# MICRO-TEACHING

## THEORY AND PRACTICE

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# Preface

This book is based on the authors years of experience in science teaching, counseling and education, imparting instructions on the subject to practicing professionals, science and Technology students and science education students for the B. Tech, M. Tech PhD and PGDE programmes.

The objective of the book is to guide science students and teachers and science education counselors in planning and directing teaching practice and micro-teaching in a manner that will yield the best possible results.

The topics dealt with in this volume is comprehensive enough to serve as a basic text for students taking micro-teaching in the course EDU 324 who can cover the contents in one semester and for any self-study.

Teachers and students are also encouraged to supplement the study of the text by visits to schools and/or by the use of audiovisual materials to reflect new developments in the education industry. It will not be possible to produce a book of this type without assistance from many good people and organizations; these are highly and gratefully acknowledged. We would also like to express our appreciation to our colleagues and our former students for their helpful suggestions, comments and review of the text. Particularly our thanks are due to David Ndagba Gana, who typed the documents. We humbly solicit for more suggestions.

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Last but not the least for our families for understanding and support which saw us through the extended working hours of writing, reading, proof-reading and formatting of the manuscript.

# FOREWORD

Highly delighted to unite this forward for this very important text book. All the chapters were precisely written clearly to convey the basic skills of imparting knowledge in a micro innovative teaching dimension in the classroom. A great student needs a great teacher. The book is good and it will help you to become the best you can be as a teacher in the classroom.

I appreciate and thank the lecturers who contributed to the success and publication of this wonderful book. God bless, keep and promote all of you. I am proud of you and the department and sincerely hope that more textbooks will be published to F.U.T. Minna in her excellent status. I call on all members of staff and students plus alumni worldwide in the teaching profession to support and patronize this textbook. We dedicate this text book to God for success, excellence and sustainability of this edition.

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# CHAPTER ONE

## Introduction

Rapid scientific and technological developments along with changes in the structure of the society have influenced the educational systems in general and instructional strategies in particular. It is a well-known fact that the economic prosperity and quality of any country in the world depends upon the development of human resources of that country. It is important to note that the development of manpower resources refers to the competencies and the level on which these competencies are imparted. It is also important to understand that this largely depends on those who develop these competencies. Hence, we need highly competent teachers for imparting these competencies. Teaching is an example of profession that has a range of skills the trainee teacher must be taught before assuming duty as a teacher. The method of training the trainee teacher to acquire requisite competencies and teaching skills is called micro-teaching.

Today the developed countries give great support to education as they know in the future it is only possible for them to have power and voice by educating people who are experts in their own fields. Different factors have effect in education of qualified people. And without a doubt one of the most important one of these factors is the teacher. The teacher has the key role in education process. The most important role of the teacher in a school is to guide students while providing knowledge. With this role, the teacher shapes the terminal behaviors of the students, helps the student to have positive relationships and makes them skillful. Besides, the roles such as being a disciplinarian, judge or confidentiality are also expected from the teacher with the feeling of worthiness. The teachers need to believe in the objectives and general principles of the education process and they need to have tolerance in order to develop the individual

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entrepreneurship and creativeness. Each component of the education is tied and appreciated. 'Raising teachers' is a multidimensional and universal issue. The concept of training teachers includes sub-subjects such as the selection of the teacher candidates, their prevocational trainings, internship term, observing and evaluating studies during this term and in-service training.

## General Information

Trainee teachers taking this course should read this study guide carefully so as to understand the requirements and contents of this course. The essence of this course is for students to understand the brief history of micro-teaching, its processes, its phases, its characteristics, its components, its benefits and practicum. The course is analytical and critically examines the contexts, personalities, objects and thoughts that inspire teaching as a profession. It is essential you understand what micro-teaching means and the steps you will follow to undertake micro-teaching.

## The Meaning and Definition of Micro-Teaching

Micro-teaching is a procedure in which a student teacher practices teaching with a reduced number of pupils/students in a reduced period of time with emphasis on a narrow and specific teaching skill.

**Definition**: Micro-teaching is a scaled down teaching encounter in a class size and time, D.W. Allen (1966).

It is defined as a system of controlled practice that makes it possible to concentrate on specified teaching behavior and to practice teaching under controlled conditions" D.W. Allen and A.W. Eve (1968) Micro-teaching is a scaled down teaching encounter in which a teacher teaches a small unit to a group of five, ten, fifteen or even more number of pupils/students for a small period of 5-20 minutes" L.C. Singh (1977).

# The Concept of Micro-Teaching

Microteaching can be described as a procedure in teacher education for preparing teachers to become more effective on the job. It is a method of training the teachers to be skillful in some teaching skills by giving the student teacher the opportunity to practice specific skills within a short teaching encounter over a period of time so as to become more effective in teaching learning process and achievement of instructional objectives.

The concept of micro-teaching has been described by many authors. For example, McKnight (1971) as cited by Brown (1975) described micro-teaching as "a scaled down teaching encounter designed to develop new skills and refine old ones" Ohuche and Izuwah (1979) also explained that "Micro-teaching is a scaled down teaching encounter". It is scaled down in terms of time, number of students, concepts taught and teaching skill used. It is an attempt to use simulation techniques to break down the teaching process into smaller and more easily understood units for practice. Terms (1987) has also described micro-teaching as a method of teaching whereby teacher trainees gain simulated teaching experience with few students in small groups and employing audio and/or video recording for playback and discussion.

The concept of microteaching is based on the theory that teaching consist of a number of essential skills, each or all of which can be enhanced through analytical practical approach just as in the practice and mastery of skills in athletics and some other professions, Mitz (1975). Microteaching can also be described as a teaching in a very small scale under laboratory condition in a way that the time, number of students, lesson objectives and content are limited and teaching skills emphasized are stated. It is a deliberately constructed scale down teaching encounter, which is used to enhance teacher effectiveness in teacher education. Microteaching is an attempt to use controlled laboratory simulation techniques to break down the teaching process into smaller and more easily understood units for easy practice, Izuwah (1998). According to Brown and Armstrong

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(1975), microteaching is designed to develop new teaching skills and to refine and reinforce old ones. By and large microteaching can be defined as a procedure in teacher education that provides the opportunity for gradual exposure of student teachers to early teaching encounter under an unthreatening laboratory condition so as to become effective on the field. If you examine these definitions carefully, you will find out that the authors are saying the same thing that micro-teaching is a method of training teachers to acquire teaching skills. That micro-teaching is a scaled down activity in terms of time, number of students, concepts taught and teaching skill. It needs to be noted that the emphasis is on economy of time. This demands describing micro-teaching not only as a method of a scaled down teaching encounter but as a system. Furthermore, we are in a scientific age which, amongst other features, is characterized by the use of a system, micro-teaching is nothing other than a sequence of teaching activities which, when followed, will enable trainee teachers acquire teaching skills. A system should be used. Nwana (1981) observed that "a system is a well-tried procedure which has proven to be economical in time and space and, above all, satisfying.

In view of these reasons Obi (1991) described micro-teaching as a simplified training system designed to enable trainee teachers to practice and acquire teaching skills under a supervisor, in a short lesson period of five to ten minutes, with a small group of three token students, employing colleagues or video tape for a feedback, focusing attention on only one teaching skill at a time.

## Origin of Micro Teaching

Micro- teaching originated in 1961 at Stanford University U.S.A, where it emerged because of the problem regarding teaching preparation and other problems. The immediate predecessor of micro teaching was demonstrated lesson used at Stanford until 1961. The demonstration involved student presenting a lesson to a small group of fellow students while of the class work. From

the beginning, the demonstrated method had short comings and it was developed in such a way that eventually resulted in micro teaching as it was first called for the first time in 1963 (Allen and Ryan) 1969 .

Louw (1981) emphasized that teacher education involves training for practice that should be planned around designing total teaching practice require for example the mastery of number of teaching skills. The ideal way to really master a teaching skill is to execute it in practice under controlled circumstance. Mere insight and knowledge of teaching skill do not automatically guarantee its mastery. It precisely teach the practicing and mastery of teaching skills.

**Advantages**

1. It includes the use of supervising for learners, it reduces complexity and it has a built in feedback mechanism.
2. It focuses on shaping and developing specific ready skills and eliminating errors.
3. It enables understanding of behavior important in classroom teaching.
5. It increases the confidence of the learner teacher.
6. It is a vehicle of continuous training applicable at all stage not only to teacher at all stage not only to teacher at the beginning of their carrier but also for senior teacher Microteaching enables the student-teacher to practice all they have studied in the theory education courses before proceeding on actual teaching practice.
7. It helps a novice trainee-teacher to have a face-to-face encounter in an early marriage of theory and practice.
8. It provides opportunity for repetitive practice essential for acquiring skills necessary for an effective classroom teaching.
9. It exposes the teaching strengths and weakness of the student-teachers and motivates them to improve in a low-risk supportive environment.
10. Teaching skills and behaviours acquired through micro-teaching experiences tend to persist over a long

period of    time.

11. It equips teacher-trainees with a repertoire of vital teaching skills and behaviours in examination free environment.
12. Micro-teaching experience leads to greater teacher effectiveness, essential for better learning.
13. It encourages the participants to be self-critical.
14. It serves to validate new approaches to the teaching of various subjects.
15. Delay in feedback is minimized and verbal conditioning of behaviour is effective.
16. It simplifies the task of teaching by reducing the length and complexity of a lesson.
17. It provides opportunity for the in-service teachers to practice new instructional skills or behaviours.
18. It guards against exposing students to poor teaching by novice student-teacher during teaching practice programme.
19. It enables trainees to overcome nervousness and mannerisms which could hinder the performance before their audience and supervisors.

## Disadvantages

1. It include not being realistic in class where people are not on the same level and not taking into account the individual    need of student
2. Micro teaching is too narrow and restricted
3. The main emphasis is on learning one teaching skill at a time
4. It is essentially a passive exercise

It is time consuming since one trainee practice a skill in about 35 minutes. So accordingly ten trainees will take 350 minute to practice one skill, only once.

# CHAPTER TWO

## Micro-Teaching in Nigerian Educational System
## What is micro-teaching?

Micro-teaching is a program or a system of education that prepares prospective teachers for effective performance in the classroom. In recent times, there have been hues and crises over the continuous poor standard of education in Nigeria. This has been blamed predominantly on the teachers, their teaching methods and techniques, attitude to work, competence and general behavior. This unpleasant development somewhat put to question the efficiency of teachers education content popularly micro-teaching which serves as the meeting point of both theory and practice in the pre-service training of teachers. The purpose of this study is to investigate the modes of improving the pre-service teacher competence and productivity based on the constructive reflection of student teaching, with a focus of micro-teaching which is adjudged as an avenue for acquiring pre-service knowledge and field experience. The Keywords are these:

1. Field experience.
2. Micro-teaching.
3. Pre-service teacher preparation.
4. Prospective teacher trainees in Nigeria, reflecting teaching.

## The essence of micro-teaching in Nigerian educational system

Effective teaching practice has been identified as playing a significant role in preparing prospective teachers for effective performance in the classroom. Dominant models of teacher education accord micro-teaching as a central place. Its place as an essential part of teacher education curriculum is dated as back as early 1960's (George and Allen Urnwin, 1980). The aim of

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introducing micro-teaching in Nigerian educational system was to:

    i.   Ensure an adequate combination of theory and practice in the training of teachers and through this develop in the prospective teachers' desirable skills and competences.

    ii.   Modify the behaviors of teachers under training as it is a highly individualized type of teaching training technique.

    iii.   Simplify the task of teaching by sub-dividing the act of teaching which is multifaceted into simpler, less complex tasks in such a way that lessons can be better managed and to focus on a few major skills in the planning process.

    iv.   Organize a clinical teaching program for providing teachers with miniature encounters.

**Micro-teaching as an essential part of formal education training for teachers in Nigeria has its objectives which includes:**

- Enabling the teacher trainees gain confidence in teaching by mastering a number of skills on a smaller group of studies.

- Providing teacher trainees with an environment for a practice-based teaching and through this instill some self-evaluative skills.

- Micro-teaching imbibe the qualities of effective teaching, avoid mistakes often made by teachers and equip themselves with adequate mastery of skills and techniques of good teaching.

- Micro-teaching is an organized practice teaching which is intended to give prospective teachers confidence, support and feedback by creating for them opportunity to demonstrate among their friends and colleagues what they intend to demonstrate among their students in a classroom setting.

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## How to Conduct Micro-Teaching Practice in Nigeria

Micro-teaching session's takes place before the first day of class, and are videotaped for review individually with an experienced teaching consultant. Micro-teaching is a quick, efficient, proven, fun way to help teachers get off to a strong start. As many as six teachers from the same or similar courses can participate in a single micro-teaching session. Course heads, a few experienced instructors and a staff member are usually invited to serve as facilitators. While one person takes his or her turn as a teacher, everyone else plays the role of students. It is the job of the pretend pupils or students to ask and answer questions realistically. Ten or fifteen minutes are given to each presenter. The videotapes are reviewed by participants at their own time so as to watch and reflect on their mistakes with a view to improving on them. Nearly every one finds it extremely helpful to make an appointment to view and discuss their tapes together with a center consultant.

However, the extent to which pre-service teachers in Nigeria have been influenced by reflection after micro-teaching and field experiences still remains a mirage. All the courses incorporated into the professional education component of teacher education in Nigeria are intended to prepare the teacher trainee for performance in the classroom but they are merely theoretical with their practical components provided through micro-teaching, Daniel Alye Ph.D. 2011, Teaching Method in Education.

## Problems of micro-teaching

Micro-teaching appears not to function very well in Nigerian educational system because of overcrowding of classrooms. *(Prof. Beatrice Ker. 2010 Fundamentals of curriculum and institution)* that has befallen teacher education institutions as a result of the following:

> ➤ Inadequacy of facilities and personnel to ensure adequate assessment and thorough teaching: Provision of audio-visual facilities like video

recorder, multi-channel media and communication media like public address systems and other educational technological media. *Shannon and Weaver 2008. Communication in education.* However, if all these are available, pre-service teachers or teacher trainees will be better equipped with the reflective skills which will promote professional growth.

> Lack of teachers: We found out that, one of the problems of the 6334 educational system in Nigeria is lack of the teachers to handle some of the subjects. If one considers this problem with the fact that very few people wish to take up teaching as a full time profession today, one would be able to imagine what problem could crop up or result to scarcity of teachers in Nigeria.

> The poor performance of teachers in the classroom calls to question the efficiency of the teacher education content especially micro-teaching in the training of teachers in Nigerian educational system. One wonders whether educational institutions in Nigeria provide sufficient for reflection avenues as a means of assessing micro-teaching.

> Infrastructure: Inadequate conducive and well equipped lecture halls or classrooms result to overcrowding of classroom. Under this setting, it is clear that our traditional lecture method, talk and chalk board method adapted in our secondary schools and tertiary institutions is not adequate for the achievement of efficient teaching and learning. Hence of necessity is the use of aids to enhance teaching and learning.

**Possible solutions**

• Adequate facilities should be made available to ensure that proper evaluation is carried out on students' micro-teaching.

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- More personnel (experts) should be drafted to this field to assist in the teaching and assessment as the population explosion has hit the schools.
- Financial award should equally be given to lecturers involved in this field and to students who excel too. This will serve as a positive re-enforcement and encourage others to follow up.
- Most importantly is the need for a forum to discuss cases and reflect on how educational theory can inform practice. This will enable pre-service teachers to become more reflective about teaching and classroom situations. Micro-teaching has played a very vital role in Nigerian educational system in training and preparing student teachers, but due to the problems encountered during the program, its effectiveness has been limited.

