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Tadaluring Microteaching Learning Model: A Practical and Applicable Key to Improve Teacher Students' Qualified Teaching Achievements

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Tadaluring Microteaching Learning Model: A Practical and Applicable Key to Improve Teacher Students' Qualified Teaching Achievements

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Abstract

This article reports an analysis of teacher students' teaching achievement in designing lesson plans, improving teaching practice, and developing teacher competency. The research followed a mixed method research design, combining quantitative and qualitative data. It further employed a one-group pretest-posttest design in a quasi-experimental approach with the participants observed to obtain the needed data for further statistical analysis. The findings reveal that Tadaluring Microteaching Learning Model (TMLM), with its five-component microteaching cycle (e.g. syntax, social systems, principles of reactions, support systems, and effects of models) helps teacher students improve teaching achievement in Microteaching course by providing extra resources of experience to improve lesson plan design, teaching practice implementation, and teacher competence enhancement. This study also examines the experiences of both supervisors and teacher students in implementing the five components of the TMLM microteaching cycle. It reports that teacher students are able to design good lesson plans after participating in the TMLM microteaching cycle. It further shows the five components of the TMLM microteaching cycle aroused the teacher students' positive attitude and motivation to create and improve teaching practice during peer teaching sessions while improving their personality and social competence at the same time. This study provides a better understanding that the use of TMLM's five components in the microteaching cycle can support teacher students' teaching performance effectively in the future.

Introduction

Microteaching, which is an essential component of teacher education programs, is primarily a means of improving prospective educators' teaching abilities. Microteaching provides teacher students experiences not only on how to improve their personality and social competency, but also how to design lesson plans, best teaching techniques, and improve their manners (Kartal & Dilek, 2021; Prabowo et al., 2022; Thuy Diem et al., 2020; Walt & Barker, 2020). They will be trained and prepared in these manner and teaching skills to become professional teachers in the future (Dunst, 2019; Simsek, 2020).

The first things that teacher students pay attention in their teacher training program is how to construct a good

lesson plan. However, designing a lesson plan is not a simple task if it is not supported by the appropriate teaching models on how to design good lesson plans. It implies that in order to design the most standardized lesson plans, teacher students must have clear indications of what should be included in a lesson plan (Murtafiah et al., 2022; Prabowo et al., 2022). The second thing that teacher students should master is to advance their teaching qualifications and teaching education program such as microteaching is a program in teacher education that can train teacher students to enhance their knowledge and performance about teaching skills. Many studies report that it is difficult for teacher students to practice teaching if they are not exposed to numerous types of teaching practice examples and guidance (Pagarra et al., 2020; Park, 2022). The third matter that student teacher should improve in their Microteaching course is the capability of developing teacher competency such as improving their personality and social competence. The issue of maintaining good behavior during teaching and learning activities is also a challenge for teacher students from diverse backgrounds where manners are not. They need to learn how to behave well so that they can have a positive personality and get along with their future students, colleagues, and communities in or outside their education life (Barmaki & Hughes, 2018; Simsek, 2020).

The Stanford Microteaching Model (Cooper & Allen, 1967; Özonur, 2019), Microteaching Lesson Study (Danday, 2021), Integrated Model of Microteaching, Microteaching combined with the BOPPS Model (Yang et al., 2019), Microteaching combined with the OMTA Model (Adnyana & Citrawathi, 2019), and the Tadaluring Microteaching Learning Model (Arifmiboy et al., 2017, 2018) are examples of microteaching models that aim to improve teacher students' teaching achievement. Unfortunately, few studies have been conducted on the Tadaluring Microteaching Learning Model to improve teacher students' lesson plan design, teaching practice, and teacher competence, including personality and social competence. Furthermore, much less is known about how to implement TMLM microteaching cycle with its five components: syntax, social system, principles of reaction, support system, and effects of the model.

Consequently, the primary purpose of the five components based microteaching cycle, in this study is to enhance the teaching skills of future educators-to-be. This study aims to contribute to this growing area of research by exploring a chance for teacher students to get better at making lesson plans, improving their teaching skills, having good personality and social competence, and showing that they are qualified teachers. In this perspective, we recognized the issues and formulated four research questions: How are the teacher students' attitudes toward the five components of TMLM Microteaching cycle? To what extent is the teacher students' capability in designing lesson plan, implementing teaching practice, and developing teaching competency before and after participating in TMLM Microteaching cycle? Is there any significant difference between teacher students' teaching achievement in pre-test and post-test on lesson plan practice, and teaching competence before and after participating in TMLM Microteaching cycle? How effective is TMLM Microteaching cycle towards the improvement of teacher students' teaching achievement?

Tadaluring Microteaching Learning Model (TMLM)

Tadaluring microteaching learning model (Arifmiboy, 2019), abbreviated as TMLM (Arifmiboy et al., 2018), is a style of education that incorporates three separate types of instruction: classroom practices, online practices, and

offline activities. TMLM is composed of five key components: syntax, social system, reaction principles, support system, and model impacts. Figure 1 depicts the five TMLM components, model content, and model target (Arifmiboy, 2017).

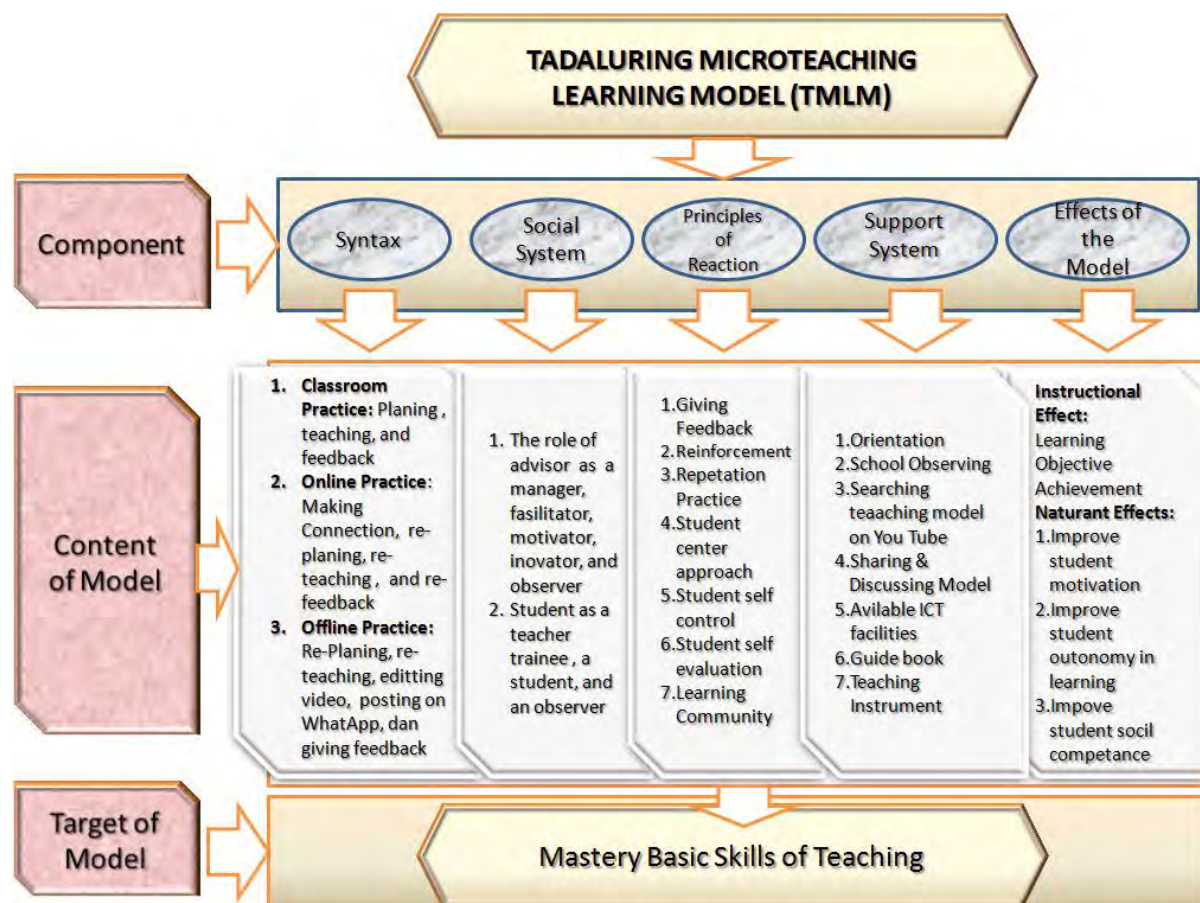


Figure 1. Tadaluring Microteaching Learning Model (TMLM) (Arifmiboy et al., 2017)

