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Research Article

Micro-Teaching: Reviewing The Scientific Technique Towards Teaching Efficacy

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ABSTRACT

Microteaching is a technique for enhancing the proficiency of teaching skills and also to building up confidence within the teacher trainee to tackle the real-life scenario of the teaching process. It is a part of most of the teacher training programs included in all curriculum designs for the teacher. In microteaching, the teacher trainee presented a short lesson (usually 5 to 10 min) and the reinforcement was provided by the viewers including the professor, teachers and peer group which help the novice teachers to learn the art of teaching and to maximum the skills up to a greater extent. In this review paper, the author tries to explore all the available articles present in various educational databases, books, and journals and then discuss them in detail.

KEYWORDS: Microteaching, Teacher Training, Teaching Technique, Efficient Teaching

1. INTRODUCTION

Microteaching word introduced for the first time in 1963 by Dwight W. Allen of Stanford University, USA, whereas in India, first attempt was done in 1974 to spread micro-teaching. The term "micro" in micro-teaching means "small" but its application in classroom teaching is large. It is micro in the sense that it will minimise the complexities of real teaching. 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 (Allen, D. W. & Eve, A. W., 1968). Micro-Teaching not only offers a helpful setting for an inexperienced teacher to acquire new skills but is also equally helpful to more experienced teachers to refine the skills they already possess. It is also considered as a scaled down teaching encounter in class size and time (D. W., Allen, 1966). It is a kind of experiment in the field of teacher education which has been incorporated in practice teaching schedule. Microteaching has a vital role in all education training programs and contributes to a great extent to the better understanding of teaching process and its complexities. Microteaching is a procedure in which a novice teacher practices teaching with a few numbers of pupils in a reduced time period with emphasis on a narrow and specific teaching skill (Singh L.C., 1977). In this way the novice teacher practices the teaching skill in terms of definable, observable, measurable and controllable form with repeated cycles till he attains mastery in the use of skill. In another way, teaching skill is defined in terms of teaching behaviour and its objective is to modify the behaviour of trainees. Micro-teaching, therefore, offers helpful setting for an inexperienced teacher to acquire new teaching skills and to refine old ones. Thus, doing this practice will naturally increase the confidence among teacher-trainees.

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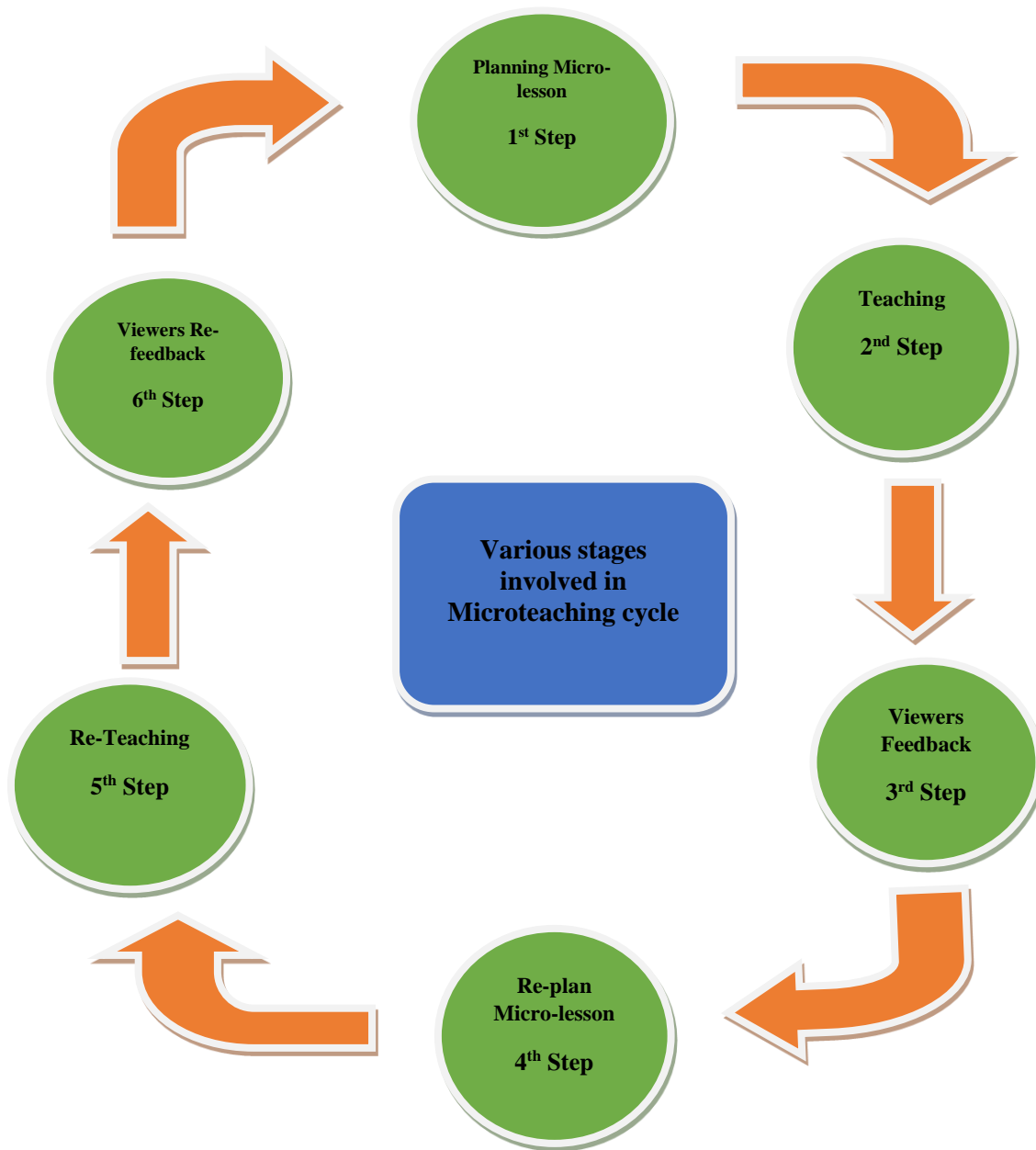
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Fig. 1.1: Showing the steps involved in Micro-Teaching activity