## History of Micro-Teaching

Microteaching is a training technique whereby the teacher reviews videotape of the lesson after each session, in order to conduct a "post-mortem". Teachers find out what has worked, which aspects have fallen short, and what needs to be done to enhance their teaching technique. Invented in the mid-1960s at Stanford University by Dr. Dwight W. Allen, micro-teaching has been used with success for several decades now, as a way to help teachers acquire new skills.

Microteaching is an organized teaching improvement technique where the experimental teacher teaches a small group of audience (peers), which is recorded for review after each teaching section. The teacher reviews the recorded footage, makes correction where necessary, improves and re-teach until the desired result is achieved/learned. In the original process, a teacher was asked to prepare a short lesson (usually 20 minutes) for a small group of learners who may not have been their own students. This was videotaped, using VHS. After the lesson, the teacher, teaching colleagues, a master teacher and the students together viewed the videotape and commented on what they saw

happening, referencing the teacher's learning objectives. Seeing the video and getting comments from colleagues and students provided teachers with an often intense "under the microscope" view of their teaching. Micro lessons are great opportunities to present sample "snapshots" of what/how you teach and to get some feedback from colleagues about how it was received. It's a chance to try teaching strategies that the teacher may not use regularly. It's a good, safe time to experiment with something new and get feedback on technique.

## Techniques

Since its inception in 1963, microteaching has become an established teacher-training procedure in many universities and school districts. This training procedure is geared towards simplification of the complexities of the regular teaching-learning process. Class size, time, task, and content is scaled down to provide optimal training environments. The supervisor demonstrates the skill to be practiced. This may be live demonstration, or a video presentation of the skill. Then, the group members select a topic and prepare a lesson of five to ten minutes. The teacher trainee then has the opportunity to practice and evaluate his use of the skills. Practice takes the form of a ten-minute micro-teaching session in which five to ten pupils are involved simultaneously.

## Feedback

Feedback in microteaching is critical for teacher-trainee improvement. It is the information that a student receives concerning his attempts to imitate certain patterns of teaching. The built-in feedback mechanism in micro-teaching acquaints the trainee with the success of his performance and enables him to evaluate and to improve his teaching behavior. Electronic media gadgets that can be used to facilitate effective feedback are vital aspect of micro-teaching. (Teg, 2007).

## Planning a Micro Teaching Session

The duration of a Microteaching session depends on the number of participants. Microteaching should take place in two separate classrooms where the second room is required for videotape

viewing. It is helpful to organize professional videotaping, although this can also be done (taken over) by the participants upon instruction.

## Equipment for Microteaching session:

- TV/Computer set
- video recorder/camcorder
- camera
- tapes for camera
- black- or whiteboard, flipchart, pin board, markers with different colors

## One-day plan for Microteaching (an example):

- 09:00-09:30 Introduction to microteaching given by a professional supervisor
- 09:30-10:00 Preparation of the micro lessons
- 10:00-... Microteaching session (each segment about 20-30min).

## Steps in Carrying out Microteaching

### i) Preparation

Each participant of the session prepares a teaching segment. The presenter gives a brief statement of the general objectives of his/her presentation to be addressed. The group may be asked to focus their attention to particular elements of the lesson or of the teaching style. This may include pace, clarity of explanation, use of media, voice and body language and level of group interaction.

### ii) Presentation and Observation

Each participant presents his/her 10-minute teaching segment. He/she is allowed to use the media available. During the presentation, other participants serve as members of a supervisory team and take notes for the group feedback. Special assessment forms may be helpful in standardizing the observation and feedback process. Each lesson is videotaped.

Although the lesson is short, objective and procedures should be clear to generate useful discussions.

### iii) Videotape Viewing

The presenter watches the tape of his/her presentation and decides whether or not the objectives were accomplished. He/she also makes a list of strengths and suggestions for personal improvement. Then he/she again joins the supervisory team. In the meantime the supervisory team discusses and makes conclusions about the teacher's lecturing.

### iv) Discussion and Analysis

While the presenter goes to another room to view the videotape, the supervisory team discusses and analyses the presentation. Patterns of teaching with evidence to support them are presented. The discussion should focus on the identification of recurrent behaviors of the presenter in the act of teaching. A few patterns are chosen for further discussions with the presenter. Only those patterns are selected which seem possible to alter and those which through emphasis or omission would greatly improve the teacher's presentation. Objectives of the lesson plan are also examined to determine if they were met. It is understood that flexible teaching sometimes includes the modification and omission of objectives. Suggestions for improvement and alternative methods for presenting the lesson are formulated. Finally, a member of the supervisory team volunteers to be the speaker in giving the collected group feedback.

### v) Giving and receiving feedback

Under the guidance of the professional supervisor, the presenter is first asked to present a self- feedback of his mini lesson. With this new information taken into account, the supervisory team member who volunteered to be the speaker summarizes the comments generated during the analysis session. This part of the session is intended to provide positive reinforcement and constructive criticism. The presenter is encouraged to interact freely with the team so that all comments are clarified to his/her satisfaction. The way in which feedback is given and received contributes to the learning process. Feedback should be honest

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and direct, constructive, focusing on the ways the presenter can improve, and containing personal observations. In summary micro-teaching steps are:

Plan→ Teach→ Feedback→ Re-plan→ Reteach→ Re-feedback

## Conclusion

The importance of micro-teaching in the teaching profession needs no argument as it has enhanced and improved learning by producing teachers who are adequate in skills, techniques, methods, attitudes in managing both human and non-human resources in the learning process, hence the inception of micro-teaching is indeed a great milestone in teaching and learning.

# CHAPTER THREE

## Traditional Teaching

Traditional teaching is concerned with the teacher being the controller of the learning environment. Power and responsibility are held by teachers and they play the role of instructors (in the form of lecture) and decision maker (in regard to curriculum content and specific outcome). They regard student as "having holes" that need to be filled with information. In short traditional teacher view that it is the teacher that causes learning to occur (Nowak 1998).

Learning is chiefly associated within the classroom and is often competitive. The lesson's content and delivery are considered to be most important and student master knowledge through drill and practice (such note reading). The learning environment in it has been fund that children learn variety of way for example memorization, individual learning problem, work sheet etc. Traditional teaching is simply oral recitation, in a typical approach student sat quietly at a place and listen to instructor.

### Traditional Teaching Method

The major types of methods used in traditional teaching are as follow:

#### i) Lecture and direct instruction

According to Swanson and Torraco (1995), the lecture was established formally centuries ago as a teaching process that began with a literal reading of important passages from the text by the master, followed by the master's interpretation of the text. Students were expected to sit, listen and take notes. Traditional teaching as it has been experience is classroom based and consist of lecture and instruction conducted by the teacher. This teacher centered method emphasizes learning through the teacher guidance at all time. Students are expected to listen to lecture and learn from them.

Generated by CamScanner

Most teaching carried out in our schools today are through the lecture method. Due to the great demand placed on paper qualification which are obtained through public examinations, most science teachers use lecture method as the most effective method for easy coverage of the syllabus. Ali, A. (1998), described lecture method as a method of teaching which involves the teacher telling his students what he thinks they need to know and the students listening and copying what they think the teacher needs them to know.

Thus, the teacher does most of the talking and often asks few or no question, while students remain passive listeners. The longer the teacher talks to the student, the less they retain the information.

## ii) Seat work

Test are the most significant indicator of student performance and degree of learning, student who belong to the same class sit down together and take single set of examination which they should pass, most of the examination are taken from fundamental source such as text book and other.

## iii) Listening and observation

Teacher talks to student about the subject matter and expect them to learn everything through lecture held in classroom. Other method includes observation, demonstration, experiment method etc.

The demonstration method is an instructional method in which an instructor/teacher shows and explains. Demonstration may be used to enrich and increase the learners understanding. It is important for instructor to realize that there is more to the demonstration method than showing. Effective demonstration involves teaching shows questioning and application. When skill development is the desired outcome, practice must be included as a major component of the method.

Demonstration method includes laboratory experiment. Demonstration means displaying something. When a science teacher shows the action of carbon dioxide on a blue moist litmus paper, he is presenting a demonstration. The teacher can

present a dissection of toad or of rabbit to the pupils/learners. The teacher can also plan a manipulation of equipment and material in order for the pupils/learners to observe a scientific phenomenon. Most exercise in science classes which teachers carry out when they say "we are going to do an experiment" can be identified strictly as demonstrations.

## Advantages of Lecture Method

1. Economy in terms of time, effort and fund. It takes less time on the part of the teacher preparing and planning for his lesson.
2. The method allows for easy coverage of vast unit of knowledge and easy handling of large classes.
3. It provides the teacher with a feeling of security as dispenser of knowledge.
4. Student learn what they need to succeed in the real world
5. It enable student to focus on problem at hand.
6. It is tried and tested method.

## Disadvantages of Lecture Method

1. In fact, lack of interaction is considered one of the major limitations of the lecture method (Munson, 1992).
2. Very often, what students learned from lectures are usually, forgotten after examination.
3. With lecture method, students do not practice communication skill.
4. The method ignores the possibility of learning difficulties of some student; this means that individual differences are not considered.
5. Evaluation of students during lesson is difficult, since they are passive listeners and do not participate in the development of the lesson.
6. When students have copies of the lecture notes or a text, a significant percentage would prefer reading them rather than attending classes that offer little or no interaction (Edlich, 1993).

7. The lecture method is not very good in teaching certain types of concepts that required attitudes and feelings of students.

8. The most visible limitation of the lecture method is that the pupils quickly become restless and disruptive. Within thirty to forty minutes, students usually become bored leading to loss of attention

9. It is restricted from the use of technology

10. It is teacher centered where the teacher often talk to student instead of encouraging them to interact, ask question or make them understand the lesson

## Guidelines for Effective Use of Lecture Method

(1) Lecture method should be used in conjunction with other methods. This idea is supported by Cavanagh, Hogan and Ramgopal (1995). After assessing learning styles of student nurses, recommend using a variety of teaching styles with an emphasis on participatory and experiential learning.

(2) A good science teacher should avoid coverage of too many topics which may tend to confuse students. Renner (1993) recommends that lectures should last no longer than 30 minutes.

(3) Ensure active participation of learners as much as possible by asking questions and making comments. This will minimize boredom on the part of the pupils or students.

(4) At the end of a lesson, summarize the key points.

Thus a good science teacher should avoid using ineffective lecture method, but should adopt effective lecture method. The two sub-divisions can be differentiated as follows:

## Characteristics of Effective and Ineffective Lecture

| Effective Lecture | Ineffective Lecture |
|---|---|
| 1. Educator-student interaction | 100% educator talk, with limited or no interaction |
| 2. Two-way communication | One-way communication |
| 3. Shared responsibility for active learning | Students depend on educator for all information |
| 4. Educator-student questions | Few if any question (educator or student) |
| 5. Small group, problem solving activities | No student activities |
| 6. Variety of supporting media | No supporting media |
| 7. Limited note taking required (students have copies of lecture notes) | Extensive note taking required. |

Therefore with planning and effective presentation techniques, the lecture can be a highly effective and interactive method for transferring knowledge to students. If a lecture is carefully planned, the educator will have a clear purpose of the lecture and will have considered the logistics associated with the number of students, amount of time allocated for the lecture, room size and available media.

## Comparison between Traditional Teaching and Micro-teaching

❖ Objectives are specified in behavioral terms in micro teaching while in traditional teaching, objectives are general and not specified in behavioral term.
❖ A microteaching class used to consist of small group of student that are about 5-10 in size while in traditional teaching, the class consist of 40-60 student.

- ❖ In microteaching, the teacher takes up one skill at a time while normal teaching the teacher practice several skill at a time.
- ❖ In microteaching, duration time for teaching is usually 5-10 minute while in normal teaching; the duration is usually 40-50 minute.
- ❖ There is immediate feedback in micro teaching while in traditional teaching, there is no immediate feedback.
- ❖ Micro teaching is carried on under controlled situation while in tradition teaching, there is no control over situation.
- ❖ In micro teaching, teaching is relatively simple while in normal, teaching become complex.
- ❖ In microteaching, the role of supervisor is specific and well define to improve teaching while in the role of the supervisor is vague in traditional teaching.
- ❖ In microteaching, pattern of classroom interaction can be studied objectively while in the traditional teaching the pattern of classroom interactions cannot be studied objectively.

# CHAPTER FOUR

## Introduction
### Process of Micro-Teaching
What is process?

Process is series of action or steps towards achieving a particular goal or result.

Microteaching is a compound word that consists of two words "micro and teaching".

Micro is gotten from a Greek word "Mikros" meaning "small". Micro is used to describe something which is very small in size or scale, e.g. Micro seconds, microbiology etc.

Teach means to instruct, to impact knowledge on someone.

Teaching is the act of impacting knowledge on someone from one end considered to be an expert (teacher) to the other end which is the listener (student) in an attempt to change their attitude.

Microteaching is a teacher training technique for learning teaching skills. It employs real teaching situation for developing skills and helps to get deeper knowledge regarding the art of teaching. Microteaching is a reduced Or scale down teaching situation for improving and developing new teaching skills.

Process of microteaching are the steps involved in reduced or scale down teaching situation for improving and developing new teaching skills.

## STEP 2
Process of microteaching includes:
- Plan
- Teach
- Feedback
- Re-plan
- Re-teach
- Re-feedback

**Plan**: this is the first process of microteaching where the teacher put into consideration self-questions like

i) What are my precise instructional objectives?
ii) Who am I teaching?
iii) What do I want the student to know?
iv) What instructional strategy do I use?

**Teach**: This is the second process of microteaching where the teacher moves to the classroom to implement his above plan. The teacher trainee will present the lesson plan to a small group of students while being supervised by a team of senior teachers or educational experts. Occasionally, this supervisory team may also play the role of students – asking the teacher trainee questions and actively involving themselves in the lesson. While the lesson is going on, the supervisory team will evaluate the trainee's performance; the team will usually use standardized evaluation forms to streamline the process.

**Feedback or Critique**: The supervisory team will meet to discuss their evaluation of the teacher trainee and whether or not the objectives of the microteaching session have been met. While they are meeting, the trainee may be allowed to review the footage of his or her presentation. When the supervisory team's meeting has concluded, they will then meet with the trainee to give their feedback regarding the teacher trainee's performance. The group should highlight the trainee's best practices or best use of a certain skill along with areas that need to be improved. Concrete instances of the teacher trainee's good and bad practices should be mentioned; they can review the video together to re-watch certain segments that highlight the strengths and weaknesses of the trainee. The team will then give suggestions like how to improve teaching skills or ways to handle different classroom situations. The trainee should also take this time to ask any important questions or to clarify a number of points given by the supervisory team. (Elliot1982). This section is sub-categorized in three ways:

- **Self-analysis**: this is the point where the trainee checkmates his performance by identifying his strengths and his weaknesses.
- **Colleague analysis**: At this point the trainee colleague comment on the trainee to improve his performance.
- **Supervisor analysis**: the Supervisor comment on the trainee starting with his strengths and pointing out his weaknesses.

## STEP 3

**Re-plan:** After receiving the feedback, student-teacher re-plans or re structures his/her lesson in the light of suggestions. The lesson is re-planned; it is an improved version of the previous lesson.

**Re-teach:** Revised lesson is rethought to the same class of students. This time may be different for the same duration; it will naturally be a better lesson than the previous one.

**Re-feedback:** Re-teaching is again followed by discussions and providing re-feedback to the student teacher (trainee). In Micro teaching procedure this is called the re-feedback session.

Summary

Process of microteaching is the step to step involve in microteaching which follow a sequence known as "microteaching cycle".