From Figure 1, we can see that the first component of TMLM is Syntax. According to Kumar & Pal (Kumar & Pal, 2013), syntax refers to the points in teaching models that trigger actions based on predetermined goals or objectives at various educational stages. In other words, the syntax of teaching models illustrates how teaching actions, strategies, techniques, and interactions should be structured to achieve the desired outcomes (Sarimanah et al., 2021). It relates to the presentation of course content. It entails a description or structure of teaching activities at various instructional stages. The syntax refers to the phasing structure of the model, i.e., organizing the types of activities at well-defined stages throughout the entire instructional program (Joyce, 1968; Joyce & Weil, 2003; Novitra et al., 2021). The TMLM syntax model consists of classroom, online, and offline practice. Planning, instruction, and feedback are the classroom practice activities. Examples of online practice activities include making connections, re-planning, re-teaching, and re-feedback. Re-planning, re-teaching, editing videos, posting videos on WhatsApp, and re-feedback are offline practice activities (Arifmiboy, 2017; Kumar & Pal, 2013).

The second component of TMLM microteaching model is Social System. Joyce and Weil (2003) have stated that each teaching model has its social system that instructs us on organizing actions and interactions between students

and teachers in situations where students have control over their conduct. Additionally, teachers may present interactions with the desired modification. The Social System describes the methods we use to motivate ourselves and assume that each class is a society and that there should be a social structure to regulate and enhance that society, thereby facilitating the smooth operation of educational systems (Barmaki & Hughes, 2018; Parji & Chasanatun, 2020). The content of the TMLM social system model encompasses the advisor's role as a motivator, facilitator, manager, innovator, and observer and the students' roles as teacher trainees, students, and observers.

The next component of TMLM is the principle of reactions. According to Arifmiboy et al. (2018), the model of reaction principles in TMLM addresses the following topics: providing feedback, reinforcement, repeat practice, student-centered approach, student self-control, student self-evaluation, and learning community. This component addresses how a teacher should evaluate and respond to student behavior. These reactions must be selective and appropriate. Throughout the session, Suwastini (2020) stated that the teacher assists by emphasizing conversations that address the students' hypotheses. The supervisor directs the teacher students' attention to essential aspects of the examples and guides them through discussing and evaluating their thinking strategies.

The fourth component of TMLM is support system. According to Kumar and Pal (2013), the most crucial summary variable that functions and influences the success of teaching in the teaching model is the support system. Consequently, the support system is the fourth and most crucial component of the teaching paradigm in TMLM. It reflects how well supervisors and training participants reached educational objectives and how much teachers can influence student. As a result, the system indicates the effectiveness or ineffectiveness of the learning design. The substance model of the support system consists of orientation, school observation, searching YouTube for a learning method, communicating and reviewing the model, existing Technological resources, a guidebook, and a teaching tool (Önal, 2019; Önger & Çetin, 2018).

Effects of the model, which include instructional and nurturing effects, make up the final part of TMLM. According to Novitra et al. (2021), nurturant effects are crucial for implementing a teaching model because they foster students' motivation, autonomy in learning, and social competence. In contrast, instructional effects aim to improve students' achievement of learning objectives (Joyce, 1968; Joyce & Weil, 2003). The instructional and nurturing impacts create the inquiry mindset, beliefs, and attitudes needed for an enquiring mind, as well as procedural abilities like observation, data collection, and data organization, as well as recognizing and controlling variables. Other effects of teaching models include developing and testing hypotheses, providing explanations, drawing conclusions, and fostering the development of active and independent learners (Parji & Chasanatun, 2020; Segara et al., 2018; Usmeldi & Amini, 2020). The main aim of implementing the five TMLM components using the TMLM content model as a guide is to attain the model's the mastery of fundamental teaching skills. That mastery will commence with the mastery of lesson planning, continue with the mastery of teaching practice, and go together with the mastery of social competency.

Lesson Plan Design in TMLM Microteaching Cycle

Prior to conducting teaching performances, teacher students in their microteaching course must be proficient in

lesson plan creation. They must learn and verify that the content of their lesson plan has already met the necessary criteria for a good and qualified lesson plan. A competent and qualified lesson plan must include the following: the name of the education unit, class or semester, subject, subject content, and time allocation. These eight key components are indications of competence attainment, foundational competencies, core competencies, learning objectives, materials, techniques, media, resources, learning phases, and learning assessment (Azizah, 2019; Deshpande, 2020).

Another significant aspect of lesson plan is that it must include a description of the selected materials, media, and learning resources. They must be factual, conceptual, procedural, and meta-cognitive to accommodate the scope of the essential competency guidance. In a quality lesson plan, teacher students should specify learning methods to clearly describe the syntax or stages and implement active learning that disembody character development, HOTS, and literacy (Simsek, 2020).

Syntax of Lesson Plan in TMLM Microteaching Cycle

1. Classroom Practice

Phase One: Encounter the 7 main aspects of lesson plan. Those are (1) Lesson Plan Identity, (2) Main Components of Lesson Plan, (3) Development of Instructional Goals, (4) Selecting of Instructional Resources, (4) Assortment of Educational Materials and Media, (5) Instructional methods, (6) Steps of Teaching Learning Activities, (7) Assessment of Learning Outcomes

Phase Two: Explore reactions to the 8 main aspects of lesson plan

Phase Three: Create study plans and preparations for studying (construct the lesson plan based on the 8 main aspects and sub categories of those aspects, etc.)

Phase Four: Individual and Group Work

Phase Five: Examine the process and progress

Phase Six: Reprocess Activities

2. Online Practice

Redo the phase one until six on number 1 above (no. 1 classroom practice) by using internet platform such as zoom or g-meet, etc.

3. Offline Practice

Redo the phase one until six on number 1 and 2 above (no. 1 classroom practice and number 2 online practice) (Arifmiboy, 2019; Joyce & Weil, 2003; LPP Universitas PGRI Semarang, 2019).

Social System of Lesson Plan in TMLM Microteaching Cycle

The social system is the interaction between a lecturer as a supervisor and students as a teacher. Under the guidance of the lecturer functioning as an advisor, manager, and observer, students will design a superb lesson plan based on the eight crucial components of a lesson plan (Arifmiboy et al., 2017; Kumar & Pal, 2013).

Principle of Reactions of Lesson Plan in TMLM Microteaching Cycle

The lecturer who has the role as a manager, facilitator, motivator, innovator, and observer will give feedback, reinforcement, She will situate an atmosphere in which teacher students will get more opportunities of having student-center approach and student self-control learning environment to construct the most potential lesson plans and get the guidance of how to improve their lesson plans to the betterment (Ambarini, 2021; Bestiara et al., 2021; Joyce & Weil, 2003).

