

ACTIVE-DIRECTIVE STRATEGY IN THE IMPROVEMENT
OF NIGERIAN ADULT-LEARNERS' TEACHING
PERCEPTION AND EFFECTIVENESS

BY

OLAMIDE ESTHER ADESINA

B.Ed. Adult Education and Language Arts
M.Ed. (Adult Education) (Ibadan).

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DEDICATION

Be Thou exalted Eternal and faithful God.
You have done exceeding abundantly, far over and above all that I asked or
thought - infinitely beyond my highest prayers, desires, thoughts and dreams.

Assuredly, there has not failed one word of all your good promises

ABSTRACT

This study investigated the relative effectiveness of active-directive learning strategy over lecture method in enhancing the satisfaction, self-concept and cognitive performance of adult learners.

One hundred adults; holders of Teachers' Grade Two Certificate with a minimum of five years experience were selected by cluster sampling. The age-range was between twenty-eight and fifty years.

Using a 2 x 2 factorial design, fifty adult learners were exposed to the experimental programme while fifty others served as the control.

Three psychological instruments namely - Akinboye Self-Concept Scale with a coefficient alpha of $\alpha=0.75$, Adult Learner Perception of Programme Scale ($\alpha=0.98$) and Teaching Effectiveness Scale ($\alpha=0.89$) were validated and used as criterion measures. They were administered before and after treatment.

Nine hypotheses were tested at 0.001 level of significance. The following results were obtained:

- (i) Treated subjects showed no main significant increase in self-concept compared with untreated subjects. ($F = 0.71$; $df = 1/98$, NS).
- (ii) Results from t-test analysis indicated that the experimental subjects improved significantly on self-concept. There was a significant increase in the self-concept of high self-concept active-directive group compared with the high self-concept control group.

($t = 9.62$, $p < .001$, $df = 47$).

The high self-concept active-directive strategy was superior to the low self-concept control ($t = 14.53$, $p < .001$, $df = 49$). Treated subjects showed significant increase in satisfaction as measured by the perception of programme scale.

($F = 9.48$, $df = 1/96$, $p < .001$)

($t = 87.92$, $df = 47$, $p < .001$)

($t = 86.19$, $df = 49$, $p < .001$)

($t = 77.99$, $df = 49$, $p < .001$)

There was a significant increase in the cognitive performance of treated subjects ($F = 17.64$, $df = 1/96$, $p < .001$).

Active-directive was significantly superior to the control.

($t = 19.63$; $df = 47$, $p < .001$)

($t = 12.02$, $df = 49$, $p < .001$)

($t = 11.04$, $df = 49$, $p < .001$).

Active-directive Learning Strategy proved to be effective in enhancing the cognitive attainment and satisfaction of learners. The relevant implications in the instruction and training of adult learners were discussed.

Recommendations were also made for adult educators who are concerned with skill-building effectiveness and for extension workers.

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Lastly, I bless God, HE is my glory and the lifter up of my head, He alone has caused me to triumph in all things.

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CERTIFICATION

We certify that this work was carried out by Miss Olamide Esther Adesina in the Department of Adult Education, University of Ibadan, Nigeria.



Supervisor

Professor J.O. Akinboye
B.Ed. (Hons.), M.Ed.
Ph.D. (Ibadan).
Department of Guidance
and Counselling,
University of Ibadan,
Ibadan, Nigeria.



Supervisor

Dr. M.A.L. Omole
B.Ed., M.phil., Ph.D (Ibadan)
Department of Adult
Education
University of Ibadan
Ibadan, Nigeria.

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CHAPTER ONE

BACKGROUND AND PROBLEM

Introduction

In their attempts to keep abreast of accelerating knowledge explosion in all areas of human endeavour, many countries of the world have adopted in varying degree continuing education for professionals. This is in an effort to make available ready - for - use competences to the professionals. The feature of the accelerating pace of societal change has prompted Carl Rogers to support the placing of a greater emphasis on the development of an affective disposition towards continued learning.

The aim of education must be to develop individuals who are open to change. Only such persons can constructively meet the perplexities of a world in which problems spawn much faster than their answers. The goal of education must be to develop a society in which people can live more comfortably with change than with rigidity (Rogers, 1969, p.304)

Continuing education emerges as a crucial concern of the twentieth century. Individual adults need systematic learning during the periods of their lives when this opportunity is most relevant. Adults therefore cannot help but acquire new skills and knowledge as they proceed through life.

This study is concerned with continuing education among professionals. More particularly, it is concerned with learning strategies for effective change among professional primary school teachers in Ibadan Municipality of Oyo State in Nigeria as a significant client group.

It is assumed that as a result of the learning technique adopted in facilitating continued learning, the teachers should learn efficiently, and be positive in their

perception of the programme and of themselves.

Adult educators are responsible for a large part of the total continuing learning that influences the knowledge reservoir and attitude of the professionals the world over. Such a facilitator may not be aware of or be equipped for his designation, he is nevertheless a change agent. It is therefore imperative that the facilitator must have a reasonable knowledge of competence with respect to specific change techniques. There is a gamut of them and he needs to choose one that will be most effective for the total benefit of the learner.

No organism ever retains its exact previous state of equilibrium after interaction. However the extent of change will be dependent on the entire contacts in the learning process - be they human, material or the psychological percept. Generally, resources are becoming increasingly scarce and so the investment into education should be profitable. An evidence of profitability will be that maximum desired change occurs in the persons who are receiving the education. Just as societal usefulness is being considered so also should personal fulfilment be addressed in an educational venture. Much of the drop-out rate in adult education could be a result of one of the reasons identified or a combination of both.

This researcher opines that the differences in learning by adults are not rooted in any intrinsic diversity in the nature of adults but in the differences in the conditions of and motives for learning. Even if certain works reveal a deficit in the older person's learning, it is believed that alteration in the learning strategies and skill acquisition methods are what need review and readjustment.

Background to the Problem

The concept of continuing adult education, both in the area of theory and practice is witnessing increased active research interest in recent times. This may be explained in part by a greater realization of the usefulness of continuing and non-

formal education in Nigeria. The emphasis on adult literacy, mass education and various programmes of on-the-job training validates this claim. As the need for continuing learning is appreciated, the practitioner needs a set of assumptions as guide to practice. Some knowledge of theory enhances practice. In essence therefore, as research into theory increases, research into practice is also generated. The reverse may also hold true. The phenomenon in Africa is, however, still few and far between when compared with those in developed countries.

Education is deemed an effective tool for the elimination of certain undesirable social conditions. This may explain why government's commitment to it is great. Such social conditions manifest in poverty, disease, backwardness, bigotry, unemployment, economic dependence, exploitation and a myriad of similar misfortunes. These social conditions have bedevilled African Nations indeed developing nations, (Ibikunle-Johnson). For the past three decades in Nigeria for instance, education has witnessed definite reasonable phases of expansion, improvement and structural changes. From the resource allocations for education during the past four National Development Plans Akintayo(1989), observes that 'government recognises the role of education as instrument par excellence.' Groups with peculiar characteristics and needs are being identified and relevant educational programmes are being designed for them. Examples are the Nomadic Education in the North and Education for Migrant Farmers of the water-side areas of Ondo State. The extent of success of these programmes cannot yet be determined. But their mere conception is laudable. Cross (1981), points out that the 1970s particularly have witnessed the development of adult continuing education as an exciting new concept in education. This effort is based on the growing recognition of education as a means of meeting society's diverse and changing needs.

Continuing education emerges as a crucial concern of the twentieth century. Individual adults need systematic learning during the periods of their lives when this opportunity is most relevant. Adults cannot help but acquire new skills and

knowledge as they proceed through life.

There is a need for a new way of thinking. Perspective observers of modern civilization have been exhorting for some time now that the nineteenth century model of education, on which much of our contemporary educational enterprise is based (and seemingly frozen into) is no longer functional in a world of accelerating change. Education must, therefore, now be defined as a lifelong process of continuing inquiry. Most of our current social institutions, including those of governance and education are now in an era of accelerating change which requires a different approach altogether.

We must therefore become adept at learning. Institutions with continuing learning as goal need be established. Individuals need to change in continuous adjustment to changing social functions. This seems to be the bilateral though unified purpose of adult-learning.

It would be a highly perverse individual who managed to shield himself or herself from all those circumstances and life changes which necessitate the development of new competencies (Brookfield, 1983. p.1)

Although, the future society can hardly be predicted, it does make some sense to recognize each phase of life as a time of transition and to undertake to cope with this reality. Continuing education therefore responds to many of the societal changes through a vast array of educational organizations and programmes by both government and private institutions.

The concept of continuing education differs from basic adult education; which usually refers to the acquisition in adulthood of elementary knowledge and skills ordinarily learned as a child. It presumes that basic education is complete and the adult's professional training is through and that he is on the job. But because one's

particular field of knowledge rapidly diversifies and expands, basic professional training and education merely constitute the foundation for a continually growing acquisition of knowledge and skills.

Rapid changes characterize the twentieth century, observed Saul *et al* (1962). It is envisaged that this rapid developments will continue. Succeeding years have confirmed this observation. Keeping up-to-date with new developments in any field becomes increasingly difficult, and as professional training and skills are undergoing changes, many are becoming obsolete. According to Walker (1978),

The mere receipt of a professional degree in the human services is no longer sufficient to insure that the practitioner's knowledge and techniques are current. (p.1).

Literature is replete with references to the half-life of professional degrees in psychology, social work, psychiatry, medicine and other social sciences. These have between four and ten years as the time period after which one's graduate training is rendered obsolete by dint of new research and theory (Robin, 1974, Lewinsohn and Pearlman, 1972).

This accelerated and continual change demands new educational knowledge that the working-force needs, so that, readily available competence can be stimulated and applied to work situations. Everyone has to be prepared to re-learn or to even freshly start to learn a subject because no one can be sure where his present and next job will take him to and what new skills might be required. This is confirmed by Kay (1977), who observes that it has become a sine qua non for everyone to engage in further-learning beyond what the initial degree equipped him for. Moreover, there is widespread agreement that professionals are being held accountable for quality of service and continued high level of competence, Jones (1975), observed. Many professional licensing boards now require continuing education credits or are

considering the establishment of such requisites in order to maintain certification. The goal of retraining adults therefore is to make them sufficiently able to perform competently in a changing world. This becomes paramountly the goal of continuing education. It will be imprudent for any society to give her citizenry an antipathy to learning. Cross (1981), Ross (1974) and Holoyd (1974) indicate this.

Most developing countries direct efforts to formal schooling which terminates at a specified point after which the trainee is absorbed into the work - force. The view that education may be packed into the early years and be done with, is shifting. For instance, while six years of formal education are compulsory (and quite a number of people go as far as fifteen years), there are clear trends of voluntary (or otherwise) involvement in continued learning. College is now less often believed to be the automatic termination of learning. However, enough premium is not given to the continuing education of most professionals. This is often the cause of conservatism and redundancy in the wake of new knowledge. This perception of education as being terminal originates from the old view that education is the transmission of societal cultures, norms and knowledge into an individual to fit him for life in adulthood. Such a view holds that education is enculturation. On the contrary, acculturation perception of education rests on the premise that education is lifelong. The traditional conception of learning holds that learning is the process of acquiring, accumulating while the new view of learning regards it as the process of transforming through modifying, re-learning, updating and replacing skills (Hart, 1975; Cropley, 1977; Mezirow, 1978 and Knowles, 1984).

Developed countries in particular recognize the implication of having competence in any newly emerging body of knowledge. For this reason, boards that require participation in continuing education or even credits in them to maintain certification were established. Such participation is thought will enhance improved competence

(Carmichael, 1975 and Jones, 1975).

Both Richardson and Island (1975) observed that an increase in and demand for continuing education opportunities are accompanied by a proliferation of workshops, courses, seminars and conferences. The situation is different in most developing countries. Nigeria has made few efforts at this kind of education too. Examples are the Associateship Certificate in Education, the Industrial and Agricultural Management training provided for by the Industrial Training Fund and the Agricultural and Management Training Institute, the various workshops, seminars by governmental agencies and parastatals, banks, research institutes and other professional bodies such as the accountants, legal, medical and mental health workers.

However, much of the practical attempts of continuing education in Nigeria is concentrated on WASC/GCE dropouts. A general concerted effort on continuing education in the human services is lacking. As a developing country, Nigeria urgently needs the improvement of her working-force through staff-training to make for greater competence. In view of the crucial role of human resources in the development process, there is a need to design programmes that would facilitate the qualitative transformation of Nigeria's human resources; especially given that she is just developing. Noteworthy is Fasoyin and Ononayajo, (1990). They assert that:

It is now generally agreed that human resources constitute the ultimate wealth of nations. With its 'technological miracle', for instance, the Japanese economy has further attested to the fact that with skilled, well educated and dedicated workers, nothing is impossible(p.3).

Society at large stands to gain in workers' continued learning. Scarcely have the attempts made at workers' continued education involved the educational enterprise. Teachers do not usually request for retraining but the decision quite often is made for them by the administrative or supervisory staff or by other outside pressures. It

is obvious that in education practice, better awareness of the logistics of the teaching and learning process will increase success and justify the cost of running education. Among teachers, the need to improve the dynamics of learning cum instruction is undeniably important. As new contents emerge, so do new methods evolve from research findings. Each practising teacher needs to be aware of these breakthroughs so that he may benefit from its adoption and thereby make the process more rewarding.

Statement of the problem

The practice of adult education in a continuing education milieu is of special concern to adult educators. Indeed, the distinguishing features of learning by adults are a matter of direct importance because of various institutionalized adult learning. Adult learning is also a demanding activity but can be most effectively accomplished when those involved know and adopt the processes and strategies that enhance it. Therefore, attention to the quality of the learning event is critical to positive outcomes for adult learners and crucial to the success of the adult learning programmes. Retraining programmes, being educational must provide for adequate infrastructure. In this light, Okedara (1981) observed that an important goal of an educational enterprise is to find out ways of minimizing wastages in order to make educational resources more effective and productive. Effectiveness is central to knowledge acquisition. To ensure that the resources of time, money and personal energy put in education are productively employed, the process of continuing education for professional teachers must be thoroughly guided and understood. An outcome of such an understanding is that it will provide for the lack of firm data which Horst (1981) observed. This deficiency relates to what actually happens in teaching in adult education and especially the process of learning. Much of adult educator's concern revolves around issues like methods and strategies. They are all geared towards increased learning effectiveness and the reinforcement of greater learner satisfaction.

Adult learning habits have been the focus of rigorous investigation since the seventies. From this investigation evolved the theory of adult learning. Until its evolution, all of the scientific theories of learning were derived from studies on learning conducted with children and animals as subjects. Such theories portray the learner as a passive being whose behaviour is seen to result from external sources impinging on him or it. An educational programme based on such a view is basically knowledge transmission. Consequently, this type of model is guided by a lock-step, content-transmittal curriculum and teaching methodology.

The emergence of the organismic model brought with it the idea of the development of individuals towards their full and unique potentials. The educational consequence of this includes the replacement of rigid approaches to curriculum with flexible learning systems which emphasize the significance of the process over products. The various continuing education institutions are manifestations of the infiltration of the organismic model into the educational system. Since the purpose of education has changed to the production of life-long learners, the teaching and learning strategy must invariably reflect the change. The notion of content as the main and only goal in a learning situation has changed. The focus now is how to assist learners and to provide environment that will facilitate effective learning.

What role will learning method have on the effectiveness and satisfaction of adult learners? Does it make a difference to the adult learners if the learning method differ in the level of their involvement of the learners. Will a learner who knows the objectives be able to approach the task of learning with an advantage over one who does not? This was Gagne's (1972) view. Will the learning strategy adopted affect greater satisfaction and an enhanced self-concept? These questions form the basis of this study.

