

# Microteaching

*The behaviour or activities of persons as they go about doing whatever is required of teachers, particularly those activities which are concerned with the guidance or direction of learning of others.*

—J.P. RYAN, 1965

## RATIONALE AND SCOPE

The teacher in the classroom uses several techniques and procedures to bring about effective learning in her students. These include introducing, demonstrating, explaining or questioning. The teacher could also make use of non-verbal behaviours such as smiling, gesturing and nodding. These group of activities are called *teaching skills*. By acquiring teaching skills, an experienced teacher can use these appropriately in her teaching, in order to achieve her lesson objectives.

The teacher trainee is introduced to a wide range of teaching skills. **Microteaching** allows the teacher trainee to practice any one skill on his own, and then combine it with others when it has been mastered.

A teaching skill has been defined in various ways. A few definitions will clarify the meaning of the term. McIntyre et al. (1977) define teaching skill as “a set of related teaching behaviours which in specified types of classroom interaction situations tend to facilitate the achievement of specified types of educational objectives”.

Passi (1976) defines teaching skill as “a group of teaching acts or behaviours intended to facilitate pupil’s learning directly or indirectly”.

**NCERT (National Council of Educational Research and Training)**, in its publication *Core Teaching Skills* (1982), has laid stress on the following teaching skills:

- Writing instructional objectives
- Organizing the content



- Creating set for introducing the lesson
- Introducing a lesson
- Structuring classroom questions
- Question delivery and its distribution
- Response management
- Explaining
- Illustrating with examples
- Using teaching aids
- Stimulus variation
- Pacing of the lesson
- Promoting pupil participation
- Use of blackboard
- Achieving closure of the lesson
- Giving assignments
- Evaluating the pupil's progress
- Diagnosing pupil learning difficulties and taking remedial measures
- Management of the class

## DEFINITIONS OF MICROTEACHING

Microteaching has been defined in several ways:

Allen and Eve (1968) defined microteaching as "a system of controlled practice that makes it possible to concentrate on specific teaching behaviour and to practice teaching under controlled conditions".

Allen (1966) defined microteaching as "a scaled down teaching encounter in class size and class time".

Buch (1974) has given a comprehensive definition of microteaching as a "teacher education technique which allows teachers to apply clearly defined teaching skills to carefully prepared lessons in planned series of 5 to 10 minutes. It encounters with a small group of real students, often with an opportunity to observe the results on videotape".

McAleese, and Unwin (1973) define microteaching as a scaled down teaching encounter in terms of time, class, size, lesson, length and teaching complexity.

Passi (1976) writes that "the most important point in microteaching is that teaching is practised in terms of definable, observable, measurable and controllable teaching skills".

Singh (1977) defines microteaching as "a scaled down teaching encounter in which a teacher teaches a small unit to a group of 5 pupils for a small period of 5 to 20 minutes. Such a situation offers a helpful setting for an experienced or inexperienced teacher to acquire new teaching skills and refine old ones."

These definitions stress the essential propositions of microteaching put forth by Allen and Ryan (1969).



1. Microteaching is real teaching, though the teaching situation is a simulated one.
2. Microteaching lessens the complexities of normal classroom teaching. Thus, class size, scope of content and time are all reduced.
3. Skills are selected and discussed in a preparatory session. Microteaching focusses on training for the accomplishment of specific tasks like practice of blackboard writing, demonstrating effectively, and so on.
4. Microteaching allows for the increased control of practice.
5. Feedback given at the end of a micro lesson helps a teacher trainee get an insight into her performance, and avoid any mannerisms.