Micro-Teaching is now considered not only as a constructive teacher training technique but also as “a versatile research tool which simplifies the logistics of investigating certain teaching skills and learning variables.” Teaching constitutes a number of verbal and non-verbal acts. The aim of this review article is to do systematic literature search of research articles and reviews was undertaken from various educational databases. Reference lists of published articles, books available were also reviewed. This article is mainly trying to show the present status of work done in microteaching.

2. RESEARCH OBJECTIVES

- To provide a summary and/or a synthesis of the findings of selected research contributions being published by other authors.
- To examine the current state of the relevant publications on a given topic.
- To initiate a discussion about the research methodologies and the findings related to the said topic.

3. Microteaching scenario at Global level

Stanford technique involved the steps of “*plan, teach, observe, re-plan, re-teach and re-observe*” and has evolved as the core

component in 91% of on-campus clinical teaching development programs, with the significant reduction in the teaching complexities with respect to number of students in a class, scope of content, and timeframe, etc. (Allen D. W., & Wang W., 1996; Allen D. W., & Ryan K., 1969; Brown G., 1975; Singh L. C., & Sharma R. D., 1987). Allen, D. W., & Clark, R., 1967, said that microteaching is a promising concept for used in pre-service teacher training. Kallenbach W. & Gall M., 1969, studied to determine the effectiveness of elementary school interns trained in a summer program by the 'Stanford Microteaching Approach' as compared with interns who received conventional classroom observation and student teaching experience. Through result it was concluded that microteaching is an effective training strategy since it achieves similar results when compared with conventional training methods but in only one-fifth the time and with fewer administrative problems. Elsenrath *et al.*, 1972 state that microteaching increases the self-confidence, improves in-class teaching performances, and develops the classroom management skills.