The Purpose of Study

This study sets out to determine:

1. The relative effectiveness of two adult learning methods on the enhancement of cognitive processes. This is to be determined by

achievement scores.

2. The relative effectiveness of each learning strategy on adult learners' self-concept enhancement.
3. The interactive effects of two self-concept levels at entry point and learning strategy on cognition, self-concept improvement and satisfaction.

Justification of Study

The study could be justified on three grounds. First, the result could be of practical application to the administration of continuing adult education and training of professional adult learners in Nigeria.

Second, the study contributes to the knowledge on adult learners in general and the special group of continuing learners (teachers)

Third, the research findings and the total learning experience accruing from this study should contribute to the author's own knowledge and aspirations in the field of human resource development and adult education.

Significance of Study

Certain circumstances necessitate this study. The first is the need for efficiency in education. Educational enterprises witnessed tremendous expansion in Nigeria in the 1960s till almost the turn of 1980; with the growing awareness of the importance of education for overall national development. The sector thus attracted huge government expenditure. Longe,(1981) observed that before 1980, all the state governments in the country expended about forty percent of their recurrent expenditure on education. However, since the turn of 1980, the situation in the country has changed. This can be explained in part by the economic depression in the nation. A considerable reduction in the resources is naturally followed with increased cost of

education. The little resources must be put to effective use; wastages must be avoided. Drop outs of any educational enterprise must be reduced and one must ensure successful completion of learning.

One very important variable in this study is the learning environment that will foster optimal performance. It is in the light of this that Okedara, (1981) notes that:

It is important for educational planners and policy makers to find ways of minimizing wastages in order to make educational resources more effective and productive. (p.11).

Secondly, the non-availability of researches testing hypotheses from andragogy within the Nigerian context is a major motivating force behind the present research. There is a need for a study of this kind. Research into the continuing education of human developers is increasingly being recognised as essential in maintaining and improving teaching-learning skills of teachers in the formal educational system.

This study is also relevant and useful in testing certain cogent aspects of adult learning theory in a real-life situation. This will augment existing knowledge. There is also the need to increase the effectiveness of current continuing education practices based on tested principles of adult learning theory. Literature shows that experimental research work on adult learning theory in Nigeria are few and far between. A study like this throws more light on adult learning theory in the Nigerian context.

Lastly, several factors have been advanced as affecting learners' achievement. They include, the student factor, the teacher factor and the learning and instructional strategies adopted. Research, experimentally based will isolate a more effective variable. In essence, this study still remains a baseline experimental work on adult

learning process.

Although the importance of process has been suggested in adult learning theory and the significance of the learning environment (democratic and active or dictatorial and passive) indicated, not much related research has been conducted. Such research ought to be into such areas that will test the validity of the adult learning assumptions and the effectiveness and profitability that might accrue from them. It is here that the significance of this particular study lies. Since the relative effectiveness of active-directive strategy is established, it can therefore enter into literature as tested knowledge. It may also be adopted as an instructional strategy for adult learning in various contexts. The effects of learning strategy on performance, perception and attitude change and positive transfer cannot be underestimated.

In most formal instructional settings, an educational agent assumes responsibility for planning and managing instruction so that the learner achieves specified objectives. Here learning is not left to chance but is planned to occur in a systematic milieu (Little, 1979). Therefore learning method or strategy which is one of the external conditions of learning must be arranged to increase the probability that learning will occur and effectively too. This is precisely the primary goal of this study.

This work therefore provides a data base for further research and information on the effect of one (active-directive) strategy in bringing about increased learning.

Active directive is an aggregate of various learning principles and its effect when applied as a package is quite illuminating to all those who help adults acquire skills.

Objectives of Study

The objectives of this study are to determine if

- (a) with the removal of rigidity and closeness and the introduction of a flexible instructional environment, learning and competence

will increase in an adult continuing education context.

- (b) the learning strategy adopted will bear on self-concept in adult learners. Particularly, attempt is made to show that there is a relative difference in the effects between active-directive and other strategies.
- (c) the learning strategy will also bear upon the learners' satisfaction and perception of the entire learning experience.

Theoretical Framework

This study is theoretically oriented to learning and teaching theories. The theoretical position adopted is that self-concept, satisfaction and cognitive performance are learned behaviours. But more important is that a social learning approach (with various learning principles integrated into a unit) will facilitate the total learning outcome. Consequently, the simple stimulus response theory of learning (Thorndike, P. 113) and the social learning theory of Bandura, (1962) and Patterson, (1969) are basic to the study.

The treatment strategies, active-directive learning method and the control (lecture) method relate to different theoretical aspects of learning.

Active-directive learning method emphasised modelling and imitation in the acquisition of learning. The lecture method, on the other hand emphasizes the traditional pedagogy conditions where the role of the student is to react, putting the initiative in the transaction almost wholly in the teacher's stimuli. Obviously some learning results form being taught this way, but the learner is kept in a dependent role and may readily forget.

The general theoretical explanation for any behaviour applies to cognitive performance. It is a response to some stimuli whose effect may be moderated by some process factors. Thus cognitive performance fits into the general S - O - R theory of behaviour. In this context, all that is required of a theory on cognitive performance is the specification of the stimulus as well as the process factors that 'intervened' to support cognitive performance response.

Before an internal change of consciousness occurs (which is exhibited and termed cognitive performance, certain other factors intervene in the process of knowledge and skill acquisition. Some of them are the nature of the acquisition process, the psychological and physiological state of the learner and the physical learning environment. Much study has gone into the physiological state of the learner and the physical learning environment (Ajiduah in Oyedeji, 1988)), (Verner and Davidson, 1971) and (Warren and Warren 1970).

The nature of the learning process (teaching method) and the psychological state of the learner have been suggested as affecting cognition and subsequently the total perception of the learning experience (Smith, 1976), (Klopf et al, 1969), (Thompson, 1970) and (Goslin, 1969). A large body of literature highlights points on mode of teaching. Indeed there is considerable debate among adult educators as to which mode of teaching is best suited to the typical adult learner (Brundage and Mackeracher, 1980).

It seems that each method is functional for some learners in some contexts and for some contents. Only one method that integrates various others to form a new unit will serve most purposes. Some matches between teaching modes and learner characteristics have been studied. An example is that lecture method was preferred by learners who had bias for dependent learning behaviours. These usually were fresh intakes into a programme or learners beginning to learn wholly new contents. A most instructive

information is that there is no one best teaching method. However, these could be a method that is an aggregate of methods. Advantages from all others will be blended.

There are three broad types of models or processes of teaching.

- (1) Information - processing models-Cognitive
- (2). Programmed operant models-Classical/operant
- (3). Humanistic or person-centred-observational

The first two deal with cognitive and mechanistic learning methods. The third one has models that focus on the idea that learning can be influenced by external persons and conditions. The models further assume that learning is facilitated when the learner participates responsibly in the learning process through being actively involved in the various stages of the learning. This learning involves the whole person's feelings and skills. It is most pervasive and lasting (Rogers, 1969).

Learner-centred models are most relevant to the affective dimension of learning and lead to positive attitude change and to enhanced self-identity and self-esteem. The obvious consequence of the method is not only knowledge acquisition, but also perception of the learning environment. This is a measure of satisfaction.

As a result of the peculiarities of adult learners, especially their unique characteristics of fragile self-concept and dwindling memory capacity, it is important that a method that enhances only those aspects of the learning and teaching objects be employed. This will strengthen memory and also eliminate problems relating to proactive and retroactive inhibitions which are usually associated with adult learners. A strong relationship has been found between learning and memory. Botwinick says that

if a man does not learn well he has little to recall. Conversely, if his

memory is poor there is no sign of his having learned much. (1973 : 254 in Oyedeji, 1988 p.47).

The learning method must therefore allow for stages in which learning can be more active and the learner is more involved so as to strengthen the acquisition. This will certainly aid retrieval.

Active-directive teaching methods are consistent with the viewpoint of adult learning facilitation. Many continuing education activities continue to be dominated by traditional methods of stimulus response models with their obvious weaknesses. Some of these are lecture methods and questions and answer formats. The effectiveness of active-directive strategy lies in its combination of many learning principles which have been confirmed in adult education. These principles are:

- a Setting limited, realistic objectives
- b Giving brief instruction
- c Modelling and giving discriminative cues.
- d Rehearsing with prompting and shaping.
- e Giving performance feedback and
- f Making generalizations for the maintenance of skills.

A body of research literature supports active-directive training in teaching continuing learners (Kuehnel and Flanagan, 1984).

Research findings cited above were carried out under different cultural setting. Therefore, there is a need to investigate and authenticate this concept in a culture - specific situation like Nigeria. Only a method which is empirically tested can establish a cause-effect relationship. After then can it be adopted with great confidence. For example, Kuehnel and Flanagan (1980) asserted that greater amounts of active-directive teaching activities were positively related to learners'

evaluation of programmes.

If it fosters greater learning, then success through it will serve as a reinforcer for enhanced self-concept which will in turn elicit feelings of satisfaction.

Scope of Study

The study focuses on two learning strategies in adult education that could influence academic achievement, satisfaction level and the self-concept of adult learners. The study therefore limits itself to the improvement of Nigerian teachers' learning and perception ability through active-directive strategy.

So the study seeks to find through experiment, the extent to which achievement of learners in the Teaching Effectiveness course, self-concept changes and satisfaction level changes could be attributable to the teaching technique employed in facilitating their learning.

The adult learner used in this study were teachers who have been on the job for at least 5 years.

These are those that the researcher believed would be enthusiastic for a refresher course. Only variables like learning strategy, self-concept, perception and cognition were examined in their interaction effects. In particular, self-concept in adults has pedagogical implications. Reasons are advanced for this by Eheazu (in Oyedeji, 1988). He explains that;

It obviates the possibility of an adult seeing himself as being treated like an overgrown child. Beside, forms of presentation, formal, informal and non-formal have to be taken into consideration in provisions for adult learning in order to select the most suitable to the educational experiences and personal image of adult learners

(pp.136-137).

The number of subjects have been limited to fifty for each of control and experimental groups to ensure adequate monitoring as cause and effect relationship was to be established. Moreover, reluctant and inconsistent subjects were not considered. For one thing, adult learners, generally, would develop a sense of recognition if their views and preferences are incorporated in a programme of education or training they would subscribe to.

A learning strategy that will enhance adults' poor self-concept would be laudable.

Limitation of Study

This study is limited to adult learners who are professional teachers in the selected locations. It is designed for the purpose of identifying the relative effectiveness of two techniques of teaching adults professionals in a continuing education milieu. The view is to come up with the more effective method among those under experimentation.

The researcher could not choose a larger sample than the ones she had not only because of energy cost but more because of the difficulty in getting the subjects to be available. Similarly, the duration had to be limited to a fortnight because most headteachers would not excuse their teachers for a longer period.

However, despite the constraints the overall findings do not justify that they might limit general application. Nonetheless, future research could lengthen the duration

of experiment particularly to indicate the effect of strategy on self-concept.

Operational Definition of Terms

Certain concepts were operationally used in the study. Some, whose meanings if not explained might cause ambiguity, are explained below.

Adult Learner: It refers to any person, of at least 25 years of age who has been on the teaching job for a minimum of five years and as such needs a form of refresher course. So the professional teachers who underwent the treatment programme for this study or its like within a non-formal situation is an adult learner.

Continuing Adult Education: This is the concept of education that superceeds that of education limited in time to 'school age'. So the concept refers to continual training so as to compensate for the shorter average duration of initial studies. Education is here conceived of as an existential continuum as long as life (Faure, 1972). In this study particularly, continuing education is the re-training workshop which adult learners participated in to foster a more efficient on-the-job performance.

Adult Education: This is the aggregate of all programmes; formal or informal which persons accepted as adults in a society engage in. Such acceptance of adulthood could be on the basis of age (legislatively determined) or chronologically determined. In essence therefore, adult education is the action of an external educational agent in purposefully ordering behaviour into planned systematic experiences that can result in learning for whom such activity is supplemental for their primary role in society. (Vener, 1962).

Adult Learning Principles: These are the principles held as underguarding the learning of adults. The assumptions or principles are summarised below:

- (1). Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these are the appropriate starting points for

organising adult learning activities.

- (2). Adults' orientation to learning is life-centred; therefore, the appropriate units for organizing adult learning are life situations, not subjects.
- (3). Experience is the richest source for adults learning, therefore the core methodology of adult education is the analysis of experience.
- (4). Adults have a deep need to be self-directing; therefore, the role of the teacher or facilitator is to engage in a process of mutual inquiry with them rather than to transmit his or her knowledge to them and then evaluate their conformity to it.
- (5). Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place, and pace of learning (Knowles, 1984).

Active-Directive Learning Strategy: This is the independent variable. It is a learning strategy newly distilled from literature. It is anchored mainly on the social learning theory. It involves a number of components while its goal is to facilitate and maximize skill-building effectiveness. The components are:

- (a). Setting of precise objectives.
- (b). Giving brief instructions.
- (c). Modelling with discrimination.
- (d). Behavioural rehearsals.
- (e). Giving performance feedback.
- (f). Generalization and skill maintenance.

This is the main treatment programme in the study.

Self-Concept: In this study, self-concept is one of the dependent variables. It is an individual's unique description of himself. There are three main components of self-

concept. They are self-identity, self-esteem and self-ideal.

Self-identity: This concept refers to an individual's judgement of who he is. Its development starts from childhood when an individual makes distinctions between himself and the rest of the world-animate (especially the 'significant others' and 'primary contacts') or inanimate. External cultural stimuli tone one's self-perception. One of these external stimuli is societal roles and these affect how one perceives himself. However, if one fails to live up to these roles and expectations, his self-identity suffers.

By and large, self-identity is a product of our symbolic interaction with others and that we can perceive ourselves only as a reflection in the eyes of another (Mead, 1934, p.228).

Self-Esteem refers to an individual's feeling of his worth and adequacy. The totality of early childhood experiences very much affect an individual's self-esteem. Positive estimation or evaluations derive from agreeable feelings that are directly precipitated by conditions that impinge upon the individual. Examples are love, respect and faith (in a child's ability). These may develop in him positive feelings of self-worth and confidence. Outright rejection is destructive to a good self-esteem.

As the individual grows into adulthood, (culturally-based standards of individual characteristics begin to provide comparative parameters which the individual applies to himself to determine the adequacy of his personal characteristics (including intellectual, social and physical attributes). (Eheazu, in Oyedeji 1988 p.127)

Note must be taken of the fact that an individual's self-evaluation does not necessarily reflect his actual personal assets, liabilities and accomplishments (Coleman and Hammen, 1974). Eheazu (1988) proffers an explanation for the above

observation:

This is because different individuals have different thresholds for appreciating their worth or adequacy. These differential self-evaluations are important as they may influence adult choice of, and participation in social, economic and educational activities (in Oyedeki, 1988p.128).

Self-ideal refers to the individual's ambition and expectations of personal achievement and growth. The self here is viewed as a purposive system capable of pursuing certain ends. The individual identifies a social reference as a measure of what he will become. Various 'significant others' in an individual's life determine the goals (ideal-self) he sets for himself. They similarly form his major social references.

For personal growth to be fostered, there usually exists a discrepancy between a person's self-identity and self-ideal. Self-concept development begins in childhood and continues into old age. A forethought on self-concept will steer aright the choice of both content and instructional processes of any adult education programme. Since self-concept could be high or low, the adult educator can then assist the adult learner to maintain the level or raise the level of his self-confidence as he the educator deems necessary.