PLAN ➡️ TEACH ➡️ FEEDBACK

RE-PLAN ➡️ RE-TEACH ➡️ RE-FEEDBACK
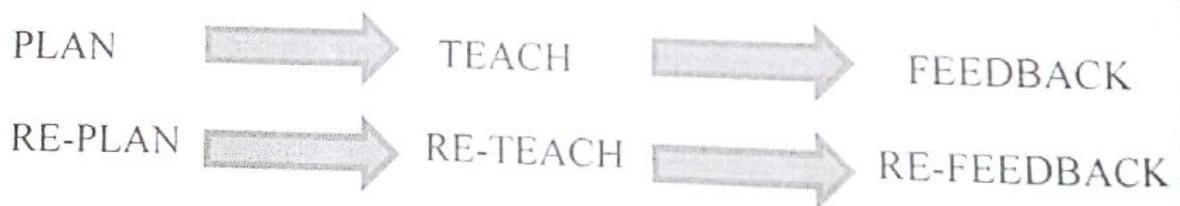
## Phases of Micro-Teaching

Micro-teaching is a method used to train a progressive teacher which identifies skills needed for trained teachers to become professional.

It was developed by Allan and others (1967) at Stanford University in the 1960s, they worked with small group of 4-7 and hence its name "micro-teaching", each group is exposed to

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one skill at a time, while the teacher who serves as a model demonstrates this skill to the group.

Micro teaching comprises of the teacher (an expert), the students and brief presentation (lasting from 5 to 10 minutes).

According to J.C Clift (1976) and others, micro-teaching procedure has three phases:

1. Knowledge acquisition phase (Pre-active phase)
2. Skill acquisition phase(interactive phase)
3. Transfer phase (post-active phase)

**Knowledge Acquisition Phase (Pre-Active Phase)**

In this phase, the student teacher attempt to acquire knowledge about the skill. Its rational, its role in class room and its component behaviour for this he reads relevant literature. He also observes demonstration lesson-mode of presentation of the skill. The student teacher gets theoretical as well as practical knowledge of the skill.

In this phase the trainee's supervisor (an expert) will give full training and instruction to the student-teacher who is going to do micro-teaching. The student-teacher asks some questions to find out from his supervisor some relevant information about how a particular teaching skill should be handled. Such will include how to perform, what are the skills to use, which type of materials to use during the process of micro-teaching. The supervisor may use some models like symbolic, perceptual and audio model to explain the skill to the student teacher before the starts of the real teaching. (Alabi O.S, Ayoko A.K, Bayode D.D (2006). It envisages the following steps:

- Orientation to micro teaching.
- Discussion of teaching skills with their components and teaching behaviour.
- Presentation of modern demonstration lesson by the teacher educator.
- Observation of the model lesson and criticism by the teacher trainee.

## Skill Acquisition Phase (Interactive Phase)

This is the time in which the trainee engages in the real process of micro teaching following the instructions and skills earlier given him by his supervisor or expert. On the basis of the model presented to the student-teacher, he prepares a micro-lesson and practices the skill and carries out the micro-teaching cycle.
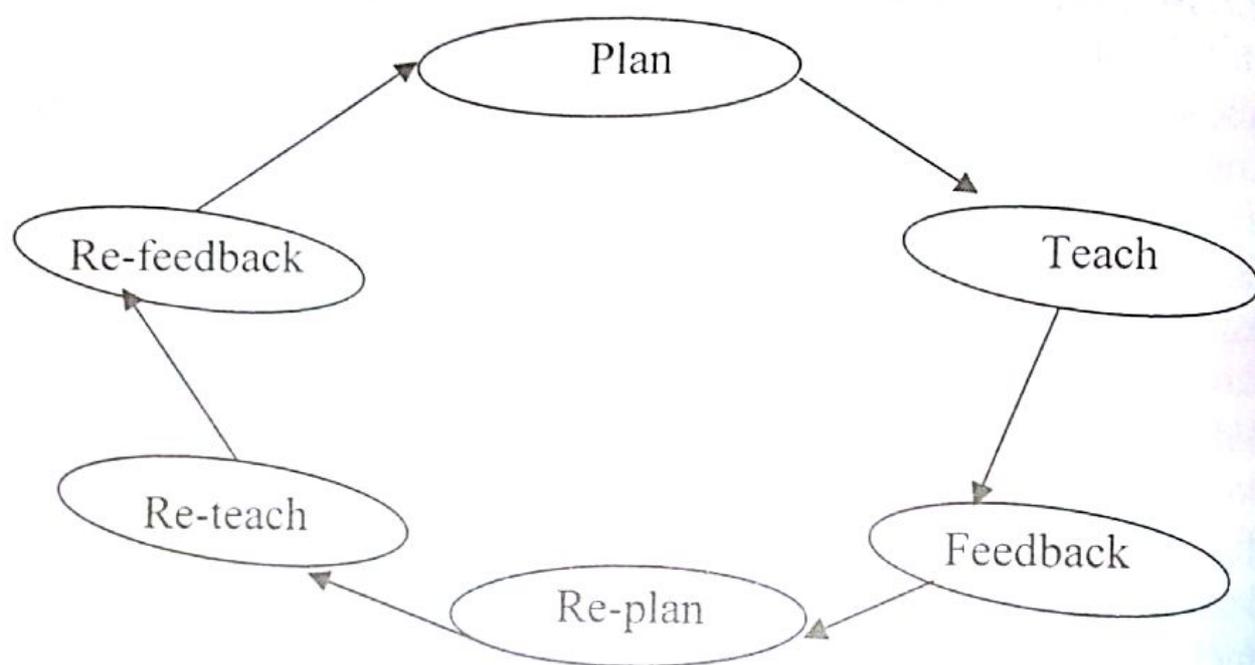


THE ABOVE DIAGRAM SHOWS THE MICRO TEACHING CYCLE

In this phase, the trainee's supervisor, the micro class, the trainee's classmates, duration of the micro lesson and the video tape recorder to record his performance during the process of teaching should be present. The trainee teaches a lesson involving the particular teaching skill to about 5 to 10 students for a period of 5 to 10 minutes.

As the trainee teaches his micro lesson his performance is being recorded on the video tape recorder in which the

supervisor will be observing the trainee's teaching effect critically and jotting down suggestions for improvement and commendation.

## Transfer Phase
## Transfer Phase (Post-Active Phase)

Here the supervisor and the trainee discuss the trainee's performance and suggest to the trainee about what to look out for during the video tape play back. They also decide on some major areas of difficulty on which the trainee should concentrate during his next presentation of the same lessons to another set of students.

The student-teacher integrates the different skills. In place of artificial situation, he teaches in the real classroom and tries to integrate all the skills. Integration of teaching skill may be defined as process of selections organization and utilization of different teaching skills to form an effective pattern for realizing the specified instructional objectives in a teaching learning situation.

# CHAPTER FIVE

## Characteristics of micro-teaching

### Introduction

**Micro-Teaching:** Is a process in which a student teacher practices teaching with a reduced number of pupils in a reduced period of time with emphasis on narrow and specific teaching skills. It can be deduced that microteaching can be referred to a procedure in teacher education for preparing a teacher- trainee to become more effective on the job. It is however taught within a limited time frame. to a small group of colleagues' and some faculty supervisors who impact him with a particular skill and also monitor the teaching and give immediate feedback to check mate his strength and weaknesses and correct the trainee where necessary and as well preparing him to face or apply same skill in a larger classroom someday. Fundamentally to the problems facing the school system is how to achieve effective teaching and learning. The random House College Dictionary defines teaching as the action of a person to impart knowledge or skill to give instruction to or the act or profession of a person who teaches.

Achuonye and Ajoku (2000) define teaching as an attempt to help someone learn. Micro-teaching is defined as a preparation technique for teachers –training in which a short class is presented to a small group 5-10 students, evaluated by all concerned, reconstructed, presented to another group and re-evaluated, especially using video-tapings From the definitions it is clear that teaching involves the actions by which someone who is trying to assist others to reach their fullest potentials aspects of development. Also micro-teaching might be:

1. A technique for teacher-training.
2. Practice –oriented scaled-down teaching situation in which a 5-10 minutes mini – lesion demonstrating one or more specific skills is taught to few students directed by the master teacher performed in a supportive low risk environment- an – in campus

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classroom brought into experimental conditions where various experimental parameters are controlled.

## Characteristics of Micro Teaching

**1. Immediate Feedback:** In micro teaching, feedback is critical to teacher-trainee improvement. It is the information that he receives concerning his attempts to imitate certain skill or patterns of teaching. The planning and executing a brief lesson that is closely monitored and scrutinized, as an integral part of the experience because 'feedback' gives an unprecedented opportunity for self-evaluation, guidance in the areas of strength and weaknesses and also give an opportunity to repeat such lessons whenever desired till perfection.

**2. Training Technique:** Micro teaching is a teacher training techniques which helps the teacher-trainee to master the teaching skills, not a method of teaching. It requires the teacher-trainee to teach a concept from a single content using a specified teaching skill for a short time, to a very small audience. In this way, he practices the skills in term of definable, observable, measurable and controllable form with repeated cycles till mastery.

**3. Highly Individualized Training Device:** There are various kinds of students and so, micro teaching caters the need of individual differences in the teacher training. It also gives an ample opportunity for each student to develop a concept on his own and at his pace; this will go a long way in modifying the behavior of the trainee by developing courage skills, competencies and confidence in managing classroom situations effectively.

**4. Experimental in Nature:** Micro teaching is experimental in nature while the teacher-trainee is the experimenter. Micro teaching as an organized teaching improvement technique where the experimental teacher teaches a small group of audience (peers), which is monitored by supervisors and sometimes videotaped for

review after teaching so that corrections are made where necessary, improves and Re-teach until desired result is learned through immediate feedback. It is termed experimental because the trainee engages himself to find out whether or not he can perform well as teaching profession dictates.

**5. Sophisticated Gadgetry, not Compulsory:** Teaching can be more effective when combined with the use of Visuals and Audio-visual materials but in the case of high cost of procurement coupled with limited time space, it is therefore advised to adopt a simple improvised material instead of the sophisticated type to avoid time waste.

**6. Micro in Nature:** It is micro in the sense that the training is geared towards simplification of the complexities of the regular teaching-learning process in terms of reduction in content, class size, timing and task are all scaled down to provide optimal training environments. The teacher- trainees learned a skill from his/her supervisor and select a topic and prepare a lesson of 5 to 10 minutes in a class of 5 to 10 as well and demonstrate same skill.

**7. Limited Content:** The content to be taught during micro teaching is divided into smaller units so that the student teacher can prepare adequately with the necessary material, research resources which makes the teaching easier and effective.

**8. Teaching one skill at a time:** Micro teaching ensures that one teaching skill is considered at a time, since only a single content is taught. There is no room for the student teacher to display variety of teaching skills since the duration is limited; he is to use a skill so as to give room for feedback. The lessons sometimes might be videotaped or recorded, showing all his activities/ display in the classroom, after which it is replayed and provide immediate feedback as to whether or not his goals or

objectives are achieved. However, the most important thing is that, he is given an opportunity to view his lapses and adjust properly.

**9. Evaluation Strategy:** In micro teaching, there is a facility of Re-planning, Re-teaching, and Re-evaluation. If the supervisor's commendation is not too encouraging, it means the student teacher (trainee) performs not too well and is given a fair chance to re-plan, re-teach and as well re-evaluate the lessons again as a way of improvement.

**10. Technical skills of teaching and teaching strategies:** A repertoire of teaching skills like lecturing, communication, questioning, stimulus variation or leading a discussion and mastery of teaching strategies is another important feature of micro teaching.

## Objectives of Micro Teaching

Micro-teaching is a practical programme designed to:
- expose teacher-trainees to some vital skills that make for effective teaching;
- help trainees identify, select and practice the teaching skill in a conducive supportive environment;
- provide teacher-trainees with teaching encounters prior to the actual teaching practice in normal classroom situation thereby motivating and enhancing their confidence;
- assist them become well disposed towards supervision and supervisors who should be seen as senior colleague concerned with improving their skills as teachers;
- develop intelligent student observers, providing feedback through either oral or written comments on micro-lessons taught by their peers;
- create in the teacher-trainees the ability to be analytical, critical and objective in self-evaluation of his/her teaching.

# Relevance of Micro-Teaching to Teacher Education

Teacher education is an aspect of education that deals with the acquisition of theoretical and applied skills in the teaching profession. The general purpose of teacher education is to enable teacher develop the skills and qualities that will increase their professional competencies. One of the major components of teacher education programme is teaching practice.

It is therefore relevant that a pre-service teacher be given the opportunity to have first-hand teaching 'experience through the medium of micro-teaching. In its fear-free; atmosphere the novice has higher chances of acquiring vital and relevant teaching skills.

Micro-teaching is used effectively by' in-service teachers to practice new instructional skills or behaviours. Each session focuses on a specific aspect of teaching until as satisfactory level of mastery is demonstrated. Lessons are usually video-taped, played back, and critiqued by the teacher-trainee and the instructor. Micro-teaching simplifies the task of teaching by reducing the length and complexity of a lesson. Teaching a shorter, but more specific lesson enables a teacher trainee to' focus on a few major skills in the planning process.

**Micro-Teaching Lessons:** Each trainee is then expected to proceed on micro-teaching process as illustrated on Figure I, which means that:

a) The trainee must select the skill or behaviour that will be practiced in the short time span.

b) The trainee must select a topic that will be appropriate for demonstrating the selected skill(s) or behaviour(s). Due to time constraints, this topic must be somewhat narrow - a single sub-concept that can be taught in a ,5 to 10 minute time span

c) As in regular daily planning, the trainee should carefully specify the objectives. Infact, it is wise to limit teaching to one objective in a microteaching lesson. The preparation for (Appendix I) can be used as guide to aid

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in planning for a .microteaching lesson. After completing this form, the trainee should prepare a lesson plan using a lesson plan' format (Appendix 2). The master teacher is expected to vet and approve the lesson plan before teaching session, Lessons are planned and rethought until mastery is demonstrated.

**Micro-Teaching Laboratory:** Micro-teaching lessons are presented in clinical laboratories which are small, free from distractions and specially equipped with closed circuit television system CCTV). This is used to record all proceedings to enable each evaluation. Apart from CCTV there are many technological, approaches one can exploit such as:

(i)   Using a human observer (preferably the master teacher) to record the student teacher's performance in his note book/check-list.

(i)   Using a tape-cassette to record the sound, and an observer to record actions as at (i) above

(ii)  Using a tape-cassette as at (i) above and a Polaroid camera to record highlights to obtain both pictures and sound, for instant play back either in black/white or in colour.

(iii) Using (iv) above linked to a micro-processor, for objective scoring and instant analysis of performance.

Whichever approach is used the most important point is that at the end of the presentation, the master teacher group members and the trainee-teacher jointly critique the lessor pointing out its strengths and weaknesses. The strengths are positively reinforced while weaknesses receive suitable suggestions for improvement.

**Criteria for Evaluation of Micro-Teaching:** A set of criteria must be established by which tỏ judge mastery of the desired skill(s) or behaviour(s). It is often helpful to develop and use and evaluation form or a recording instrument that reflects the stated criteria. A form         such   as the, following Microteaching

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Evaluation form (Appendix 3) of Micro-teaching self-Analysis form (Appendix 4) may be of some assistance or the design of a similar evaluative instruments. Such forms should be' completed by the peers taught, the master teacher, and the trainee as a tape of the microteaching session is replayed for analysis. The feedback obtained from the completed forms should be analysed by the trainee with respect to mastery of stated skills or behaviours. The analysis will help to identify specific teaching skills that need improvement as well as to develop the skills needed to study teaching behaviour for purposes of self-improvement. These self-improvement skills will be invaluable when the teacher trainee become a classroom teacher.