Support Systems of Lesson Plan in TMLM Microteaching Cycle

The learning condition should support and fulfill the numerous of teacher students' demands. Lecturer and teacher students have to show the capability on how to unite what they need when they need it by guiding them to share and discuss the lesson plan models they find on the internet, providing guide book and teaching instrument for them that are available online or offline (Ambarini, 2021; Arifmiboy, 2019; Joyce & Weil, 2003).

Effects of the Model of Lesson Plan in TMLM Microteaching Cycle

The component of Effects of the model consists of two sub-components: instructional effect and nurturant effects. In instructional effects, it is to confirm whether the learning objective of teacher capability on designing lesson plan is already fulfilled. On the other hand, the nurturant effects will show how far the supervisor is able to improve teacher students' motivation, autonomy in learning, and social competence when designing their lesson plan (Ambarin et al., 2021; Arifmiboy et al., 2017; Joyce, 1968; Joyce & Weil, 2003).

Teaching Practice in TMLM Microteaching Cycle

After mastering the ability to create a lesson plan, teacher candidates must develop the skills necessary to conduct teaching practice. Based on the instrument for evaluating teaching practice, the three main activities will guide the teacher candidates in the conduct of teaching practice. These three significant activities are the introduction, the core, and the conclusion. In this introduction, teacher candidates will learn and follow the instruction on how to begin a lesson with a strong emphasis on perception and introduction (Novitra et al., 2021; Zahwa et al., 2021). This corresponds to the conclusions of Song (Song, 2021), which determined that teacher candidates will improve their teaching during the perception stage skills how to be creative in developing a religious attitude following the learning of the students' religion.

After the first step of teaching practice, which is the introduction, educators will train teacher candidates on how to conduct core activities. In the lesson on mastery of learning resources, teacher candidates will increase their capacity to adapt educational resources to educational objectives, connect from educational resources to some other valuable information in daily life, and provide a discussion of learning materials in an organized and proper manner (Winarni et al., 2020). The subsequent phase of core activities is the application of knowledge. Candidates for teacher positions will conduct teaching practice within the framework of the lesson plan during learning

implementation. They will also learn how to enhance interactive learning, which fosters the development of multi-directional interactions and multifaceted learning (Baseer et al., 2020; Utami et al., 2019).

Syntax of Teaching Practice in TMLM Microteaching Cycle

1. Classroom Practice

Phase One: Encounter the 3 main aspects of teaching practice: (1) Introduction that consist of Apperception and Introductory, (2) The primary value chain activities, such as: Application of Learning, Use of Learning Resources and Media, Students' engagement, Using the right words, phrase, and sentences in a teaching context, and (3) Activities to conclude

Phase 2: Explore reactions to the 3 main aspects of teaching practice

Phase 3: Create a study plan by becoming organized for studying (construct the scenario of teaching practice based on the 3 main aspects their sub categories , and so forth)

Phase 4: Group and independent study

Phase 5: Examine the procedure and progress

Sixth stage: recycling activities

2. Online Practice

Redo the phase one until number 1 above (no. 1 classroom practice) by using internet platform such as zoom or g-meet, etc.

3. Offline Practice

Redo the phase one until six on number 1 and 2 above (no. 1 classroom practice and number 2 online practice) (LPP Universitas PGRI Semarang, 2019; Nugraheni, 2019; Parji & Chasanatun, 2020).

Social System of Teaching Practice in TMLM Microteaching Cycle

The social system is the interaction between a lecturer as a supervisor and students as a teacher. Students as a teacher will construct the scenario of teaching practice that is based on the 3 main aspects of teaching practice under the supervision of the lecturer who has the role as an advisor, manager, and observer (Arifimiboy et al., 2018; Segara et al., 2018).

Principle of Reactions of Teaching Practice in TMLM Microteaching Cycle

The lecturer will provide feedback, reinforcement, and guidance as a manager, facilitator, motivator, innovator, and observer. She will create an environment in which teacher students will have more opportunities to have a student-centered approach and a student-controlled learning environment in order to construct and conduct the most appropriate teaching practice and receive guidance on how to improve their teaching skills in order to improve their teaching practice (Parji & Chasanatun, 2020; Tompo et al., 2016).

Support Systems of Teaching Practice in TMLM Microteaching Cycle

The learning situation should support teacher students' demanding needs in education life. Lecturer and teacher students are supposed to have the abilities to unite those demanding wish of teaching skill improvement by guiding them to share and discuss the teaching skills in teaching practice models they find on YouTube, providing guide book and teaching instrument for them that are available online or offline, and providing ICT facilities (Joyce & Weil, 2003; Kumar & Pal, 2013; Novitra et al., 2021; Parji & Chasanatun, 2020).

Effects of the Model of Teaching Practice in TMLM Microteaching Cycle

The component of Effects of the model consists of two sub-components: instructional effect and nurturant effects. In instructional effects, it is to confirm whether the learning objectives of teacher students capability on designing the scenario of teaching practice, and improving teaching skills during their teaching practice are already fulfilled. On the other hand, the nurturant effects will show how far the supervisor, the learning environment, the microteaching model are able to improve teacher students' motivation, autonomy in learning, and social competence when presenting their teaching skills through teaching performance and experience (Arifmiboy et al., 2017, 2018; Kumar & Pal, 2013).

Teacher Competence: Personal and Social Competence

Constructing lesson plan designs and implementing them effectively in the classroom is fundamental to being a professional educator. Teaching practice will be successful if teacher students or candidates conduct personality and social competence-related teacher competency very well. Good personality and social competence encompass the ability to demonstrate courage and composure during teaching practice (Dunst, 2019; Thuy Diem et al., 2020).

The next indicator of a good personality and social competence is taking responsibility for the assigned tasks, acting honestly and openly, and being disciplined and careful when completing teacher assignments. A teacher with a strong personality and social skills will be enthusiastic about completing the task and friendly and empathetic to students and other participants (Danday, 2021; Simsek, 2020). They will also show their peers and students how to be a role model and an example. Additionally, they learn how to adapt to the circumstances of other students. They are also willing to collaborate and cultivate positive relationships with colleagues, students, principals, and teachers.

Syntax of Personality and Social Competence in TMLM Microteaching Cycle

1. Classroom Practice

Phase One: Encounter the 20 dimensions of social and personality skills, including: Accountable for the duties that are assigned, strictness and attention in carrying out the assignment, being enthusiastic about completing the work, being affable and understanding an example for other professionals, students, and others by being a role model.

Phase Two: Explore reactions to the 20 aspects of personality and social competence

Phase 3: Create a study plan and prepare for study (undergo the 20 aspects of personality and social competence, and so on)

Phase 4: Group and independent study

Phase 5: Examine the procedure and progress

Phase 6: recycling activities

2. Online Practice

Redo the phase one until six on number 1 above (no. 1 classroom practice) by using internet platform such as zoom or g-meet, etc.

3. Offline Practice

Redo the phase one until six on number 1 and 2 above (no. 1 classroom practice and number 2 online practice) (Arifmiboy et al., 2017; Joyce & Weil, 2003; Kumar & Pal, 2013; LPP Universitas PGRI Semarang, 2019).

Social System of Personality and Social Competence in TMLM Microteaching Cycle

The social system is the interaction between a lecturer as a supervisor and students as a teacher. Students as a teacher will undergo the maximum qualities of social skills and personality which is based on the 20 aspects of personality and social competence rubric under the supervision of the lecturer who has the role as an advisor, manager, and observer (Lubis et al., 2020).

Principle of Reactions of Personality and Social Competence in TMLM Microteaching Cycle

The lecturer who has the role as a manager, facilitator, motivator, innovator, and observer will give feedback, reinforcement, and learning community that can improve teacher students' personality and social competence (Chookaew et al., 2019; Utami et al., 2019). She will situate an atmosphere in which teacher students will get more opportunities of having student-center approach and student self-control learning environment to construct and conduct the most appropriate personality and social competence to improve their professionalism and get the guidance of how to improve those competences (Barmaki & Hughes, 2018; Önger & Çetin, 2018).