Teaching Effectiveness (Scale): This is the extent to which trainees (adult learners) in this study assimilated the workshop content which is mainly on teaching skills. A multiple choice test was developed to measure this. It is also one of the dependent variables.

Perception: Perception is the process of identifying, discriminating, recognising and judging objects, qualities or relations (cognitive) in our environment by means of sensory information. Sensory inputs are processed into meaning which elicit

behaviour. Percept is the term for what is perceived. In perception, the focus is on the representation of the world of the physical environment, not the objective event. A situation is perceived as it meets an individual's needs, goals and purposes and its category in one's experience. It is one of the dependent variables in this study and it is developed to measure subjects' satisfaction. All research work on satisfaction stresses the relationships between motivation and commitment to commonly approved goal and objectives.

Lecture Method: In this study, lecture method is the control. It is one of the techniques of transmitting knowledge in educational practice. It consists of one individual disseminating information to a group of people simply by reading out some notes he had prior prepared. Occasionally there is some question and answer. This is a slight variation from the traditional lecture method which was basically note-delivering and notetaking. Research is replete with disadvantages of this technique as it has not been effective enough to have impact on learning especially when the development of practical skills are involved. It however keeps being employed. Its appeal to organizers might be on the grounds that it is an 'economical' way of using a teacher's time. Elaborate technical or administrative support are not involved.

However, no teaching method can be described as economical if it fails to meet the prime objectives of helping learners learn effectively.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This section on the review of literature organises the studies done in the relevant areas and gives a broad perspective to the knowledge accumulated on this topic. The section will be divided into two groups:

- (i) Historical/Philosophical trends; and
- (ii) The empirically based reviews.

The critical areas of review are learning generally, adult learning, active-directive learning method and evaluation.

Until lately, the only model of assumptions about learning on which educators could base their curricular and teaching processes was pedagogy. Pedagogy focused mainly on the teaching of children. The main premise on which it rests is the conception of education as the transmission of knowledge and skills. Furthermore, Knowles (1984) points out that the learner's role is to integrate into these roles. The characteristic strategies of this model are fact-laden lectures, assigned readings, drills, note-memorization, quizzes and examinations. The goal of these is culture-transmission, filling the empty vessel, shaping and individual to a pre-determined mold. The educational consequence is that the entire process is subject-transmission in nature with didactic teachers as facilitators. The learner in this model is described as a passive, empty-robot and reactive organism which is inherently at rest. In this view Freire's (1973) stand is summarised. The above category may be classed under the stimulus response theories with their mechanistic view of man.

Certain exponents of this school of thought are Thorndike (1928) and Skinner, ²⁵ (1968)..

Another category of learning theorists is the cognitive theorists. Chief of them was Tolman. He opposed the view of the stimulus-response theorists (Tolman, 1957) that there existed an association between a situation and the response that follows it. This view was actively supported by Gagne (1965). He contradicts the associationists or the traditional mechanistic school and opined that there is no association between a situation and the ensuing response. The view further maintains that association is an internal connection between a representation of the stimulus situation and a representation of the alternatives of actions to be taken.

Piaget (in Knowles, 1984) proposed three evolutionary stages of development.

The formation of the symbolic or semiotic function (Pages two to seven or eight) - which enables the individual to represent objects or events that are not at the moment perceptible by evoking them through the agency of symbols or differentiated signs.

The formation of concrete mental operations (ages seven or eight to twelve) - linking and dissociation of classes, the sources of classification; the linking of relations; correspondences, etc.

The formation of conceptual thought (or formal operations) ages twelve to adolescence "This period is characterized by the conquest of a new mode of reasoning, one that is no longer limited exclusively to dealing with objects or directly representable realities but also employs "hypotheses"..... (Piaget, 1970 in Knowles, 1984, p.25)

Some reservations have been expressed about this rigid age scale, but the conception adds a dimension usually overlooked in established learning theories.

The process of intellectual growth was Bruner's (1966) interest. With the later, the perception of learning no longer remains as a process of controlling, changing or shaping behaviours and places it in the context of competency-development. Though his main interest centred on the structuring and sequencing of knowledge and getting this translated into a theory of instruction, he does have a basic theory about the act of learning. This theory involves three almost simultaneous processes (Bruner, 1960).

They are:

acquisition of new information, often information that runs counter to or is a replacement of what the person has previous knowledge.

transformation, or the process of manipulating knowledge to make it fit new tasks; and

Evaluation, or checking whether the way we have manipulated information is adequate to the task.

(Burner, 1960, p.p.48-49).

These two theorists and other cognitive theorists have been criticized by others of the organismic model. The ground for criticism is that they are unbalanced in their over emphasis on cognitive skills at the expense of emotional development and that they concern themselves with concept attainment to the exclusion of concept formation of invention (Jones, 1968).

Another model newly influencing some educational systems is the organismic model. Its basic metaphor is the living, organised, active, growing and developing organism. This model presents man as an inherently and spontaneously active organism. It is the source rather than the collector of acts initiated by external forces (Knowles, 1984). This model views the purpose of education as the continuous development of an individual towards his full and unique potentials. It replaces the

lock-step curricula with competence based flexible learning systems. Its emphasis is the significance of process over product. The model is rooted in the Gestalt Theorists.

The most complete break with the mechanistic model is the Gestalt tradition reflected in the works of Kohler, (1940) and Koffka, (1935). This school conceives learning as typically taking the form of an insight which is a suddenly occurring re-organisation of the field of experience as when a new idea creeps up in one or one discovers a solution to a problem. They insist in Knowles, (1984) that experience is always structured and that the learner needs to perceive ideas in organised wholes, not in disconnected parts.

Tolman seems to, in a sense, represent a bridge between the traditional mechanistic and the organismic models. Behaviour is purposeful; with objectively determined ends; Tolman (1957) posited. Purpose is an organismic concept.

A problem, however, arises from the state of affairs of learning theories and Knowles (1973) observed that adult education seems schizoid about the two models. The reason for this view on adult education is that the philosophy that underline adult education is basically organismic but, her strategies are in most cases mechanistic.

Adult Learning Theory

In the past, the ability of older people to learn has been doubted and questioned. This opinion was summed up in the saying that you cannot teach an old dog a new trick. Two researchers (Monge and Gardiner, 1974) echoed it. Studies have found this to be a myth and an over-generalization of adult capabilities. Perhaps little thought given to adult learning processes until recently lent acceptance to such a view for a long time. Adults do learn in varied settings: business and industry, in

'leisure' classes, on government training schemes, in management education via extension services or perhaps through "open" learning.

By 1940, a substantial component for a comprehensive theory had been discovered but they had not been brought together into a unified theory. Most scholars in the field of adult education itself dealt with the problem of learning by trying to adapt theories about child-learning to the "differences in degree" among adults. The works of Bruner (1959), Kidd (1955), Kempfer (1955) and Vener and Booth (1964) affirm this. On the one hand, because of adult education's marginality in the educational establishment, it has striven for academic respectability by holding on to many of the curricula and methodological trappings of traditional mechanistic schooling. The marginality is however not inherent in adult education but it is an outgrowth of poor understanding of adult education's involvements because its survival has depended upon its satisfying the real developmental needs of voluntary adult learners. It has almost surreptitiously and often with a sense of guilt, adapted bits and pieces of its curriculum and methodology to the organismic model.

But as societal and technological changes occur at an accelerating pace, there is need for a corresponding change in the perception of education. The culture of yesterday may be totally obsolete today and may be no more relevant. This creates a need for new learning. The continuation of this makes education a lifelong process of continued enquiry. Lifelong learners thereby evolve. For adult education as a discipline to survive, this view needs to be accepted while learning and teaching strategies must respond to this concept.

This view led to the efforts from which emerged a theory of adult learning with its own unique assumptions focused on the mature adults for whom it is primarily built. We are thus led to a review of the emergence of adult learning theory. There is a contradiction of views on the difference between adults and children. This happens to be one of the basic conflicts in adult learning; that is the nature and

characteristics of adults as learners in comparison with children. Literature is divided on the issue. Some writers like Houle (1972), Feringer (1978), and Hart, (1975) all maintain that learning does not change with age. Other writers like Knowles (1970) and McClusky (1970) maintain that adult learning and child learning are both quantitatively and qualitatively different. However, literature suggests that the internal mental and physiological processes involved in learning may indeed be similar, since they are based on biological structures which are not different. But Kidd, (1973) and Mckenzie, (1977) observed that they are different. Other variables which affect the overall process and outcome of learning are different for adults and children. An explanation for this is that they are derived from psychological, developmental and situational characteristics.

The work of Tough (1971) clearly shows that adults engage in a wide variety of learning activities in response to their daily needs and problems. As an extension to Houle (1972), Tough (1978) conducted an in-depth interview on small samples of adults who were identified as continuing learners. Though Houle (1972) primarily sought to discover why adults engage in continuing education, more light was thrown also on how they learn. Analysing the characteristics he uncovered in interviews, he found that his subjects fitted into three categories. Each category with its central emphasis is clearly discernible. How adults learn and what help they derive from learning was Tough's (1979) concern. He found that adult learning is a pervasive activity. He thus observed that almost everyone undertakes at least one or two major learning efforts within a year and some individuals undertake much more. Tough observed high involvement in learning by adults. The adult learner plans about 70% of all learning projects himself and seeks help from a variety of acquaintances, experts and printed resources. By this he showed that adults continually seek further learning although not necessarily in settings reminiscent of the conventional classroom. They voluntarily undertake study in a wide-range of areas.

All these are isolated concepts, insights and theory based research findings regarding adult learning. Efforts to wedge them all into an integrated framework began much later. Gibb (1960) and Miller (1964) focussed attention on adult learning.

A dominant feature of them all is their descriptive listings of concepts and principles rather than having a comprehensive, coherent, consistent and integrated theoretical framework. A theory of this kind had steadily been growing in Europe and had led to the evolution of the term andragogy - a concept of a unified theory of adult learning as contrasted from child and youth learning-pedagogy.

Though varying perspectives abound, a consensus exists that the theoretical base of how adults learn is significantly different from that of how children learn. Consequently, different methods of teaching are required. In matter of fact, they are not mutually exclusive but mutually enhancing. Therefore, the relevant theoretical base for the practice of continuing education is adult learning theory. The basis for this is both the clientele and the nature of the programme itself.

Much continuing education is atheoretical and is presented in the context of standard, established methodology in its more fortunate applications, Walker (1978) observes. Much of what is accepted as continuing education takes neither theory nor accepted methodology into account. An attempt therefore to tie practice to theory necessitates a clear examination of adult learning theory.

A major exponent of adult learning and one who has attempted building a body of knowledge on this is Malcolm Knowles. What he distils from literature on which he rests his andragogical learning theory is natural maturational growths. There are fifteen dimensions (Knowles, 1970) about directions of growth. They are growth from:

Dependence towards autonomy; passivity towards activity; subjectivity towards objectivity; Ignorance towards enlightenment; small abilities and few responsibilities towards many responsibilities; narrow interests towards broad interests; selfishness towards altruism; self-rejection towards self-acceptance; amorphous self-identity towards integrated self-identity; focus on principle; superficial concerns towards deep concerns; imitation towards originality; need for certainty towards tolerance for ambiguity; and from impulsiveness towards rationality (Knowles, 1970, p.25).

His stand is that adult education should address these relevant dimensions and enhance the individual's growth towards maturity. He believes that the adult educator is not a teacher of adults but a facilitator, a change agent.

Superficially, pedagogy and andragogy are antithetical. This may not be so but in point of fact, the basic assumptions of andragogy might better be applied to the education of children (Walker, 1978). This is because the maturational process is on a lifelong continuum.

The four basic assumptions which Knowles (1970) posits as characteristic of adult learners are that as a person matures; his self-concept moves from one of being a dependent personality towards one of being a self-directing human being. He therefore suggests that adult educators must work at creating learning experiences in which adults are helped to make the transition from dependence to self-directing learners.

Further, is the accumulation of a growing reservoir of experience that becomes an increasing resource for adult learning. The range of experiences will differ thereby making any group of adults heterogeneous. Hence the emphasis in Adult Education on individualization of teaching and learning techniques. This rich resource of experience also leads to the increasing use of experiential techniques.

Such techniques are those that tap the experiences of the learners. Examples are group-discussions, simulation exercise and problem-solving exercises such as (brain-storming). These take precedence over transmittal techniques such as lecture method. A potentially negative effect of experiences is that they tend to lead to mental habit biases, sets and presuppositions. The rigidity hypothesis of Botwinick (1967) plainly illustrates this and lends credence to it.

The third of the assumptions is that the adults' readiness to learn is tilted only towards those things which have bearing with his effective compatibility with his real life situation. Adults identify readily with a learning that has relevance to his real life.

Lastly, the adult time perspective changes from one of postponed application and naturally his orientation towards learning shifts. The shift is directed away from subject centredness to one of problem-centredness. The goal is relevant within the framework of application to immediate real-life situations and not postponed use.

Mutuality between facilitator and learner is crucial in the processes of adult learning, Knowles (1980) affirms. He further asserts that the more active the role the adult learner takes in the processes of need assessment, planning the content, choosing learning objective practising new learning and evaluating his own learning and the programme, then the more ego-involved the person becomes in actual learning. Increase learning should result from this and satisfaction will be heightened.

Adult Learner Need-Diagnosis

Relevance is a critical issue to adult learners and so any continuing education training programme for them must be responsive to their need assessment data which will depict their learning needs. Past and present continuing education

training participants had always had their need diagnosed through survey studies via questionnaires. One of such findings is that mental health professionals prefer a didactic/lecture format (especially using an outside expert) to informal or small group learning with experiential emphasis. The above finding (Blocker *et al.*, 1976; Schoenfeld *et al.*, 1974 and Kathn, 1970) is American in context. Will this pattern be similar in the Nigerian or African context? Most probably so, because it is this passive learner mode that is more familiar to the people; old habits die hard. This arouses interest and curiosity. The curiosity stems from the fact that trainees prefer a structure which keeps the learners in a dependent role and limits the learning to the boundaries set by the teacher. This is a poor preparation for continued learning (throughout life) which is what adult education is about. The adult educator's obligation is to help his students learn proactively because in adult life, learning will for most part happen if the learner takes the initiative and keeps on being actively involved.

Adult Learner Characteristics

These characteristics unfold under certain influences. Some of these are physiological ability, self-concept, response to stress and anxiety, handling of past experiences, time perception, motivation and learning style and abilities.

With increased age, Kidd(1978) explains that the sensory receptors for vision and learning slowly decline in acuity. Such decline affect learning in that sensory intake is reduced and thus both quantity and quality of input into the learning process are reduced. So adults learn best when they are in good condition and when the learning environment can compensate for any loss of sensory acuity.

Secondly, adults have a self-concept of being responsible for their own decisions, for their own lives. Once they have arrived at that self-concept they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction. As Laudvogt (1970) and Combs (1974) observed, adults value their

rich resource of experience for further learning and that they concern themselves with the thought of whether they are in the direction of their own idealized self-concept. Adults learn best when they are involved in developing or executing learning objectives which are congruent with their current and idealized self-concept. This was posited by Lam (1976), Tough (1971), Rubin (1969) and Smith (1976). There is a consonance between this and the first of Knowles' (1970) four basic assumptions about adult learners.

Notwithstanding this dimension to the adult learner's self-concept as being positive, note and care must be taken concerning a contrary dimension. The possible thought of past academic inadequacies, and an unconscious acceptance of the popular area that with increased age one becomes unable to learn usually predispose the adult to a poor self-evaluation or esteem.

A supportive learning environment for adults will be free from all forms of threat. Such an environment will be free from stress, anxiety and fear of learning.