# CHAPTER SIX

## Components of Micro-Teaching (Skills Approach to Teaching)

Various skills are required by the teacher to make his teaching effective. Teaching is a complex process because it deals with human behaviour which is in itself very dynamic in nature. The teaching process becomes complex when a teacher desires to be an effective and the whole process of teaching and learning result oriented. To achieve this teacher needs to inculcate abilities and skills which will make his teaching effective. The complex process of teaching can be divided into various components that are simple and defined. These components are called teaching skills which can be identified, practiced, evaluated, controlled and acquire through training. (Passi-1976) has given the following list of teaching skills in his book "Becoming Better Teacher".

## Reinforcement in micro-teaching
### Introduction

According to Mondadori et.al (2005), Reinforcement is a term used in operant conditioning to refer to anything that increases the likelihood that a response will occur. Note that reinforcement is defined by the effect that it has on behavior -- it increases or strengthens the behaviour.

For example, reinforcement might involve presenting praise (the reinforce) immediately after a child puts away her toys (the response). By reinforcing the desired behavior with praise, the girl will be more likely to perform the same actions again.

### Definition of Reinforcement

Reinforcement is an event that increases behavior. In the classroom. reinforcement occurs as teachers/students teacher manage the environmental events that follow students desired ways of behaving so to increase the strength and future likelihood of that behaviour, Domjan W. (2003).

D'Amato, M.R (1969), defined Reinforcement as a technical term used to describe any technique or activity a teacher uses to modify or change students' behaviours in a positive way thereby encouraging learning.

Skinner, B.F (1948) defined rein forcers according to the change in response strength rather than to more subjective criteria, such as what is pleasurable or valuable to someone. Accordingly, activities, foods or items considered pleasant or enjoyable may not necessarily be reinforcing (because they produce no increase in the response preceding them). Stimuli, settings, and activities only fit the definition of rein forcers if the behavior that immediately precedes the potential reinforce increases in similar situations in the future, for example, a child who receives a cookie when he or she asks for one. If the frequency of "cookie-requesting behavior" increases, the cookie can be seen as reinforcing "cookie-requesting behaviour". If however, "cookie-requesting behaviour" does not increase the cookie cannot be considered reinforcing.

According to Flora, S. (2004), every responding pupil of the class needs social approval of his behavior. To satisfy this need, he is always eager to answer each question known to him. If the teacher is encouraging the pupils by statements like, "good", that is very good and certain non-verbal expressions, as smiling, nodding the head and paying attention to the responding pupil; the pupil participation in the class is maximized. The main theme of the skill is that encouraging remarks of the teacher increases and discouraging remarks decreases the pupil-participation in the development of the learning process. Teachers are right if their ways are in accordance with the following components of the skill. The components of skills involved in Reinforcement are:

- Positive Verbal Reinforcement
- Positive Non-Verbal Reinforcement
- Negative Verbal Reinforcement
- Negative Non-Verbal Reinforcement
- Wrong use of Reinforcement
- Inappropriate use of Reinforcement

## Positive -Verbal Reinforcement

These are the positive comments given by the teacher on the correct response of the pupil. They are:

i     Using words and phrases like, "good", "very good" and "excellent".

ii    Repeating and rephrasing pupil's response.

iii   Using pupil's idea in the development of the lesson.

iv    Using extra-verbal cues, like "um", "um", "aha" to encourage pupils.

v     Using prompts like carry on think again, to help the pupil give correct response.

## Positive Non-Verbal Reinforcement

The teacher gives comments to pupils on their correct response without using words. For example, this he does by nodding the head, smiling, patting, looking attentively at the responding pupil, and writing pupil's answer on the black boards. The teacher encourages the pupils to participate maximally in the development of the lesson.

## Negative Verbal Reinforcement

The teacher gives comments on the incorrect or partially incorrect response by telling that the pupil's response is incorrect or making sarcastic remarks like "idiots", "stupid" and others. Such behavior of the teacher discourages pupil-participation and should not be used.

## Negative Non -Verbal Reinforcement

The teacher shows his disapproval without using words. This involves, frowning, staring, and looking angrily at the responding pupil, when he gives wrong response. This type of behavior of the teacher creates fear in the minds of the pupil and decreases pupil-participation.

## Wrong use of Reinforcement

This is the situation, where the teacher does not give reinforcement when the situation is demanding encouragement.

## Inappropriate use of Reinforcement

This is the situation when the teacher does not encourage the pupil with respect to quality of his response. He uses same type of comment for every response.

## Importance of reinforcement

It arouses learner interest in the teaching and learning process.

a) It provides sense of satisfaction between the learner and the teacher.

b) It makes the learner to develop confidence and self-image.

c) It motivates the learners.

d) It promotes good relationship between the teacher and the learner.

e) The complete absence of praise, reinforcement may lead to a poor self-image and un-well to keep trying by some learner.

## Types of Reinforcement

1. Verbal Reinforcement
2. Contact Reinforcement
3. Gestural Reinforcement
4. Prohibitive Reinforcement
5. Activity Reinforcement
6. Token Reinforcement

## Verbal Reinforcement

This is the type of reinforcement by the teacher comment on the students' effort by alternating some motivating words or phrases. For example, good attempt, beautiful, excellent, splendid etc.

## Contact Reinforcement

This is the process by which the teacher shows that approval of the students learning behavior by hold the students shoulder, back, head or hand shaking. In some culture, contact reinforcement is used strictly.

## Gestural Reinforcement

This is the situation where the teacher uses non-verbal clues in reinforcing the student (learner), for example, smiles, nodding of

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heads, clapping of hands etc. to express the students learning behaviour.

**Proximitive Reinforcement**

This is the process whereby the teacher shows pleasure in students learning behavior by moving nearer or standing near him (learner).

**Activity Reinforcement**

This involve the teacher uses of activities and task to enforce the students. The teacher move to the next task only if the previous task is done correctly or well.

**Token Reinforcement**

In this type of reinforcement, the teacher writes delightful comment on the students test sheet, for example, very good, excellent, average performance, poor, very poor etc. still accompany it with impressive comment e.g. you can do better next time, wake up etc. he may also give gift to the student the teacher is reinforcing.

**Rules guiding the usage of Reinforcement in the classroom**

i.      Reinforcement must be adequate and effective enough to produce the desired objectives.

ii.     Avoid reinforcing only exact answers you are looking for.

iii.    There should be variety of usage if reinforcement is to be effective. Using the same type of reinforcement over and over again soon makes it meaningless to the students.

iv.     The type of reinforcement used must be appropriate to the level of the students.

v.      Teach a 15-munite lesson to your colleagues. Practice the use of different types of reinforcement. Appraise yourself after the lesson. Your colleagues should also do same for you.

# CHAPTER SEVEN

## Communication Skills

Communication is the tile art of successful conveying one's meaning to others by means of an inter –change of experience (Walklin, 1991). The important word is successfully which implies that desired behavior change results when the receiver takes the message. Effective communication is thus understood as the link between thought and action or behavior. This, according to Bell (1990) is illustrated as:

THOUGHT--------------COMMUNICATION-----------ACTION

A failure in communication can arise in this process when the action or behaviour, which follows the communication, is inconsistent with the message contained in that communication. Poor communication leads to mistakes, misunderstandings and time-wasting, so that constant effort is required from all concerned to ensure that flow of communication is maintained.

Without communication teaching and learning could not occur. Teachers therefore are intimately involved in tile communication process as they interact with students on a daily basis. Teachers usually send messages to students and receive messages from them.

Messages may be sent or received through verbal, vocal, physical or situational stimuli. As a teacher you must be skilled at sending and receiving messages through all these modes.

- Language intensity. Verbal information that deviates from a neutral position appears to be learned better.
- Concreteness and ambiguity. The more concrete a message, the better it is learned. However. the message must not be made so concrete that the basic concept is lost.

Simple words should be used wherever possible.

**Vocal Component:** This consist of such variables as voice firmness, modulations, tone, tempo, pitch and loudness. Human voice can brink words of life. Changes in voice loudness pitch, inflection, tone, and rate not only affect the emphasis within messages but also can actually change the meaning of words. For example, Stand up or Go away can convey different meanings depending on voice loudness, pitch, and tone.

Although everyone is not endowed with a strong voice that projects well, teachers must learn to interact with groups and emphasized points with their voice. It is essential that you learn vary the strength of your voice and to project it so that it can be heard by all members of the class. This takes practice, but is well worth the effort. Simple exercises that involve talking over a little distance or consciously inhaling and exhaling air will improve both the strength and projection of your voice. Skill at using your voice can greatly assist you in keeping students on task, in maintaining a positive classroom environment, and in preventing a loss of student attention practice the effective use of your voice and above all, watch your students for feedback. It will pay dividends.

## Non-Verbal Communication

Not all communications is audible. At, first it will appear that face-to-face communication consists of taking it in turns to speak. However, upon closer examination it can be seen that people resort to a variety of verbal and non-verbal behaviours in order to maintain a smooth flow of information. Such behavior includes head nods, smiles frowns, bodily contact, eye movement, laughter, body posture, language and many other things.

Of special importance to teachers is non-verbal communications, which according to the estimates of some researchers, accounts for over 80 percent.

# Verbal Communication in Micro-teaching

As we deal with verbal communication in microteaching we shall begin by understanding the following terms;

i. Verbal
ii. Communication and
iii. Microteaching

### I. Meaning of Verbal

It means communication by word, mouth, or pieces of writing.

### II. What Is Communication?

Communication originates from the Greek (Latin) root **"Communis"** meaning 'to make common'.

It is described as a process of interaction of ideas between the communicator and the receiver to arrive at a common understanding for mutual benefit (Berlo, 1960).

It is a process of transmitting information and common understanding from one person to another (Keystone, 2011).

It is also a process of generating meaning by sending and receiving verbal and nonverbal symbols and signs.

Communication can also be said to be a two way interactive process of communicating to others and learning how to interpret the information received from others.

Furthermore, communication is a process of transmitting and receiving messages (verbal and nonverbal).

### III. What is Micro-Teaching?

Microteaching is a teaching improvement technique where a teacher prepares and delivers a short piece of teaching to an audience of peers. It is a way to learn and train new teaching technique. The teacher gives lessons to small groups of peers to test out new ideas. After the mini-lesson, feedback is given so that the teacher can refine the technique. Microteaching is a concentrated, focused form of peer feedback and discussion that can improve teaching strategies. All the steps of microteaching technique include; plan, teach feedback, re-plan, re-teach and re-feedback.

## Basic Principles of Micro-Teaching

### a. *Principle of one skill at a time:*

In micro-teaching, training of one skill is given till the person has acquired mastery over it. Then the second skill is taken up and so on. Thus, we find that micro-teaching is based on the principle of giving training of one skill at a time. Behavior is to be worked on at a time in pursuance of this principle.

### b. *Principle of limited content:*

In micro-teaching, limited contents are taken up and the student-teacher is required to use those contents only. It helps the beginner teacher teach that limited material easily and confidently. Also capability of the learner must be considered when a decision of what to be taught is made **Pintail, Iris, (1980)**.

### c. *Principle of practice:*

Micro-teaching is based on the sound principle of practice. Here lot of practice is given by taking up on a skill at a time. Practice makes a man perfect. It helps the student-teacher in becoming better and better. Active participation of by the student is necessary in order to modify his behavior substantially.

### d. *Principle of experimentation:*

A lot of experiment is involved in micro-teaching. The experiment consists of objective observation of actions performed under controlled conditions.

The student-teacher and the supervisor conduct experiment on teaching skills under controlled conditions. Variables like time duration of the lesson, contents of the lesson to be taught, number of students sitting in the class etc., can be easily controlled.

### e. *Principle of immediate feedback:*

The micro-lesson lasts for four or five minutes only. Thereafter, feedback is provided to the student-teacher. It helps the student-teacher to know his drawbacks and improves on them effectively without any delay. This helps inform the trainee

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of their defective practice before they become habitual Shah, M.M. (1976).

**f.      *Principle of evaluation:***

In micro-teaching, there is continuous evaluation of the performance of the student-teacher. Evaluation helps the leaner know his drawback and then he is able to improve on it.

In micro-teaching each micro lesson is supervised by the supervisor or the peers. Drawbacks in teaching are pointed out and suggestion for improvement is given. Self-evaluation is also possible. Thus, evaluation ensures good learning by the student-teacher.

**g.      *Principle of continuity:***

Learning of different skills of teaching is a continuous process in micro-teaching programme. The student teacher learning one skill at a time and learning continues till he has mastered the skill. For each skill, the principle of continuity is implied. It makes the teacher good and effective.

**h.      *Principle of individualized training:***

In micro-teaching, each trainee is given training thoroughly. There is individual attention by the supervisor. The drawbacks in teaching are pointed out, suggestions are made one by one and thus, improvement is brought about (Passi, B.K.1976).

## Explanation in Micro-Teaching

Explanation is the act or process of making something or idea or concept clearer through verbal discussion or description in details so as to make such thing, idea or concept more easily understood {Ugbede 2004}. To present the subject-matter in the simplified form before the pupils and making it acquirable is known as explanation skills. It involves ability of the teacher to describe logically 'how', 'why' and 'what' of concept, event etc.

## Components of Explanation Skills

- **Clear Beginning Statement:** Before starting any explanation, the teacher should make the pupils aware of what he is to teach on that day through a clear beginning statement.
- **Lack of Irrelevant Statement:** While presenting the subject matter, only the concerned statement should be used.
- **Fluency in Language:** The teacher should use such fluent language that the pupils may listen and understand the thoughts of the teacher.
- **Connecting Links:** this techniques is used primarily to explain the links in statements with 'so', 'therefore', 'because', 'due to', 'as a result of', 'in order to' etc.
- **Use of Proper Words:** The teacher should use proper words for explaining an object or an event otherwise would be in a state of confusion.
- **Telling** is a kind of narration that has a simple character and is widely used in junior school. It makes telling look like a fairy tail and arises interest. Telling features clear, simply constructed phrases that pictures linear thoughts. Explanation represents discovery of truth which is based on concrete deductive arguments. This teaching method effectively develops logical operations: induction, deduction, comparison, analysis, synthesis, analogy.
- **Lecture** is an exposition of voluminous information that is analyzed and synthesized by professors. This teaching method is recommended for up-grade students and for students that have a high level of independent learning. University lecture is a method used for teaching in institutions of higher education. It represents a lecture in which the main role is not given just to the professor; it is rather divided between professor and students (Alberta 2007).

## Verbal Communication

Verbal communication deals with the use of spoken language to transmit information. It refers to the use of sounds and language

to relay a message. Verbal communication can be expressed in various forms as follows:

- **Teacher to Class Communication**: This exists when a teacher communicates with his entire class.
- **Teacher to Student Communication**: This occurs when a teacher interacts directly with a particular student.
- **Student to Teacher Communication**: This is also a direct communication between a student and the teacher, but this time it is the student who initiates the conversation.
- **Student to Student Communication**: This occurs when two or more students interact with one another.
- **Student to Class Communication**: This exists when a student or group of students direct their messages to the entire class.

For the purpose of this study, we shall be basically looking at the types of verbal communication in microteaching, as it differs from it forms.

## Types of Verbal Communication

Verbal communication can be trifurcated (i.e. divided into three) into:

A. **Verbal**: The meaning attached to the spoken word.
B. **Vocal/Paralinguistic/Paralanguage**: It is concerned with the vocalization or how words are spoken.
C. **Written**: Written communications are printed messages like textbooks, training manuals, handout etc.

We shall now consider each branch of verbal communication individually.

1. **Verbal**

   This deals with the meaning and the grammar of the words used by the teacher.

   - Word choice is very important in communication
   - Teachers should speak words that people understand, and do not be offensive.
   - Correctness is important.

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## 2. Vocal/ Paralanguage/ Paralinguistic

This deals with the vocalization which focuses on "**How**" a word is spoken than "**What**" is spoken. It involves the following:

- **Speaking rate**: Refers to the speed at which a person speaks. You may want to vary your rate of speech to express different thoughts and feelings. Also, you may want to speak slowly to emphasize an important point or to a serious or sober mood.

