

Students' readiness to teaching practice experience A review from the mathematics education students' view

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Abstract

Teaching practice is one effort to improve prospective teachers' competence. Students' readiness in teaching practicum is the key to its successful implementation. This study aims to describe and gain an understanding of the readiness of mathematics education students to conduct teaching practice. This study is a qualitative research with a type of phenomenology. Data were obtained through an open questionnaire to students in Indonesia and Malaysia. The participants of this study were 23 students in seventh semester who implemented teaching practicum for 2 months. Data were analysed using Bogdan & Biklen approach. The result revealed that students' ability in implementing learning during teaching practice had been good, but students still needed to improve in managing the classroom. The constraints experienced by the teachers were related to learning instructions and time allocations. The obstacles experienced by students were related to learning equipment facilities, coordination, school policy, and culture. However, both students and teachers had their own various strategies in overcoming these obstacles.

Keywords: students' readiness, teaching practice, mathematics education students

INTRODUCTION

The development of era increasingly demands the readiness of the community to participate in developing competence and compete in a wider scope. The development of society nowadays is inseparable from the role of education it obtains. In other words, education plays an important role in the development of an individual's competence in accompanying the development of competitive era. Therefore, the implementation of education, especially in formal education should be given special attention such as on the teacher factors. Teachers are professional educator who have the primary duty to educate, teach, guide, direct, train, assess, and evaluate students from early childhood education to middle education level (Law No.14, 2005). Teachers have a significant impact on the education success. Anthony & Walshaw (2009: 150) mentioned that the quality of teacher is directly proportional to the quality of education it produces. The effectiveness of learning process inside and outside the classroom is determined by teacher competence (Azhar, 2009). Teachers should have at least four competencies: pedagogical competence, professional competence, personal competence, and social competence (Law No. 14, 2005). Pedagogical competence is the ability that must be possessed by teachers in managing the learning process, such as designing and implementing learning and more importantly their understanding towards students in order to

become a good facilitator in developing students potential. The second competence is professional competence which means teachers' ability in mastering the learning materials in certain subjects. Teachers must understand the materials beforehand to deliver the materials widely and deeply to students, so it will create a profound learning process and students will be confident of the teacher ability. The third competence is the personal competence which is defined as teachers' ability to become role model for students including steady personality, wise, have a noble character, and authoritative. The last competence is social competence. Social competence means teachers' ability to interact with students, other teachers, or in the community. The four competencies must be understood and possessed by a teacher to build the effective learning that is successful learning and able to achieve the maximum results (Asep & Abdul, 2008: 5).

The pedagogical competence, professional competence, personal competence, and social competence are not only gained by teachers during teaching practice (or more popularly known as teaching practicum), but also formed since the beginning of their education in prospective teacher program. The prospective teacher program is carried out by the Institute of Teacher Education (or more popularly known as Lembaga Pendidik Tenaga Kependidikan/LPTK) which opens a study program with specific subject specifications.

LPTK is a university assigned by the government to organize teacher procurement program in early childhood education on formal education, elementary education and/ or secondary education and to organize and develop educational and non-educational program (The Ministry of Research, Technology, and Higher Education, 2017). LPTK does not only teaches to understand certain subject matter, but also trains teacher to have the competences that ideal as prospective teachers during the learning process. LPTK also teaches various methods and learning approaches used in the classroom, student management, learning evaluation, and other teacher competencies that needed by prospective teacher.

The learning process of prospective teachers in LPTK is not only related to teach the components of teacher competence, but also how to teach skills to students. In addition, the standards of graduates have been determined which consisted of attitude, knowledge, and skills (Permenristekdikti No. 44, 2015). Skill-related competency standards are also clarified in article 5 section 1 of the constitution stated that skills in using concepts, theories, methods, materials, and / or instruments, obtained through learning, student work experience, and research and / or community service. One program of teacher training candidates organized by LPTK is the implementation of micro learning. The Ministry of Research, Technology, and Higher Education (2017) stated that micro teaching is a basic teaching skills that using certain background, learners, competence, material, and conducted in the limited time. Micro teaching also gives students opportunity to practice various skills in teaching with a controlled situation (Erni, 2015: 211). Students who carry out micro teaching will gain experience as teachers with limited scope. In addition, students will also get constructing suggestions from lecturers or other fellow students who are used as peer-evaluation material. Various kinds of suggestions and evaluations aimed at improving the competence of prospective teachers to implement better learning process.

