# The Impact of Microteaching on Professional Competencies of Pre-Service Teachers of Students with Learning Disabilities

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**Abstract**

The aim of the present study was to examine the impact of microteaching on professional competence among four pre-service student teachers enrolled in the program of special education for students of learning disabilities in the Faculty of Education. The researchers indicated the theoretical conceptions of professional competencies, pre-service training, practicum in learning disabilities, and microteaching. The study conducted through three stages: baseline, intervention, and follow up. The researchers used a checklist as the tool of the study. The study was conducted during the field training of the subjects as they were asked to prepare and carry out the entire individual teaching lesson in the resource rooms affiliated to the public education schools. Microteaching sessions were also administrated at

the university campus in Najran. The results of the study indicated significant improvements in the professional competencies among the four pre- service students as it was moderate at baseline (68%) for the four participating pre-service students. The subjects maintained the targeted skills in one measurement and after two weeks of the study (89%) indicating the significance of the microteaching in developing pre- service teachers required skills.

**Keywords:** Professional competence, microteaching, pre-service teachers

## 1. Introduction

Teachers' education and training programs are highly influenced by the educational competencies movement. The educational reform movement based on the development of teaching competencies is an integral part of the global cultural movement. Such movement has emphasized the notions of accountability and on specifying the core professional skills for the effective teacher. Accordingly, and based on the special education philosophy and objectives, there is a need to determine these professional competencies to be acquired by the teacher of students with disabilities.

### 1.1 Professional Competencies

The competency based teacher education (C-BTE) movement is one of the most significant trends for teachers' training and rehabilitation. The C-BTE has focused on some concepts including criterion and norms referenced evaluation and learning mastery, self- learning, programs design and professional experiences (Hall & Howard, 1976). As this trend has gained an enormous support for its success in promoting teachers' professional performance, many countries worldwide has adopted it and the various educational and scientific organizations embarked in developing their programs based on this educational reform movement (Sirotnik & Kimball, 1994).

Professional competencies are defined as " those skills used by teachers in problem solving, while teaching his ability to make the suitable decisions for solving these problems resulting from the individual differences among students' and the variation in learning objectives and as such, the variation in the teaching procedures and strategies used by teachers (McDonald,1977).

The model developed by Redden and Blackhurst (1973) is one of the significant models for developing special education teachers' professional competencies. It included several competencies; teacher's needs assessment competency, identifying goals, planning and executing teaching strategies and learning facilitation as the core competencies for special education teachers. In the same vein, Weaver and Landers (1991) have postulated that there are five dimensions where professional competencies cluster and these are the knowledge of special education basics, planning and evaluation, teaching methods and strategies, class management and control in addition to individualized instruction.

### 1.2 Pre-Service Training

The pre-service training in the learning disabilities field is the first step in student teachers' path to success and excellence in practicing his\ her future career as it contains different

solutions for facing the practical reality of this profession and to manage the entire details in this career with high performance and efficiency. The pre- service training enables student teachers employ their knowledge and conceptions acquired in the theoretical phase of their study and in building positive relationships with the family of disabled student and with the multidisciplinary team he\ she works with.

Students teachers face during their field training several challenges some problems that Tok (2010) summarized in planning, learning content mastery, effectively using learning activities, low communication skills, low time management skills and low behavior management skills.

Despite all these problems, the training system in the learning disabilities field represented by the student teacher, the field training facilitator, field training supervisor and co-teacher have all a positive role in assisting student teacher in overcoming his\her problems as they provide positive feedback, evaluation and informing him\ her about professional progress during the training period which all give students teacher the opportunity for modifying and developing performance. Several studies (e.g. Burton & Bartlett, 2005; Susan, 2009; Lambe, 2007) have stressed the importance of participating in pre- service training programs as they have many positive effects on pre- service teachers' of learning disabilities students self- efficacy, their attitudes and teaching self- efficacy. Other studies (e.g. Binyao & Linda, 2000; Wilson, 2000) have also stressed the importance of participating in pre- service education programs as they promote communication between supervisors and students teachers, developing the role played by co- teachers in participation and student teachers supervision, in more focus by teacher education programs on achieving professional development among students teachers. Many other studies (e.g. Rodgers & Keil, 2007) have emphasized the need for exploring other effective paths for student teachers education. There is also a need for emphasizing more on developing class management skills as one of the most significant topics in professional competencies (Daniel & Smith, 1993).