The pedagogic skill for teaching can be acquired only through more structured and cheaper faculty training techniques (Foley R.P., 1974). Hansford B.C., 1977, examined the relationship between various conditions of feedback in peer microteaching, the personality dimension dogmatism, and non-verbal perceptiveness. Fiedler K.M. & Beach B.L., 1979, reported that dietetic students had reportedly having high confidence levels after an intensive workshop carried out based on microteaching technique. Madike Francis U., 1980, have done an experimental comparison between microteaching and traditional approach and was concluded that the microteaching concept had worked more efficiently in teaching mathematics than the traditional teaching techniques. Heyworth R., 1981, confirms the effectiveness of a microteaching programme as a means of developing specific teaching skills. Elliot J., 1982, work upon microteaching at 'MEDUNSA' where it was incorporated into an induction course on teaching and learning and was found that it will generate an interest in improved teaching via the analysis and monitoring of their own teaching performances. Hargie W. D. & Dwyer, E., 1982, examines the reactions of special education teachers to microteaching, at the end of their first year of teaching and was found that their reactions were still very favourable. Jeriah K. F., 1987, identified strengths and weaknesses of the components in the general methods course, "Micro-teaching: Practice in Teaching Techniques", prior to a curriculum reorganization. According to Arbogast, G. W., & Kizer, D. L., 1988, the students should be given the opportunity to assess the teaching performances of them and other, using data-based teaching assessment instruments. Hatfield, R. C., 1989, describes the use of a specific model for designing educational practices in formulating a structure of knowledge which applies to micro teaching. Cornford & Ian R., 1991, explain that the new microteaching model conceptualizes the teacher education program with the advances in social learning theory and meta-cognitive learning strategies. Pauline R.F., 1993 concluded that to make teacher effective in teaching process, skills and practices of microteaching have been implemented. Brent R. *et*

al., 1996, states that feedback data can be reused and all the core teaching skills can be integrated in a macro lesson and eventually to a real classroom teaching. Harden R.M. & Crosby J.R., 2000, concluded that proper practice is essential for teacher training programs, as it serves trainees to gain their first teaching experience and helps to develop the knowledge, attitudes, and skills.

Benton-Kupper J., 2001, findings are perceptions on the use of videotaping as an evaluation tool, using peer evaluation to provide feedback to students and identified teaching strengths and weaknesses. Gorgen I., 2003 states that pre-service teachers can experience real teaching situations through microteaching, and they have the opportunities to transfer their teaching knowledge into real life teaching. Can V., 2009, state that microteaching has the ability to improve various skills like problem solving, critical thinking, questioning and reflective thinking. Peker M., 2009, tried to investigate the effects of expanded microteaching on the pre-service mathematics teachers' teaching anxiety in teaching practicum course and found that the used of expanded microteaching will reduce the teaching anxiety levels of pre-service mathematics teachers. Within the traditional theory/practice dichotomy, there has always been an assumption that student teachers will be able to transfer the pedagogical theories and approaches they learned in universities to their future classes in schools (Kubukcu, 2010; Fernandez & Robinson, 2007; Johnson, 2006).

Sana E. A., 2007, documented on how the teaching competency of students improved after experiencing microteaching and was concluded that microteaching is a laborious and intensive practice teaching experience which improved the teaching competence of the course participants. A case study by Fernandez L. Maria., 2010, on microteaching lesson study (MLS), combining the elements of Japanese lesson study and microteaching technique reported that the pre-and post-lesson plans had successfully demonstrated growth in teachers' knowledge on teaching. Microteaching is commonly used in teacher education program, and it is a proven method to attain gross improvement in the instructional experiences (Ismail & Sadiq Abdulwahed A., 2011). Fakomogbon M.A. *et al.*, 2012, carried out a study to investigate the effect of videodisc instructional package on student teachers' performance in the demonstration of microteaching skills in the class and were revealed that videodisc instructional package will improve student teachers' performance in microteaching skills demonstration. Also, it was concluded that videodisc instructional package was not a gender selective, hence both male and female student teachers performed well. Reddy K.R., 2019, states that microteaching is an excellent way to build up skills and confidence, to experience a range of lecturing/tutorial styles and to learn and practice giving constructive feedback. Kokinnos T., 2022, aims to examine prospective teachers' experiences with online microteaching and concluded that the main advantage of the specific process is the collaboration with fellow students, while the main challenges concern technical difficulties and anxiety.

4. Microteaching scenario at National level

Passi B.K. & Shah M. M., 1976, explained that through microteaching teacher can reinforce behaviors and skills that are necessary and extinguish that are not needed and later on these learned skills will transfer to real class room teaching.