Support Systems of Personality and Social Competence in TMLM Microteaching Cycle

The classroom experience must be flexible enough to accommodate varying requirements made by teachers and pupils (Cabello & Topping, 2020; Chookaew et al., 2019). Students and instructors have to be able to coordinate what they require at the right time by guiding them to share and discuss the 20 aspects of personality and social competence, and how to fertilize them during their teaching practice and performance (Chookaew et al., 2019; LPP Universitas PGRI Semarang, 2019; Simsek, 2020).

Effects of the Model of Lesson Plan in TMLM Microteaching Cycle

The component of Effects of the model consists of two sub-components: instructional effect and nurturant effects. In instructional effects, it is to confirm whether the learning objectives of teacher students capability on developing their personality and social competence are already fulfilled (Ardisa et al., 2018; Kelleci et al., 2021). On the other hand, the nurturant effects will show how far the supervisor, the learning environment, the microteaching model are able to improve teacher students' motivation, and autonomy in learning when developing their personality and social competence (Cabello & Topping, 2020; Walt & Barker, 2020).

Method

The researchers used a one-group pretest-post test design in a quasi-experimental approach in this investigation. The researchers wanted to find out how TMLM affected student performance. This study included twenty teacher students who were participating in the English Education Department's microteaching program.

Data Analysis

Using SPSS version 21 on the data, it was evaluated whether the results were statistically significant. The minimum and maximum scores, mean, standard deviation, paired samples t-test, and N-gain statistics were all included, along with descriptive and inferential data. According to Allen (2017) and Samuels (2015), using a paired-samples t-test compares several measurements of the same variable contained inside a single group. Consequently, to assess the statistical significance of the lesson plan design, teaching performance, and personality and social competency of the teacher students, the researchers used the paired sample t-test.

Validity and Reliability

Based on the validity and reliability test results, using the Lesson Plan assessment tool that Universitas PGRI Semarang, Indonesia, released, the findings of the SPSS computation using the validity through Corrected Item Total Correlation and the Split-Half Reliability Test showed all 36 items of the Lesson Plan Assessment tool are valid and reliable. It indicates that 0.530 is the lowest r-count score. The data are valid if r-count is more than r-table $0.530 > 0.468$. Furthermore, the highest score of the r-table of the 36 items in the Lesson Plan Assessment tool is 0.803. On the other hand, based on the reliability test using Guttman split-half Coefficient in SPSS computation, it shows that 0.944. The data is considered credible if r-count $>$ r-table, which is $0.944 > 0.8$.

The 39 items are all valid and reliable according to the evidence of the subsequent validity and reliability tests for the Teaching Practice Assessment instrument. Based on the result of SPSS computation using the Guttman split-half Coefficient of Cronbach's Alpha, it shows $0.938 > 0.80$. It proves that all the 39 items are reliable. Then, based on the result of SPSS computation using Corrected Item Total Correlation, it is found that the 39 items of teaching practice instrument are valid because r-count $>$ r-table. All 39 of the items have valid r-counts of at least $0.484 > 0.468$, which is higher than the lowest value of 0.973.

The validity and reliability based on SPSS computation show that the 20 items of the aspects observed in the teacher competence assessment tool are all valid and reliable. Guttman split-half Coefficient of Cronbach's Alpha shows that $0.970 > 0.80$ means all the 20 items in the teacher competence assessment tool are reliable. Following that, it is determined that the 20 items of the teaching competence instrument are valid since $r\text{-count} > r\text{-table}$ based on the SPSS computation result utilizing Corrected Item Total Correlation. Since the greatest $r\text{-count}$ is 0.933 and the lowest $r\text{-count}$ is $0.613 > 0.468$, all 39 entries are considered to be legitimate.

Results

To determine the differences between the lesson plans created by teachers and students before and after engaging in the TMLM microteaching cycle, descriptive statistical analysis was performed. The TMLM microteaching cycle included the components of syntax, the social system, the principle of reactions, support systems, and effects of the model on creating lesson plans, establishing teaching practice, and enhancing teacher competency (personality and social competence). The positive reaction of teacher students' responses toward the implementation of TMLM microteaching with its five components can be seen on Figure 2.

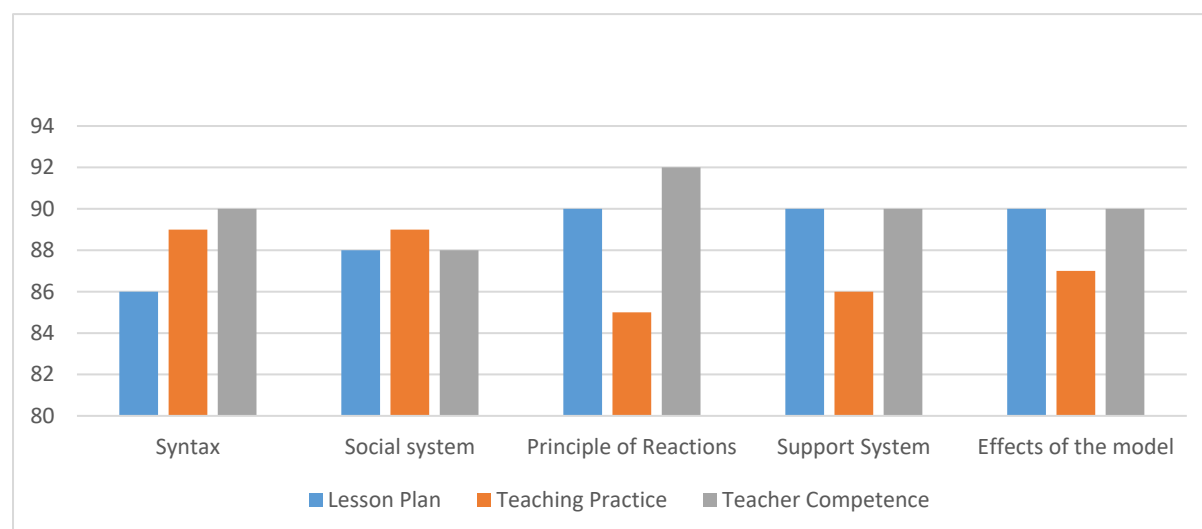


Figure 2. Teacher Student Responses toward TMLM Microteaching Cycle

Figure 2 shows that the five-component microteaching cycle of TMLM was implemented with favorable feedback from teacher students. The minimum percentage of response was indicated at 85% on teaching practice related to the principle of reaction component of the TMLM microteaching cycle and the maximum percentage of 92% at the point of the principle of reaction component also. The higher the percentage, the more enthusiastic the teacher students are about participating in the TMLM microteaching model implementation. The conclusion drawn from this is that the five elements of the TMLM microteaching cycle create a good environment for the teacher students that may inspire them to improve their teaching performance.

In each of the five components of TMLM microteaching cycle, starting from the syntax of TMLM microteaching cycle, the researcher team did the closed questionnaire to find out the teacher students' attitude toward the teaching

achievement session (lesson plan, teaching practice, and teacher competence within the syntax of TMLM microteaching cycle: classroom practice only practice, and offline practice. Figure 3 shows clearly the teacher student satisfaction toward the implementation of TMLM microteaching cycle syntax.