Past experience always bears into adult learning, unless the learning experience or content is wholly new to the learner. To this end Feringer (1978) suggests that past experience can be used most productively when it becomes the basis for analogy.

The time perspective of adult learners appears to be different from that of children. The adult feels that he has little time left and that the present is fleeting, the past is ever-increasing and that the future is finite. This creates the illusion of the need to hurry and if he changes, to do so quickly and to keep on with life. Clearly, he views education as a once and for all activity rather than lifelong. The important point is that adults want their learning to focus on the problems of the immediate present. So they have a desire to learn quickly and the learning activity to them must

have immediate and pragmatic applications.

Adults are usually intrinsically motivated and can be strengthened. Also, adults have unique and individual learning styles. But there is still some semblance and similarity amongst them. Research by Crawley *et al* (1976), Messick (1976), Kolb and Fry (1975) indicate that, while adults enter learning experiences with their preferred styles and tend to start there, they go round through a series of cognitive or learning activities which will contribute to overall learning. Some research work that are related to the topic under investigation are also discussed.

A few studies comparing methods used in training have been conducted with adult population - most frequently with a college of non-professional population, Talbert *et al* (1975) compared modelling, lecturing, and a combination of the two in teaching behaviour modification to college students using videotape to present their three techniques. The fewest errors occurred in the subjects receiving the combination of modelling and lecturing, but there were no statistically significant differences between the three methods. Similarly, in another study Dalton and Sundbald (1976), comparing modelling to systematic training in empathy, no significant results were forthcoming, but the trend was higher for modelling.

Despite the dearth of actual research conducted with an adult professional population, most continuing education and training follow certain standard formats and principles. In his observation, Miller (1964) says that the "controlled workshop" has been created by adult continuing education and is characterized by: (1) flexible construction of learning situations provided - depending on what suits the group, (2) lectures being supplementary rather than primary, (3) opportunity for skill training - either pre-selected or chosen by the group, emphasis on participant involvement - demonstrations, role-playing, discussions etc., (5) a closely cooperating staff who plan together, divided responsibilities, and meet frequently with each other for review and feedback.

In Richardson and Island (1975), four general approaches to training were isolated: (1) theory-based (most commonly used in universities and professional training), (2) self-awareness (sensitivity groups, therapy), (3) communication skills building (often as part of an organizational context), and (4) competency acquisition (skill training in one or more areas).

Trainer characteristics, have been found to be of great importance in successful training yet there is scarcity of research specifically examining such characteristics in dealing with professional trainees. Trainers themselves have also emphasized the task of creating a “safe-space” in which to learn (Noord, 1975).

From the foregoing, literature has revealed a rather scattered and scanty knowledge of training of professionals. In fact, hardly any study on training for teacher was found. Fewer work on methods in a continuing education milieu was also found.

Active-Directive Learning Strategy

This learning strategy emerged mainly from social learning theory.

Social Learning Theory

One of the fundamental means by which new modes of behaviour are acquired and existing patterns are modified entails modelling and vicarious processes. Research conducted within the framework of social learning theory (Bandura, 1965; Bandura and Walters, 1963) demonstrated that virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis through observation of other persons' behaviour and its consequences for them. It argues that cognitive and social mediations play important roles in the manifestations of human behaviours. Vicarious phenomena are generally subsumed under a variety of terms. Among those in common usage are ‘modeling’, ‘observational

learning', 'identification', 'copying', 'social facilitation', 'contagion' and 'role-playing'. It is social learning theory that accentuates the role played by interpersonal relations on learning by modeling. Of the observations made by the principal figure Bandura, (1970) explained that a response is imitated by an observer through a cognitive coding of the observed events. Social learning explains the operation of human learners in two phases:

The phase of acquisition when the observer is exposed to the model and the observer attempts to acquire the model's behaviours. This he terms the acquisition phase of the model.

A second phase is the performance phase.

Many workers in this field have observed some of the conditions that enhance acquisition. These include: High competence of models (Rosenbaum and Tucker, 1962).

Models who are purported experts (Mausner, 1953) or celebrities (Hovlands, Janis and Kelly, 1953) and who possess status-conferring symbols (Lefkowitz, Blake and Monton, 1955) are likely to command more attention and to serve as more influential sources of social behaviour than models who lack these qualities. Other distinctive characteristics, such as age (Hicks, 1965), sex (Ofstad, 1967), social power (Mischel and Grusec, 1966) and ethnic status (Epstein, 1966) which are correlated with differential probabilities of reinforcement, likewise influence the degree to which models who possess these attributes will be selected for emulation. The affective valence of models, as mediated through their attractiveness and other rewarding qualities may augment observational learning by eliciting and maintaining strong attending behaviour.

Observer characteristics such as the degree of his dependence, self-esteem level

of competence and social economic and racial status also enhance acquisition. Many studies have shown that the effects of modeling stimuli are partly determined by the sex of observers.

Stimulus input conditions (such as rate, number, distribution and complexity of modeling stimuli) presented to observers will regulate the acquisition of modelled responses to a certain extent.

Certain factors that can enhance performance include:

- (a) Skilful application of vicarious reinforcement. Response consequences experienced by another undoubtedly convey information to the observer about the probable reinforcement contingencies associated with analogous performances in similar situations.
- (b). Vicarious extinction of fear of responding is another factor. Observers will expectedly withdraw to non-punitive situations. To the extent that the negative sanctions foster fear to that extent influence over behaviour exhibited through performance is reduced.
- (c). Lastly are rehearsals and participation opportunities; opportunity for repeated practice and similarity of training in settings similar to day to day life setting.

The combined use of modeling, reinforcement procedures, meaningfully stated objectives and feedback is probably the most efficacious method of transmitting, eliciting and maintaining social response patterns. In sum the above are the main components of active-directive learning strategy.

Active-Directive learning strategy has a number of components and cannot be said to be a single method but an aggregate of methods distilled. The aggregate forms a new system of facilitating and maximising skill-building effectiveness. The

components of an active-directive approach to training include:

- (1) Setting precise objectives.
- (2). Brief instruction
- (3). Modelling with discriminative cuing.
- (4). Behavioural rehearsal with prompting and shaping.
- (5). Performance feedback.
- (6). Generalization and maintenance of skills.

A body (though few) of research literature supports active-directive training in teaching a wide range of skills to diverse trainee groups.

Matarazzo (1978) reviewed 100 studies on the teaching and learning of psychotherapy skills. One major conclusion she reached was that the question of how to teach psychotherapy seems not to be greatly different from how to teach other complex skills. The research cited points for the need of clearly stated objectives, progressive stages of learning, measurement of achievement and feedback to the trainee. In a review of six of the most widely used and thoroughly researched training programmes (Ford, 1978) found that while each programme differed in content, each of them incorporated detailed instructions of what the therapist or client is to do - modelling with discriminative cuing of examples of the target behaviours, and behavioural rehearsals in simulations, usually with prompting and coaching to shape approximations to criterion behaviour. Each programme incorporated detailed and immediate performance feedback by the trainer and detailed and delayed feedback from video-tapes, peer evaluations as well as in in vivo practice with real clients or real situations.

It is here pertinent to review literature on certain components of active-directive strategy. These include:

- (1). Objectives.
- (2). Modelling.
- (3). Performance modelling.
- (4). Reinforcement (Vicarious reinforcement).
- (5). Rehearsal and repetition factor in learning.
- (6). Anticipation strategy.

A theme which keeps recurring in the literature underscores the necessity of clearly defined learning objectives as indicated by Enelow and Adler (1965), Miller (1964) and Lechowicz (1975). The need arises because in developing and implementing programmes for modifying behaviour, the specification of goals is of central importance. As Miller (1964) asserts, these objectives must provide the trainee with a definition of the change in behaviour which is to be exhibited upon completion of training. Also Lechowicz, (1975) reports better graduate student evaluation of courses when the students are given outline of detailed planning and objectives at the outset of course. Such results are similar to those in clinical outcomes using Contingency Contracting (Homme *et al.*, 1970) and Stuart (1972) and Goal Attainment Scaling techniques (Kiresuk and Sherman, 1968) which rely heavily upon client participation or, in the very least awareness of treatment goals. This pattern is consistent with adult learning theory which maintains that adults (be they client or students) are more highly motivated and show better results when they have a voice in choosing the desired behavioural outcomes. It is also consistent with the whole schema of management by objectives which operates on the premise that performance improves when objectives are specifically defined in measurable terms (Beck and Hillman, 1976). The idea is that generally, people seem to experience more comfort, learn more and achieve more when the goals and objectives are explicit, personally owned and used to give direction preceding training. The specifications of learning objectives play a major role in the evaluation of training programmes.

If the objectives are poorly defined, an agent of behavioural change has no rational basis for selecting the appropriate treatment procedures or for selecting the effectiveness of his efforts (Bandura, 1969). A meaningfully stated objective has at least two basic characteristics. It should first identify and describe the behaviours considered appropriate to the desired outcomes (Mager, 1961). The objectives must be so specific that the chosen goal must be well reflected.

Modelling

According to Akinboye (1984), modelling is a behaviour change strategy that developed from the social learning principle. The social learning principle may also be described as imitative learning. As earlier discussed, its major concept is that human behaviour is powerfully influenced by that which he observes, hears, perceives, conceives and creates or participates in. The consequences of the observation or participation critically influences a person.

Modelling is therefore a behaviour change strategy which provides vicarious experiences. In essence therefore, the basic premise of adopting modelling in behaviour change situations is to present the client with an opportunity to observe the actions of others whose response patterns may be copied later. Observation and subsequent imitation may thus create appropriate response patterns for the client.

Applications of modelling procedures are frequently utilized for a wide variety of purposes in which people who want to develop new competencies are provided with actual or symbolic models of desired behaviour. Since, in modelling approaches, a person observes and practices alternative ways of behaving under life-like conditions, transfer of learning to naturalistic situations is greatly facilitated (Bandura, 1969).

Observation of modelled actions and their consequences to the performer may strengthen or weaken inhibitory responses in observers. These inhibitory and

disinhibitory effects are evident when the incidence of imitative and non-matching behaviour is increased generally as a function of having witnessed a model undergo punishing consequences.

Reinforcement (Vicarious reinforcement)

The development of complex repertoires of behaviour and the strengthening of existing responses constitute important objectives in the modification of psychological conditions. Moreover after the establishment of appropriate behaviours, conditions must be created to maintain it at a satisfactory level. Reinforcement procedures are best suited for these purposes. The basic assumption that reinforcement is a prerequisite for learning is hard to refute empirically. It is so much in most human behaviour activities that a reinforcement law has come to be established. The reinforcement law states that 'any behaviour that is followed by a positive or a removal of a painful stimulus (negative reinforcer) results in an increased probability of emission of that behaviour (Akinboye, 1984). This law essentially describes the nature of reinforcement. Reinforcement (negative or positive) increases the probability of behaviour emission. Reinforcement is therefore necessary for the formation and maintenance of habits.

Vicarious reinforcement, one of the lot is often described as the main reinforcement strategy in the social learning mode. It may be described as the process whereby an observer is reinforced as a result of his observing a model. Knowledge concerning the types of responses that are likely to meet with approval or disapproval can later serve a self-instructional function in facilitating or inhibiting emulative behaviour. The information gained from witnessing outcomes experienced by others would be particularly influenced in regulating behaviour. These reinforcing outcomes may also have important activating or motivational effects on an observer.

Rehearsal and Repetition Factor in Learning

There is more to modelling than mere sensory registration and symbolic coding

of modelled stimuli. A basic component function in observational learning concedes the retention of modelled events. Social behaviour will not be reproduced without the continued presence of external modelling cues. A person needs therefore to retain the original observational inputs. Certain conditions facilitate retention, some of which have been shown to augment modelling performances.

One of them that compels attention here is rehearsal or repetition operations. This effectively stabilizes and strengthens acquired responses. The level of observational learning can, therefore, be considerably enhanced through practice or event rehearsal of modelled response sequences, particularly if the rehearsal is interposed after natural segments of a larger modelled pattern (Margolius and Sheffield, 1961). It is generally assumed that the facilitative effects of rehearsal result not from sheer repetition, but rather from more active processes. The interpolation of rehearsals in intricate modelled sequences distribute the learning; this reduces loss through intra-serial interference from other displayed elements. Periodic reproduction of modelled segments is likely to elicit and to sustain greater attentiveness to modelling stimuli than passive observation of lengthy, uninterrupted sequences of behaviour (Maccoby, Michael, and Levine, 1961). As the observer rehearses, the result is guided by the reinforcing of closer and closer approximations of desired behaviour. This is termed shaping.

Performance Feedback

The old saying that practice makes perfect is not true. But it is true to say that it is practice the result of which are known that makes perfect. (Berlett, 1947). Giving feedback is so important in learning that the topic deserves some review. Feedback is important because without it performance cannot improve. But if performance does not improve, than all learners, but more particularly adults quickly lose interest; their motivation flags and without motivation there can be no learning. This approach to acquisition and retention which stressed the importance of feedback is called cybernetics. Feedback is the knowledge of the consequences of a response or

series of responses; it may modify subsequent responding.

In modelling, the specific performance are pin-pointed, after this, the trainees' rehearsal follows closely - role play. All those who are not participating at this time and the trainer will both observe and give the feedback after the rehearsal. Here the rehearsal is measured against the modelled performance and the trainee's assessment of his performance. With this, he may modify subsequent rehearsals. All these are important stages in the adoption of an active-directive learning strategy.

Other relevant constructs to mention are anticipation strategies and evaluation.

Anticipation Strategies

This is means of maintenance of behaviour. Regulation of human behaviour on the basis of punishing experiences is undoubtedly mediated to a considerable degree through central mechanisms.

Response patterns may also be partly maintained by anticipatory consequences. Studies like Aronfree (1968) show that behaviour can be sustained by imagined rewards or punishment. Anticipatory aversive consequences will have response-inhibiting effect, whereas anticipation of rewarding outcomes will facilitate performance of the same behaviour. This is a form of expectant outcomes. Imagined aversive consequences could be so overpowering on the learner's behaviour that it becomes relatively autonomous of external reinforcement.

It is noteworthy that although active-directive training methods are consistent with the viewpoint and approach of behaviour analysis and therapy, adult learning continues to be dominated by traditional didactic methods. In a study of AABT (a continue education committee) pre-convention institutes, ten categories of teaching modes used by leaders were rated, using time-sampling techniques. Leaders were most frequently engaged in lecturing - 53 percent. The majority of the other teaching

behaviours observed fell into categories of question and answer behaviour between leaders and participants (Kuehnel, et al. 1978). These observations were replicated in subsequent studies of the 1978 and 1979 AABT institutes. Additionally, participants were found to desire a higher proportion of institute time devoted to active teaching methods than they currently receive.

Correlation between observed teaching modes and trainee satisfaction measures revealed that high amounts of lecturing and asking questions were negatively correlated with participant satisfaction. Greater amounts of active-directive teaching activities were positively related to participants' evaluation of the institutes.

EVALUATION

Evaluation is a vital aspect of training, but whenever it has been conducted, it has followed numerous models. Several issues which usually escape (but ought not) analysis and research include completeness in terms of all aspects of the training programme, structure, process and outcomes.

In Weiss, (1965) a list of the following measures of success was given: (1) trainee response, (2) changes in knowledge gathered from pre- and post-tests, (3) changes in attitudes gathered from standardized tests using practice based experimental groups, (4) predisposition to practice based upon appropriate and useful training content and a situation on-the-job allowing for actual application of new training, (5) changes in job performance noted from supervisor, supervised, peer, client and/or self-rating and (6) effect on clients. Weiss further suggests using her six measures in sequence to obtain a three-part analysis: (1) Did trainees learn? (2) Did those who learn put it into practice? (If not, why not ?) and (3) Did those learning, practising trainees have better results with trainers?.