*1.3 Practicum in Learning Disabilities*

The learning disabilities program at Najran University comprises eight semesters (four years). The eighth and final semester is dedicated to practicum, it is stipulated that the student passes the previous seven semesters successfully. Student teachers are randomly assigned to the various schools providing special education services for students with learning disabilities. In the practicum, the field training coordinator assumes the task of general supervision on the process; the field training assumes the responsibility of supervising students teachers engaged in this process. Both of them must be faculty members at the department of special education. Finally, the co- teacher assumes the direct supervision on student teachers as an integral part of the practicum program.

The practicum is the first step in the prospect students teacher career as it gives him\ her the opportunity to practice his future profession. Furthermore, practicum provides students with invaluable field experiences to manage the various problems and challenges he\ she will face in the future. It is a chance to practice theoretical skills and knowledge efficiently as student teachers can employ their theoretical educational background acquired while learning in this experience. Also, it can help student teachers build strong relationships with students, school

administration, student guardians and multidisciplinary teams.

*1.4 Microteaching*

Microteaching is one of the successful methods used in student teachers education as it has been proven to be very effective in teaching instruction skills. The idea of microteaching is to provide student teachers with realism training experiences as they can practice pre- service teaching. In this respect, Brent and Thomson (1996) Emphasize that microteaching was employed to teach pre-service student teachers specific skills that they can depend on in the future while working with students inside the classrooms.

Microteaching can be described by using several attributes including being clear and transparent as the assessment sessions reveal the true performance of the student teacher while reviewing his\ her video- recorded pre- service teaching experience in addition to benefiting from the comments provided by the colleague student teachers and educational supervisors and their discussion concerning the teaching experience of their peer. As such, microteaching experience can provide pre- service teachers with the opportunity to capitalize the advices, comments and directions of their peers and supervisors when planning for future teaching. This also can be used for executing individualized instruction plans and other teaching experiences. Finally, microteaching is an invaluable tool to employ the recommendation provided by peers and educational supervisors in addressing weaknesses and improve their strengths in teaching performance.

Several advantages have been documented for microteaching for pre- service students teachers, including that they can clarify teacher's role in the instruction process (Amobi, 2005; Hawkey, 1995; Kpanja, 2001; Wilkinson, 1996), the importance of teaching and decision making (Gess-Newsome & Lederman, 1990), improving students teachers teaching skills (Kupper, 2001), increasing self- confidence (Willis, 1975; Fernández & Robinson, 2006, Deniz, 2010), increasing cooperative practices among students teachers (Fernández & Robinson, 2006), and finally contributing in their career development (He & Yan, 2011).

The microteaching as student teachers education program has achieved several successes in the training programs provided to student teachers. This was documented in the related previous literature. For example, Hauge and Norenes (2009); Al-Nashef and Wentz (2007); Ghafoor et al. (2012) have indicated that the use of video- taped teaching sessions in developing and improving teaching skills among student teachers. Other studies (e.g. Lazarus, & Olivero, 2009) documented the use of microteaching as a tool for thinking and reflection in student teachers instructional practices. Sen (2010) indicated that microteaching can be used in peer teaching and improving instructional skills. Microteaching is one of the effective tools to teach technology integration in instruction for the development of teachers' professional competencies (Guo, 2010) and in the development of interpersonal communication skills among students teachers (Bower et al., 2011). Other authors (e.g. Erökten & Durkan, 2009; Gürses et al., 2005; Tok, 2010) have stressed the effectiveness of microteaching in identifying the problems faced by student teachers and in solving them while they practice their pre-service teaching experiences. It can also be used to identify student teachers opinions concerning the use of microteaching in developing their teaching competencies (Chawla &

Thukral, 2011).

## 2. Method

### 2.1 Respondents and Setting

Four Saudi pre-service special education student teachers from Faculty of Education at Najran University in the Kingdom of Saudi Arabia participated in this study. The four students successfully completed their seventh semester and they still have to successfully pass the eighth semester, which is practicum.