A composite definition of microteaching technique would thus be:

*Microteaching is a teacher training technique involving a specific teaching behaviour/skill of short duration—5 to 6 minutes for a small class comprising 5 or 6 fellow teacher trainees/peer group on a single concept of subject matter.*

## **CHARACTERISTICS OF MICROTEACHING**

The following are the characteristics of microteaching:

1. In microteaching, the trainee can concentrate on practising a specific, well-defined skill.
2. It is a miniaturized teaching in the sense that it scales down the complexities of real teaching with the provision for
  - Practising one skill at a time
  - Reducing the class size to 5–10 peer group
  - Reducing the duration of the lesson to 5–10 minutes
  - Limiting the content to a single concept.
3. Microteaching provides for pinpointed, immediate feedback.
4. As microteaching is scaled down teaching, there is no problem of discipline.
5. Less administrative problems arise as teaching sessions are organised with peers.
6. Microteaching provides an opportunity to undertake research studies with better control over conditions and situations.
7. Microteaching can be used as an integral part of teacher training in India as sophisticated gadgetry is not a must.

## **PRINCIPLES UNDERLYING MICROTEACHING TECHNIQUES**

The principles underlying microteaching techniques are as follows:

1. Microteaching is based on the premise that teaching can be split into component teaching skills.



2. The teaching skills can be defined, practiced, observed, controlled, measured and evaluated.
3. Feedback is a vital part of the microteaching session. Immediate feedback critique focuses on a particular aspect of the teacher trainee's performance, and an attempt is made to replan incorporating improvements.
4. A high degree of control over time, number of students, and supervision is stressed on.
5. Skinner's theory of shaping behaviour is applied with the teach-feedback-reteach pattern of microteaching.

### MICROTEACHING—THE INDIAN SITUATION (Figure 3.1)

Microteaching as a training technique involves the following steps:

**Step 1—Orientation:** In the beginning, the teacher trainee should be given necessary theoretical background about micro-teaching on aspects such as:

- Concept of microteaching
- Rationale of using microteaching
- Procedure of microteaching
- Requirements and setting for adopting microteaching technique.

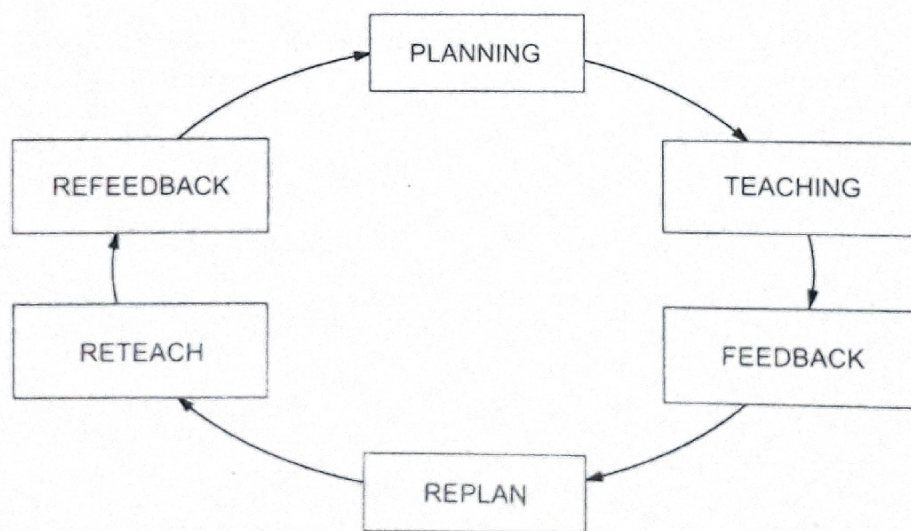


FIGURE 3.1 Microteaching cycle.

**Step 2—Discussion of teaching skills:** This step covers the analysis of teaching into component teaching skills, rationale and role of these teaching skills in teaching.

**Step 3—Selection of a particular teaching skill:** The teacher trainee is encouraged to select a particular skill and practice it. He is given enough orientation and background information to get through this step.



**Step 4—Presentation of a model demonstration:** In this step, the teaching skill is presented in the form of a demonstration so that teacher trainees get an idea of what is expected of them. This demonstration can be done by the teacher educator or an expert, by showing a film or videotape, by listening to an audiotape presentation, or by providing the teacher trainees with written material such as a handbook, guide or notes.