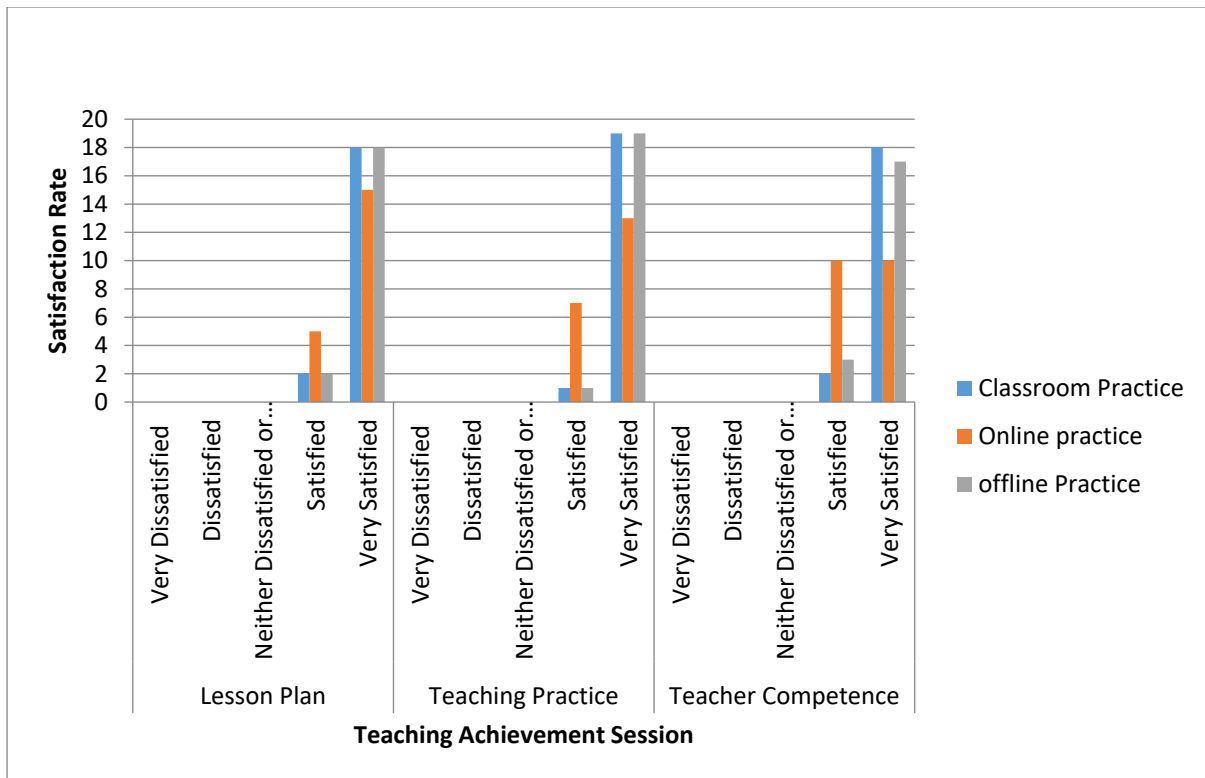


Figure 3. Teacher Student Attitude toward Syntax of TMLM Microteaching Cycle

Figure 3 illustrates that 17-19 teacher students shows that they felt very satisfied with the classroom practice and offline practice syntax session and the rest students show that they felt satisfied with it. On the other hand, around 10-15 students felt very satisfied with the syntax and the rest felt satisfied. So it can be concluded that none of the students show that they never felt very dissatisfied, dissatisfied, or even Neither Dissatisfied or satisfied with the implementation of TMLM microteaching cycle syntax.

Further, closed ended questionnaire was also conducted to find out the teacher students attitude toward the social system of TMLM microteaching cycle at the points of advisor role and teacher students role during the teaching achievement accomplishment of lesson plan, teaching practice, and teacher competence. The following Figure 4 gives clear illustration that most of the teacher students convey positive attitude toward the implementation of social system of TMLM microteaching cycle.

Figure 4 demonstrates that while the remaining teacher students expressed good opinions in those areas, 18 of them indicated very strong opinions about the role of instructors in the teaching achievement session of lesson plan and teacher competency. On the role of teacher students, there are 10 - 15 students who felt very satisfied during the teaching achievement session and the rest 5-10 students felt good with it.

Figure 5 illustrates the teacher student attitude toward Principles of reaction of TMLM microteaching cycle that covers the element of giving feedback, reinforcement, repetition practice, student center approach, student self-control, student self-assessment, and learning community.

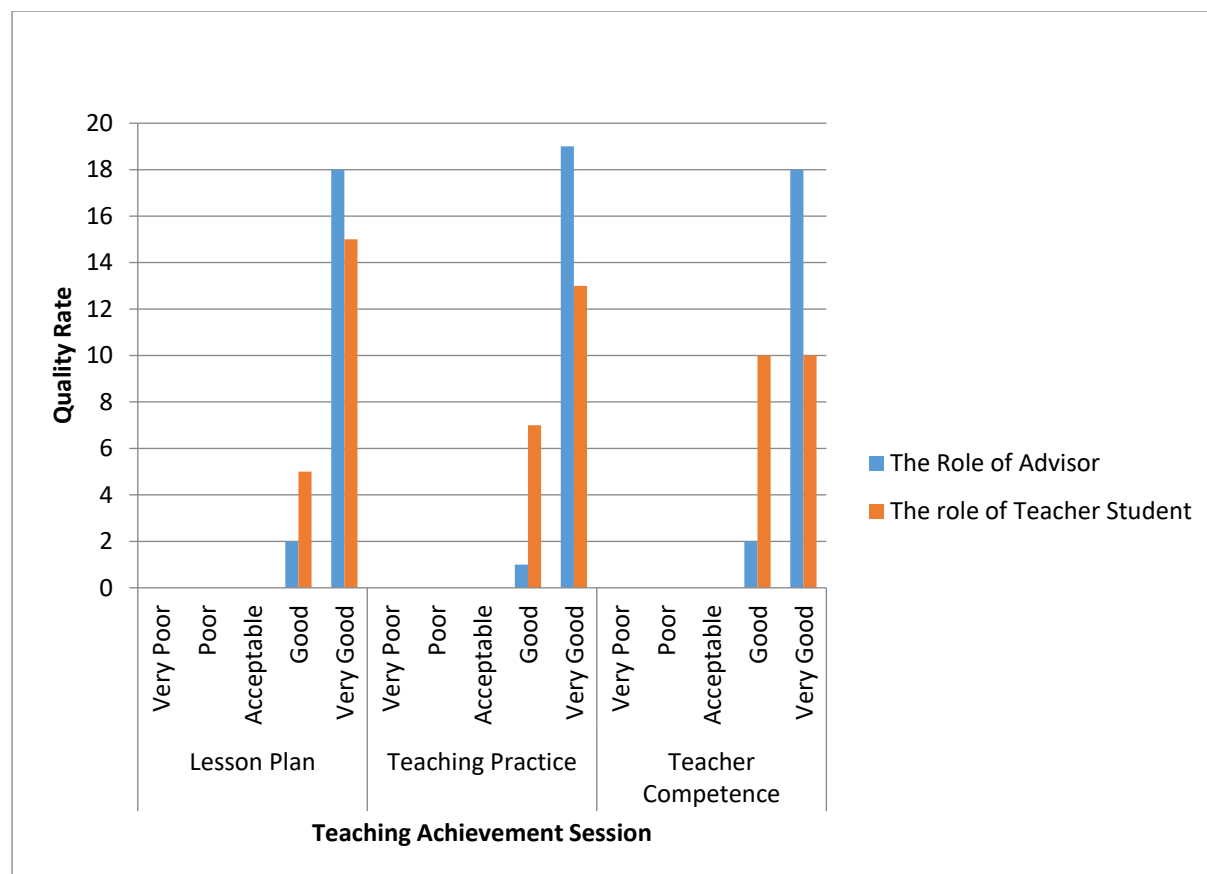


Figure 4. Teacher Student Attitude toward Social System of TMLM Microteaching Cycle

From Figure 5, it can be seen that there are 17-18 teacher students who shows very satisfied and 2-3 teachers feel satisfied with the sessions of giving feedback, reinforcement, repetition practice, student center approach, student self-control, student self-assessment, and learning community during the implementation of the principles of reactions in TMLM microteaching session. Whereas 18-19 teacher students feel very satisfied and 1-2 teacher students feel satisfied in Teaching Practice session and 17-19 teacher students feel very satisfied and the rest 1-3 teacher students feel satisfied in Teacher competence session.