The average age for the participants was (M=23.4). **Raed** was (23 years and 10 months) and his GPA was (3.39) out of (5) and this means that his academic grading was good. **Rayyan** was (23.00) and his GPA was (3.36) out of (5) and this means that his academic grading was good. **Anas** was (23.8) and his GPA was (4.66) out of (5) and this means that his academic grading was excellent. Finally, **Youssef** was (22.10) and his GPA was (3.41) of 5 and this means that his academic grading was good. It must be noted that all the respondents' names used in this study are not their true names.

All the individual learning lessons were conducted in the resource rooms at the public education schools in Najran City for the academic year 2014/2015. The schools were Al Markab School, Jerusalem School and these contain an educational program for students with learning disabilities, which are directly supervised by the special education department at the Educational Directorate in Najran. The resource room in each of these schools contains several equipment and devices such as computers, smart boards, instructional aids, desks, chairs and tables. The follow-up sessions were also conducted at the same setting.

All the microteaching sessions were held at the campus of Najran University. As known, the conception of microteaching is based on chatting and discussion by using a personal computer and a data show projector. The individual teaching sessions being taught by the practicum student teachers were discussed in the presence of all members of the practicum team after being presented before the team by using a personal computer and a data show projector. The retention sessions (student teachers' retention level of the targeted skills) were conducted at the same setting.

### 2.2 Application Stages

The study was performed by using a sample of students that are expected to graduate at the end of the first semester of the academic year 2014\ 2015. It is expected that these students will enroll in the practicum course in learning disabilities and the use of microteaching as the main instructional tool. The following model was used for conducting this study:

1) Design the individualized instruction plan (10-15 minutes).
2) Teaching the targeted instructional skill within the predetermined time.
3)  Recording the lesson by using video.
4) Watching the video- taped lesson.
5) Assessing the lesson by the practicum team.

6) Providing suggestions and recommendation for the student teacher.

7) Redesigning the lesson as the student teacher uses the provided suggestions and recommendations into consideration.

8) Showing the video- recorded for second time, assessing it, and then presenting any new suggestions.

The study was conducted for 14 weeks and included the following three stages:

**The first stage (Baseline):** In this stage, the three participants were asked to design three lessons and each contains executing a skill he selects. This means that the participant were given freedom in executing their teaching task such as selecting the topic of the individuated instructional plan (reading, writing, mathematics, …. etc.), selecting the teaching strategy and the reinforcement tools in addition to having a full freedom in selecting the instructional aids found suitable for achieving the targeted learning skill. Another participant being trained with the first at the same school was asked to video record the individualized instruction lesson. Then, the microteaching sessions were managed in the campus and each lesson was assessed by using a checklist developed by the researcher, it was completed by the practicum team members. The results of the three sessions for all the participants were taken as the baseline data for the study.

**The Second stage (Intervention):** Upon the completion of the first stage and after advice and guidance were given to the participants, they were asked to develop another instructional lesson while taking into consideration the remarks, suggestions and directions being addressed to them. The outcomes of this phase were five individualized lessons for each of the participating student teachers.

During the intervention phase, the scores of student teachers were calculated by the practicum team members by using the same procedures used in the baseline phase. The video tapes are watched by all of the team then the team member scores the instructional skills for the domains of the study (planning, execution, reinforcement, communication and closure). Furthermore, any of the remarks provided by the team member is documented. Then, the microteaching sessions are managed as each of the team members mentions student teacher's strengths and reinforces them. After that, he narrates the most important points needing improvement. For example, does the student teacher reinforce his students after successfully completing a given task? If not, he is scored (0). If (sometimes) yes, he is given (1), but if he always does so, he is given (2). In this case, the student teacher records the remarks which need improvement if the score is (1) or less.

**The Third stage (Maintenance):** After two weeks of the    completion of the second stage, student teachers are given the opportunity to prepare an individualized instructional plan to identify the retention level by the student teacher for the targeted learning objectives.