**Step 5—Observation of the model lesson and criticism:** Using an observation schedule, the teacher trainees critique the demonstration model micro lesson.

**Step 6—Preparation of micro lesson plan:** The teacher trainee prepares a micro lesson based on the demonstration viewed. The duration of the microteaching cycle is as follows:

Teaching	6 minutes
Feedback	6 minutes
Replan	12 minutes
Reteach	6 minutes
Refeedback	6 minutes
Total	<u>36 minutes</u>

**Step 7—Practice of the skill as teach session:** The teacher trainee teaches the micro lesson prepared by him to a class of 5–10 peer group members for 6 minutes. This is supervised by the teacher educator and peers using an observation schedule.

**Step 8—Providing feedback on feedback session:** This is a vital aspect of microteaching. To be effective, it must be clearly related to the model of the teaching skill used. Appraisal guides add to the comments of the supervisor and fellow students. They focus on the feedback related to specific behaviour that can be used for the analysis session or be just given to the teacher trainee with a written comment or rating of his skill performance.

Feedback in microteaching is the information the teacher trainee gets about his attempts to practise a skill. This is generally given at the end of the teaching session from the supervisor, the peer group, pupils or the video recorder. Most of these sources of feedback are reinforced by use of appraisal guide.

The general factors for the consideration of feedback are:

1. What is being appraised?
2. Are the components of this skill discrete and measurable?
3. Can the comments be pinpointed without opinions and biases creeping in?
4. Is the feedback **supportive and corrective, without destroying the confidence of the teacher trainee?**



**Step 9—Replanning/Replan session:** Keeping in mind the feedback received from the supervisor, the teacher trainee replans the micro lesson, writing another micro lesson plan or editing the existing one.

**Step 10—Reteach:** The teacher trainee reteaches, incorporating the suggested changes, with the same students or another group of 5 students. The supervisor checks to see whether there is any improvement in skill attainment.

**Step 11—Refeedback:** The supervisor assesses the lesson again, pointing out the improvements and lapses.

**Step 12—Integration of teaching skills:** It means the integration of various teaching skills individually mastered by a teacher trainee. This facilitates bridging the gap between the isolated teaching episode and the real teaching situation, so that the teacher trainee can incorporate the individual skills as they are mastered into the lesson.

## MERITS OF MICROTEACHING

Microteaching has proved to be an efficient and effective technique in teacher training programmes.

1. The teacher trainee is made aware of the various skills of which teaching is composed.
2. Selected skills are chosen and discussed in a briefing session.
3. Microteaching simulates the classroom scene and gives the teacher trainee an experience of real teaching.
4. Feedback enables the teacher trainee to consciously eradicate or give up irritating habits and mannerisms.
5. Microteaching is economical in terms of time and money.
6. Microteaching is flexible and can be used in a variety of situations—business schools, nursing education, the police, etc.
7. The teacher trainee can focus his/her attention on clearly defined aspects of his/her behaviour. This removes problems of discipline, control and other organizational activities.
8. Patterns of classroom interaction and communication between the teacher and the students can be objectively and easily studied. Arrangements of the timing of teach/reteach cycle can be organized.
9. Microteaching caters to the need of individual differences in the training of teachers. Here, an individual teacher trainee may work for the development of teaching skills at his own rate, depending on his teaching abilities.
10. Microteaching focuses attention on the modification of teacher behaviour and improvement of interaction process involved in the teaching learning process.



In many training colleges, the teaching session lasts between five to ten minutes. The length of the micro lesson is thus related to the skill practised, the needs of the student, the number of students, the total time available and the accessibility of pupils.

Maximum feedback about the teacher trainee's performance could be provided by video tape, supervisor comments and peer group comments. Five to ten minutes is the usually accepted length of feedback. If a video recorder is used, the teacher trainees may prefer to view the whole micro lesson. This encourages self-analysis.

In many cases, due to time constraints, the reteaching function may have to be left out. If it is included, the time between replanning and reteaching should not be too short.