- **Volume**: Refers to the loudness or softness of the speaker's voice. Whether you choose to speak louder or more quietly, you draw attention to your speech through contrast.

- **Pitch**: It means the highness or lowness of the speaker's voice. Changes in the pitch are known as inflections (i.e. a change in how high or low your voice is as you are speaking).

- **Tone**: Tone involves the volume you use, the level and type of emotion that you communicate and the emphasis that you place on the words that you choose.

- **Accent**: It is the relative prominence of particular syllable of a word by greater intensity or by variation or modulation of pitch or tone. It is a characteristic pronunciation, especially one determined by the regional or social background of the speaker. And one determined by the phonetic habits of the speaker's native language carried over to his or her use of another language.

- **Intonation**: Refers to the rise and fall of the voice in speaking, especially as this affects the meaning of what is been said.

- **Stress on a particular word**: This refers to the extra force used when pronouncing a particular word or syllable.

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### 3. Written

This are verbal communication, which are printed messages like textbook, training manuals, handout etc.

- They may be printed on paper, handwritten, or displayed on the screen.
- It is a "one-to-many" communication process.

While oral communication takes place in real time (synchronous); written communication can be asynchronous (occurring at different times) or synchronous – real time (teachers writing on the board).

# CHAPTER EIGHT

## Skill of Questioning

A question is a verbal utterance or written inquiry that requires response from the person to whom it is directed. Under the classroom setting, questioning skill refers to the ability of the teacher to use a range of questions and questioning techniques at appropriate time to enhance teaching- learning process and achievement of set objectives. Brown. (1981).

Questioning is about the most important skill in teaching learning process because the success of any lesson depends highly on how effectively the teachers frames and use questions to involve learners and to achieve instructional objective. Questioning enables the teacher to determine the strength and weakness of his students, enables self-assessment and evaluation of the extent of achievement of instructional objectives. Questioning can arouse the learners curiously and develops their mental process (intellectual capacity). Very importantly, the teacher should note that in practice and use of the skill of questioning, wrong answers by learners to questions are not totally useless. The teacher should rather to the answer. Few of the recognize value of the skill of questioning, it is imperative question have to be properly framed for clarity, easy interpretation and understanding. They should have bearing and focus. In order words, questions should seek specific responses or information from leaners. By large question should reflect the intellectual level and readiness of learners. The ability of the teacher to appropriately distribute questions among lesson is also an aspect of the practice and use of this skill.

Questions should be well distributed so that leaner's can have equal opportunity of benefiting from the skill. Questions vary in their types and have different effect on leaners depending on their simplicity and complexity. Is also important that the teacher should take connivance of the categories of blooms taxonomy of educational objectives; the cognitive, affective and

psychomotor domains. The categories under the cognitive domain, which can help the teacher to frame questions, are:

- Memory
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

These classifications reflect a hierarchical order and level of difficulty. Memory being the lowest level while evaluation is regarded as the highest level of questions. We shall now describe each categories and how to frame questions under them. This is the power or ability, to recall or me member things and informs. Memory question are those that require the learner to simply remember, restate or recall information already taught in a lesson. They are refers as lower level questions because they: do not require mental reasoning before answering some words that can help the teacher to frame questions under this level include; what, who, when, name, state, etc.

## Comprehension and Composition Level Questions

Comprehension is the Power of understanding Comprehension' question are those that are directed at finding the level of understanding of ideas, principle Concept and other useful inform learnt in a lesson Some measurable verbs which may be used in as questions under comprehension include; define, explain, predict summaries defend change illustrate, determine, disintegrates etc. Gandhi, (1992).

## Application and Application Level Questions

Application in the context of this text is used to refer to the action of instance of putting a theory or discovery etc. to practical use. Application questions are those that are concerned with the ability of the learner to the knowledge, which they have assimilated through other level cognition during a lesson in real. Situations some behavioral to be useful in the formation of these

types of questions include; prepare, show, solve, change calculate, relate, construct design, restructure develop, generalize transfer: use, interpret etc.

## Analysis and Analysis Level Questions

Analysis is the study of something by 'examining its 'parts and relationship. It is the ability of an individual to separate things information into parts that makes it up for easy understanding. Analysis the learner to separate or pieces information or thing into ;parts constitute it so that the said information or thing may be understood leaners in this case are also expected to make deductions from the information and to be able to express themselves or their thought's 'in lesson to the examination they have made on the said information. Some verbs which may be useful in the framing of analytical question are; relate, subdivide, identify, contrast, distinguish, deduce, detect, classify, use, transfer etc.

## Synthesis and Synthesis Level Questions

This is the opposite analysis. It is referred to as the combing or together of part of a thing or ideas to form a complex, whole level of questions requires the ability of the leaner to create or bring her part. to form a whole or system The following verbs can be pare, create, explain, design, modify, assemble, produce, develop emphasize framing questions compare, create, explain, design, modify, assemble, produce, develop, emphasize, combine, formulate, plan etc.

## Evaluation and Evaluation Level Questions

Evaluation is concerned with the value of a given question using certain criteria (Irroaganachi and Ochuche 1988). It is the quality or value of something. Evaluation questions is the highest level questions and most thought provoking because they are the ability of the leaner to make judgment on Ideas, concepts, font and situations and then advance reasons for such judgment. Verb can be used to frame questions under this Categories include

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compare contrast, appraise, react, criticize, justify, interpret, validate, asses etc.

## Other Classifications of Questions

It should be noted that the affective and psychomotor domains also have their levels and categories of questions. However, the intellectual process the cognitive category are interwoven with the categorizations in both the affective and psychomotor domains because questions at any level in the as it has previously started, generally, questions, questions may vary in their and have different effect on learners depending on their level of simplify the following of questions; lower level, higher level, probing and divergent question.

## Lower Level or Lower Order Questions

These are kind of question that requires the ability of the learn recall and remember what he or he must have learnt (heard, read or during a lesson. These kinds of questions are simpler because they do demand rigorous intellectual process before answering. For example is the capital Niger State? Who is the president of Nigeria? These of questions are equivalent to memory level questions under blood taxonomy of educational objectives.

## Higher Level or Higher Order Questions

These are kinds of question that require the leaner's to give reasoned response answer. In other words those are questions that demand a higher degree mental operation or process in order to reach an answer. They require if a leaner gives a correct answer he or she must be able to explain questions demand that leaner's should be able t contrast, compare, infer, solve problems, perceive cause effects and make value judgment. They can be describing as questions on the "Why level". For instance while self-medication not advice able.

## Probing Questions

These are question that stimulates logical and critical thinking. According to Brown (1975), probing question technique helps to direct the leaner's think more deeply about an initial answer and to express themselves clearly. In so doing they develop leaner's critical awareness.

Communication skill. Probing questions are used to peep into the mind of learners in order to determine their direction of thinking on a given object matter or task. They are also used to sustain discussions during Probing questions are employed to Stimulate learner's logical and calculate thinking so as to ensure deeper understanding of ideas, concepts events rather than mere Superficial Comprehension. In formulating questions, the teacher's cue guide is the response from the leaners. For examples if you found money on the ground what would you depending on the response this may be followed with why? Following probing questionings skill or techniques are imperative framing probing questions; prompting, seeking further clarification refocusing.

## Divergent Questions

Hamadu (1992) defined divergent questions as Open-ended questions require students to use both concrete and abstract thinking to determine for themselves an appropriate response. In other words they are e-ended questions that have a variety of satisfactory answers. In this learners have the freedom to explore issues in any direction. Reponses to divergent questions are usually more rigorous to evaluate answers are not out rightly classified as wrong or right because they are probabilities and possibilities. Divergent questions demand that leaner use both concrete and abstract reasoning to reach answer considered, to 'be correct Here learners think creatively and differently, kind of response, which are possible or probable answers For sample what to do you think would happen in America and the rest 01 the military takes Over power in America? If oil (petroleum) finish in Nigeria what do you think would happen?

| Pupil activity | Students should be involved in organizing activity based learning. |
|---|---|
| Focusing | Focusing implies drawing the attention of the learners towards a particular point which the teacher wishes to emphasize. Such technique involves verbal focusing, gestural focusing, or verbal-gestural focusing. |

## ILLUSTRATIONS AND EXAMPLES

An example is a thing that is considered representative or typical of a particular group or set. It is a fact or event or conditions that illustrates or represent a general rule. Illustration is the act of making something clear by using examples and various media, especially charts and pictures etc. or on the other hand is means by which a full explanation is given to a lesson. Illustrations are of great importance in teaching because they help to impress knowledge more firmly on the mind of the students. There are two kinds of illustrations.

1. **Verbal illustration**: this takes various forms. It can be a word, a short story, a short song, a proverb or a wise saying.
2. **Non-verbal or material illustration**: this is sub-divided into two forms: - concrete and pictorial.
   I.   Concrete materials may be the real objects or the models of objects e.g. pawpaw fruit or its model.
   II.  Pictorial materials include pictures, charts diagrams, sketches and maps etc.

However, the skill involves the use of appropriate examples and illustrations to facilitate teaching-learning process. It is based on the principle that teaching-learning takes place by association. The teacher who is able to abstract the properties of a concept, an event or a phenomenon and who could proceed to establish association between them and others is said to be using

skill of example appropriately. If the bond of association is not well established through the use of appropriate examples and illustrations or if the bond of relationship so established is weak, remembering may not be aided during learning. Consequently, recall may be difficult, Adenokun (2000). The teacher should be aware that the use of examples and illustrations are necessary to clarify, verify and substantiate abstract ideas and concepts in order to achieve instructional objectives.

There are several ways to approach the practice and use of examples and illustrations. One of such ways, is may be by first starting and explaining the idea, principle or concept that the learners are to learn and then following it up with appropriate examples which illustrates, explain, clarifies and substantiate the idea, principle or concept . On the other hand the teacher may start with appropriate examples and illustrations of an idea, principle or concept and then guide the learner to generalize and explain by making reference to the given examples and illustrations.

Whatever method that is adopted as far as it can help to achieve instructional objectives such examples and illustration can be said to be appropriate. It is important that an effective teacher should always incorporate examples and illustrations in his lessons. In line with Elele and Ohuche (1988), the skill of illustration and examples can be enhanced through the use of the followings: Various instructional media ranging from visual, audio to audio-visual media.

> Practical demonstration, experiments and dramatization.
> Verbal illustrations, explanations such as analogies, simile, metaphor and parables.

**Point to Bear in Mind in Using Illustrations**

1. Teachers should remember that all learning comes from various senses that is, seeing, hearing, feeling, tasting and smelling. Illustrations are therefore necessary in teaching because they appeal to a number of the senses particularly that of seeing and hearing. Teacher should

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use illustrations that will allow learners to make use of many senses.

2. The objective of using illustration is to help the understanding of a lesson and not the teacher to dominate the lesson by talking throughout the whole period. All sorts of undue wandering away from the main lesson should therefore be carefully avoided while teaching. For instance, if a verbal illustration is needed to make a point or lesson clearer, it must be short and to the point.

3. All maps, pictures, diagrams, objects, models etc. , that are needed for a lesson should be ready, brought to the classroom before the lesson starts and used at the appropriate time.

4. Pictorial illustrations should be bold, large and well and neatly drawn. They should not be elaborate and complicated, so that the learners will have no difficulty in locating the required features or understand the point you are stressing.

5. All undue anxiety and noise making should be carefully avoided while showing material objects.

When using examples the teacher should take cognizance of the following guidelines:

➢ Examples should be chosen to serve specific objectives and needs of learners.

➢ Examples should be relevant or related to the developmental level and experience of learner.

➢ Examples should be selected carefully and presented systematically so as to allow for logical comprehension and achievement of set objectives.

➢ Example should illustrate, clarify and substantiate ideas, principles and concepts to be accomplished by learners.

## Do's and Don'ts of Illustration/Example Writing
1. Be careful to choose appropriate examples:
Any examples cited must be relevant and appropriate examples. If you are writing about divorce and child custody

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laws in the state of Michigan, for example, it is irrelevant and inappropriate to discuss other states' laws. Use a format similar to this:          GENERALIZATION/OPINION   > Example Discussion of example

2.     Clarify    for    the    reader    that    you    are    using illustrations/examples:

Use an introductory phrase, such as "for example" to introduce your illustrations/examples for the reader and to alert them that they are coming. Other phrases are found in the text. Only if it is clear from the context of the writing should these be omitted.

3.  Do not overuse illustrations or examples:

The general rule is to use two or three examples. One may not prove your point or be questionable while more than three can be interpreted as padding.

# CHAPTER NINE

## Listening

### What is Listening?

Listening is the ability to accurately receive and interpret messages in the communication process.

Listening is key to all effective communication, without the ability to listen effectively messages are easily misunderstood, communication breaks down and the sender of the message can easily become frustrated or irritated. (*Slideshare*)

### What does it Mean to Listen?

For example, your friend is telling you all about his new girlfriend. He describes how beautiful, her shiny dark hair and nice body. With a half an ear, you hear what he is saying. But are you really listening?

Well, listening involves taking the words and sounds we hear and converting them into something that makes sense to us. By this, we attach meaning to the words and sentences. Since your friend has the girlfriend and not you, it may not be that important to know every detail. But what if your friend mentioned that his new girlfriend has a twin sister who was also single, things may be different.

### Reasons Why We Listen

We listen for some reasons:

For one, we listen to **gather information** about something. For example in a scenario of the single sister, you may be all ears! That is mostly because the message being sent has meaning to you.

We also listen to **understand**. For example, think about a time you needed driving directions. As someone guides you to through a few lefts and rights, you are attending to every word. Sometimes, we listen for **enjoyment**. A good joke or maybe a gossip comes your way. As the messages are being sent, you are mostly attentive because it's fun.

## Types of Listening

1. **Discriminative Listening**

This is where the objective is to distinguish sound and visual stimuli. This objective doesn't take into account the meaning instead the focus is largely on sounds. In basic level class this can be as simple as distinguishing the gender of the speaker or number of speakers. A child response to stimulus and soon can recognize its parents' voice amidst all other voices.

2. **Comprehensive Listening**

This focus on understanding the message. However the problem can come in the form of understanding depending on many factors (both individual and social) student can end up understanding the message in different ways.

3. **Critical Listening**

The kind of listening where the listeners have to evaluate the message. Listeners have to critically respond to the message and give their opinion.

4. **Appreciative Listening**

Where the focus is on enjoying what one listens. Like using music to understand better meaning using the lyrics to fit in the words.

5. **Therapeutic Listening**

This is where the listener's role is to be sympathetic listener without much verbal response. The listener allows somebody to talk through a problem. The listening is very important in building good interpersonal relations.
(*Martins library*)

## Stages of Listening

Probably, the simplest way to start thinking about listening is to break the process into stages.

The first stage is to open yourself to the incoming message by letting down your defense as far as possible and try to send the real underlying meaning of what is being said.

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The second step is to begin to interpret or reconstruct what is being said, remembering always that words have different meaning to different people. Keep asking yourself whether you really understand the message. Do your best to listen with full attention and withhold any judgment, criticism and assumption at this stage. Avoid making conclusion before the story ends.

The third step is to evaluate what is being said only after you have made a reasonably objective interpretation of the message. Just reflect on the information and options being presented. The fourth step is responding. Here, you demonstrate that you have truly been listening. Reassuring the speaker that you have been giving him a full attention (*Martins library*).

## Obstacles of Listening

It is important to be aware of the obstacles to listening in the classroom. You should be aware that all the people in the class room including yourself are filtering and interpreting every word through a personal screen attitude, values past, experience and strong feelings. Be aware that listening behaviour will be influenced by factors such as age, sex, cultural background and even physical appearances and mannerism. The obstacles of listening include:

1.  **Anxiety and Distraction**
    Listening is difficult in an atmosphere of anxiety, tension or boredom.