Microteaching is done with a very small lesson or a single concept with a smaller number of students. It will reduce the complexities of real teaching, as immediate feedback was provided after each practice session (Paintal I., 1980). Microteaching helps in eliminating errors and builds stronger teaching skills for the beginners and senior teachers (Ananthakrishnan N., 1993; Roush R. E., 2008). Chawla V. & Thukral P., 2011, attempt to evaluate the effects of student feedback in developing teaching competence among student teachers and found it very much effective in improving the general teaching competence of student teachers. Singh T., 2011, state that microteaching is a scaled down version of a teaching scenario that requires less time and a smaller audience, and entails less content and the need to put to use fewer skills. Remesh A., 2013, presents an outline of the various phases of microteaching, core teaching skills, implementation aspects, and the impact of microteaching on medical education. Bajaj P., *et al.*, 2014, concluded that microteaching is an innovative technique of teacher training which helps the teachers to improve their teaching skills. Banga C.L., 2014, concluded that micro-teaching works as a focused instrument which helps to practice essential teaching skills safely and effectively at any age. Omar S. & Mehdi M. D., 2014, state that microteaching is a real time teaching simulator which aids in acquiring in depth knowledge of the core art of teaching. Muthukrishnan S.P. & Mehta N., 2019 state that microteaching can be effective teacher training technique for residents' doctors. Popat Y., 2020, depicts the utilization of microteaching session for the analysis of attitude and perception of teachers towards microteaching to enhance their core competencies in teaching skill. Rahaman S., 2021, highlights microteaching as an 'Efficient Teaching-Learning Strategy' and the capacity to offer and accept constructive criticism with an open mind is consider as the most essential characteristic of microteaching participants. Ramanathan R., *et al.*, 2021, said that peer microteaching sessions must be conducted for early beginners in the department and introducing microteaching methods in post graduate curriculum would improve the teaching skills.

5. Microteaching scenario at regional level (North-East Region)

Paul P.K. & Nandi S., 2015, tried to analyze the effectiveness of micro teaching on pre-service and in-service teachers' trainee, training colleges' students and senior secondary level schools of Burdwan District of West Bengal and concluded that micro teaching have a significant positive impact in alleviating the difficulties of traditional class room teaching.

Das A., 2017, attempt to study the University of Assam and attitude of the B. Ed. students towards micro-teaching and also examines the perception of teacher educators on micro teaching and its impact on practice teaching and was found that, micro

teaching performance and experience will increase corresponding performance in real life teaching.

6. Advantages of Microteaching

- i. **Personality Enhancer:** Micro-Teaching entails a variety of activities and practices that increase a teacher's confidence significantly.
- ii. **Positive Attitude:** One of the goals of this program is to help trainees to develop a positive attitude toward criticism.
- iii. **Practice Elasticity:** Micro-Teaching aids in the development of a variety of abilities in both trainees and current teaching personnel. It aids in the development of a teacher's handling abilities.
- iv. **Cost-Effective:** It is cost-effective. Teachers can practice in the classroom or at any other location.
- v. **Interesting and Reliable:** Immediate feedback from viewer side will make this more interesting and reliable.
- vi. **Focus on Learning:** Micro-Teaching is limited to three-four students at a time. As a result, gain more teaching experience. It also reduces the likelihood of errors.
- vii. **Encourages Systematic Lesson Preparation:** Within a specific curriculum, a Micro-Teaching program assists the trainee in developing methodical Lesson Plans.

7. Disadvantages of Microteaching

- i. The training program is time consuming and can be costly at time.
- ii. Personalized learning is not emphasized in this skill.
- iii. The curriculum usually focuses on teacher development and occasionally overlooks students' social-emotional development.
- iv. Microteaching method is usually limited to lecturing.
- v. Scope of microteaching is narrow.
- vi. It required more skills to implement.

8. DISCUSSION

Microteaching is a tailor-made training methodology for novice teacher. It provides a secured and a controlled environment to learner for practice of teaching. Microteaching intervention will improve the teaching skills of the trainee. Feedback given at microteaching session should be constructive and need to be helpful to the participants. Microteaching is an effective technique for experienced teacher to create more engaging and effective lessons. It is also used as a professional tool for experienced teachers.

9. CONCLUSION

From the above review work it has been concluded that microteaching has the potential to impact novice teacher competencies, beliefs and attitudes and to provide valuable teaching experiences to student teachers and make them aware of the benefits and relationships between theory and practice. It was also found that microteaching employs real teaching situation for developing skills and helps to get deeper knowledge regarding the art of teaching. It is concerned with development and modification of discrete classroom teaching skills.

Micro-teaching involves study of a specific teaching skill or to start with. It is also accepted as an efficient instrument for teacher training. It provides a controlled setting for making various experiments in teaching methods. It has the advantage of providing self-evaluation of one's performance. It helps to practice essential teaching skills safely and effectively at any age.

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