*2.3 Data Collection Tool*

2.3.1 Checklist

The researcher developed a checklist as the main tool for data collection after reviewing

several previous related literature (Kilic, 2010; Li, Oneonta, & Ji, 2010; Mergler & Tahngen, 2010; Shah & Masur, 2011; Malak, 2012). The preliminary format of the checklist consisted of (40) items and contained (5) domains (planning, execution, reinforcement, communication and closure).

2.3.2 Validity and Reliability of the Checklist

The validity indicators for the checklist were obtained by using a group of specialists (15 juries) specializing in different academic disciplines at the ministry of education and the educational directorate to identify their opinions concerning the validity of this instrument. It was agreed to keep the domains and the items that were found to be appropriate by 13 out of 15 (87%) of these specialists. The criteria used to judge the validity of the checklist regarding language, content and whether the item belongs to the targeted domain. Based on the specialists' remarks, the appropriate modification were conducted as some items were eliminated and others were adjusted so that the final format of the checklist consisted of (30) items.

As for reliability, the researcher asked a panel of specialist at the faculty of education (6) member to use the checklist in observing the performance of student teachers out of the original sample. The agreement rate between these specialists was computed at (90%) and this was an acceptable percentage for the purposes of the current study.

## 3. Data Analysis

Data obtained from the administration of the checklist on each of the individual participants in the practicum team were analyzed. In doing so, means, percentages and response rate for each of the four participants were calculated.

## 4. Results

The purpose of the study was to examine the effect of using microteaching on professional competence among four pre- service students teachers enrolled in the bachelor program in special education majoring in learning disabilities. Results of the study indicated that the baseline means scores for the four participants were (68%) and the response rate was (66%-69%). The means scores for the intervention period were (91%) and the response rate was (89%-93%) while the skills retention rate was (89%) and the response rate was (87%-92%). Figure 1 illustrates this.

Figure 1 shows the performance of the four student teachers participating in the study on the baseline, intervention and retention phases. The results of the study indicated that in the baseline phase, the four participants were able to plan accurately the individualized instruction lessons. There was inconsistency in the student teachers performance in the other instructional skills (execution, reinforcement, closure and communication). The percentages means scores for Raed was (66%) at the baseline (Response rate= 65%-68%). This student teacher performance rate was (92%) in the intervention phase (Response rate= 88%- 95%). This indicates that his performance has improved to reach (95%) at the fifth session as he was able to show the four targeted teaching skills (planning, reinforcement, closure and

communication). It was found that there was inconsistency in his performance in the lesson execution skill. For example, he showed inconsistent skills in giving student the adequate time to think in the right answer, employing the instructional aids at the right time, and posing clear questions.
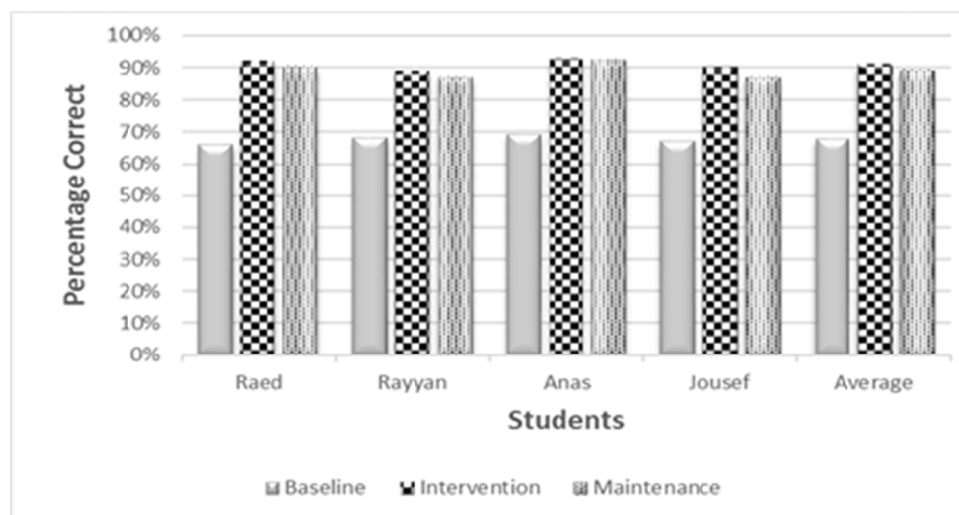


Figure 1. Percentages means scores for students teachers performance

As for **Rayyan**, another student teacher reported a performance means score of (68%) at the baseline with a response rate of (67%-68%). In the intervention phase, his performance reached (89%) with a response rate of (83%-92%). At the end of the fifth session, this student teacher was able to master the specified practices in planning, closure and communication domains and with a less mastery level in reinforcement and lesson execution, respectively. For example, in reinforcement domain (e.g. providing assistance for student and encouraging him to rethink about the learning tasks, using cues and signs to encourage student).