Another effort in building and improving the competence of prospective teachers is by providing an opportunity for students to involve in teaching practice. The teaching practice program is a continuation component of the LPTK education program. Implementation of teaching practice provides new experience as a

teacher to conduct learning process in the real environment (Kiggundu & Nayimuli, 2009: 345). The program are conducted through the cooperation with several schools around the LPTK or other schools that have made prior arrangements both at home country and abroad. The teaching practice is carried out for two months or within a predetermined time. The teaching practice is also known as the Praktik Pengalaman Lapangan (PPL). The Ministry of Research, Technology, and Higher Education (2017) stated that teaching practice is an activity of prospective teachers to practice their ability in conducting learning process in partner schools. Mannathoko (2013: 115) mentioned that teaching practice is a continuation of teacher education, because it allows prospective teachers to apply theories into practice. In addition, Kiggundu and Nayimuli (2009: 348) stated that teacher practice teaches prospective teachers to cope with various situations such as controlling and managing students and also establishing good relationships with counsellor teachers or companion lecturers. Therefore, the quality of teaching practice is determined by several variables such as teacher and prospective teacher, mentor, and school where teaching practice is implemented (Uçar, 2012: 2654). The ultimate goal of teaching practice is that students will be more familiar with the school environment, school administrative, academic environment. Moreover, students will be able to apply teaching skills in real situations and gain various lessons from their experiences during teaching practice (Sudin, 2017: 35).

Teaching practice is implemented in seventh semester or at the end of the semester before completing thesis. It means that the teaching practice is carried out after students get sufficient knowledge of the previous lecture. Various competencies taught by lecturers are used to build students' readiness either pedagogical competence, professional competence, social competence, or personal competence. According to Mannathoko (2013: 115), the teaching practice should be planned and prepared in such a way that it suits its purpose, because teaching practice can be a very horrible experience if students do not prepare well (Mannathoko, 2013). Pedagogical preparation is conducted from the courses taken by students related to various forms of the learning preparation until the evaluation process. The preparation by learning through various courses can help students in an efficient learning

process (Mannathoko, 2013: 115). The learning preparation consists of the making of syllabus, lesson plan, and various learning media, while the preparation of evaluation process consists of the making of various items of evaluation in the form of multiple choice, essay, or other evaluation form. The preparation of professional competence is conducted by deepening and expanding the understanding of specific subject. The professional competence of a science-related teacher is not only sufficient on what material that will be taught to students, but also on the cause-effect or the development of the taught material. The preparation of social competence relates on how social attitude reacts to the environment. The preparation of social and personal competence is closely related to the character. Therefore, LPTK provides character education either directly or indirectly to its students. The lecturing process in order to prepare the competence of students especially in the mathematics education students is through the subjects related to mathematics science and subjects such as education, mathematics learning, education psychology, assessment of mathematics learning, education management, student development, and other related courses. Other specific preparations should also be made before implementing teaching practice. According to Mannathoko (2013: 120), several things that need to be prepared for teaching practice are teaching and demonstrating the specific learning methods, knowing the subjects and materials that will be taught specifically, and making a schedule to ensure that each students get guidance from supervisors and get follow up of any guidance.

On the other hand, the implementation of a well prepared teaching practice also has various obstacles. The obstacle such as time limitation causes students not yet honed their ability (Azhar: 2009; Uçar, 2012: 2654). Another obstacle is that there are some schools that are not pleased to be used as teaching practice place (Azhar, 2009). The consideration of non-availability of school as a place of teaching practice is that teachers who will be as a supervisor have to finish learning session according to the syllabus or initial planning with limited time available, in fact teachers think that teaching practice will only waste the time (Kiggundu & Nayimuli, 2009: 356). Azhar (2009) also stated that the obstacle includes the presence of lecturers which are not maximal in assisting students and tend to rely on the

monitoring from supervisor in the school. Other obstacles in the implementation of teaching practice are the language barrier and cultural shock that affect the learning process undertaken by the students if students come from the different area with the teaching practice place (Kiggundu & Nayimuli, 2009). It will also likely occur if teaching practice is implemented abroad. Therefore, the preparation of the language and cultural aspects of the region to be the location of the implementation of teaching practice becomes an important factor for students who will implement teaching practice in other regions or in other countries. The lack of a good initial introduction between the teaching practice team, teachers and school staff has also been one of the causes of the obstacles to teaching practice implementation. The obstacle that occurs is that students are uncomfortable with the atmosphere during teaching practice implementation either between students, teachers, or other schools (Kiggundu & Nayimuli, 2009: 352; Uçar, 2012: 2654). The situation has an impact on the process ¹⁰ teaching practice implementation, especially the teaching and learning process that is not maximal, so is the teacher guidance. In addition, Uçar (2012: 2654) also stated that other obstacles in the implementation of teaching practice include the difference between theoretical knowledge and practice in school, schedule arrangement, laws, and regulations.