2.  **Bias**
    As a direct result of our life stories and experiences, we all have basic convictions, attitude and beliefs and prejudice (preconceived opinion that is not based on reason or actual experience) in various ways which could cause their listening process to break.

3.  **Language Problem**
    Classrooms are made up of students from different ethnic groups, of which some may have problem with the language that is used as the medium of interaction. Such

students may find it difficult to comprehend aspects of listening.

4. **Attitude, Tone and Voice**

At some time or stage of the day during the instruction, students lose concentration due to tiredness, hunger, noise, cold, heat etc. which could affect their listening ability (*Martins library*).

## The Principles of Listening

A good listener will listen not only to what is being said, but also to what is left unsaid or only partially said.

Effective listening involves observing body language and noticing inconsistencies between verbal and non-verbal messages.

For example, if someone tells you they are happy with their life but through gritted teeth or with tears filling their eyes, you should consider the verbal and non-verbal messages are in conflict, they maybe don't mean what they say.

1. **Stop Talking**

   "If we were to talk more that we listen, we would have two tongues and one ear". Mark Twain. Don't talk, just listen. When somebody else is talking, listen to what they are saying, do no interrupt, talk over them or finish their sentences for them. Stop, just listen. When the other people have finished talking you may need to clarify to ensure you have received their message accurately.

2. **Prepare Yourself to Listen**

   Relax. Focus on the speaker. Put other things out of your mind. The human mind is easily distracted by other thoughts e.g. what's for lunch, I have not registered my courses. Just try to put other thoughts out of your mind and concentrate on the messages that are being communicated.

3. **Put the Speaker at Ease**

   Help the speaker. Remember their needs and concern. Nod or use other gestures or words to encourage them to

continue. Maintain eye contact but don't stare, show you are listening and understanding what is being said.

## 4. Remove Distraction

Focus on what is being said, don't shuffle papers, look out the window, pick your fingernails etc. Avoid unnecessary distractions. These behaviours disrupt the listening process and send messages to the speaker that you are bored or distracted.

## 5. Empathize (Be Open Minded)

Try to understand the other person's point of view. Look at issues from their perspective. Let go of preconceived ideas. By having an open mind we can more fully empathize with the speaker. If the speaker says something that you disagree with then wait and construct an argument to counter what is said but keep an open mind to the views and opinions of others.

## 6. Be Patient

A pause, even a long pause, does not necessarily mean that the speaker has finished. Be patient and let the speaker continue in their own time, sometimes it takes time to formulate what to say and how to say it. Never interrupt or finish a sentence for someone.

## 7. Avoid Personal Prejudice

Try to be impartial. Don't become irritated and don't let the person's habits or mannerisms distract you from what they are really saying. Everybody has a different way of speaking, some people are for example more nervous or shy than others, some have regional accents or make excessive arm movements, some people like to pace whilst talking-others like to still. Focus on what is being said and try to ignore styles of delivery.

## 8. Listen To Tone

Volume and tone both add to what someone is saying. A good speaker will use both volume and tone to their advantage to keep an audience attentive; some will use

pitch, tone and volume of voice in certain situations to let you understand the emphasis of what is being said.

9. **Listen For Ideas – Not Just Words**

You need to get the whole picture, not just isolated bit and pieces. Maybe one of the most difficult aspects of listening is the ability to link together pieces of information to reveal the ideas of others. With proper concentration, letting go of distractions, and focus becomes easier.

10. **Wait And Watch For Non-Verbal Communication**

It is also important to recognize facial expressions, gestures, eye contact, posture and tone of voice. The ability to understand nonverbal communication, or body language, is a powerful tool that can help you connect with others.

11. **Responding**

Here you demonstrate that you have truly been listening, reassuring the speaker that you have been giving him a full attention (*Slide share*).

## Teaching Skills: Set-Induction and Closure

### What is teaching skill?

Teaching-learning process is an action packed exercise. It is a cycle of actions which starts with the actions of the teacher to the reactions of the learners(s). Teaching is defined as a system of actions performed by the teachers ostensibly to induce some learning in the students/pupils (Dienye 1994). Such vital teacher's actions are what we usually refer to as teaching skills.

Thus, Esomonu (1998) described teaching skills as those actions/skills which a teacher chooses and uses in stepwise presentation of the content of his lesson so that the lesson becomes easily understandable. To Miltz (1975), teaching skills are specific teacher behaviours designed to help the classroom instruction become more effective. Following the above views, it is obvious that teacher skills are:

a) Actions performed by the teachers
b) Actions deliberately chosen and used by the teacher
c) Not just mere actions, but, actions essential for effective and efficient teaching – learning process.
d) Actions not genetically inherited but, actions acquired through practice/experience.

### Types of Teaching Skills.

These vital teacher's actions called teaching skills are of various forms, namely:

- Set induction
- Closure
- Stimulus variation
- Non-verbal communication
- Reinforcement
- Deliberate Repetitions
- Questioning
- Use of Examples

## Set-Induction - 'To induce set'

To induce set means to give rise to or to bring about set. It is to cause to be arranged in readiness, to go in a specified direction; to cause someone to begin an activity.

In the field of sports, set induction is what happens when a race-starter wants to start a race, shouting, "On your marks, Get set, 'Go." As the athlete hears these words, in turn, he pays - good attention, adjusts himself in readiness to take-off at the fastest speed. At the word "Go," he springs forward, focusing his gaze to attain the goal at the shortest time.

In teaching-learning process, set induction is a pre-instructional skill employed by the teacher to arouse and sustain learners' interest and attention. It is a concept that comes from research on learning. This research appears to indicate that the activities which proceed - a learning task have an influence upon the outcome of that task and that some instructional sets promote learning better than others. Hence, Amajirionwu (1985) defines set induction as:

Pre-planned action by the teacher to arouse the interest of these students, to create an atmosphere of curiosity and motivation in a classroom and thereby energises, directs and sustains the learners through the lesson.

Set induction is a skill used by the teacher to induce learners to attend and learn. It intensifies excitation and eagerness to perform on the part of the learners. This is because the effectiveness and efficiency to perform depends on the extent the learners having been prepared. The presence of at} activated motive arouses the interest of the students preparing them for action in a chosen direction.

## When to Use Set-Induction

Set induction is not used only at the beginning of a lesson. It may also be appropriately used during the course of a lesson. Examples of activities for which set induction is appropriate are

- to begin a new unit of work;
- to initiate a 'discussion or question and answer session;

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- to introduce an assignment;
- to prepare for a field excursion;
- to prepare for a practical session in the laboratory;
- to prepare for viewing a film or TV programme; and to introduce a guest speaker.

In fact, set induction is necessary wherever there is need to arouse learners' interest and get them ready for a new task. It could be at the beginning or at the middle of any activity or any moment there is a change in the idea/concept in the activity.

## How to Establish Set-Induction

There are varieties of ways, a teacher can establish set-induction; such ways include:

1. **Related Previous Studies:** Until your students are prepared to listen (have a cognitive set), it is usually unwise to begin a lesson. Your opening remarks, frequently related to the homework assignment or some recent lesson will have to be repeated if you have not gained their attention.

2. **Silence:** One of the most frequently used and most effective techniques for gaining students attentions is to do nothing. Simply stand silently facing the class. Soon the entire class will be drawn to the silence. The lack of customary teacher talk arouses students' interest and attention. This technique is especially effective when you have a small group within the class that is inattentive. Silence and intense stare in the group's direction will soon get their undivided attention.

3. **Voice Control:** Another' attention-getting technique is to begin speaking in a very low tone and gradually raise your voice to normal volume when the class is-quiet and attentive. If used often this technique can even become a signal to be quiet and pay attention. In a sense you have conditioned the class to become attentive on the signal.

4. **Movement:** Gestures and teacher movement can also be effective attention getters. Students, like most people, are

naturally drawn to any type of movement. For example; waving your hand, practicing your golf swing, dancing or walking toward noisy students can direct attention to yourself. Experimenting with various movements will determine which ones are most effective with a particular class. Classes differ based on such factors as course content, socio-economic level, family background, motivation, grade level and class size.

5. **Relate to a Topic of Vital Interest:** One method of developing student interest is to begin the lesson by relating it to a topic of vital interest to the class. The topic itself need not even be closely related to the lesson. For example interest in music can lead into cl study of sound. School elections can serve as a lead to the various arms of a Democratic Government. Or a discussion of home pets can be used to introduce a unit on animals. This technique is an art that needs to be practiced and refined. Listen to the conversations of your students' for topics that you can use to start your lessons. A simple remark related to this topic of interest will usually get the discussion started.

6. **Suspense:** Suspense can also create interest and involvement: Begin the classwith an interesting demonstration or a discrepant event. For example: begin a lesson on movement in aquatic animals by introducing an aquarium containing a variety of aquatic animals into the classroom; demonstrate a volcano in earth science, show an airplane in flight when 'introducing a story on air travel in reading, walk into the classroom with open umbrella in Geography, break a ceramic ware in house-keeping, or mix paints to form various paint colours in arts. Make the demonstration or 'discrepant event as novel or surprising as possible. Even better, involve students it) the introductory demonstration or ·in showing the event.

7. **Models, Diagrams or Pictures:** These materials are effective in capturing attention and-interest when situated in visible spots. You might begin the lesson by soliciting students' comments. For example you might ask the class to guess, the model's function or what the diagram or picture represents.

8. **Questions and Hypothetical Cases:** This involves asking of series of related questions or even initiating lesson with one thought provoking question to be effective, however, they must stimulate student curiosity or interest. For example questions such as, "what would happen if...?" are excellent for gaining interest. When the right conditions are attached, hypothetical cases that deal with the unknown or the presentation of a puzzling situation are often successful. For example ask what effect no school would have on their life, show an ice cube sinking in a clear liquid that looks like water, or show a piece of wood that will not burn. However, if you decide to create sets by using questions or hypothetical cases, make sure they are strong. Too often teachers use questions or cases that are ineffective and, consequently, weaken the future success of this technique.

9. **Advance Organizer:** Students learn more when they know what to expect from a lesson. Thus to maximize learning your introductory remarks should - provide students with what Ausbel (1963) calls an advance organizer. That is, your opening remarks should give students a "what to look for" frame of reference. Dececco (1968) calls this 'the expectancy function of teachers. Set should attempt to create an organizing framework for the body of the lesson. No matter what form it takes, the purpose of an. advance organizer is either -to give students the background information they need to make sense of the upcoming lesson or to help them remember and apply old information to the lesson .. Thus, the

organizer acts a kind of conceptual bridge between the new and old information.

Many teachers use a verbal statement of the lessen objectives or outlining of the task for the lesson, as the advance organizer. However, in using this technique you must take care to translate the written objective(s) into a form that is both Understandable and interesting to students. An example of this technique is:

**Objective**: The students will .be able 'to correctly calculate the impact speed of a dropped object.

**Translation**: (Teacher. holds an object overhead): 'When I drop this object, watch it closely (Teacher drops object). There was a continuous increase in the object's speed as it fell. But, it fell so fast that the increase was impossible to detect. What was its speed upon impact?' (Silence) 'That's what we're going to find out today.

## Use of Examples and Analogues

The introduction to an activity can also contain guides or cues which will be helpful to the pupils in understanding the lesson. For instance to begin a lesson on the principles of classification in living organisms ,we can start by introducing a variety of common plants and animals into the classroom for the pupils to categorize.

## Functions of Set Induction

The functions of set- induction are as follows:

1. To focus the students' attention 'on what is to be learned by gaining their interest.

2. To prepare the students to tackle the task mentally and manipulatively.

3. To provide a smooth transition from known-or already covered material to new or unknown material. This is often achieved by a question-and-answer session on the topic covered in the last lesson, providing a linkage with the next topic. Alternatively, it may use examples from pupils' general knowledge to move to new material by use of example or analogies.

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4.     To promote speed accuracy and efficiency by eliminating other responses which are not relevant to the task at hand.
5.     To excite and prepare students for an action while motives direct the action.
6.     To establish a structure or framework for the lesson by giving adequate preparation so that while engaged on a Learning activity the pupils are able to come near the instructional objectives.
7.     To establish student interest and involvement in the forthcoming lesson
8.     To give meaning to a new concept or principle and thus facilities recall.

## Closure

Closure is the last skill in micro-teaching. Closure is a skill that is concerned with bringing the lesson to an end. To bring the lesson to an end, the teacher summarizes the major points of the lesson. Closure skills can take various forms or shape. Closure is a complement of set induction. As a teaching skill, closure is employed by the teacher to draw attention to the end of a specific learning sequence, or of an entire lesson by focusing attention on what has been learned. The main points and concepts are pulled together so they are organized and integrated within the learners existing cognitive structure (Moore 1989 Milts 1975).

It needs to be carefully planned, and for this the teacher needs to watch the clock, allowing adequate time to initiate closure before the lesson is due to end. The careful timing of the learning activities in a lesson plan will be of assistance here. To be overtaken by the bell is a most ineffective end of a lesson. Closure should be more than a quick review of the points covered in the lesson. Effective closure reinforces what has been learned by reviewing the key points of a lesson and relating them to other material the pupils have already learned. It should enable students to organize the new material in relation to itself

and to other lesson. Closure is vital to the teaching-teaching process as is set induction and the lesson itself.

## When to Achieve a Closure (1)

A teacher may want to achieve closure during the course of a particular lesson. Shostak (1982) suggests that closure is appropriate in the following situations:

- To end a long unit of study
- To consolidate the learning of a new concept
- To close a group discussion
- To follow up a film, record, play, Radio or T.V. programme
- To summarize experiences of a field trip
- To summarize the presentation of a guest speaker
- To end a science experiment, and
- To follow-up a homework assignment reviewed in class by using praise and encouragement.

## Forms of Closure

There are three forms of closure which a teacher can use. They are:

1. **Instruction Closure:** This is the type of closure achieved by a teacher at the end of the lesson. At this point the teacher carefully indicates the link between the previous knowledge and the new knowledge or the summary of the major points covered in the lesson. The summary is a usually in logical order. This is a teacher based closure.

2. **Cognitive Closure:** This is student-based closure. It is attained when the students have made the link between what they have just learned and previous knowledge or summarize by themselves the major points of the lesson in a logical order. For example, at the end of a discussion a student summarizes the major points covered; at the end of laboratory exercise students list the steps carried out. The results obtained and the conclusions draw.

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3. **Social Closure:** This is teacher-based closure. It incorporates rewarding, praising, and encouraging. I essentially consist of the teacher giving the students a feeling off achievement and praising them for the good work they have accomplished and encouraging them to continue to strive. Example: "that was a difficult assignment. I am pleased with the way you tackled. It." Social closure is important in giving the students a sense of achievement and is particularly useful when used in referring to a difficult learning task.

**How to Achieve a Closure (2)**

Allen et al (1969) suggest five different ways that closure can be accomplished. They are:

1. **Organize content around a central theme, generalization or model:** Either the teacher or the students can then relate the material covered back to the organizing them. generalization, or model. Example includes such statements as "the characteristics of this play make it an excellent example generalization that a negative, number times a negative number result in a positive number." or "this form of government fits our model of a democracy.

2. **Through the use of cueing:** This can take the form of an outline on the chalkboard, which helps students organize the material by outlining the major points covered, or you can simply use cueing statements such as "The main points are as follows....."Or "There are three important points to remember. First....." Cueing can be effectively used at any point in a lesson and is often used at several points when new concepts are being developed.

3. **Through the use of summary questions:** Questions such as "what were the four major points covered in today's lesson?" or "Mike can you summarize today's lesson? Or "can used effectively to close a lesson.

