



Merits of Micro-teaching as Perceived by Student Teachers at Kuwait University

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Abstrak: Tulisan ini mengkaji manfaat pengajaran mikro menurut persepsi mahasiswa keguruan di Universitas Kuwait. Satu inventori pengajaran mikro telah dihasilkan berdasarkan persepsi 75 mahasiswa keguruan sains. Temuan tersebut kemudian diujikan kepada sekumpulan 67 mahasiswa keguruan lain. Hasil kajian menunjukkan, pada umumnya mahasiswa keguruan setuju bahwa pengajaran mikro mempunyai manfaat positif dalam (a) kecakapan perancangan, (b) kepribadian, dan (c) kompetensi mengajar. **Kata Kunci:** *pengajaran mikro, mahasiswa keguruan.*

Introduction

The role of micro-teaching, in teacher education programs has been widely recommended by several educators.¹ Some educators believe that the introduction of microteaching training is based on the shortcomings of the traditional teacher education programs.²

Other researchers, however, believe that micro-teaching promotes an integration of the fundamental knowledge of good teaching not only for beginners but also for advanced teachers as well. Through microteaching, Wilkinson³ adds that student teachers will be more equipped with the necessary skills prior to beginning their student teaching. Jerich⁴ contends that microteaching is one of the many important approaches to introduce and to improve teaching skills through participation and observation. This style of clinical based practice can promote a setting where analysis of teacher behavior can be evaluated. In other words, micro-teaching may also allow student teachers to practice specific technical teaching skill until they reach an acceptable level of documented performance by utilizing audio or audio-visual recordings.⁵ As a result, trainees will be able to learn not only through a critical analysis of their own performances, but also through peer feedback.⁶

Micro-teaching enables the pre-service student teachers⁷ to receive more training before starting their student teaching program. Support of this argument is drawn from the perception of a large number of the participant student teachers⁸ who expressed the need to experience microteaching training. In this study, 72% of the participant student teachers and 78% of the participant supervisors have agreed that micro-teaching approach helped student teachers in more diverse teaching methods.⁹ Micro-teaching merits have been highlighted by many educators in terms of empowering student teachers who lack the privilege of field experience.

Training Student Teachers in Microteaching



Mircoteaching is an organized teaching practice that has been proven by many educators to be a quick, efficient, and fun way to help student teachers get off to a head start during student teaching practice. The goal of such practice is to give student teachers confidence, support, and feedback by letting them try out teaching among friends and colleagues.

The researcher, believes that microteaching can help student teachers develop, practice and improve specific instructional skills, strategies, and modes in small group teaching-learning situations. The combination of personal instruction, observation of others, and personal reflection can enhance the development of several teaching qualities upon which the training is based. Student teachers will be knowledgeable of the merits of microteaching, and thus can provide valuable information for the construction of the new questionnaire.

Purpose of the Study

The purposes of the study were two fold:

1. to construct a microteaching inventory which indicates the merits of microteaching as perceived by student teachers;
2. to assess student teachers' perception on the merits of microteaching using the inventory.

Research Methodology

Sample of the Study

The sample consisted of 75 science student teachers who were engaged in the construction of the micro-teaching inventory. The inventory was later tested on 67 trainees majoring in science and mathematics at the college of education.

The study essentially involved the following steps:

1. Student teachers were trained on micro-teaching through the infusion of micro-teaching training into the teaching method courses; and
2. A microteaching inventory was constructed based on the trainees' experience with the microteaching training process.
3. Student teachers responses were gauged using the micro teaching inventory.

Prior to the micro-teaching training, student teachers followed the theoretical aspects of micro-teaching for eight weeks after which students were given the opportunity to practice micro-teaching which was carried out for six weeks which involved three phases as follows:

Phase One: Five-day Observation and Evaluation Training

During this phase, the actual microteaching training was preceded by an observation of pre recorded teaching lessons of science and maths school teachers with different teaching qualities, different settings ranging from excellent to moderate examples of classroom environments. Exposure to different



classroom environments and teaching quality, will help student teachers to realise factors essential to successful teaching. The participants examined what qualities to be observed and how to evaluate such qualities through the use of an evaluation sheet/list. It is important at this stage to mention that the evaluation form used by student teachers was similar to that adopted by supervisors when training and evaluating student teachers at training schools.

