1	0
3	1	1
4	1	1
5	0	1
6	1	1
7	1	0
8	1	2
9	0	0
10	1	0
11	1	0
12	1	3
13	1	3
14	1	0
15	1	0
Total	13	13
Average	.87	.87

Table V-B.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Facilitator--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	0	0
2	1	0
3	1	0
4	1	2
5	1	1
6	0	1
7	1	2
8	0	1
9	1	2
10	1	0
11	1	1
12	0	0
13	1	1
14	1	1
15	1	0
Total	11	12
Average	.73	.80

Table V-C.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Facilitator--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	0	1
2	1	2
3	1	1
4	1	2
5	0	0
6	2	1
7	2	0
8	1	1
9	1	0
10	2	0
11	3	1
12	2	0
13	1	0
14	0	0
15	1	2
Total	18	11
Average	1.20	.73

Table VI-A.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Planner--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	19	18
2	8	14
3	14	17
4	11	11
5	5	15
6	18	17
7	6	23
8	10	21
9	6	12
10	8	13
11	17	17
12	8	20
13	5	3
14	5	15
15	5	11
Total	145	227
Average	9.66	15.13

Table VI-B.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Planner--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	7	7
2	14	10
3	6	1
4	9	17
5	15	10
6	0	4
7	0	13
8	3	9
9	10	16
10	20	14
11	0	8
12	10	0
13	3	11
14	9	18
15	4	5
Total	110	143
Average	7.33	9.53

Table VI-C.--Scores from Self-Disclosure Type of Test: The Role of *Penilik* as Planner--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	9	7
2	0	21
3	4	12
4	4	9
5	15	11
6	9	0
7	13	6
8	5	6
9	6	3
10	20	19
11	6	13
12	13	6
13	15	11
14	15	5
15	8	13
Total	142	142
Average	9.46	9.46

Table VII-A.--Scores from Self-Disclosure Type of Test: The Total Performance Scores of the Roles of the *Penilik*--Group A: Participatory Group.

Training Participant	Pre-test	Post-test
1	48	101
2	81	104
3	87	138
4	115	114
5	100	130
6	127	141
7	81	90
8	45	103
9	114	94
10	65	95
11	69	130
12	67	117
13	95	85
14	72	104
15	26	49
Total	1192	1595
Average	79.46	106.33

Table VII-B.--Scores from Self-Disclosure Type of Test: The Total Performance Scores of the Roles of the *Penilik*--Group B: Lecture Group.

Training Participant	Pre-test	Post-test
1	102	61
2	124	116
3	67	19
4	31	130
5	33	90
6	55	89
7	107	99
8	73	39
9	62	104
10	96	83
11	129	64
12	66	69
13	129	89
14	49	79
15	113	70
Total	1236	1201
Average	82.40	80.06

Table VII-C.--Scores from Self-Disclosure Type of Test: The Total Performance Scores of the Roles of the *Penilik*--Group C: Control Group.

Training Participant	Pre-test	Post-test
1	56	37
2	126	128
3	106	80
4	58	61
5	46	44
6	52	61
7	101	81
8	89	68
9	64	61
10	89	59
11	119	77
12	91	66
13	105	48
14	47	37
15	86	72
Total	1235	980
Average	82.33	65.33

Table VIII-A.--Scores from the Interviews of the Supervisors: The Supervisor's Perception on the *Penilik*'s Performance--Group A: Participatory Group.

Training Participant	Pre-interview	Post-interview
1	14	15
2	11	13
3	11	15
4	15	13
5	15	14
6	9	8
7	15	15
8	11	10
9	15	13
10	15	15
11	13	15
12	15	15
13	11	13
14	15	15
15	15	15
Total	200	204
Average	13.33	13.60

Table VIII-B.--Scores from the Interviews of the Supervisors: The Supervisor's Perception on the *Penilik*'s Performance--Group B: Lecture Group.

Training Participant	Pre-interview	Post-interview
1	15	15
2	14	15
3	6	10
4	14	15
5	10	9
6	12	14
7	14	10
8	14	15
9	14	15
10	13	15
11	9	11
12	13	14
13	14	15
14	13	15
15	12	14
Total	187	202
Average	12.47	13.47

Table VIII-C.--Scores from the Interviews of the Supervisors: The Supervisor's Perception on the *Penilik*'s Performance--Group C: Control Group.

Training Participant	Pre-interview	Post-interview
1	13	14
2	11	14
3	14	15
4	10	5
5	13	15
6	11	10
7	14	15
8	14	15
9	15	14
10	15	15
11	15	15
12	14	15
13	14	15
14	13	15
15	10	14
Total	196	206
Average	13.07	13.73

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