## MICROTEACHING SKILLS

The major premise underlying the concept of microteaching is that the complex teaching act can be split into component skills—each simple, well-defined and limited. These skills can be identified, practised, evaluated, controlled and acquired through training.

A large number of skills have been identified. The first effort made by Allen and Ryan resulted in identifying fourteen skills. Singh et al. (1987) makes reference to twenty two general teaching skills.

These skills have been chosen as they foster teacher-pupil interaction, particularly as they belong to the four areas of motivation, presentation, recapitulation and questioning. These are the skills of:

1. Set induction/introduction
2. Explaining
3. Stimulus variation
4. Reinforcement
5. Questioning
6. Blackboard writing
7. Demonstration
8. Closure

These skills are discussed giving the major components, the objectives and a simple appraisal guide.

### Skill of Set Induction/Introduction

Set induction is a pre-instructional technique. Training in set helps the teacher prepare students for the lesson in order to induce the maximum pay-off in learning. **Set is more than a brief introduction.** Its purpose is to get the students in the mood, and clarify the goals of instruction, using students' present knowledge and skills to involve them



in the lesson. Instructional set can vary in length and in elaborateness. It can take many forms: an analogy, a demonstration, posing an intriguing problem.

The major components of set skill are: gaining attention, arousing motivation, structuring and making links.

## **Skill of Explaining**

A teacher is said to be explaining when he/she is describing 'how', 'why' and 'what' of a concept, phenomenon, event, action or condition. Explaining can be defined as an activity to bring about an understanding about a concept or a principle. It is an activity to fill up a gap in someone's understanding. The skill of explaining aims at making sure that the explanation is understood. All teachers should strive to perfect the skill of explaining accurately and effectively.

### **Major components**

Explaining skill can be divided into structural and presentation components.

**Structural components:** These include factors such as beginning statement, key concepts, examples and summary.

- (i) The aspects relevant are activities like gaining attention, arousing motivation, establishing rapport and putting the topic in its context.
- (ii) The teacher clearly and concisely states the key concepts.
- (iii) The teacher uses relevant, simple and clear examples to explain major ideas.
- (iv) The teacher summarizes the main points of the explanation.

**Presentation components:** These comprise style, clarity, pointers, links and priority.

- (i) The teacher uses emphasis variation—the voice level, pitch and tone, collectively known as *style*, can convey the relative importance of the content. Non-verbal communication can go a long way in emphasizing points, such as gestures, nods, and visual contact.
- (ii) Clarity as a subskill contains many factors. The teacher states the purpose of the explanation, defines new terms and concepts, uses a suitable language, slowing down the word flow when ideas are difficult or complex, and does not stray from the point on hand, provided occasional summaries to refocus attention.
- (iii) The teacher uses appropriate words to aid better understanding. For example,



"These are the six factors..." —*A pointer*

"From this it follows that..." —*Link words*

"We shall now come to the most important point..." —*Priorities*

## Skill of Stimulus Variation

Training in the skills of stimulus variation is aimed at helping teacher trainees to avoid teaching styles likely to induce monotony in the classrooms. A stimulus situation that changes in different ways is one of the most powerful influences in maintaining interest of the students in the class. Some of the things the teacher can do are use of movements, avoidance of teaching standing in one spot, use of gestures, and development of verbal and non-verbal methods to hold the students' attention.

The skill of stimulus variation covers the activities the teacher can introduce to vary the presentation methods used in a lesson. This skill is concerned with three main areas of teaching. They are:

1. The manner, voice and teaching style of the teacher
2. The media and materials used during teaching
3. The teacher/pupil relationship during the class.

### Major skill components

1. **Movement** from one spot to another, say, from behind the desk to the door and back again.
2. **Gestures** call attention to a particular point, verbal, gestural or both.
3. **Interactional styles** encompass three areas, viz. teacher-group, teacher-student, and student-student.
4. **Pausing** aims at breaking an idea into clearer logical components.
5. **Shifting sensory channel**, according to the demand of the topic, becomes inevitable. This shift can be:
  - from verbal to visual—say, showing blue litmus turning red
  - from oral to oral-visual—using charts and models
  - from visual to oral-visual—films, chart/lecture
6. **Speech pattern** is varied according to the emphasis and importance of the topic.