Phase Two: Two-week Microteaching Training

During this phase the following steps were taken:

1. Classroom/laboratories with video-recording equipment were reserved in advance for such training;
2. Personnels from the Center of the Audiovisual Aids at the College of Education participated in recording trainees' presentations;
3. To ensure the participation of all student teachers in the micro-teaching training, trainees were divided into groups with different schedules and supervised either by the researcher or three trained teacher assistants. The trainees' presentations were scheduled either during the course hours or during other convenient times for group of students as well as their teacher assistants. It is worth mentioning that the three teacher assistants participating in this training also carried out the responsibility of supervising student teachers during their student teaching practice;
4. From a list of several science/science and mathematics subjects which would later be taught to students, in schools each trainee selected a specific lesson to teach;
5. Each trainee was required to prepare a lesson plan to be presented and submitted to his/her trainer;
6. Each trainee presented a 20 minute segment of the predetermined lesson to his/her fellow student teachers;
7. Each trainee would practice teaching the content of the subject matter taking into consideration how to develop and use the lesson plans, how to manage classroom/lab activities, how to present the content, and how to coach and evaluate his/her students;
8. Each trainee was also asked to use an observation card (developed by the student teaching center) for the evaluation of peer presentations and evaluations of their own-videotaped lessons. Such observation card was the same as that used by school and university supervisors to evaluate student teachers during their teaching practice.

Phase Three: Three-week Videotaping Analysis and Evaluation

During this phase the following steps were taken:

1. The videotaped presentations for each student were displayed, discussed, and critiqued by all participants and the researcher/teacher assistants;



2. Each trainee was able to observe his/her own teaching in terms of efforts before coming to the classroom and efforts inside the classroom. Each trainee was then provided with objective feedback from all attendants;
3. Moreover, discussion sessions were also videotaped to enable all trainees (in the different groups) to have access to all lessons discussed (including those of different groups), so as to benefit as much as possible from keeping in touch with the rest of the training activity;
4. Finally, each trainee was advised to keep a copy of his/her lesson and review the videotaped presentation and do a self-critique.

The Construction of Students Teachers' Perception of The Merits of Microteaching Training

A pilot study was conducted at this stage, from which the researcher hoped to obtain some comprehensive meaningful dimensions of the merits of microteaching from a series of student teachers' opinion. Seventy five student teachers (science student majors) who were engaged in the microteaching training during the first semester of the 1997/98 academic year participated in the pilot study. Participants were informed on the objectives of the study that was to develop a new perception instrument that describes the merits of microteaching training. They were also informed that the instrument would also be administered to students who would be completing the teaching practice.

An open ended questionnaire was administered to the student teachers who were asked to specify the five most important merits of microteaching they had encountered during the microteaching training process. They were provided with an open-ended statement in written form which began with "microteaching training is helpful to me in gaining ...". As some trainees provided more than five merits, the total number of statement reached more than 375.

These statements formed the basis for the construction of the new inventory. Minor statements that were mentioned by less than 20% of trainees were not included in the new scale. The remaining sixty-five statements were divided into the following three major categories: Teaching Competencies, Planning Skills, and Personality.

The derived statements were then given to nine faculty members from the Departments of Psychology and Curriculum and Instruction in the College of Education. Those judges were asked to check for the clarity of each statement and then to place each statement in one of three categories mentioned. Judges' responses were then collected and interater-agreement on the items established. Statements with less than 70% of agreement among judges were weeded out. The remaining 53 statements were then administered to sixty nine trainees.

Item Analysis

Item analysis was carried out on the data obtained from trainees' responses. A higher score represented greater agreement. To ensure that each statement within any of the three categories was



measuring a similar dimension as the whole category itself, participants' statement scores were correlated with their total scores on all the items of a category. Statements that correlated with a magnitude of 0.20 or more ($p < 0.5$) with the category total score were retained.¹⁰ Correlations, between each statement from a given category, was computed with the total scores from other categories. Consequently only 42 items remained in the inventory measuring aspects of Trainees' Teaching Competencies (16 item), Planning Skills (11 items), and Personality (15 items).

Reliability of the Instrument

Many educators have proposed different techniques for the assessment of the reliability of any constructed achievement or psychological test.¹¹ These techniques are a) the test retest procedure, b) the parallel form and c) the split half procedure. The split-half technique was adopted for this study because the split-half avoids difficulties in both tests-retest and a parallel-form.