The following survey was used to determine how the support system activities, such as orientation, school observation, YouTube teaching model search, sharing and discussion of teaching models, access to ICT (Information and Communication Technology) resources, guidebook, and teaching tool, are prioritized during the microteaching course in order to support each teacher student's teaching achievement session.

In Figure 6, it shows that most of the teacher students stated that most of the activities emphasized in support system of TMLM microteaching cycle are very important and the rest stated important. It is interesting that we can see from figure 6 where 7-8 teacher students state that guide book stated very important, the other 10-11 stated

important, and the rest stated neutral. From this figure, it can be concluded that most of the students considered that all pointers in support system are very important and they paid little intention on the importance of using it in this session.

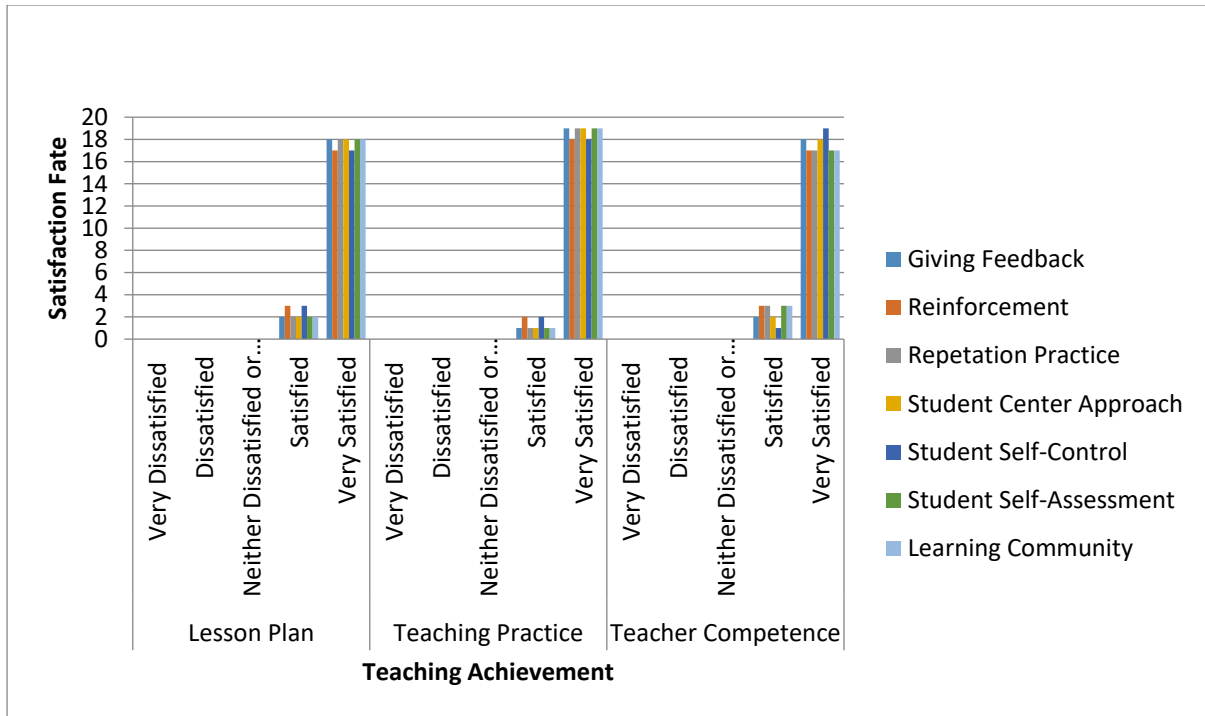


Figure 5. Teacher Student Attitude toward Principles of Reaction of TMLM Microteaching Cycle

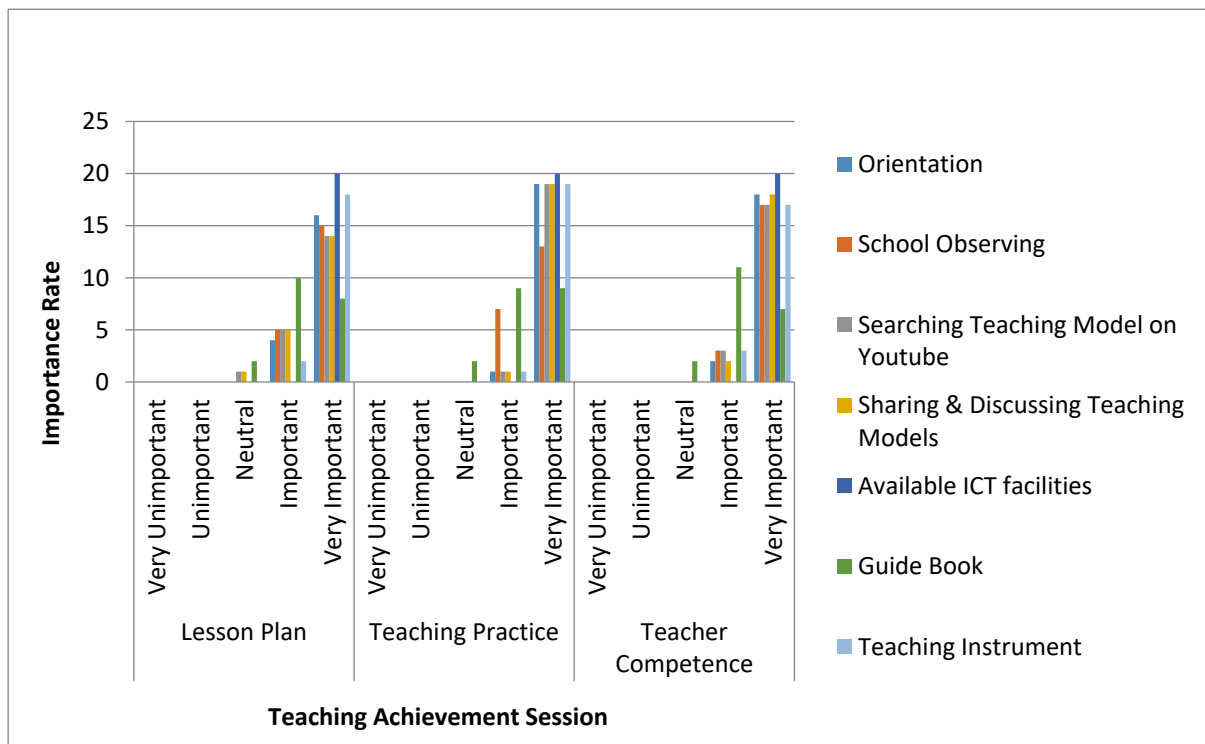


Figure 6. Teacher Student Attitude toward Support System of TMLM Microteaching Cycle

Figure 7 shows how effects of the model in TMLM microteaching cycle gives benefits on the improvement of teacher students' teaching achievement sessions focusing on both the instructional effects and nurturant effects.