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4. **Connecting new and previously learned materials:** For example structured statements such as' "Let's relate this to yesterday's study of addition," or "This form of government is similar to the other forms of government we have studied" or 'Can we relate this example to examples we have studied in tile past".

5. **Allow students demonstrate or apply what they have learned:** This is a commonly used and an effective way to achieve closure. If we concept or skill cannot be demonstrated or applied, it has not been learned. Examples of this technique include such teacher questions or statement as "Can you give me other examples of nouns and pronouns?" or "let's do the oral exercises in the book together." Demonstrating or applying the new information at the conclusion of the lesson has the added advantage of providing immediate feedback to the students. Many teachers have students do worksheets or in-class assignments to achieve closure by application and to provide immediate feedback to the students.

It is important that every student in your class achieve closure on a lesson. Just because one student demonstrates closure does not necessarily means that all have achieved it.

## Functions of Closure

1. It draws attention to the end of a specific learning, specific learning sequence or of an entire lesson.
2. It focuses attention on what has been learned; help learners retain the important points and increase recall and use of that information at another time.
3. It has inbuilt feedback mechanism and hence it is used to clear misunderstanding of lesson content.
4. It gives students that feeling of achievement or accomplishment.
5. It enables students to comprehend and master relationships that exist among the different ideas,

concepts, principles and activities thus enhance continuity of thought.

6. It represents, the main points of a lesson a nutshell making impossible for any student to leave without grasping something.

## Forms or Shape of Closure

1. Closure by questioning pupils on the major points of the lesson.
2. Closure by giving the pupils exercise or problems on the work done for necessary solutions.
3. Closure of discussion of the salient (main, most noticeable) points found in the lesson.
4. Closure by revising or reviewing the lesson.
5. Closure by giving pupils assignment.

## Kinds of Closure

1. **Instructional Versus Cognitive Closure**

   Allen and Ryan (1964) distinguished between instructional closure and cognitive closure. According to them, instructional closure is reached when the lesson is completed and the teacher has shown the link between past knowledge and the new knowledge. On the other hand, Cognitive closure is reached when the students have made the links between old and new knowledge (*Martins library*).

2. **Social Closure**

   Brown (1975) identified social closure to mean the act of giving pupils a sense of achievement after a lesson and encouraging them to continue to strive and make improvement. Anything that has a beginning must have an end so with the lesson that is taught. Closure is there for an indispensable technique in teaching.

## Importance of Closure

1. Closure is the way to check to see if the students understood the lesson as well as to determine exactly what they learned.
2. Information from a closure activity can also help to inform future instruction.
3. It is also important to check for understanding throughout the entire lesson.
4. However, closure as the word implies, is that activity that comes at the end of the lesson.
5. It draws attention to the end of a specific learning, specific learning sequence or of an entire lesson.
6. It focuses attention on what has been learned; help learners retain the important points and increase recall and use of that information at another time.
7. It has inbuilt feedback mechanism and hence it is used to clear misunderstanding of lesson content
8. It gives students that feeling of achievement or accomplishment
9. It enables students to comprehend and master relationship that exist among the different ideas, concept, principles and activities thus enhance continuity of thought
10. It represents ,the main points of a lesson a nutshell making impossible for any student to leave without grasping something

## Closure Activities

Ideally, closure activity creates powerful learning effects at the tail-end of the class, something that will reverberate for hours after the lesson is over.

1. **Ask Questions**
   - What one thing did you learn today?
   - How does today's lesson impact your understanding?

- How would you summarize today's lesson for someone who wasn't here?
- What was the most significant learning from today?
- What was the most difficult concept in today's lesson?
- What should I review further in our next lesson?

2. **If you are Running Short on Time**
   - On a scale of 1-5 using your fingers, rate today's lesson. (to eliminate peer pressure have everyone close their eyes)
   - As you leave today, I'll be at the door. Please share with me one word or concept you learned today? (obviously, will be difficult for large classes)

3. **Closure could also be simple comments such as:**
   - Today we did this_ _ _Tomorrow we will continue by doing_ _ _
   - Tomorrow you will need to bring _ _ _
   - Today's home work is _ _ _

4. **Provide a Get-Out-Of-Class Ticket**
   - Sometimes, you can ask students to write down one potential TEST QUESTION from today's lesson. Collect them as the students leave the classroom, you might want to use one or two in exams. Also, saying goodbye is also an opportunity to build up individual relationship with your students which, in turn helps in developing a good rapport which will enhance the students interest in the subject area.

## Activities
1. Outline the four qualities of a teaching skills
2. Observed any teacher  to note the set induction procedures using this appraisal guide)

(Place tally opposite the appropriate category in the guide

i. The teacher's method of introducing the lesson focused on the topic and engaged the student interest.

ii. The teacher's introduction provided a smooth transition from known material to new material.

iii. The introduction created an organizing framework for the lesson.

iv. The teacher gave cues or used material which helped the students to understand the ideas explored in the body of the lesson.

3. Now take the opportunity to practice the skill of set induction yourself. Plan a short micro lesson off 5 to 10 minutes length concentrating on the introduction and arranged to give it to 5 to 10 students or a few of your friends/fellow students. Arrange for some subject feedback using any of the feedback systems.

4. Describe the three purpose of a set induction

5. Describe five ways to achieve closure in a lesson

6. Use the appraisal guide given below to analyses the closure techniques used in the lesson you observe

i. The teacher summarized the main points of the lesson at the end

ii. The teacher had the students summarize the main points of the lesson by questioning at the end of the lesson.

iii. The teacher consolidated major points and ideas during the lesson before moving on to new topics.

iv. The encouragement and praise given by the teacher created a sense of achievement.

7. Prepare a micro lesson lasting ten minutes in which you practice the skill of closure. Arrange for an audio-recording o be made. Listen of the playback and record instances of closure techniques by placing a tally opposite the appropriate category on the appraisal guide.

# CHAPTER ELEVEN

## Instruction Material
### Introduction

Every school curriculum at all levels demand 'ways' and 'means' of implementing it in order to attain the predetermined objectives. The 'way' methodology teaching have been discussed at length in the previous chapter. This chapter is therefore aimed at examining the means to effective teaching – learning process. The means are the instructional materials, which are the vehicles that carry message/information from a transmitting source to the receiving end. In a typical classroom environment which is the seat of curriculum implementation, the teacher s the sources and receiver is the learner. For the intended learning to take place, the teacher must communicate effectively/with the learner.

The learner receives' information/message through the senses. Hence, learning takes place through sense. Learning is more effective if the impression made on the senses is vivid, arresting or striking. The more senses a leaner involves in learning, the deeper the impression made on the mind, the greater the understanding and longer he or she will remember what has been taught. All such available materials and devices which appeal to all the sense and feeling and aid learning constitute teaching-learning materials. The materials help teachers communicate effectively to the students so that learning is facilitated.

## Educational Values of Teaching Learning Materials

Materials and device when used property in teaching learning process can accomplish by supplying concrete basis

- Facilitate understanding by supplying concrete basis for conceptual thinking and reducing meaningless word responses.

- Stimulate the interest and active Participation of learners in the instructional process.
- Promote continuity of thought and enhance transfer of learning.
- Provide more experiences and contribute to the efficiency, depth and variety of learning.
- Fosters growth of meaning and vocabulary development.

Apart from these process values, common sense should teach us that in the present era, issues challenging learning are on the increase, for instance, there is (information explosion information is increasing in both breadth ad depth everyday); so many things to learn, population is exploding so many more people both young and old wishing to learn and so many events are competing for attention. all within a limited time. This being the case, it is obvious that the learner will be faced with insurmountable difficulties if left to learner unaided.

Therefore, instead of teaching aid, the materials are actually learning aids the aid, the aid learning. Though the fact still remains, the materials and devices help the teacher do his work better and easier, their real purpose is to help the learner. They are effective means of learning with understanding in less time as well as a means communication.

## Selecting Instructional Material

Schramm published "big media, Little media" Tools and Technologies for instruction (1973) in which he presented evidence on the use of media stressing that variations in learning are more likely to depend on how a medium is used as opposed to which medium is used. The adage, "Technology is the answer, but what was the question"? Underscores the fact that communication media and technology are merely tools. Their effectiveness in responding to the problems of development depends on number of major interrelated factors:

> The purpose or problem to which they are directed (instructional objective and scope, coverage of subject matter)

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- The relevance and accuracy of the information these media will disseminate; authenticity of content.
- The combination of communication technologies (human, print, and electronic) that will be used;
- The strategies devised for their introduction and application.
- Learning environment (space, lighting facilities).
- Target population: location, size characteristics (learning style skills, age, educational/socio-cultural background, physical qualities).
- Instructional method being used.
- Characteristics of the teacher (competence and experience).
- Authority of the author, publisher or producer
- Aesthetic qualities.
- Since human beings learn through their senses, material that appeal to one or more of the sense must be selected.
- Materials should suit the sense must be selected.
- Materials should suit the individual learning styles in the class. This implies that the learning styles of every objectives (Achuonye, 1994).
- The materials selected should be cost-effective. In other word its ask the question: is the items worth its cost or would some less expensive aid or less complex one produce similar, if not better results?
- Availability of the material and other complimentary accessories is also important to be considered when choosing an instructional material.

To make wise selections a teacher should have good knowledge of the characteristics of the various materials and devices.

# Types of Teaching-Learning Materials

It is important to note that there is no hard and fast rule for classifying medial. A material could be used in more than one different ways: hence we have various reasons/basis for classifying materials:

1. Print/non-print materials: print materials are all typed printed or photomechanical drafts. They are everything on paper e.g., books, newspaper, magazines, journals, graphics etc. the non-prints are non-paper based materials. They include concrete things e.g. electronic gadgets. They include concrete things.

2. Audio/visual/audio-visual materials: audio materials appeal to the sense of hearing (the ear) only. e.g. radio, tape, recorder, micro-phone etc. visual materials appeal only the sense of seeing (eye). e.g. real things, graphics, pictures, silent films etc. audio-visual materials stimulate both ear and eye simultaneously e.g. television, video-tapes, sounds films.

3. Hardware and software: hardware is machines, equipment, tools and instrument, usually non-consumable and durable. E.g., electronic gadgets-projectors, radio, television box, video machine etc. software materials compliment the hardware: they are written/produced for use in the hardware. e.g. audio tapes, video films, films stripes/roll, films etc.

4. High/low technology materials: high technology materials are also called the 'Big' 'New' media. They are technically sophisticated device/equipment usually expensive, require electricity and skill operator. E.g. computer, video, projector etc. low technology materials are sometime referred to 'small' 'old' media. They are simple, less expensive, common, and locally improvised and need no electricity e.g., boards, graphics specimen picture etc.

5. Projected/non-projected materials: projected materials require projectors and electricity. e.g. transparencies,

slide, films, etc. non-projected materials referred need no projector or electricity. e.g., graphics, models, board etc.

6. Two/three dimensional materials: two dimensional materials show two dimensions mainly length and width. e.g. pictures, graphics (except globes). Three dimensional materials have three dimensional-lengths-width and height/depth. e.g. real things globes and other models.

7. Simulations/games devices: simulation device are assembly of things to set/simulate action or function of real object/event, usually operated by the learner. E.g. boxer punching bag, dummy, trainee driver simulator. Simulation devices help learner develop correct habits and feeling. Games are organized activities base on skill and/or chance that are learners according to set rules. e.g. scrabbles (help learners build up their vocabulary).

8. Mass/personal media: mass media are sometimes called open media or broadcast. They are media for mass communication e.g. instructional television, radio newspaper. personal media are also referred to individualized instruction e.g. video, closed-circuit television (CCTV).

9. Mediating media: these are materials that are placed between the learner and the objects he wishes to learn. They are used to gain insight into an object or event being studied. e.g. the telescope, microscope etc.

10. Obligatory media: these are media that are compulsory and must be obtained and used if objectives are to be achieved e.g. map and chalkboard etc.

11. Optional media: these are not compulsory for the achievement of the teacher's objectives but if found presentation, Flannel graph.

12. Criterion media: these are media like model mock-up etc. that must be used by students in practicing a skill in order to achieve mastery.

## Using Materials and Devices in Instruction Process

We have examined the various forms of classifying materials and devices in instructional process. It may therefore be more useful to look at some of them that are commonly used in our classrooms today.

## Chalkboard

The chalkboard formerly referred to as the blackboard, nowadays comes in different colours-white. Green etc. it is one of the oldest and most commonly used teaching-learning material in Nigeria and other countries of the world. It also comes in a variety of forms such as wall chalkboard, magnetic chalkboard etc.

**Uses of chalkboard**: generally chalkboard lends itself to versatile used such as:

➢ For the development of ideas thought during a lesson. Points are written on the board step by step as the lesson goes on to form a chalkboard summary.

➢ For the presentation of diagrams, symbols and other necessary illustrations.

➢ For recording of new words, term and important concepts that may require comments and explanations.

➢ For solving qualitative problems.

➢ For giving assignments that are not contained in a textbook.

➢ For demonstrating abstract ideas and processes. Showing the relationships of ideas and concepts.

Tit-bits for effective use of chalkboard

➢ Never talk to the class while facing the board, maintain a face to face contact with the audience to sustain interest, make your point before or after writing on the board.

➢ Use a pointer when explain some point on the board.

➢ Control the chalk; write legibly and boldly on the board so that everybody in the audience can see clearly. Colour breaks visual monotony; use colours of chalk to differentiate between items and to emphasis points.

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> Avoid copying lengthy notes on the board.
> Arrange the work in good order to avoid confusion.
> Never try to draw detailed diagrams on the board.
> Cover up the work not yet needed, and
> Maintain the chalkboard by constant cleaning and renovation.
> They clarify abstract ideas and assist the leaner to understand facts.

Provided the teacher can use it effectively the chalkboard can be one of the most useful of all teaching-learning materials. It is inexpensive and adaptable to most subjects/topics. Its correct use must be learn and practiced. However, chalkboard does not provide permanence of information as it is cleaned as soon as its usefulness has passed. It is not far back may not be able to read the work chalkboard.

## Merit of Real Things

Real objects stimulate interest and give the students good accuracy of impression and concept. They expose the students and help them become familiar with these objects, to see them as part of the environment and relate to their problems and activities. They provide first-hand information and make the study concrete are promote intimate contact. Can be handled, tested and manipulated.

## Demerits of Real Things

Real things may not be easily brought into the class and usually the teacher may not be permitted to take the class out. Storage may be difficult as special treatment and storage facilities may be require, e.g. AIDS virus. Simultaneous observation by every member of the class may be difficult. Some real things e.g. bacteria, virus and protozoan are too small to be observed easily without a special and some of them can be too dangerous to handle.

## Models

These are representative of real things. They may be reduced or enlarged in size. They are the imitation of real objects. They have the three dimensions via: length, width or thickness. Note that it is usually more valuable to observe real thing in their natural states but where not possible for the reason of their size. Weight, complexity, cost or harm, a representative is made.

## Merits of Models:

➤ they are good alternative for real things
➤ they simplify complex objects and reduce or enlarge objects to manageable size for easy observation.
➤ They make verbal words concrete.
➤ They may sometime be more effectives than real objects.
➤ They overcome the problem of size, weight, complexity, harmfulness and storage.
➤ Production enhances class participation
➤ More durable than real

**Demerits of models:** production may sometimes take longer time, thereby making it unavailable for use under emergency condition

Material for the production may be expensive and the original features of the real things may be difficult to achieve.

## Chart

This is a type of graphic material that presents information in summarized form using lines, diagrams, pictures and words. There are different types of charts namely: development/progress; pictorial, tabular, tree, stream, time-line. Strip flip, experience skill; flow, identification charts etc.