The total score of the participants on the odd items were correlated with the total scores of the testees on the even items. At the end of the second semester, the developed scale was administered to a group of student teachers, (i.e. 67 science and mathematics students) after the completion of their micro-teaching training. Scores of the 67 trainees were used to calculate various reliability coefficients of measurement. Analysis of the results yielded a split-half reliability coefficient of 0.94 after applying the Spearman-Brown correction. The reliability of each category was also tested using an Alpha Chronbach Reliability Coefficient. The results revealed an Alpha value of 0.88 (for trainees planing skills), 0.86 (personality of trainees) and 0.84 (teaching competencies). The results of the reliability coefficient (Table 1), indicates that the inventory is highly reliable with the given values of $r = 0.90$.

The microteaching inventory was administered to the 67 teacher trainees to gauge their perceptions on the merits of microteaching.

TABLE 1: Reliability analysis of the PMMI

Measurement	Reliability coefficient
Alpha for odd items	0.90
Alpha for even items	0.93
Spearman-Brown Correction Coefficient	0.94
Kuder-Richardson Reliability Coefficient	0.91
Alpha for Trainee Planning Skills	0.88
Alpha for Personality of Trainee	0.86
Alpha for Teaching Competencies	0.84

Results and Discussions



The characteristics and behaviors which trainees regarded as significant in describing the merits of microteaching are shown in Tables (1-3), together with percentages of the total sample agreeing or strongly agreeing to (1) trainee's planning skills, (2) personality, and (3) teaching competencies.

Merits Associated with Planning Skills

With regards to planning skills (Table 2) the majority of the trainees consider that micro-teaching training has equipped them with successful planning skill competencies namely (1) designing of relevant teaching strategies to be used (88.8%), (2) designing instruction to successfully achieve intended goals (84.9%), (3) preparing instruction to accommodate the different abilities of students (84.29%) and (4) preparing relevant questions to be given to students during the lesson (84.2%). In addition trainees agreed that they have gained the ability to acquire basic or essential information needed to be taught (81.8%).

Planning is a thought process that reflects the teacher's comprehension of the whole curriculum on the one hand and the teacher's action at any particular moment in the classroom on the other hand. Successful lesson planning helps a teacher to establish clear, directed objectives that are suitable for different students' needs, interests, and abilities. Joyce and Showers (1988) coined the process of planning as the 'invisible skills of teaching'. Jones et al. (1987:151) described this activity as the strategy that "places the teacher in a central role as a planner and mediator of learning". The importance of micro-teaching training perceived by trainees from Kuwait University is supported by the findings of Balton (1996) and Flick(1993); micro-teaching is an effective way to help student teachers gain self confidence in developing task analysis and mastering lesson planning. Moreover, Eley and Hess (1992) suggest that micro-teaching training creates a healthy environment for demonstrating simple teaching tasks, such as giving directions for a homework assignment and questioning techniques.

TABLE 2: Merits associated with trainees planning skills

Metcalf et al. (1996) even goes further by asserting that micro-teaching training is more profitable to student teachers than the field experience itself in helping them to implement and plan lessons. Creating a conducive atmosphere in the classroom is noted to be of utmost importance to successful teaching.¹² The qualities gained by student teachers from Kuwait University through micro-teaching training are in agreement with the findings reported by several educators in other situations.¹³

Merits Associated with Trainee's Personality

Table 3 refers to the merits associated with trainees personality. When trainees were allowed to express their own attitudes of the merits of micro-teaching training, they asserted that the training had affected their personality in terms of attitude and classroom management. Attitude is based on what a person says or does, namely, visible behavior. The effect of mirco-teaching training on trainees' attitude is displayed by (1) inviting students' point of view (67.5%), (2) encouraging students' inquiry (75.4%),



(3) encouraging active participation (68.2%), (4) encouraging interpretations of observed data (67.4%) and (5) accepting students' constructive ideas (70.6%). Furthermore, positive attitudes that trainees have gained from their training are phrased as having trust and respect for the learner in their charge (62.5%); reinforcing students' correct responses (65.0%), valuing students' opinion (70.6%) and maintaining positive teacher-student relationships (76.5%).

As to classroom management, trainees have also highlighted the importance of micro-teaching training in aiding them with the knowledge of how to maintain students' attention before making any announcement, (69.9%) beginning a lesson, during lecturing, as well as the ability in keeping students' focus on a required task, (78.6%) and using class time effectively (65.1%). It is of considerable interest that trainees' views of the merits of micro-teaching training on their classroom management do not differ substantially from the findings of other researchers who have studied micro-teaching training in other situations.