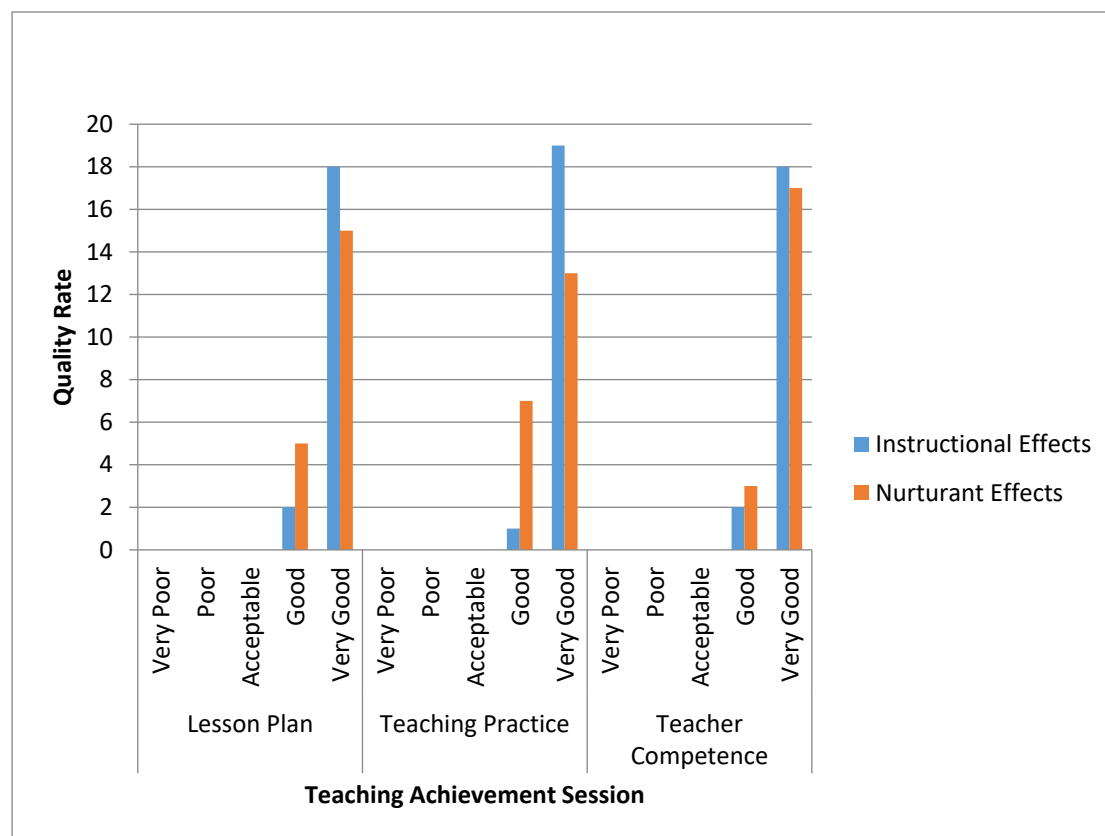


Figure 7. Teacher Student Attitude toward Effects of the model in TMLM Microteaching Cycle

From Figure 7, it can be seen that most of the teacher students stated that the instructional effects and nurturant effects are very good applied in each of the teaching achievement session. It also further explains that most of the students feel satisfied with the instructional effects and nurturant effects conducted during all of the teaching achievement sessions. It is clearly seen that there are 15-18 students who stated that the effects of the models are very good and the rest 2-5 stated good.

The Changes in Teacher Students' Teaching Achievement before and after Participating in TMLM

Before participating in TMLM, Table 1 displays the minimum, maximum, mean, and standard deviation of teacher students' lesson plan designs. Table 1 demonstrates that previous to participation in TMLM, the minimum, maximum, mean, and standard deviation of teacher students' lesson plan designs in pretest were 78.20, 85.40, 82.6310, and 2.00455, respectively. Compared to the previous result, Table 1 reveals that the descriptive statistics of the teacher students' lesson plan design reveal an increase in the minimum, maximum, mean, and standard deviation in the post test, with values of 82.00, 90.63, 85.6475, and 2.37044, respectively. After participating in TMLM, table 1 describes teacher students' teaching practices that the results of pre test shows the lowest, maximum, mean, and standard deviation of teacher students' teaching practice prior to TMLM involvement are 78.03, 85.17, 82.1500, and 1.96339, respectively.

Table 1. The Descriptive Statistics of Teacher Students before and after Participating in TMLM Microteaching Cycle

	N	Minimum	Maximum	Mean	Std. Deviation
Lesson Plan					
Pretest	20	78.20	85.40	82.6310	2.00455
Posttest	20	82.00	90.63	85.6475	2.37044
Teaching Practice					
Pretest	20	78.03	85.17	82.1500	1.96339
Posttest	20	83.77	91.90	87.1579	2.31605
Teacher Competence					
Pretest	20	79.67	84.97	82.6025	1.73181
Posttest	20	84.47	91.18	87.9795	1.65307

Furthermore, Table 1 presents the descriptive statistics of teacher competency, including teacher students' personality and social competence before their involvement in TMLM. Prior to participating in TMLM, Table 1 reveals that the Teacher Competence's lowest, maximum, mean, and standard deviation are, respectively, 79.67, 84.97, 82.6025, and 1.73181. Moreover, it also shows there was an increase in the minimum, maximum, mean, and standard deviation of Teacher Competence: Personality and Social Competence following participation in TMLM: 84.47, 91.18, 87.9795, and 1.65307.

To dig more data analysis in quantitative ways, inferential statistics are needed to calculate the teacher students' lesson plan design, teaching practice, and teacher competence: personality and social competence. Before doing the paired sample t-test, the researchers ran the Shapiro-Wilk Normality Test to ensure their data was normal.

Table 2. The Shapiro Wilk Normality Test

	Lesson Plan	Teaching Practice	Teaching Competence
Pre-test	.316	.296	.137
Post-test	.545	.462	.975

The significant value for the pre-test is shown in Table 2 to be $0.316 > 0.05$, while the significant value for the post-test is shown to be $0.545 > 0.05$. It shows that the distributions of the pre- and post-test data are both normal. According to Table 2, the significance threshold is $0.296 > 0.05$ for the pre-test and $0.462 > 0.05$ for the post-test. It shows that the distribution of the pre- and post-test data is normal. The significant value for the pre-test is $0.137 > 0.05$, whereas the significant value for the post-test is $0.97 > 0.05$, as shown in Table 2. The data distribution before and after the test is normal, allowing the statistics computation to be extended to the paired-sample t-test, as shown in Table 3.

Making Decisions Using a Paired Sample t-test: The pre-test and post-test learning outcomes differ significantly if the significance value (2-tailed) is less than 0.05. There is no discernible difference between the pre-test and post-test in terms of learning outcomes if $\text{Sig. (2-tailed)} > 0.05$. Table 3 indicates that the value of the 2-tailed

sign is $0.000 < 0.05$. Based on the results of the pre- and post-tests, we may draw the conclusion that there is a significant difference in how well teacher students do while creating lesson plans.

Further, the value of Sig. (2-tailed) of teaching practice, according to Table 3, is 0.000, which is less than 0.05. Using data from the pretest and post-test, we deduce that teacher students performed significantly different on the sub-test for teaching practice.

Table 3. The Paired Sample t-test Result of Teacher Student Teaching Achievement in TMLM Microteaching Cycle

Teaching Achievement Session	Sig. (2-tailed)
Lesson Plan	
Pair 1-Pretest Posttest	0.000
Teaching Practice	
Pair 1-Pretest Posttest	0.000
Teacher Competence	
Pair 1-Pretest Posttest	0.000

Then, at the point of teacher competence, it can be seen that the value of Sig. (2-tailed) is $0.000 < 0.05$. Thus, we draw the following conclusion from pre- and post-test data regarding the achievement of teacher competency by student teachers: character and social skills that the learning results between the pre- and post-tests are significantly different.