**Anas** reported a performance means score of (69%) at the baseline with a response rate of (68%-70%). In the intervention phase, his performance reached (93%) with a response rate of (88%-95%). During the intervention phase, he was able to master the specified practices in planning, reinforcement, closure and communication domains and with a less mastery level in lesson execution,. For example, in the lesson execution domain (e.g. using the suitable instructional aids for the learning activity, the easiness and difficulty of the questions posed in the lesson, setting the learning environment in the individualized lessons) reported less mastery levels.

**Yousef** obtained a score of (67%) in the baseline phase as the response rate was (63%-70%). In the intervention phase, his performance score was (89%) and the response rate was (83%-95%). At the end of the fifth session, Yousef was able to master the special teaching practices in planning, closure and communication and with a less mastery level in reinforcement and lesson execution, respectively. For example, in the reinforcement domain,

providing assistance for student and encouraging him to rethink about the learning tasks, using cues and signs to encourage students , and giving student adequate time to think of the correct answer).

### 4.4 Maintaining

All the participants in the study maintained targeted skills as the score mean of maintenance was (89%) while the maintenance rate among the four participants (Raed, Rayyan, Anas and Youssef) was 90%, 87%, 92%, 87%, respectively.

## 5. Discussion

- The results of the current study confirmed the positive effect of microteaching on pre-service student teachers professional competencies. The results indicated that the four participants reported improvements in the teaching skills emerging from the five selected domains (planning, lesson execution, reinforcement, closure and communication) among the four student teachers participating in the current study. The means score for the mastery level of the targeted teaching skills was more than 89% among all participants and this was confirmed by the feedback provided during the microteaching sessions. This result is consistent with the results reported in previous studies targeting improving professional competencies (Şen, 2010; Guo, 2010).

- Participants in the study indicated that microteaching is of vital importance for improving their teaching performance as the continuous watching of the video- tapes showed them their real teaching performance and that of their peers. As a consequence, they could identify the effective practices needing improvement, and then working to improve them in the later lessons. This is in line with the results reported in previous studies such as (Ghafoor et al., 2012; He & Yan, 2011; Hauge & Norenes, 2009; Al-Nashef & Wentz, 2007) indicating that the use of microteaching helped students teachers in improving their knowledge of the effective use of instructional aids. Reinforcement strategies, communication skills and behavior management skills (Tok, 2010; Bower et al., 2011).

- The practicum supervising had a significant role in solving the problems faced by student teachers during the practicum period. Participants in the study mentioned that conversations in the sessions, and listening to student teachers problems had a significant role in solving the individual and group problems faced while executing the individualized lessons. Also, the supervision team members helped in improving student teachers' skills in communication with students who have learning disabilities during the individualized lessons. These problems faded away as student teachers continued watching the video- taped lessons. This result is consistent with the results found in (Chawla & Thukral, 2011; Tok, 2010; Erökten & Durkan, 2009; Gürses et al., 2005) studies.

- The results reported in the current study have a significant importance in light of the test results on the teaching skills as the average score for the four participants in this

study was (89%) for the five domains as this indicates that they will be able to use the acquired skills to work with students with learning disabilities in the learning disabilities programs available in the public schools after graduation.

## 6. Recommendations

The results of the current study confirmed the positive effect of microteaching on pre- service student teachers who teach students with learning disabilities professional competencies. In light of this important result, the study recommends the need for continuous work with student teachers in their practicum by using the microteaching instructional model. The student teachers participating in this study showed positive attitudes towards this instructional model. Furthermore, the supervision practicum team played a significant role in helping student teachers in overcoming student teachers problems, difficulties and the fears which student teachers encounter while teaching.

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