On the other hand of the controversy is Campbell et al (1970) who would like to

see more objective measures used. They found that little of the training is transferred to job-setting and in some cases a change in the opposite direction results.

Some efforts to measure back-home effects of training in comparison with trainee self-evaluation have been made. The results are staggeringly poor. So Weiss (1965) cites a study done in Harlem where trainee satisfaction was found not to be significantly related to any objective measures of training effectiveness: change in attitude, knowledge or job performance. In another study Gottschalk *et al* (1969) ran their evaluation on a continuing education programme involving mental health institutional staff in Ohio. Subjects participated for one month in training which included lectures, small group discussions and site visits. Most of the evaluation measures used were sent a question-naire concerning their goals for the training and anticipated changes in behaviour. On the first and last days of training two rating scales were completed which addressed the issues covered in the training programme. Statistical analysis reveal some consistent changes. However, trainee responses regarding the merit of the programme were re-personally owned and used to give direction preceding training and/or work assignment. Oglesby also offers four criteria for assessing specific training objectives. One of such is relevance of objectives to training and trainee needs (Guttentag *et al*, 1975).

The ultimate goal of professional training or re-training is to improve job competencies. Transfer is therefore an important assumption made in education and Whitesell and Pietrus (1965) outlined some general principles is that objectives define the task, conditions and level of proficiency expected. Evaluation follows naturally from this.

Very crucial to any programme is evaluation. Trainee satisfaction is a typical method of evaluation of training programmes. While a school of thought holds the validity of self-reports as a meaningful evaluation tool for measuring training

effectiveness, another school of thought disagrees. This issue bears a great import on the proposed study and also in the training of all professionals.

There are numerous training programmes which are evaluated solely upon trainees satisfaction ratings - both verbal and written - usually obtained immediately following the training prior to return to their jobs

On one side of the controversy, Andrews, (1966) argues in favour of trainee self-report as a valid method of evaluation. He conducted an extensive survey of 6,000 business-men who completed questionnaires on 2-13 week courses from the Harvard Business School. In spite of the fact that initial preliminary interviews found trainee self-reports not to be supported by other reports of actual behaviour change, he proceeded to send out questionnaires. Andrew found that 80% of the business men responded favourably and would attend additional courses were their companies to afford them the opportunity. Even in the corporate business world he notes the gaping absence of objective evaluation on employees or third work after completion of course work. Andrews rationale is that subjective self-report is valid in its own right, that the individual acts as his or her own pre-post control much as do separate groups of subjects.

Still on the same side but with a little modification is Burgoyne (1975) who has examined the judgement process underlying the formation of evaluation opinions of six alumni of a graduate course in business via an inductive protocol analysis of trainee recordings. He surmises that opinion-based follow-up of training programmes may yield valid results if training judgements embody the logical and scientific procedures that give validity to experimental studies. The above study attempted to answer two questions: mainly whether typically, trainees make valid evaluation judgement and whether if given appropriate evaluation instruments, trainees will appear to be capable of making valid judgements. He found that expectations prior to training play a part in evaluation judgements.

His report identifies four general types of valued outcomes:

- (1) Financial
- (2) Occupational
- (3) Intrinsic enjoyment of the course, and
- (4) self-respect/self-actualization. Perhaps people enrol in training to be socialized and gain competencies.

Between the course and learning, Burgoyne add the experience of course and a part of the behaviour change is self-respect. Self-respect is not an objective measure and learners vary in their judgment because of the mental pictures which are more complex than the axiomatic chain of events in stimulus and response.

In conclusion, he notes that objective criteria were not sufficient measures of evaluation, that satisfaction was also important. His final conclusions do suggest that trainees are capable of including validating elements in their judgement process. But he advocates caution in generalizing the result of his study.

Appraisal of Literature

From the foregoing literature review, it is apparent that some thoughts had been given to the methods of adult learning. Most of the studies show the positive impact of knowledge of learning objectives, the relative disadvantage of lecture and the advantage of an active-directive learning strategy on trainee cognitive performance.

Suggestion is made of the possible impact of learning method on the enhancement of self-concept. In addition, the method of learning is highlighted as being contributory to report on perception of programme (satisfaction).

However, this review did depict that the thoughts need further clarifications because of the inadequacy and leanness of empirical research around the body of

knowledge. One area of concern is to determine the relative efficacy of active-directive learning strategy over lecture method in the total learning experience.

Furthermore, more effort is needed to study the learning needs and greater adult involvement in the learning process. While this study cannot begin to address the multitude of gaps which exist, it perhaps, will highlight a few incremental pieces of knowledge to the widening theory and practice of adult education.

Hypotheses:

The following hypotheses were tested in an effort to answer some of the above questions. They were nine in number and were tested at .001 level of significance.

- H1: Treated subjects will show no main significant increase in self-concept compared with untreated subjects.
- H2: There will be no significant increase in the self-concept of learners with initial high self-concept in the active-directive group when compared with the high self-concept control learners.
- H3: The high self-concept active-directive strategy group will not be significantly superior to the low self-concept control group on the self-concept scale.
- H4: There will be no significant difference between the active-directive high self-concept learners and the high self-concept control learners on the perception of programme measure.
- H5: There will be no difference between the high self-concept active-directive learners and the low self-concept control group learners on the perception

of programme scale.

- H6: There will be no significant difference between the active-directive low self-concept group and the control low self-concept group on the perception of programme scale.
- H7: There will be no significant difference between the high self-concept active-directive learners and the high self-concept of the control group on the cognitive performance measure.
- H8: There will be no significant difference between the high self-concept active-directive learners and the low self-concept control learners on the teaching effectiveness (cognitive) scale.
- H9: There will be no significant difference between the low self-concept active-directive learners and the low self-concept control learners on the cognitive performance scale.

CHAPTER THREE

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DESIGN AND PROCEDURE

The research was conducted in just one phase - the main research phase

Design

This study adopts a 2 x 2 factorial design in which Active-Directive programme is used as the main treatment programme with the control. The treatment programme effects are then considered along two levels of high and low self-concept of the treated subjects.

STRATEGIES	HIGH SELF-CONCEPT	LOW SELF-CONCEPT
Active-Directive	Active-Directive (HSC)	Active-Directive (LSC)
Control	Control (HSC)	Control (LSC)

The resultant design is a four-cell structure consisting of Active-directive, High Self-Concept and Active-directive, Low Self-Concept and Control, High Self-Concept and Control, Low Self-Concept.

Population

The population of this consists of certificated professional teachers in Nigerian Primary Schools. These are those with a maximum of Grade Two Teachers' certificate and who have been teaching for at least five years. They must not just have finished a course nor be enrolled in one at the moment. Such a population cannot be listed for sampling purposes. (Babbie, 1986, P.163). This is because of its vastness.

Sample

Of this population, one hundred teachers were sampled from selected schools within Ibadan Municipality. The sample may not be large but it is still appropriate

as the Central Limit Theorem says that only a sample of less than 30 for an considered inadequate experiment may be considered adequate. The sampling procedure adopted is Cluster Sampling. This is a system usually adopted when it is impossible or impractical to compile an exhaustive list of the elements comprising the target population. The homogeneity of the element of certification ensures representativeness of each cluster. The cognitive processes of the subjects (adults learners) are characteristic of adults in general and cannot be location specific. Subsequently, rurality or urbanity were not considered; hence the choice of Ibadan municipality.

Subject participation was voluntary; anything contrary would have meant an infringement on adults' self-directiveness. Voluntary participation is the only categorising factors in the sample. Sex and age were not considered in their effects. The age range was between 28 years and 50 years. The average age therefore was 39 years .

Tuition was not charged from the learners neither were they given remunerations.. This was to forestall possible bias thus leading to confounding results. The researcher went round schools in Ibadan city to solicit the participation of the subjects. The researcher did not involve government because this population of adults will not be compelled into a programme even by government except their jobs are put at stake. Since the content of the programme is relevant to every teacher, the teachers' interest was envisaged. It was expectedly enlisted, moreso since compulsion was not employed. They were assigned into groups according to their self-concept measure; whether high or low.

Instrumentation

The instruments in this study are three altogether. The first is the Teaching Effectiveness Scale. It derives from the learning material and consists of 40-multiple choice objective questions generated as to elicit points which are focused

on in the learning objectives. Ample time was allowed for the answering of the questions. This is appendix A. The reliability index is $r = .89$

The second is the Adult Learner Perception of Programme Scale. It is basically an opinion of the subjects' self-report regarding their learning and satisfaction. This might be seen as a reaction form. A test-retest reliability of $r = 0.98$ over a two-week interval was established. It consists of 30-items which the subjects are requested to rate to indicate their level of satisfaction and estimate of learning as a result of each strategy in the workshop. This is appendix B .

Lastly, there is the Akinboye's (1976) Self-Concept Scale with which the learners were divided into two groups of high and low self-concept. The reliability was established by the use of test - retest method and they all prove to have a high level of internal consistency this scale has a high degree of internal consistency indicated by the coefficient alpha of 0.75. This is a proof of acceptable degree of internal consistency reliability. A test retest reliability of $r = 0.86$ over a two week interval was also established for the scale. Appendix C depicts this.

The scale consisted of thirty items each scored on a five-point sub-scale ranging from one to five. The sum of the points on all the items consist of subjects scores on the scale.

All the tests were administered pre and post treatment. Strict short time allowance is avoided in the workshop as this is a hampering factor in the optimal performance of adult learners.

Validity of Research Instruments:

Validity of an instrument deals with the ability of that instrument to measure successfully what it is supposed to measure.

In order to establish face validity for the instruments newly developed and used in this study, (Adult Learner Perception of Programme Scale and Teaching Effectiveness Scale), curriculum experts were consulted for advice and suggestion on this determined the inclusion of each item. Central in this list is the researcher's supervisor.

To determine the appropriateness of language; primary school teachers were hand-picked to make respond to the scales. From these responses, the instruments were vetted for vocabulary level and ambiguity.

Procedure: General Overview

The session by session execution of the workshop plan is describe in this session.

The main experimental group; the Active-Directive group was given session by session objectives which were clearly written on the board. A brief instruction was given on the content of each day's topic.

Live modelling of target behaviour with discriminative cues were given.

The subjects rehearsed the model with prompting and shaping in simulation. Performance feedback was given to make room for adjustment. This was after the rehearsal and it came from both the trainer and co-trainees.

Finally, the feedback was used to shape behaviour to conform to criterion and to maintain skills through further rehearsals.

The control group received straight lecturing. Questions and note-taking were allowed.

Introduction to the experimental session is given here.

The experimenter explained to the trainees that the purpose of the research was to find more effective methods of teaching adults. The relevance and advantage of the programme content (titled "Teaching Effectiveness") to the subjects' profession is also explained and emphasized. With this, possible fear was allayed and the subjects' interest was enlisted.

Prior to any formal training activity, each subject was given the Self-Concept Scale, the Perception of Programme Scale and the forty-item multiple choice questions on Teaching Effectiveness which was constructed by the researcher in consultation with practitioners in the field of teaching as a process.

The items are constructed to represent the various objectives and the major content of the workshop. Correct responses are assigned to one of the four choices according to a random number schedule. This serves as the pre-test.

Lastly, on completion of the whole training exercise, the three criterion scales (the same for pre-test) were administered - as the post-test. The initial scores on the self-concept scale was used to divide the subjects into groups of high and low self-concept.

Session by session activities

Session One

Procedure:

Step I: The trainer writes objectives on the board as follows: Learners must be able to say the important goal in the teaching process and adopt this in their lessons.

Step II: Trainer gives instructions briefly on what a teacher's goal ought to be or how he should perceive his duties. She highlights the child as the important party in the teaching process; stressing that the focus ought to be the child's

growth and development.

Step III: Trainer models a classroom teacher who scolds and bullies the children. He is repressive, correcting and punishing. The children (in simulation) are taught everything. Room is not given for personal discovery.

Step IV: Trainer also models a teacher who teaches a lesson, links it with the experiences of the pupils, asks them questions on it and generally gets the children to be able to say at the end of the lesson that they have learnt some things beneficial to them.

In the first lesson, students are withdrawn while in the second they were lively and enthusiastic.

Step V: Some of the trainees (subjects) were asked to model the second situation only while the trainer prompts and shapes the behaviour as deemed necessary.

Step VI: Trainee's performance of skill was judged immediately by the trainer and subsequently by other trainees. No negative statements were allowed.

Step VII: This rehearsal and feedback were repeated until criterion behaviour was reached.

Session Two

Step I: Objective was written on the board.

Objective: It is needful to adhere to measurable objectives in a teaching situation.

Step II: Brief lecture is given on the need for setting measurable objectives in any teaching engagement.

Step III: Trainer models a teaching session in which a teacher puts down his

lesson plan giving attention to the writing of measurable objective and not veering off it while teaching. This is what he evaluates at the end of the lesson.

Step IV: Volunteer trainees too rehearsed teaching sessions and focused on the setting of objectives, adherence to it and evaluation of it at the end.

Step V: Those who still did not frame their objectives well were corrected by their co-trainees and the trainer but without any negative word.

Step VI: This aspect of rehearsal was repeated until trainees reach target behaviour.

Session Three

Objective: Trainees should be able to write a logical lesson plan and follow it through a lesson.

Step I: Trainer gave a brief instruction on the importance and usefulness of a plan. After that, she directed the attention of trainees to her self so that every step she took was watched.

Step II: Trainer modelled a teacher at home preparing a lesson for the next day. He wrote a lesson note on the board which served as a personal note. He highlighted every aspect of the lesson including the teaching aids.

Step III: While some trainees rehearsed what the trainer had modelled, others watched and noted critical behaviours.

Step IV: The observed behaviours in step three were the critical aspects on which feedback was given.

Session Four

Objective: Trainees must be able to see the classroom as an interactive atmosphere.

Step I: Trainer gave a brief instruction on the classroom as an interactive atmosphere.

Step II: Trainer modelled a classroom situation involving discussion.

Step III: Trainer modelled a situation in which there was interaction between teacher and students, questions came from student to teacher and between student and student.

Step IV: Some trainees volunteered and presented lessons (rehearsals) in which were inculcated this objective and highlights of the modelling sessions.

Step V: Trainers and observing trainees gave feedback which served to modify initial rehearsal of the model. Finally satisfactory behaviour was exhibited and rewarded.

Session Five

Objective: Trainees should be able to distinguish discipline from indiscipline.

Step I: Trainer gave a brief lecture on discipline as a way of promoting constructive and positive behaviour.

Step II: Trainer modelled some classroom situations in which learner' behaviours are guided into constructive useful and positive direction.

Step III: Trainees rehearsed the models and quite often fell into viewing discipline as laying down rules and or enforcing obedience and conformity. This feedback was given.

Step IV: Trainer re-modelled the criterion behaviour, then asked for rehearsals by the former trainees and by new ones until target behaviour is reached.

Session Six

Objective: Trainees should be able to define reinforcement and apply it appropriately.

Step I: Trainer gave a brief instruction on reinforcement and the need for its use.

Step II: Trainer models classroom situations in which reinforcement techniques were adopted.

Step III: Trainees rehearsed the model in their own teaching sessions.

Step IV: Trainer and fellow-trainees gave feedback with which rehearsal is repeated till criterion behaviour is reached.

Session Seven

Objective: The trainees should be able to set out the communication channel diagrams and show this knowledge while teaching.