## Uses of charts:

• Charts are visual materials which are usually employed in presenting ideas/concept, which are likely to be difficult to understand if presented verbally or in write form.

Generated by CamScanner

- Charts can be used as an introductory overview, raise a point and summarize the lesson.
- New terms, definitions,
- Simple sketches
- Math's problems, solutions
- Assignments, guide questions for cases.
- Slogans.
- Group work, brainstorming.

## Advantages of chart

- Inexpensive
- Easy to use
- Flexibility
- Re-usable
- Normal room lighting
- Face audience
- Serves as topic outline
- Spontaneous

## Disadvantages of chart

- Visibility factor
- Not good for detailed information
- Less speaker control
- More sequence or materials
- Time-consuming for detailed verbal explanation.
- Not adaptable for large group (simultaneous observation difficult).

## Overhead Projector

The overhead projector is an apparatus for visual communication, if electric system is available. It has largely replaced chalkboard. The use of an overhead projector instead of a slide projector has the advantage that one can show projections even in daylight, members of a group can easily prepare a coloured transparent sheet, and that it provides impromptu visuals. They can be prepared advance of written on during the class presentation as easily as one writes on a desk. an overlay is a transparency which is laid on top of another to add information

or detail as the presentation progress. An overhead projector shows transparencies on a screen or wall as large brilliant picture.

## Uses of overhead projector:

> - To supplement lecture or discussion – to explain figures of graphs-ideas by symbols, and connections by schematic drawings.
> - To illustrate information for case study, demonstration.
> - To encourage, highlight, and review student comments.
> - To visually summarization group work, presentation.
> - To introduction and explain cognitive lesson.

## Problems associated with overhead projector:      .

- Switch location
- Key stoning effect
- Burned-out bulbs
- Glare

## Advantages:

- Face the audience- the teacher can face the group and talk while writing or underling something on the transparency which is projected thereby maintaining total attention of the class.
- Normal room lighting- can be used in any illumination.
- Projects illustration or writing on a screen above and behind the speaker's control. Flexibility in preparing, editing and revising transparencies are reusable and permits an overlay.
- Portability.
- Increased visibility.
- Materials can be duplicated easily and inexpensively from transparencies.
- Transparencies are very accessible as they can be made of any transparent materials.

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## Disadvantages of overhead projector:

- The projector heats up easily
- Spare-parts are expensive to purchase
- Special equipment, facilities and skills are required for advanced production methods.
- Overlays cannot be made easily by amateurs
- Meeting location may restrict use.

## Slide Projector

A slide is a single frame of position transparency mounted on a frame. The projector is relatively easy to operate. It ranges from the cheapest and simplest machines which hold only one slide at a time, to the carousel projectors which hold prepared recommended for classroom use. A remote control cord switch is available on some models, which gives the teacher, freedom to move away from the projector to be with the students.

### Tips for Effective Use:

- Be certain vocabulary suits audience
- Rehearse entire presentation on storyboard.
- Edit slides to ensure right ones used, correct sequences, correct position
- Use average of 15-20 seconds per visual.
- Break presentation into short segments of 5-6 slides
- Use remote control or an assistant to operate
- Prepare audience for what they will learn.
- Review key points at conclusion.
- In darkened room, light yourself
- Change pace of presentation after lunch/ break if any.
- Use as a subject preview or review.
- Keep original set of slides with scripts or storyboard.

### Problems associated with slide projectors:

- Slide upside down or backwards
- Burned out bulb
- Heat from lamp blisters film
- Slide transitions distract from continuity

- In – house slides lack quality; use good camera, right films, lens, lighting etc.

## Advantages of Slide
- Reproduced economically and in large quantities
- Produced with ease and relatively good quality, good for novices.
- Control over when and how long visual is projected
- Compact storage, portable
- Flexible presentation possible
- Instructors can back-up or advance
- Can be designed for progressive disclosure of information
- Variety of visual techniques
- Large, still screen image permits instructor to point out critical points.
- Shows realistic pictures or artwork or both
- Equipment variety allows multimedia capabilities e.g. it can be combined with taped narration.

## Disadvantage of Slide
- Cannot be used without electricity – restricting meeting location.
- Room lights must be dimmed and controlled
- Requires more preparation time, especially for artwork.
- Long sequence encourage mental absenteeism
- Long sequences or projected wrongly if slides are handled individually
- Training needed for special camera accessories and "professional" production.

## Film Strips Projector
A film strip consist of 2 or more frames of a film in sequence, film strips can be purchased in kits with lesson plan, narration scripts and records or tapes. The projector is a simple machine to operate, projecting 35mm still pictures.

## Advantages film strip:

- Easily reproducible in large quantities
- Can be used with both front and rear screen projection.
- They are small, which permits compact packaging and storing ease of distribution and convenient transportation for use in various locations.
- Versatility of display design allows for progressive discipline of information, the suggestion of motion, and special effects through photography, artwork and graphics.

## Disadvantages of filmstrip:

- Film strips generally requires dimmed lighting for adequate visual display, they require room darkening and light control.
- Because of the locked- in sequence of visual on a strip of 35mm film, editing and up- dating of film-strip materials may become more time consuming and expensive.
- The loss of one strip could mean the loss of all the visuals for the lesson.
- Any error in product will require reshooting the entire filmstrip.
- Presentation is fixed and does not allow for flexibility.
- Special photographs accessories and skills are necessary for home –made production.
- Filmstrips damage easily.

## 16mm Films

The sixteen- Millimeters sound motion picture machine is a teaching device. Several type of motion picture projectors have been developed that are especially suitable for classroom use.

## Techniques for Effective Use of 16mm Films:

- Prepare audience, set their mental stage.
- It should make up small part of total presentation.
- If long, show only portions that apply to presentation.
- Sound system should be suitable for size of audience

- Projectors should be kept clean: - daily cleaning of the film- gate and the parts of the projector with which the film comes in contact will lengthen the life span of the film.
- Every projector has been designed so simply that it is possible for anyone to set up and operate it. Most teachers who are afraid of machinery should keep this fact in mind and realize that there is nothing complicated about projector operation.

## Advantages of 16mm Films:
- Show motion, close approximation of the real thing
- Can use multi-sensory approach.
- Communicate ideas with great penetration
- Provide exactness of detail and colour
- High quality, easy to use, colorful.
- Growing library of films and topics available
- Image speed control: varies speed of projection for closer analysis of details.
- Good for explaining processes, operations and concepts that call for a continuous sequence.

## Disadvantage of 16mm Films:
- Expensive
- Difficult and time consuming to plan and produce
- Material may be obsolete by the time of showing
- Some people view as only entertainment, not as learning aid
- Difficult to control attention
- Speaker is reduced to master of ceremonies when movies take up most of presentation
- Time is a problem: learner cannot stop a frame and study
- Audience may be accustomed to this medium and demand high quality
- In-house production requires technical equipment and expertise.

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# Use and Abuse of Films and other Audio Visuals:

Any teacher who has ever had a projector blow out after the first few minutes of a film, of has found that a film was not rewind from the last time it was used, or was surprised that students did not want to see another film, will appreciate the list of "how to' s" that follows:

No matter which audio-visual technique you use there are some general rules which apply:

- Don't show a film simply because it is available Develop your lesson objectives first, and then select the audio-visual to fit. Just because a film is well done and makes an excellent point doesn't mean it will meet your objectives. Know why you are showing a particular film.
- Don't let your audio visuals interfere with your presentation. therefore:
  Don't bring it out until you are ready to use it.
  Get rid of it when you have finished with it.
- Prepare the students for what they will be seeing.
- Know your visual. Practice with it before you use it in your presentation. Make sure the visual is appropriate to the size of the room and all parts are in proper sequence in terms of your students and their needs. If you use a film without having previewed it personally, 'you deserve whatever happens'.
- Test any equipment you may be using, have all of them ready to run. Check projector, and extension cords. Be sure that the film is in one place, that it had been rewind, and that there are extra projector bulbs.
- Make sure you know how the equipment works. Don't depend totally upon somebody , especially the students to help run the equipment.
- Check the physical set-up of the room for sufficient seating, adequate darkness, good ventilation, the location of the electric outlets and switches.
- Don't overdo it. 'A picture is worth a thousand words, but100 pictures may not be worth 100,000 words'. Don't

show films too frequently. More is not better, and live dialogue is critical to good learning.

- Know how long the film runs. Plan the session to include time for introducing, viewing and discussing the material. Don't show a film without allowing adequate time for evaluation and discussion. A 50- minute film, for example, is too long for a 60-minute period. Remember, some films lend themselves to other activities such as role-playing, reenactment or artwork. Build that time into your planning.
- Don't stand between your visual and the audience. Stand to one side. Use a pointer to emphasize details.
- Don't show a film to fill in for an unplanned lesson or for an entertainment break. Don't expect a film to make up for teaching.
- Don't pass samples around while you are talking. Show them to the group as a whole or pass them around after your presentation.

## Radio Instrument

Radio broadcast lessons are meant to supplement and support what has been taught by the class teachers.

**Characteristics of effective Radio Lesson:**

- Should be interesting and capable of meeting the learner needs.
- Should supplement and support what is taught in the class.
- Language and content should be suitable to the learners' characteristics. Language should be simple and clear, rate of speech-slower than normal.
- Should employ deliberate repetitions, vital points repeated in various ways, a variety of voices, sound effects etc.
- Should have plenty of learner participation.
- Not more than three to five main points should be taught.

## Making Radio Lesson Successful

- Visit the Broad casting House to get the time-tables and lesson notes.
- Prepare the class as directed in the radio broadcast notes.
- Make sure all instructional materials (visuals and/or specimen) are ready.
- Get the class seated comfortably where they can hear, and make sure the environment is devoid of every distraction.
- Play your part during the lesson as directed by the radio teacher and see that pupils participate by:
- Repeating sentences after the radio teacher
- Answering radio teacher's questions
- Doing action as directed by the radio teacher.
- Doing a simple experiment etc.
- Make notes during the lesson of anything the pupils may not have understood.
- Maintain discipline during the lesson.
- Make sure the radio has good batteries and is tuned correctly
- After the broadcast do the follow- up activities as directed in the radio broadcast book.
- Later in the week revise the lesson.

## Advantage of Radio Instruction:

- Add variety and interest to the class activity.
- Develop the skill of listening to the pupils and develop their imaginations.
- Supplement, reinforce and revise the class work. Radio lesson is perfect in both contents, language and presentation because of adequate preparations, rehearsal and sound effects (like animal sounds) that goes into it.
- Links all schools in the district, thereby contributing to uniformity of standards.
- Gives class teacher an opportunity for self-evaluation, and may learn new teaching techniques and facts from radio instructions.

## Disadvantages of Radio Instruction:

- Does not consider individual differences among learners.
- One-way communication, lack of interaction between the radio teacher and the pupils; lack of teacher-learner relationship.
- Radio teacher has no control over discipline in the class and gets no immediate feedback from the pupils.
- Pupils cannot ask or answer questions during the presentation.
- Radio lesson is often very dependent on good weather conditions, a good radio, good batteries etc.
- Timing may not suit the school time as it sometimes comes up when school period is over.

## Review Questions

1. Teaching – learning materials are very important for effective classroom interaction. Justify this statement.
2. Identify and discus four instruction materials that you know.
3. The chalkboard remains the most versatile of all instruction devices in the classroom today. Why is it so?
4. State the uses, merits and demerits of the flannel board.
5. Real things or specimens are the best visual aids in the classroom. Why?
6. What are models? How useful are models to the classroom teacher?
7. Write short notes or charts, overhead projector, and slide projector.
8. How can we make radio broadcast lessons successful, and what are the advantage and disadvantages of radio instruction.

# APPENDIX ONE
## MICRO-LESSON PREPARATION FORMAT

Use this for initial preparation of your lesson. After completing this form prepare a formal lesson plan.

1. Skill        (s)        or        behavior(s)        to demonstrate:_____

   _____

2. Sub                    concept                    to teach:_____

   _____

3. Specific        instructional        objective(s):

   _____

   _____

   Strategies                                        to use:_____

   _____

4. Student        experiences        to provide:_____

   _____

5. Materials            and            equipment needed:_____

   _____

   _____

## APPENDIX 2

LESSON PLAN FORMAT

Teacher: _____

Date: _____

Course _____ Tittle:

Grade

Level: _____

Subconcept: _____

_____

_____

Rational: _____

_____

_____

Introduction: _____

_____

_____

CONTENT
INSTRUCTIONAL PROCEDURE

_____

       (a)

       (b)

       (c)

       (d)

       (e)

Cloure: _____

_____

_____

Evaluation procedure: _____

_____

_____

Evaluation procedure: _____

_____

_____

# APPENDIX 3
# MICRO-TEACHING EVALUATION FORM

Teacher:

Date:_____

_____

Subject:

_____

Rate the teacher trainee on each skill area. Code: 5 or 4, mastery of skill demonstrated: 3 or some skill reinforcement needed; and 1 or 0, much skill refinement needed Organization of lesson

| 5 | 4 | 3 | 2 | 1 | 0 | Lesson Preparation |
| 5 | 4 | 3 | 2 | 1 | 0 | lesson Introduction |
| 5 | 4 | 3 | 2 | 1 | 0 | Subject – Matter Knowledge |
| 5 | 4 | 3 | 2 | 1 | 0 | Closure |

Comments:_____

_____

_____

Lesson Présentation

| 5 | 4 | 3 | 2 | 1 | 0 | Audience contact |
| 5 | 4 | 3 | 2 | 1 | 0 | enthusiasm |
| 5 | 4 | 3 | 2 | 1 | 0 | speech quality and delivery |
| 5 | 4 | 3 | 2 | 1 | 0 | involvement of audience |
| 5 | 4 | 3 | 2 | 1 | 0 | use of nonverbal communications |
| 5 | 4 | 3 | 2 | 1 | 0 | use of questions |
| 5 | 4 | 3 | 2 | 1 | 0 | directions and refocusing |
| 5 | 4 | 3 | 2 | 1 | 0 | use of reinforcement |
| 5 | 4 | 3 | 2 | 1 | 0 | use of aid and materials |

Comments:_____
_____
_____

# APPENDIX 4
## MICRO-TEACHING SELF-ANALYSIS FORM

Teacher:_____

Date:_____

Sub-concept
taught:_____

Replay the tap of your microteaching session as needed to collect data for the following items. Analysis the collected data and draw conclusion with respect to the behavior addressed in each item.

1.  Teacher talk versus student talk. Set up a small chart as follows:

    Teacher
    talk:_____
    _____

    Student
    talk:_____
    _____

    Silence or
    confusion:_____
    _____

As you view your microteaching tape, place a tally on the chart to represent who was talking approximately every three seconds. If no one was talking or if many were talking simultaneously, then place a tally in the silence or confusion category when you have finished, count the number of tallies in each categories teacher talk and student talk and student talk and student talk combined. Use the following formulas to determine the percentage of teacher talk and student talk:

Teacher
% Talk= $\dfrac{\text{trellises in teacher talk category}}{\text{Tallies in teacher talk + student talk categories}}$ X 100

$$\text{Student} \atop \% \text{ talk } = \frac{\text{tallies in the student talk category}}{\text{tallies in teacher talk + student category}}$$

2. Filler words. Record the filler words or sound ("you know" "or") and the number of times each was used:_____

_____

3. Questions, record the number of question asked:
   Convergent:

   _____

   _____

   Divergent:

   _____

MICRO TEACHING SELF-ANALYSIS FORM (continued)
4. Student name record the number of tomes student are addressed by
   Name:

   _____

5. Pause record the number of times pause are used to give student time to
   Think:

   _____

6. Reinforcement: record the number of times reinforcement is used.
   Verbal reinforcement:

   _____

7. Sensory channels, record the number of times students are required to change sensory channel:

   _____

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# INDEX

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