With regards to teaching competencies, microteaching training seems to have helped student teachers to display a greater awareness of personal habits and more insight into teaching. Trainees have spelled out the merits of micro-teaching in terms of equipping them with a very valuable quality, that is (1) monitoring student progress by giving questions after every teaching objective (94.2%), (2) providing students with imperative feedback (94.5%), (3) choosing both volunteers and non volunteers to answer questions (93.6%).

Trainees also perceived other merits of micro-teaching training such as (1) summarizing main points before transition (88.1%), (2) making smooth transitions when moving from one idea to another (87.3%), (3) linking the subject being taught to other disciplines (81.0%). The findings reached by Eley, Hess and Jerich are in agreement with the findings of this study as to the benefits of micro-teaching training. Such findings suggest that through microteaching trainees would be able to demonstrate important teaching competencies.

Conclusion

Several educators, during the past decade, have emphasized certain aspects of the educational process, which they consider as particularly important in forming a sound basis for 'good' teaching. Those most frequently mentioned were teacher's knowledge of his/her subject matter, delivery skills, motivation, management, appropriate educational environment and students; independent. The teacher, who possessed these characteristics to a lesser extent, would be less effective. According to students teachers' perception in this current study, micro-teaching training seems to have succeeded in providing trainees with a large number of qualities considered by many educators to be essential for successful teaching. Klinzig, Folden, Flick, and Lawrence assert that although micro-teaching is not the same as regular teaching, it is successfully used in methods classes for teaching skills development.



Micro-teaching has proved to have a positive effect on the teaching quality of trainees. However, with regard to the findings of this study, it would be of interest if a follow up study would be carried out to see how much of those qualities would really help student teachers during their student teaching in a regular teaching situation. As micro-teaching has greatly benefited teacher trainees it will continue to be an important and crucial component of teacher training.

Endnote

¹ W. Copeland, "Laboratory Experiences in Teacher Education," in H. Mitzel (Ed.), *Encyclopedia of Educational Research* (New York: The Free Press, 1982).

² H.G. Klinzing & R. E. Folden, *The Development of Microteaching Movement in Europe*. SP 034 199. ED 352 341.1991.

³ G. A. Wilkinson, "Enhancing Microteaching Through Additional Feedback From Preservice Administrators", in *Teaching and Teacher Education* 12(2): 211-221, 1996.

⁴ K. Jerich, "Using a Supervision Model for Microteaching Experience," *Action in Teacher Education* 11(3), 1988.

⁵ H. Edwards, "Changing Teacher Behavior Through Self-Instruction and Supervised Microteaching in a Competency Based Program," in *Journal of Educational Research*, 68: 219-222, 1975.

⁶ D. R. Cruickshank & K. Metcalf, "Improving Preservice Teacher Assessment through On-Campus Laboratory Experiences," in *Theory and Practice* 32: 86-92, 1993. See also B.R. Joyce & B. Showers, *Student Achievement Through Staff Development* (New York and London: Longman Inc, 1988).

⁷ J. S. Oliver, "Using Organized Distractions in Microteaching with Pre-Service Science Teachers," *Journal of Science Teacher Education* 4(3): 77-78 Sum., 1993.

⁸ Amena Ebraheem al-Methen, "Answers to Student Teacher Training Problem at the College of Education: Kuwait University." Paper presented at the Symposium of Student Teaching at the College of Teacher Education at the GCC Countries During the Period 29-31 of October 1995. Kuwait University, Kuwait.

⁹ J.H.C. Vonk, "Problems of the Beginning Teacher," in *European Journal of Teacher Education* 6(2): 133-150, 1983.

¹⁰ Anastasi, *Psychological Testing*, 3rd ed (New York: The Macmillan Company, 1968), pp. 130-131.

¹¹ *Ibid.*

¹² M.R. Malon & B.M. Strawitz, *Relative Effects of Microteaching and Field Experience on Preservice Teachers*. SE 049 460. ED 297 962, 1985.

¹³ W. D. Belt, "Microteaching Observed and Critiqued by a Group of Trainees". Paper Presented at the Annual Meeting of the America Educational Research Association, 1867; see also K. Jerich, "Using a Supervision Model for Microteaching Experience". *Action in Teacher Education* 11(3), 1988; and Bolton. *Preservice Teachers' Sense of Efficiency and the Influence of Performance Assessment*. SP 037 259. ED 406 366, 1996.

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