Step I: Trainer gave a brief instruction on teaching as a communication process. A communication channel is drawn. This is rubbed off leaving only objectives.

Step II: Trainer modelled an effective teaching session where communication was two-way directional, the language was at the level of the receivers. Interferences like noise and trainer idiosyncrasies were avoided.

Step III: Trainees rehearsed the model.

Step IV: They were given feedbacks and they rehearsed and then the feedbacks were given. The cycle continued until criterion behaviour was attained.

Session Eight

Objective: Conduct a class session in a democratic approach (b) Identify the role of each party.

Step I: Trainer gave a brief instruction on democratic environment; the role of each party in it and its advantages. This is contrasted with other approaches.

Step II: Trainer modelled an autocratic teacher while trainees watched learners response in that class.

Step III: Trainer modelled a democratic teacher; who uses discussions, dialogues, consultations and whose communication line with the children is open. The class is arranged in an informal way. Repression and Laissez-faire attitude were removed. The teacher acts the leader in a communal environment.

Step IV: Trainees were asked to rehearse step three.

Step V: Feedback was given.

NOTE: This needed many rehearsals after feedbacks probably because teachers are too used to an autocratic approach.

Session Nine

Objective: Identify teacher demeanour that builds up both his confidence and enhances his teaching with the children.

Step I: Trainer gave a brief lecture on teacher demeanour such as enthusiasm and the

pros and cons of each attitude.

Step II: Trainer modelled a warm, enthusiastic and confident teacher.

Step III: Trainees rehearsed the role played while co-trainees watch on and later gave feedback.

Step IV: This feedbacks caused corrections to be made and rehearsals to be repeated until criterion behaviour was reached.

Session Ten

Objective: To show the minimal use of passive teaching techniques like lecture and recitation.

Step I: Trainer modelled a classroom teaching in which little (if any) form of memorization is used.

There was much discussion, assignment, use of teaching aids, group and projects.

Step II: Trainees rehearsed the modelled behaviour.

Step III: Co-trainees gave their feedbacks and necessary readjustments were made at further rehearsals in order to meet criterion behaviour.

As the various sessions were going on for the experimental group, the control group were being treated with pure lecture method. Allowance was given for a few questions and note-taking was freely allowed. Subjects in the two groups were differently situated for the avoidance of crossing of information.

Data analysis

The statistical method of analysis of covariance used to test the hypotheses combined the advantages of regression analysis and analysis of variance. It accomplished a statistical matching of the subjects. It also removed extraneous variation on the criterion variable by adjusting for pre-treatment differences among subjects on each criteria.

The use of this method was justified by a proper randomization in the assignment of subjects to the groups in addition to the conduct of pretest.

The t-test statistics was used to determine the source and direction of any significant difference among experimental groups revealed by the analysis of covariance. Such t-tests were computed on the adjusted post-test means, using the standard error of means method. The t-tests were calculated manually.

Significant tests were measured at .001 level of significance.

CHAPTER FOUR

RESULTS

In this chapter, the results of the study are presented in form of tables to which references are made. The results are presented hypothesis by hypothesis. General conclusions from the findings are also drawn from each of the nine hypotheses.

Equivalence of groups

The subjects in both experimental (Active-Directive) and control groups were equated by ensuring that each group had about the same number of subjects. Subjects were reasonably matched on self-concept; a critical variable for the study.

Fostering Self-Concept through Active-Directive Learning Strategy

Hypotheses one, two and three deal with fostering self-concept. The first hypothesis postulates that treated subjects will show no main significant increase in self-concept when compared with the control subjects. Tables 1, 2 and 3 indicate that there is no significant difference in the self-concept of the treated and control subjects.

The results of the analysis of covariance for the main effect of Active Directive treatment on self-concept are presented in Table 2. It indicates a no significant F-ratio (0.71, df 1/96). This was for the main effect of the treatment strategy on self-concept. Consequently the first hypothesis was accepted.

Differential Effectiveness of Learning Methods and Level of Self-Concept

The second hypothesis states that there will be no significant increase in the self-concept of learners with initial high self-concept in the active-directive group when compared with the high self-concept learners in control.

TABLE 1

Analysis of Means of showing effects
of Active-Directive and Control Strategies
on the Self-Concept Measure

Rows	Column 1				Column 2			
	N	X -X's	Y - X's	Adjusted Y - \bar{X} 's	N	X -X's	Y -X's	
Active – Directive	25	107.64	103.08	101.08	25	89.0	96.0	98.87
Control	24	107.42	101.25	98.68	26	91.46	95.89	98.03

*Rows - Learning Strategies

Columns - Levels of Self Concept

FIGURE 1
Rows and Columns Adjusted Y - X's Compared

(a) Active – Directive 101.083 (High)	(c) Active – Directive (Low) 98.87
(b) Control (High) 98.68	(d) Control (Low) 98.03

TABLE 2
Analysis of Covariance on (Adjusted Y - X's)
of Self – Concept Measure

Source	SS	DF	MS	F	P
Rows	2.67	1	2.67	0.71	NS
Columns	2.08	1	2.08	0.55	NS
Interaction	0.57	1	0.57	0.15	NS
Within		96	3749		

Row: Learning Strategies.
 Columns: Levels of Self – Concept.
 NS = Not Significant.

TABLE 3

t - test Comparison of Rows and Columns
Adjusted Y - X's Pooled S.E. Computed
from Least Mean Squares Variable 1

L. M. S. 0.57 and t - values

Cells	N	LMS	Pooled S. E.	Df	t - value	P
Active - Directive High Self - Concept Group Vs High Control	49	0.57	0.25	47	9.62	<.100
Active - Directive High Self - Concept Group Vs Control Low	51	0.57	0.21	49	14.53	<.100
Active - Directive (Low) Vs Control Low	51	0.57	0.21	49	14.53	<.100

Rows - Learning Strategies.

- (i) Active - Directive Method.
- (ii) Control - Lecture Method.

Columns - Levels of Self - Concept.

- (i) High.
- (ii) Low

Figure 1 and Table 3 both indicate the within group differences. They are both used to test this hypothesis. Notwithstanding the observed main no significant difference, slight differences were observed at the mean level in favour of the experimental group. The tests of statistical significance show that active-directive high self-concept group was superior to the control high self-concept group ($t=9.62$, $df47$, $p<.001$) Active-directive was quite superior to lecture method. The hypothesis was rejected.

The third hypothesis states that the high self-concept active-directive group will not be significantly superior to the low self-concept control group on the measure of self-concept. Referring again to Table3 on the tests of statistical significance; a significant difference was indicated. The high self-concept active- directive group were superior to low self-concept group.

($t = 14.53$, $df = 50$, $p<.001$).

It was inferred that active-directive strategy effectively increased the self-concept of subjects compared to the control method (Lecture). Consequently, the third hypothesis was rejected.

Effect of Treatment on perception of Programme (Satisfaction)

The fourth hypothesis states that there will be no significant difference between the active-directive high self-concept learners and the high self-concept control learners on the perception of programme measure. In order to test this hypothesis, three analyses were carried out on the measure of perception of programme. The results are contained on Tables 4, 5 and 6.

The results of the analysis of covariance for the effect of learning strategy and level of self-concept on perception of programme are presented on Table 5. There was a significant treatment effect ($F = 9.48$, $df = 1/96$, $p < .001$). The effect of the level of self-concept was not significant ($F = 0.02$, $df = 1/96$) But the test of statistical significance (Table 6) show that the active-directive group with high self-concept

TABLE 4
Analysis of Mean Scores on Perception of Programme Scores

Rows	N	$X - \bar{X}$'s	$Y - \bar{Y}$'s	Adjusted Y - Means	N	$X - \bar{X}$'s	Y - X's	Adjusted Y - Means
Active - Directive	25	100.25	108.36	107.42	25	92.28	106.12	106.74
Control	24	95.96	100.46	100.38	26	93.58	100.12	100.52

Rows - Learning Strategies.

Columns - Levels of Self - Concept.

FIGURE 2

Row And Columns adjusted Y - X's compared

(a) Active - Directive (High)	(c) Active Directive (Low)
(b) Control (High) 100.42	(d) Control Low) 100.52

TABLE 5Analysis of Covariance on Adjusted Y - X's
of Variable 2 - Perception of Programme Scores

Source	SS	Df	MS	F	P
Row	43.86	1	43.86	9.48	<.001
Column	0.078	1	0.0	0.02	NS
Interaction	0.164	1	0.18	0.04	NS
Within	11093.94	96	4.63		

TABLE 6

t – Comparison of Rows and Columns
of Adjusted Y – X's Pooled S. E. Computed
from Least Mean Squares

L. M. S. = (0.08)

Cells	N	LMS	Df	Pooled	t – value	P
(i) Active – Directive (High) Vs. Control (High) Self – Concept	49	0.08	47	0.081	87.92	<.001
(ii) Active – Directive (High) Vs. Control (Low) Self – Concept	51	0.08	49	0.08	86.19	<.001
(iii) Active – Directive (Low) Vs. Control (Low) Self – Concept	51	0.08	49	0.08	77.79	<.100

was superior to control, high self-concept ($t = 87.92$, $df = 47$, $P < .001$). The hypothesis was therefore rejected.

The fifth hypothesis states that there will be no significant difference between the high self-concept, active-directive group and the low self-concept control group. The result of covariance on Table 5 indicate the treatment effect. The tests of statistical significance (Table 6) show that active-directive group with the high self-concept was superior to the control with low self concept ($t = 86.19$, $df = 47$, $P < .001$). The hypothesis was rejected.

Lastly on perception of programme, the sixth hypothesis postulates that the active-directive low self-concept will not be significantly different from the control, low self-concept. Active-Directive was significantly superior to the control group ($t = 77.79$, $df = 49$, $P < .001$). The hypothesis was rejected.

It was deduced that Active-Directive strategy more effectively enhanced positive programme perception. Consequently, the sixth hypothesis was rejected.

Effect of Treatment on Cognitive Performance

The seventh hypothesis states that there will be no significant difference between the high self-concept active-directive learners and the high self-concept control learners on cognitive performance. To test this hypothesis, three analyses were carried out on the measure of subjects' cognition. The results are presented on Table 7, 8 and 9. The result of the analysis of covariance for the effects of learning strategies on learners' cognitive performance indicate a significant treatment effect in favour of active-directive generally ($F = 17.64$, $df = 1/96$, $P < .001$). For the seventh hypothesis stated above, the statistical test of significance (Table 9) shows that the active-directive high self-concept group was superior to the control high self-concept group ($t = 19.63$, $df = 47$, $P < .001$). The hypothesis was rejected.

The eighth hypothesis states that there will be no significant difference between the high self-concept active-directive learners and the low self-concept control learners.

In the t-test analyses (Table 9) for column and row comparison of Y-X's, the

TABLE 7

Analysis of Mean Scores of Subjects on Cognitive Performance

Rows	N	$X - \bar{X}$'s	$Y - \bar{X}$'s	Adjusted $Y - \bar{X}$'s	N	$X - \bar{X}$'s	$Y - X$'s	Adjusted $Y - X$'s
Active Directive	25	18.04	24.68	25.02	25	18.84	25.76	25.58
Control	24	18.13	20.42	20.70	26	19.19	23.23	22.82

FIGURE 3

Rows and Columns Adjusted Y -X's Compared

(a) Active - Directive 25.02 (High)	(c) Active - Directive 25.58 (Low)
(b) Control (High) 20.70	(d) Control (Low) 22.82

TABLE 8

Analysis of Covariance on Subjectives
Cognitive Performance

Source	SS	Df	MS	F	P
Rows	12.53	1	12.53	17.64	<.001
Columns	1.781	1	1.78	2.51	NS
Interaction	0.607	1			
Within	1703.1876	96	0.61	0.86	NS

N. S. = Not Significant

TABLE 2

t - test Comparison of Rows and Columns
of Adjusted X - X's Pooled S. E. Computed
from Least Mean Square

Cells	N	LMS	Df	Pooled S. E.	t - value	P
(i) Active - Directive (High) Vs. Control (High) Self - Concept	49	0.61	47	0.22	19.63	<.001
(ii) Active - Directive (High) Vs. Control (Low) Self - Concept	51	0.61	49	0.22	12.02	<.001
(iii) Active - Directive (Low) Vs. Control (Low) Self - Concept	51	0.61	49	0.22	11.04	<.100

active-directive high self-concept was superior to the control, low self group ($t = 12.02$, $df = 49$, $P < .001$). The hypotheses was rejected.

Lastly, the ninth hypothesis postulates that there will be no significant difference between the low self-concept active-directive learners and the low self-concept control learners's on the cognitive performance measure. The tests of statistical significance (Table 9) showed that cognitive performance significantly varies with learning strategy employed ($t = 11.04$, $df = 49$, $P < .001$). The hypothesis was rejected. The low self-concept might have lowered the t-value.

Summary of Results

The major results of this study are as follows:

- (1) The result of the investigation of the effect of treatment on self-concept showed no statistically significant main effect (Table 2) ($F = .71$, $df = 1/96$, NS). So none of the methods showed statistically significant main effect on self-concept. However, notwithstanding the observed no significant difference, some within group difference were observed at the mean level in favour of active-directive group (Table 3). ($t = 9.62$, $df = 47$, $P < .001$), ($t = 4.53$, $df = 49$, $P < .001$).

The results of the investigation of the treatment and levels of self-concept on perception of programme scale showed a statistically significant main and within group effects (Tables 5 and 6). ($F = 9.48$, $df = 1/96$, $P < .001$) ($t = 87.92$, $df = 47$, $P < .001$). Active-directive was superior to control.

The result of the investigation of the effectiveness of treatment on cognitive perception at varying self-concept levels showed a significant treatment effect (Tables 8 and 9) ($F = 17.64$, $df = 1/96$, $P < .001$). In each case, active-directive was superior to the control treatment.

($t = 19.63$, $df = 47$, $P < .001$)

($t = 12.02$, $df = 49$, $P < .001$)

($t = 11.04$, $df = 49$, $P < .001$)

Levels of self-concept did not seem to have significantly interacted with the learning strategies for all the three variables. (Tables 2, 5 and 8) indicated no significance under the columns.

Summary of Conclusions

Within the context of this study, the following conclusions can be made on the basis of the above results.

- (1) The treatment strategies adopted in this study did not significantly foster self-concept in the treated subjects. However, Active-Directive has a noticeable enhancing effect on self-concept.
- (2) Self-concept did significantly enhance the treatment for both satisfaction and learning (Perception and Cognition).
- (3) The treatment strategy made the learners perceive the programme more favourably than the control group did.
- (4) Cognition was more enhanced by the treatment strategy than the control group.

CHAPTER FIVE

DISCUSSION

This chapter discusses the findings of the study following the stated hypotheses. The findings are put within the context of existing knowledge about the nature and treatment of adult learners.

Discussion of Findings

The first hypothesis states that treated subjects will show no main significant increase in self-concept when compared with untreated subjects. The results obtained in the study confirmed the hypothesis. The treated group did not significantly vary in score from the control group. This finding contradicts observation from the work of Eheazu (in Oyedeji, 1988). Active-directive strategy is a non-formal form of presentation and seems suitable to the social and educational experiences of adults. The adults' involvement in the learning process ought to have enhanced the self-concept of the learners. Explanations for the finding need be sought from other areas.

Self-concept is a product of many factors, some are cultural. Inner cognitive map or frame of reference was built over a prolonged period. It is little wonder then that a learning method would not drastically alter such set attitude especially in such a short period. However, it is pertinent to realize that a learning method that will enhance the self-concept will be more appropriate. Notwithstanding, the within group interaction is more and it is more revealing.