## Skill of Reinforcement

Reinforcement skill can increase students' involvement in their lessons in a number of positive ways. The skill is used when the teacher reinforces good behaviour with a smile, and when the teacher praises a



good answer, or encourages a slow learner. Such positive reinforcement strengthens desirable behaviour, increases student participation. Negative reinforcement, like scolding, frowning, on the other hand, weakens undesirable behaviour.

### **Major components**

The six major components of reinforcement skill are:

1. **Verbal reinforcement**—Comments like “Good”, “Well done”
2. **Gestural reinforcement**—Facial expressions, e.g. a smile
3. **Proximity reinforcement**—Teacher moving nearer to the student evincing interest
4. **Contact reinforcement**—Patting the head, back ..., etc.
5. **Activity reinforcement**—Teacher gives the pupils a task they prefer as reinforcement, e.g. a project etc.
6. **Token reinforcement**—The teacher awards marks, merit cards, writes comments like “good”.

### **Skill of Questioning**

A good teaching technique employs different questioning levels, techniques and direction.

#### **Questioning levels**

1. **Low level question:** It is the lowest or preliminary knowledge level question, which requires the student to recall information that he has stored. Therefore, a low level response requires memorization on the part of the student and requires no processing of information.

The simplest way to follow is that a question whereby a student has to just recall information, such as terms, facts, names and events, is a low level question.

2. **High level question:** This requires a degree of intellectual processing on the part of the student—comprehension, application, analogy, synthesis and evaluation.
3. **Description question:** Such questions are easy to ask, quite easy to answer and excellent for promoting student involvement.
4. **Comparison question:** Such questions require the learner to look at two or more objects, statements, illustrations or demonstrations and identify similarities or differences between them.

#### **Question direction**

Convergent questions refer to questions which have one correct answer. These are generally questions of fact or recall. Divergent questions have many different and appropriate answers.



### *Questioning techniques*

1. **Redirection** involves a large number of students. It is a useful technique to help establish positive patterns and high levels of interaction in a classroom. This technique involves the framing of a single question for which there are many possible responses from the students. **Redirection is possible only in the case of high order, divergent questions.**
2. **Prompting** is required when a student is asked a question and he fails to reply or responds incorrectly.  
This technique involves the use of hints or clues which are used to aid the student in responding correctly. It requires on-the-spot practice—thinking on your feet.
3. **Probing** is used when the student's reply is correct but insufficient because it lacks depth. This helps to process information, to deal with the why, the how and is based on what.

### *Components of questioning skill*

As there are many components and subcomponents of the skill of questioning, it is generally split into two major components: **Basic questioning** and **advanced questioning**.

Basic questioning has the following subskills:

- Phrasing
- Focusing
- Direction
- Distribution
- Pausing
- Prompting

Advanced questioning involves the following subskills:

- Varying the level
- Recalling
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation
- Probing

### **Skill of Blackboard Writing**

The importance of effective blackboard writing cannot be stressed enough, especially in a country like India. "Operation Blackboard" aspires to equip every single school in the country with blackboards,



which implies that every potential teacher should be proficient in the use of the blackboard. Good blackboard writing leads to the following:

- Clarity in understanding concepts
- Reinforcement of the matter which is being conveyed verbally by the teacher
- Presentation of a holistic picture of content
- Variety and draws attention of the pupils to the relevant points.