The Normalized Gain (N-Gain)

The researchers utilized normalized Gain to determine the extent to which TMLM influences teacher students' teaching effectiveness in lesson plan design, teaching practice, and teacher competency: personality and social competence. The average N-Gain Score for the experimental class (TMLM) on teacher students' lesson plan design is 65.1723, or 65.17 percent, which is classified as quite effective according to the results of the N-Gain Score calculation. The N-Gain Score has a minimum value of 57.23 percent and a maximum value of 73.59 percent, according to N-Gain data. With a minimum value of 48.82 percent and a maximum value of 72.87 percent, the Normalized Gain Score for the teacher students' teaching practice is 58.7114, or 58.11 percent, and it falls into the area of quite effectiveness. With a minimum value of 51.22 percent and a maximum value of 73.87 percent for the N-Gain Score, the most recent Normalized Gain Score for the teacher students' competency is 62.9771, or 62.98 percent, which is classified as quite effective. In conclusion, the TMLM technique greatly enhances teacher students' lesson plan creation, teaching practice, and teacher competence (personality and social competence) in microteaching courses.

Discussion

This study confirms that TMLM affects the English teacher students' capability to design lesson plans, improve

teaching practice, and develop teacher competence: personality and social competence through its five components: syntax, social system, principles of reactions, support system, and effects of the model. Findings of this research reported that TMLM implemented with the five-component microteaching cycle helped and provided the teacher student experiencing opportunities and improving their capability of lesson plan design, teaching practice development, and teacher performance improvement. Most of the teacher students in Microteaching course reported the syntax component of the TMLM microteaching cycle really gave lots of chances to experience how to design lesson plan, how to perform teaching practice, and how to enhance personality and social experience during the classroom practice, online practice, and offline practice. The majority of the teacher students got more opportunities to design lesson plan, practice teaching, and enhance teacher competence during the syntax of classroom practice, online practice, and offline practice. These findings of this study have been to some extent similar with the findings of recent study of Novitra et al., (2021) reported that learning model syntax is very important to both supervisor and participants to undergo the sequence of learning so to reach the maximum expectations of learning outcome (Ardisa et al., 2018; Nugraheni, 2019).

In the context of social system, the findings of this study have been to some extent similar with the findings of the investigation commanded by Tompo et al. (2016), and GÜNGÖR & GÜNGÖR (2019), reported that the role of advisor as manager, facilitator, motivator, innovator, and observer together with the role of teacher students as a teacher trainee, a student, and an observer did give lots of experience for the teacher students to explore and present their teaching skills. The greater number of teacher students proclaimed that they had the ability to improve their social interaction and social relation better with their supervisor or and their peers.

The findings, in the context of principles of reactions, highlighted that participating in TMLM microteaching cycle will give more experience to teacher students to have mutual feedback (Barmaki & Hughes, 2018; Dunst, 2019; Straková, 2018), reinforcement (Ardisa et al., 2018), repetition practice (Komolafe et al., 2020), and the learning environment (Kelleci et al., 2021; Pee & Turowska, 2022) that is student center approach (Walt & Barker, 2020). Moreover, the supervisor will provide atmosphere to situate teacher students to have more chances to do student self-control (Parji & Chasanatun, 2020) and student self-evaluation (Chand Dayal & Alpana, 2020) in positive learning community (Simsek, 2020). These findings are consistent with the previous studies conducted in similar contexts. It is obvious the pointers of principles of reactions will situate teacher students to have more exploration on developing their teaching skills on designing lesson plan, teaching practice, and teaching competence (Jones et al., 2019; Odo, 2022; Shekharappa, 2020; Zalavra, 2020).

Moreover, findings of this article revealed that the activities conducted within the context of support system as one of the five components in TMLM microteaching cycle, such as observation, school observing (Boz et al., 2019), searching and discussing learning model on YouTube (Sumardi & Nugraheni, 2021) helped the teacher students broaden their knowledge and skills how to design lesson plan, perform teaching practice, and sharpen their teacher performance. Beside that the other pointers that need to be considered in the context of support system were the availability of ICT facilities (Agyei et al., 2019; Rabiman, 2020), guide book (Wijayanti, 2020), and teaching instrument (Padmadewi, 2019) did really support the teacher students' professional development during participating in course.

We observed the impacts of the model in the current study, which covered the instructional influence on learning objective attainment as well as the nurturing effect on boosting student motivation, student autonomy in learning, and student social competence (Graham et al., 2020; Kelleci et al., 2021). From the results of the findings it is clearly implied that they are able to improve their teaching achievement with high motivation and independence. However, few of the teacher students reported that they found a difficulty to control their anxiety when they started their teaching practice (Dunst, 2019; Önal, 2019) but through TMLM microteaching cycle they have more experience on how to control their anxiety when teaching. They reflected that sometime they still could not avoid their nervous feeling because they felt difficulties to overcome their self-confidence (Deshpande, 2020; Özonur, 2019). However, these findings of this study have been aligned with the study of Simsek (2020) and Lubis (2020) in the context of improving student social competence, who stated that the more the teacher students undergo practice the more capability they have on upgrading their confidence in teaching. Moreover, the effects of models in microteaching cycle effectively improve students' teaching skills.

From those explanations, TMLM significantly affects the changes in the teacher students' capability of lesson plan design, teaching practice, and teacher competence. This finding agrees with a prior study, which revealed that the capacity to construct lesson plans, practice teaching, and present teacher competence helps students enhance their teaching skills and prepare them to become professional.

Conclusion

Finally, this study found that in a microteaching course, English teacher students' skills and applicability in establishing a lesson plan, enhancing teaching practice, and extending teacher competency contribute to the extent to which effective teaching implementation is successful. In this case, the TMLM model is critical in assisting and monitoring the teacher students in developing their knowledge, theories, and practice of lesson plan design, teaching practice, and teacher competence (Önal, 2019; Park, 2022; Utami et al., 2019). These training resources are essential for a program that educates teacher students to be professional educators. Based on the successive components and content models in implementing TMLM in the microteaching course, those who previously lacked the ability and appropriateness to design lesson plans, improve teaching practice, and develop teacher competence made significant progress in refining and enhancing their achievement (Kelleci et al., 2021; Özonur, 2019; Straková, 2018). This study's implications demonstrate that the capacity to build a lesson plan, improve teaching practice, and increase teacher competency is critical in bridging the teaching professionalism gap for English teacher students. Tofade, Elsner, & Haines (2013) stated that the capability and appropriateness of designing a lesson plan, improving teaching practice, and developing teacher competence could grow to the greatest extent possible. It is also crucial that the supervisors in Microteaching courses lead teacher students to have more experiences that allow them to explore the practices of those activities in microteaching courses to build and strengthen their knowledge, theories, and practice of learning to teach.

Limitation and Recommendations

The current study, like other research studies, has a number of limitations. Firstly, with regards to the use of the

TMLM microteaching cycle as a part of the microteaching course, we believe that TMLM implementation gives enough opportunities to teacher students to enhance their capability of lesson plan design, teaching practice, and teaching competency application through the five components of TMLM. Thus, in future studies, investigation and experimentation into the five components of TMLM integrated with differentiated instructions are strongly recommended. Another limitation is that although the supervisor has given more time to the trainees or teacher students to give feedback to their peers after their peer teaching sessions, not all are willing to give feedback. They appeared to rely on one or two classmates to provide feedback and lacked motivation to provide as much feedback to their peers as possible. Thus, in future studies, we suggest that supervisors give more and more encouragement for teacher students to be active in giving feedback on their peers' lesson plan design, teaching practice, and teaching competency before that feedback is closed and summarized by the supervisor. It should be pointed out that such student-centered-based feedback and reinforcement will improve teacher students' motivation and autonomy in learning. Although the results are encouraging, further research could yield additional proof and a more conclusive result. Lastly, the findings of this study are limited by the data analysis obtained from only English department students. Therefore, further modeling work will have to be conducted so as to conclude the beneficial impacts of the TMLM microteaching cycle that should be studied with a larger group of participants from other departments so that later on it can be compared with the findings of the present study.

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