Hypothesis two states that there will be no significant increase in the self-concept of learners with initial high-self concept in the active-directive group when compared with the high self-concept control learners. The adjusted mean scores are 101.83 and 98.68 respectively. Here the difference is significant. Table 3 indicates a significant difference within the groups. Since the two groups have initially high self-concept, then the effect of difference in learning strategies is confirmed. Active-directive indeed fostered self-concept when the learners have initial high self-concept. Active-directive is a learning - facilitating environment. The mere involvement of learners in the process, with its unique interactive nature made them to be ego-involved in learning as Knowles (1980) observed. The learning transaction became (in active-directive strategy) the mutual responsibility of both learners and teachers. The adult trainer in the study assisted but did not remove from the adult the total responsibility

and execution of learning. To the adult, this would seem that he is positively valued. The "other-opinion" is also an integral part of self-concept. This mutual relationship is characterised by independence and respect for the integrity of the adults. A relationship of this kind might have brought about changes on the affective or cognitive component. Research indicates that if one component is modified, the other too will be modified in order to re-establish affective-cognitive consistency (Second and Backman, 1964). The various attributes of each component of active-directive strategy must have increased the amount of positive affect an adult has towards himself.

The third hypothesis states that the high self-concept group will be significantly superior to the low self-concept control group on the self-concept scale. Table 3 also indicates some effectiveness of the treatment group at the adjusted mean level (101.08-93.03). Figure one clearly shows this within group effectiveness at the adjusted mean levels.

It is observed that there is a drop in the self-concept levels of the two groups after being adjusted. Self-concept of subjects exposed to active-directive learning strategy dropped from 103.72 to 101.08 while that of the control high self-concept subjects dropped from 101.25 to 98.68. The difference between their differences (2.64 and 2.60) is non-significant. But there is a significant difference between their two means in favour of the active-directive high self-concept group. The observed drop in self-concept may be explained in terms of sudden fear of failures as the trainees realized that they were facing an evaluative situation. The safety in this opinion is that the drop is mutual for the two groups.

Results of several studies (Pine and Boy, 1977 and Bates, 1979) showed that adult learners' self-concept will be enhanced if the learning strategy is motivating and precludes any form of institutional threat. The slight change can only be explained in the light of the characteristic of active-directive learning strategy especially its aspect of positive feedback. Person-centred models are most relevant to the affective dimension of learning and lead to attitude change, to an understanding and awareness of personal meanings and values and to positive changes in the self-

concepts and self-esteem.

A feature of the study which might have constrained the effectiveness of the treatment to have significantly enhanced self-concept is the duration of the study. Self-concept is an ingrained attitudinal characteristic, it therefore might have needed a much longer time for it to respond to any treatment. However learners whose entry self-concept scores were high were advantaged. Cognition may respond more readily to change because it is a change in factual information.

Active-directive strategy, with its various components sustains adults' interest and strengthens motivation. The strategy enhances in the learner the feeling of self-directedness. Knowles, (1970) posits that if the learners are ego involved in the actual learning, their psychological environment will be supportive of mutual inquiry and involvement. Other works, (Smith, 1976), (Law, 1976), (Tough, 1971) and (Rubin, 1969) support this view. This may possibly explain for the slight differences in favour of active-directive strategy. Initial self-concept level notwithstanding, subjects' self-concept increased in the active-directive group.

Lecture method has been hotly criticised (Freire, 1973) for the enhancement of adults' personality as it encourages passivity and the learner is hindered from exhibiting initiatives. On the contrary, active-directive technique fostered self-concept. It is an interactive situation. Self-concept is essentially an expression of one's values and expression and as such it is not readily influenced by a didactic method. Moreover, the non-significant main difference observed may be a result of subjects' inability to make accurate judgement about or to express positive feeling about changes in values.

Once the method obviates the possibility of an adult seeing himself as being treated like an overgrown child, his self-image and confidence are enhanced. This is necessary because adults tend to have a low self-concept. In Nigeria, adult

education elicits from both society and even the adults a feeling of incompetence. Hence, the need to identify a means of altering this poor self-concept through processes that will enhance it such as a method that actively involves the learner. As Eheazu (in Oyedeji, 1988) submits, adult learners generally would develop a sense of recognition if their views and preferences are incorporated in an educational or training programme.

The fourth hypothesis states that there will be no significant difference between the active-directive high self-concept control learners on the perception of programme measure.

To test this hypothesis (like others under perception of programme), three analyses were carried out on the measure of perception of programme. The results obtained in this study contradict this hypothesis. The treated group scored significantly higher than the control group. This hypothesis was not accepted on the basis of the results of this study. The adjusted means of perception scores for subjects exposed to active-directive and control were 107.42 and 100.38 for the high self-concept in both groups. The difference of 7.04 is quite significant. Active-directive strategy proves superior to lecture in enhancing positive perception of programme which is in this study an index of satisfaction. The superiority of active-directive over lecture requires justification. Active-directive involves learners more than lecture method. So long as the chain of objective-setting, brief instruction, modelling, rehearsals, feedback and re-modelling remains unbroken subjects opinion of the whole programme tends to become favourable. In fact, the guarantee of immediate feedback and reinforcement receiving has the effect of making adults less tensed up, feel unthreatened and they could learn in a relaxed, non-formal setting. These effects confirm (Boshier, 1975) that the act of receiving reinforcement tends to reward the adult learner. This result also confirms Lechowicz (1975) who noted that learners evaluated programmes more favourably when detailed planning and objectives are given at the outset of the courses. It is also consistent with Beck and Hilman's (1976)

scheme of management by objectives which operates on the premise that performance improves when objectives are specifically defined in measurable terms.

The fifth hypothesis states that there will be no difference between the high self-concept active-directive learners and the low self-concept-control group learners on the perception of programme scale. The results contradict the hypothesis. The respective adjusted means are 107.42 and 100.52. A difference of 6.90 is yielded. This is significant. The treatment approaches were not uniformly effective.

This result stands on its own in that no direct work has previously suggested that high self-concept will boost active-directive strategy on perception. The subjects in the control who also had low self-concept seem to be at a double disadvantage in their perception of the programme. The subjects in the high self-concept group both had a high entry self-concept and a self-concept enhancing learning strategy. Subsequently, their programme perception is higher. This is attributable to self-concept, and the learning strategy. A learner whose self-image is high will find his environment readily satisfying. It is thus apparent that differential patterns of learning strategy (teacher behaviour) do have some effects of fostering different patterns of attitudes, values and motives in learners (Cropley, 1978). The socio-affective (perception) make-up of individuals is a dynamic property and it is amendable to change as a result of deliberate managing and structuring of experiences. This emphasises the point in designing different learning systems.

Hypothesis six states that there will be no significant difference between the active-directive low self-concept group and the control low self-concept group on the perception of programme scale. The adjusted mean scores were 106.74 and 100.52. A difference of 6.22 is given in favour of active-directive and it is significant. The low self-concept of each group however seems to have reduced positive perception of the programme; as indicated in figure 2 where the high self-concept (H.S.C.) have 107.42 and the low self-concept of the same learning strategy

have 106.74 on the programme perception scale. Similarly for the control group, both the high self-concept and low self-concept subjects have 100.38 and 100.52. A difference of 0.68 and 0.14 respectively are yielded. Low self-concept entry pattern reduces the positive effective of a learning strategy, no matter how much it is satisfaction enhancing.

Despite the fall in satisfaction (perception) level, the treatment invariably may have been the pivot around which the observed significant difference (106.74 and 100.38) revolves. It provides evidence that though self-concept enhances programme perception, the learning strategy (active-directive) majorly fosters it. The components of the active-directive method seem congruent with adult learning theory and little wonder that adults feel satisfied about it. It corroborates the AABT institutes' findings. The adult learners there desire more of active-teaching methods than lectures which were negatively correlated with participants' satisfaction.

The control method lacks activity and participation. Research has also consistently shown that straight lectures are a poor method of changing attitude. They proceed at one pace which brings dullness and passivity. The efficacy of various components of active-directive strategy on perception has been demonstrated in several studies like (Kuehnel, et al, (1978).

Hypothesis 7, 8 and 9 deal with cognitive effectiveness in the study. The seventh hypothesis states that there will be no significant difference between the high self-concept active-directive learners and the high self-concept of the control group on the cognitive performance measure. This was to determine the relative effectiveness of each strategy. The adjusted mean scores were 25.02 and 20.70. The difference is 4.30 and it is significant. Active-directive groups were superior to the control group (lecture method). The relative effectiveness of the experimental variable may be explained from the perspective of it being a strain on the already weak short-term memory capacity of adults. The cognitive dimension of learning is closely

associated with information - processing. As Schonfield, (1966) suggested, if a loss at the remembering stage is demonstrated, it can be interpreted as due to imperfect acquisition - via an inefficient learning strategy. This is the bane of the lecture method. The association is mainly between the input and the output.

On the contrary, active-directive strategy involves rehearsal which is prepared for by placing necessary key information at the focus of attention before the need for it arises. This is the role of the objectives set at the beginning of the role modelling. Furthermore, if the number of stimulus cues that lead to a retrieval are enhanced, cognitive measure increases. Active-directive strategy employed visual input in modelling, auditory in feedback and kinesthetic in rehearsals. Plans for remembering often involve an increase in the number of associations and these serve the functions of overcoming the problem of retrieval of stored ideas (Miller et al; 1960)

Hypothesis eight too states that there will be no significant difference between the high self-concept active-directive learners and the low self-concept control learners on the teaching effectiveness (cognition) scale. The adjusted means are 25.02 and 22.82. The difference which is 2.20 is significant. The active-directive, high self-concept group is superior to control low self-concept. There is no marked difference between 4.30 and 2.20 which are the differences of the two groups in hypothesis 7 and hypothesis 8. This depicts that self-concept is also as critical a factor as active-directive strategy. So, it may have its enhancing factor too. Adults learn best through participation and active involvement both of which are absent in straight lectures. Research (Rogers, 1989) has consistently shown that lectures are a poor (ineffective) method for change. The feedback advantage which active-directive strategy has helped to remove the difficulty an adults that there is an idea or process that they have not understood.

Lastly, the ninth hypothesis states that there will be no significant difference between the low self-concept active-directive learners and the low self-concept

control learners on the cognitive performance scale. The adjusted mean scores were 25.58 and 22.82; putting the difference at 2.76. This is significant. However the significant score is lower than in the other two hypotheses. The low self-concept must have predisposed the learners to a reduced performance. Self-concept therefore enhances active-directive strategy. The knowledge of the learning objectives might have been useful as a guide to draw attention to significant content presented in modelling. Using the active-directive strategy, the components were sufficiently efficacious as to increase cognitive effectiveness. The feedback aspect is crucial, because without it, the learner is unlikely to improve. The learners receive guidance as to the correctness or wrongness of their behaviour. Thereby haphazard behaviour is eliminated. This could have confused right behaviour being identified and exhibited. Feedback improved performance which in turn serves as a motivating factor and without motivation, performance is stalled.

The feedback pattern was devoid of negativism and thus the adults' dignity was intact. This probably enhanced confidence which must have served as a motivating factor. The practice and repetition (rehearsals) aspects of active-directive helped to maintain the behaviour and sharpen it to criterion.

Summary on Discussion

The results also show that whatever the initial self-concept of the adult learner, (which is usually low in a learning context) considerable increase can be caused through appropriate learning method. Learning strategy adopted seem very crucial in the entire learning situation. This makes it clear that this group of learners are not doomed. Adults who have been classed as unable to learn could be much helped through a systematic learning strategy which incorporates basic adult needs. The strategy must also remove inhibitory factors from the process. The results also show that favourable perception of a situation by subjects can be accomplished to the extent that adults are involved in that situation; either in its initiation or its

execution.

Furthermore, the idea has been strengthened that age is no barrier to learning. A careful selection of supportive variety of techniques will enhance learning.

High satisfaction rating reflects a positive response to the treatment group. As a result of the step taken to actively involve the subjects via a combination of, setting objectives, instruction, modelling and role-playing, opportunity for feedback, an overall strong positive response was created. This high levels of satisfaction lend credence to Knowles', (1970) assertion that adults are more motivated to learn when the psychological environment encourages mutual inquiry and involvement.

Treated subject's reported estimates of learning was significant as indicated by the satisfaction scale similarly, the cognitive scale also shows significant performance. They support Burgoyne's, (1975) theory that there is a valid internal evaluation process which can be tapped if appropriate questions are posed to learners. If learners can accurately assess their learning by responding to a few pertinent questions, then objective measures of learning may (as in active-directive strategy) be presented prior to learning promotes greater learning by offering guidelines and specifying target behaviour. Setting goals for specific attainments too produces increased application of new learning in the job setting. The same theory underlies Contingency Contracting (Hommee, et al, 1970) and Management by Objectives (Beck and Hilmar, 1976). Having a roadmap which clearly indicates the destination and illustrates a direct route to follow is a proven aid to learning and accomplishment.

Moreover such activities are probably further enhanced by the awareness that one's learning and accomplishments were being monitored by someone else and would be fed back to one. Motivation is a key incentive to learning, along with reinforcement of correct behaviour, asserts Miller (1964). In addition to internal

motivation to measure up to the goals and objectives, the subjects in this group were aware that assessment of their imitation of the modelling would be given. This is a feature that ought not be overlooked since both intrinsic and external approval can be such powerful motivators.

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CHAPTER SIX.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Summary

As a result of rapid changes, there is a great need for continuing education for professionals. This is to maintain proficiency on the job. In some cases, the continuing education programmes are mandatory.

As a result of the peculiar characteristic of adults, (generally they are difficult to enlist and hard to retain in a learning programme) adult education becomes a demanding activity. Attention to the quality of the learning event or process is critical to positive outcomes and crucial to the success of the programmes. This will particularly support the avoidance of wastages. Learning method has to be arranged to increase the probability that learning will occur effectively.

The study attempted to test for the relative effectiveness of two adult learning methods on the enhancement of cognitive processes, perception and self-concept. With this, a comparison could be made and a basis for assertions found.

A study of this nature offers practical tools to adult educators involved in training and extension workers. Again the study is significant as it identifies the learning environment that will foster optimal performance. Such a learning strategy will minimize wastages and make educational resources more effective and productive. That, in sum is an important consideration for planners and policy makers. The study also contributes to the knowledge base and research on learning theory and learning process.

The objective of the study is to show that with a learning strategy that is devoid

of rigidity and closeness, and the introduction of a flexible instructional environment, learning and competence will increase among continuing learners. Furthermore, learners will be favourably disposed to the programme and their self-concept will be enhanced.

The theoretical base of the work are both learning and teaching theories. The experimental programme (active-directive) and the control relate to different theoretical aspects of learning. The first rests on observational learning and the other on the stimulus-response school. The learning process does affect cognition and by extension the total perception of the learning experience. This acquisition stage might explain the major problems of poor performance of adult learners.

Recent research effort indicate that active-directive strategy is more favourably evaluated by learners. This strategy is highly hinged on modelling. However it is enhanced by other psychological components.

Previous work directly on the experimental variable are few. However related work indicate that adults do learn, thus debunking previous opinion to the contrary. From the review also unfolds the theory of adult learning which had been building since the early part of the century.

A major issue identified in the review is the relative disadvantage of lecture method when compared with a more active approach on trainee-cognitive performance.

The study adopted a 2 x 2 factorial design. This allowed for cause-effect assertions to be made. The nine hypotheses were tested through statistical analysis of the data. The statistics employed were analysis of covariance and t-test.