The major components of this skill are:

1. *Legibility in handwriting*
  - (i) Distinct difference between letters spacing
  - (ii) Size of the capital letters
  - (iii) Size of capital and small letters
  - (iv) Thickness of the lines
2. *Neatness in blackboard work*
  - (i) Straightness of the lines
  - (ii) Spacing between the lines
  - (iii) Avoidance of overwriting
  - (iv) Focusing the relevant matter
3. *Appropriateness*
  - (i) Continuity in the points
  - (ii) Brevity and simplicity
  - (iii) Drawing attention and focusing

### **Skill of Demonstration**

Demonstration skill is highly needed in the subjects of practical relevance in science, as the teacher has to demonstrate the working of an apparatus, functioning of an instrument, preparation of a gas, etc. This helps the students in acquiring the essential knowledge, understanding, skills and applications regarding the facts, principles, concepts and activities involved. The teacher has to take care of several component behaviours for acquisition of this skill. The components include handling of equipment and materials, relevant subject matter, pupil's participation, visibility of the demonstration work, drawing relevant inferences, emphasising cause and effect relationship, etc.

The skill of demonstration helps the students to understand the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting, and validating to think critically.

### **Skill of Closure**

Closure skill is complementary to set induction. It involves training in different methods of concluding a lesson with the student, taking



steps to ensure that the pupils have understood and are able to see the connections with other phenomena. It is more than a quick summary of the portions taught and the pupils are able to relate new knowledge with the previous one.

The skill of closure assists students to establish links between new and past knowledge by reviewing and applying material to familiar and new examples, cases, and situations.

Generally, **closure** can be achieved by the following steps:

- Making a review. Both making a spoken summary and making a written summary have to be done in this section.
- Giving psychological/social encouragement to the class
- Examining how well the objectives of the lesson have been achieved
- Giving feedback
- Reflection

The major components of closure skill are:

- Summarising of major points by the teacher or the students
- Application of the present knowledge in a new situation
- Linking the past knowledge with the present knowledge
- Linking the present knowledge with the future learning

### **LINK PRACTICE (INTEGRATION OF TEACHING SKILLS)**

No amount of expertise in any one skill can promise a good lesson. It is the integration of two or more selected microteaching skills which forms a macro lesson that is of a full 40 or 45 minutes period. The transition from a microteaching session to a macroteaching session is done by taking a few selected skills, with more content than in a microlesson through link practice. A link lesson gives a student trainee a taste of a real class without the panic and uncertainty associated with a macro-lesson. Thus, a full unit can be chosen for link practice. The unit is then divided into several smaller portions and with a few selected micro-skills, a link lesson can be framed. This gives an opportunity to use even those skills which may not have been practised before. This lesson can be demonstrated to a group of teacher trainees who can then practise continuously, with no break in subject matter.

When mastery has been attained in various skills, the teacher trainee is allowed to teach the skills together. This separate training programme to integrate various isolated skills is known as *link practice*.

1. Link practice helps the trainee to transfer effectively all the skills learnt in the microteaching sessions.
2. It helps to bridge the gap between training in isolated teaching skills and the real teaching situation faced by a student teacher.



3. The desirable number of pupils is between 15 and 20.
4. Preferable duration is 20 minutes.
5. The desirable number of skills is 3-4 skills.

Integration of teaching skills is characterised by:

1. The appropriateness of the use of skills integrated.
2. Adaptability to other situations.
3. Proper sequencing of the skills.
4. Optimum proportion of each skill in teaching.
5. Coordination of different elements involved in teaching.

Link practice or integration of skills can be done in two ways:

1. **Integration in parts:** Three or four teaching skills are integrated and then incorporated into a lesson of 15-20 minutes duration. Again, 3 or 4 skills are integrated and all are transferred within one lesson.
2. **Integration as a whole:** The student teacher integrates all the individual teaching skills by taking them as a whole and transfer them into a real teaching situation.

In most of the teacher training colleges, microteaching is used in one or all the following ways:

1. As preparation for teaching practice
2. As a remedy for teacher trainees whose classroom techniques have been found to be lacking in some way
3. As an aid to translating educational theory to practical classroom methods
4. As a way of prompting experienced teachers to reevaluate their classroom skills.

## CONCLUSION

Lack of adequate and in-depth awareness of the purpose of microteaching has led to criticisms that microteaching produces homogenised standard robots with set smiles and procedures. However, proper use of microteaching leads to self-reliant, confident teachers.

## REFERENCES

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