The findings of this study are in line with the set objectives while some findings corroborate existing knowledge on adult learning theory, others contradict them.

strategy. This quest can, perhaps, be fulfilled in the identifying an effective method of improving the academic performance, self-concept and satisfaction of the adult learner. This study confirms that they can be improved. The establishment of this fact implies that the appropriate pedagogical procedures must be adopted so as to record the desired effects.

Mere use of lectures (with note taking and questions), may not suffice. Talking does not provide the stimulation and involvement needed. Lectures may be important in the dissemination of new ideas, but there is need to focus on the objectives of the issues in context. Furthermore, there is need for brief theoretical understanding of the issue. An active and conscious patterning of behaviour to criterion set in the objective is imperative. Also, crucial is the need to be vicariously reinforced which will accompany feedback given to the learner. This finding corroborates the opinion that merely lecturing a topic is a travesty of education.

Learning is a behavioural construct and it has a social base so it needs more than a theoretical perspective. So adult learning strategy especially training for professionals should follow behavioural components such as were reflected in the active-directive learning strategy. this proposal is based on the premise that human beings are constantly observing models.

Conclusions

From the discussions and findings in this study, it can be concluded that perception, cognitive performance and even self-concept can be fostered. This is possible by using effective training methods. It also means that educational intervention procedures should not be merely verbal and passive but also behavioural, active and dynamic in nature.

The study shows that a social learning approach (on which active-directive learning strategy is structured) is more likely to produce results in the enhancement of the adults' total learning experience.

Since the study highlights effectiveness of active-directive strategy it may mean that it incorporates principles of adult education curriculum

Recommendations

From the findings of this study, the following recommendations are made for adult educators and extension workers.

Firstly, care must be taken to choose appropriate and most effective teaching method suitable to the socio-psychological milieu surrounding the adult learner.

Secondly, adult educators engaged in continuing education should choose training strategy along the lines of active-behavioural participation. This is more likely to guarantee the attainment of the set behavioural objectives.

Thirdly, from all empirical evidences particularly the result of this study, lecture method of teaching should be seldomly employed in the teaching/training of adults. Training via lectures is somewhat nebulous that the learner may not be able to apprehend the core skills to be adopted.

Suggestions For Further Research.

This study seems to be one of the initial attempt at scientifically treating this group of adult learners in Nigeria. The specific method tested has newly come into literature and has not been tested on this group of subjects. A replication will confirm the conclusions reached. Further studies could increase sample size, or employ learners in other professions so that comparisons could be made. Other variables that may affect learning may be matched.

A post-experiment investigation could be made so that learners will give "Back-Home" report of on-the-job transfer. This will help to determine just how much of

what was learnt is transferred to work situations.

Lastly, the duration of exposure to the method could be increased to ascertain if self-concept will significantly change in relation to learning strategy.

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APPENDIX A

INSTRUMENTS

Pretest/Post-test

TEACHING EFFECTIVENESS SCALE (TES)

Please check ONE OF THE FIVE CHOICES for each item.

- 1... As teachers, we should think of our work in terms of
 - (a) The Mastery of subject-Matter.
 - (b) Hearing lessons recited.
 - (c) Child-growth and development.
 - (d) Disciplining pupils.
 - (e) A systematic drill.

2. In the final analysis, teaching must be thought of mainly as a process of
 - (a) Filling the children with new adult ideas.
 - (b) Directing the activity of pupils.
 - (c) Asking questions and appraising answers.
 - (d) Hearing the recitation of pupils.
 - (e) None of the above

3. The function of a teacher is primarily that of a
 - (a) Guardian, devoted to the preservation and transmission of our heritage.
 - (b) Ruler, determining and enforcing actions.
 - (c) Service station attendant, filling students with ideas.
 - (d) Guide, helping the child progress towards maximum growth.
 - (e) Minister, tending to the personal and spiritual needs of the children.

4. In a classroom, the teacher is best seen as:
- (a) The chairman of the group.
 - (b) The dictator of the group.
 - (c) One member of the group.
 - (d) The referee to the group.
 - (e) The director of the group.
5. In teaching, if nothing has been learnt, nothing has been
- (a) Taught.
 - (b) Studied.
 - (c) Observed.
 - (d) Reinforced.
 - (e) Assigned.
6. Educators feel that the greatest challenge in teaching lies in
- (a) Obtaining security in the teaching profession.
 - (b) Obtaining adequate financial remuneration.
 - (c) Fostering the personal growth of the teacher
 - (d) Aiding children to grow and find themselves.
 - (e) Reducing the number of children in the classroom.
7. The teacher's primary responsibility lies in
- (a) Keeping classroom records
 - (b) Implementing administrative policies.
 - (c) Planning educational experiences.
 - (d) Trying out teaching techniques.
 - (e) Promoting human relations with parents
8. A teacher today is least expected to serve as:
- (a) An encyclopaedia of knowledge.

- (b) A skilled observer and manager.
 - (c) A director of many class activities.
 - (e) A role model.
9. The major responsibility of the classroom teacher is to:
- (a) Discipline the pupils in his care.
 - (b) Cooperate with other teachers.
 - (c) Transmit knowledge of subject-matter.
 - (d) Lead and guide his class group.
 - (e) Become a pal to the pupils.
10. In planning a lesson, one of the following is crucial
- (a) Extensive reading
 - (b) Classroom arrangement.
 - (c) Writing a lesson plan.
 - (d) Collection of numerous teaching aids.
 - (e) A bulky lecture note to deliver.
11. The most important aspect of the daily lesson plan is the
- (a) Subject-matter content.
 - (b) Objectives.
 - (c) Reference cited.
 - (d) Assignments and evaluation.
 - (e) Learner activity.
12. Every well stated objective must be stated in
- (a) Plain language.
 - (b) Cognitive terms.
 - (c) Attitudinal terms.
 - (d) Measurable terms.

- (e) None of the above.
13. In preparation, two important points are:
- (a) Presence of reference books and materials.
 - (b) Presence of logically related steps and evidence of evaluation.
 - (c) Presence of resource persons.
 - (d) Availability of little gifts for reward.
 - (e) C and D only
14. To help learners get ready for a lesson you need to:
- (a) Start from a familiar knowledge to an unknown one.
 - (b) Start from an unknown to known.
 - (c) Go as the textbook dictates.
 - (d) Use the very brilliant students as your beginning point.
 - (e) It does not matter, so long as content is passed across.
15. On your first day of teaching a group of students, you need to
- (a) Be lenient with them.
 - (b) Assess the level of the students.
 - (c) Take their individual personal data.
 - (d) Be stern, so that from the onset they know they are in for serious business.
 - (e) Get acquainted with students throughout the lesson, mentioning nothing of the subject.
16. Teaching/Learning can be compared to:
- (a) Going through a puzzle-box.
 - (b) Building with a plan.
 - (c) Isrealites journey.
 - (d) Defending your view-point.

- (e) a and b only.
17. Teaching is a communicative process, so the teacher must strive to:
- (a) Communicate at learners' vocabulary level.
 - (b) Try to be himself and speak as he knows how.
 - (c) Speak in a way to prove he has an edge over the pupils.
 - (d) Strive to come so low that learners inadvertently feel unchallenged.
 - (e) C and D only.
18. Teaching techniques must encourage
- (a) Student-active engagement.
 - (b) Absolute silent attention from students to the teachers.
 - (c) Teacher domination with few interjections from pupils.
 - (d) It does not matter whichever.
 - (e) Individual independent work.
19. In a classroom interactive atmosphere; questions must be:
- (a) Only from teacher to students.
 - (b) To whoever wants to participate, no need forcing unwilling horses.
 - (c) Limited to brilliant ones to avoid time-wastage and so that other pupils can emulate them.
 - (d) Focused majorly on the dull ones to ginger them on and to exercise their brains.
 - (e) Evenly distributed; come from teacher to students and vice-versa.
20. Which of the following is not true of a teaching unit.
- (a) It contains methods of evaluating learning.
 - (b) It provides direction for class.
 - (c) It contains procedures to be used.
 - (d) It centres around one big idea.

(e) It promotes teacher security.

21. It is most essential in lesson plan to:

- (a) Set a definite time-limit and stick to it.
- (b) Select subject content solely from the text.
- (c) Have all procedures focus upon objectives.
- (d) Include suggested activity for pupils to do.
- (e) Put the problem in the form of a question.

22. The first step in building most units is:

- (a) Planning the objectives.
- (b) Planning the activities.
- (c) Evaluating the Unit.
- (d) Developing the unit.
- (e) Selling it to the class.

23. Teaching aids must be:

- (a) Present in case of inspection.
- (b) Varied relevant to lesson used.
- (c) Can be done without.
- (d) B and E.
- (e) Logical and appropriately used.

24. Class discipline refers to:

- (a) Rules affecting conduct of actions.
- (b) A way of promoting constructive and positive behaviour.
- (c) The curbing of pupil misbehaviour.
- (d) Control gained by enforcing obedience and conformity.
- (e) None of the above.

25. When a child remains uninterested in a subject, the teacher should immediately:
- (a) Look for the cause.
 - (b) Give him less assignment.
 - (c) Give him new assignment.
 - (d) Confer with parents and also send him to the head.
 - (e) Send him to the Headteacher.
26. Attending a refresher course, a teacher clearly noted the lecturer referred to reinforcement circumstances rather than rewards. During question time, he asks why the preference of one to the other. What response is appropriate?
- (a) They are interchangeable, there is no distinction.
 - (b) They are two distinctly unrelated terms, each with its own concept.
 - (c) Reinforcement include rewards; it includes any event that maintains the strength of a response.
 - (d) When you "reward" a child his behaviour will be reinforced.
 - (e) None of the above.
27. To strengthen or maintain a response, you need to:
- (a) Present a stimulus that will maintain the reoccurrence of the response.
 - (b) Beat and scold properly if students make mistakes in class.
 - (c) Remove anything that causes the response expected to be stopped.
28. A class where there is noise, chorus answers, side talks lacks:
- (a) Cane.
 - (b) Authority.
 - (c) Good class management.
 - (d) Subject-teacher.
 - (e) Organisation.

29. The best method of class control, no matter how large the class is,:
- (a) A democratic approach.
 - (b) An autocratic approach.
 - (c) A busy schedule that precludes misbehaviour.
 - (d) Enforce all regulations without favours.
 - (e) A do-whatever-you-wish approach.
30. No matter what, a teacher must have:
- (a) Mastery of whatever he wants learnt.
 - (b) A commanding tone.
 - (c) A degree in the subject.
 - (d) Age-advantage over his students.
 - (e) Have series of rules and compel non-violation.
31. Giving of assignments, a means of evaluation must be
- (a) As much as you desire.
 - (b) Depending on how large your class is.
 - (c) Regular and regularly reviewed.
 - (d) Given to pupils, to keep them occupied at home but may not necessarily be reviewed all the time.
 - (e) All of the above.
32. The primary purpose of evaluating a teaching unit is to:
- (a) Know each student's grade.
 - (b) Know how far the unit objective has been accomplished.
 - (c) Be able to know objectively students progress.
 - (d) Give no chance for laziness, students keep working.
 - (e) Have something to put in marks' book.
33. A teacher ought to dress in:

- (a) In the latest outfit, beautiful and attractive.
 - (b) Just however suits his/her taste.
 - (c) Dress simply and neatly with dignity and without any distraction.
 - (d) Close to dowdy, so as not to attract (distract) learners.
 - (e) Traditionally for students to emulate.
34. A teacher must have - in his general way of life (demeanour):
- (a) Boisterousity.
 - (b) Confidence and enthusiasm (warmth).
 - (c) Be yourself (even if you are dull and cold) do nothing to improve it positively.
35. In teaching, the unit content must be:
- (a) Plainly the raw content as stipulated in the scheme of work.
 - (b) Whatever the students find enjoyable.
 - (c) Whatever the teacher knows he can conveniently cope with.
 - (d) Related to learner's experience; which they can identify with.
 - (e) Whatever the day's immediate contact dictates.
36. Teaching is interactive, it is a dialogue, so:
- (a) Questions must be two-way, frequent, relevant and of various levels of performance.
 - (b) Questions must be frequent to bright students to save time.
 - (c) Questioning can be deferred so that pupils do not feel threatened.
 - (d) Questions must come from the teacher alone as an evaluative effort, while the pupils listen.
 - (e) None of the above.
37. It can be safely assumed that a student understands a principle when he can.
- (a) Repeat it verbally.

- (b) Give examples of it.
 - (c) Use it in solving particular problems to which it applies.
 - (d) Answer specific objective-type questions connected to it.
 - (e) Speak convincingly about it.
38. Effective teaching is least frequently characterized by:
- (a) Discussion procedures.
 - (b) Homework assignment.
 - (c) The use of a wide diversity of teaching materials.
 - (d) An atmosphere that stimulates problem-solving.
 - (e) Recitation of lesson.
39. Teaching techniques in recent years have witnessed the decline in the use of:
- (a) Individual and group projects.
 - (b) Individual and panel discussion.
 - (c) Audio-visual aids.
 - (d) Lesson-hearing or recitations.
 - (e) Reinforcement strategies.
40. By and large, the successful lesson would:
- (a) Be when pupils actively solve everyday life problems.
 - (b) Emphasize the student's experience background.
 - (c) Have clearly defined objectives which will be actively worked towards in an inter-active environment.
 - (d) Be that at the end of which students can recite the points given.
 - (e) None of the above.

APPENDIX B

ADULT LEARNER PERCEPTION OF PROGRAMME SCALE

Please choose in the right – hand graded column, your rating of the statements on the left – hand side. Tick in the box of your choice. It merely seeks information on how you see the programme – your own evaluation.

The rating is from 1 to 5

	1	2	3	4	5
	Hardly	Little	Moderate	Concederable	Very Much
1. To a large extent the content of the training the training course was interesting.					
2. I judge the trainer as an effective teacher in skills.					
3. Trainer posses through knowledge of subject matter.					
4. I love the method used for me .					
5. The method used facilitated my learning.					
6. My learning has been...					
7. Generally, I have learnt a great deal that is helpful to me in my profession.					
8. I am very satisfied with the training.					
9. Do you appreciate this training?					

21. I was treated very much like an adult..
22. How much of your experience was made use of?
23. I was treated with warmth, dignity and respect..
24. I think the course will be permanently helpful.
25. I am leaving this place feeling encouraged.

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APPENDIX C

This inventory is set to know more of the social and personal factor affecting the behaviour of Nigerian adults. It will also show how you perceive yourself. Your sincere and accurate responses are therefore required. This is because the records you leave now, will help policy makers in planning programmes for the adults of Nigeria. This record will also be useful to people in helping professions like (counsellors, psychologists, educators and case workers) in their effort to give Nigerian adults the necessary psychological support required for the development of adequate mental health.

Please do read the instructions carefully before you start, you are not given a time limit; so do take your time.

Thanks so much for your co-operation.

Culled from Akinboye's Adolescent Personal Data Inventory.

Date: _____

Age: _____

Sex: _____

Please use the nine point scale below to rate yourself on each of the following items. Rate the items most descriptive of yourself at the high end, those least descriptive of you at the low end and those about which you are not sure or undecided at the middle. For each item, record the number which represents your response on the right side of the items. Thus:

"Least like me"		"Most like me"
Scale 1 2 3 4 5		
I am a happy person		4

Four is put in the blank space on the right side of the item because this statement is to a large extent "most like me."

You can now start on the items.

SECTION A

1. I have warm social attraction for others _____
2. I am a responsible person _____
3. My life has great value _____
4. I am afraid of enemies _____
5. I am a submissive person _____
6. I am active _____
7. I am confident about what other people think about me _____
8. I am concerned about what other people think about me _____
9. I constantly feel insecure _____
10. I express my feelings freely _____
11. I am an optimistic person _____