On the other hand, internal factors also affect the implementation of teaching practice. Students should practice to encounter a sufficiently large number of students in a class with different attitudes and should be able to adapt the theories they acquire in LPTK with the conditions at school (Akhmadeeva, Hindy, & Sparrey, 2013; Kiggundu & Nayimuli, 2009: 354). Some aspects that need to be considered is the time management in the implementation of learning using various methods or learning approach, as well as character and different students ability. The low internal motivation of students to implement teaching practice also belongs to an obstacle in the teaching practice implementation (Azhar, 2009). Although students of teacher candidates had variety of provisions to become a professional teacher, there are students who actually prefer not to implement teaching practice (Azhar, 2009). It will certainly affect the students in implementing teaching practice. The implementation of teaching and learning process

is not conducted thoroughly and not maximal in accordance with the knowledge obtained from the program in LPTK. Another obstacle is the lack of confidence in using technology. Students sometimes have low confidence in using technology, even though 21st century teaching demands prospective teacher to utilize the technology during learning process in order to compete globally (Jansen & Merwe, 2015).

There are various strategies to overcome the obstacle of the implementation of teaching practice. Overcoming the lack of harmonization between students, teachers, and school can be conducted by doing a good initial introduction between teaching practice team, lecturers, teachers, and school staff, so it creates a warm atmosphere and warm welcome from the school (Kiggundu & Nayimuli, 2009: 352). In addition, there should also be an instruction from school that explains the roles of teacher which are to guide and support the teaching practice students. The improvement of awareness and responsibilities of each aspect is also important and so is the training for teacher and related parties which are responsible for the implementation of teaching practice either directly or indirectly (Uçar, 2012: 2658). Another alternative to overcome the obstacle is that the LPTK should have data related to the internal and external conditions of schools that will be used as the location of teaching practice (Kiggundu & Nayimuli, 2009: 357). It aims to determine whether the school can be one of the locations of teaching practice implementation or not, and also useful to be as a consideration of the preparation of teaching practice students related to the language or cultural aspect. The introduction process can be carried out by visiting prospective school or survey and then followed by the guidance from lecturer to overcome the anxiety and also the use of verbal or non-verbal language in improving teaching and learning skills during the implementation of teaching practice (Kiggundu & Nayimuli, 2009: 348-349). The strategy that can be carried out to overcome school or teacher disaffection as a teaching practice location is to reconsider the timing of the implementation. Schools will be more willing to work with LPTK as a place of the teaching practice implementation, if it is not implemented at the end of the semester or the end of the learning year (Kiggundu & Nayimuli, 2009: 356), because at the end of the semester or the end of learning is crucial time in completing learning according to syllabus or lesson plan that

has been made before. In addition, Juaningsih (2014: 82) stated that to develop the ability of prospective teachers in teaching practice, LPTK needs to establish cooperation with universities or schools abroad in the hope of creating prospective teachers who are able to compete in a broader scope, the international scope, as a response of the development of the current era.

The strategy to anticipate the constraints of internal factors of students can be conducted by micro teaching (Kiggundu & Nayimuli, 2009). Micro teaching will train students in adjusting theories and actual learning conditions in school, such as the duration, methods and learning approaches, as well as the diversity of students' characteristics. Meanwhile, to increase the students' motivation as teachers in implementing teaching practice, it is necessary to do some strategies in facilitating various activities such as workshops, seminars, consultations, and workshops which are conducted continuously (Wahyudi, 2016: 103). Various activities are also accompanied by designing and preparing an environment that is able to form the expected character and support the preparation of prospective teachers (Azhar, 2009, Juaningsih, 2014). The strategy to overcome obstacles related to the use of technology in learning is that guiding students to improve their ability in utilizing the technology which is in accordance with the development of the 21st century (Jansen & Merwe, 2015). Based on the description, it is necessary to identify the readiness, constraints, and strategy in the teaching practice in order to improve the quality of prospective educator.

METHODS

This study is a qualitative research in phenomenology approach, because it described the readiness of mathematics education students to conduct teaching practice. The data were obtained through an open questionnaire to students in Indonesia and Malaysia. There are two main topic of open questionnaire, that are students' readiness in and students' ability in learning practice. The Students' readiness in teaching practice covered the pedagogical competence, professional competence readiness, social competence readiness, personality competence, readiness and the quality of lesson plan. The students' ability in teaching practice covered students' ability to implement learning, constraints in guiding teaching practice students, strategy in guiding teaching practice students,

and suggestions related to teaching practice implementation. The participants of this study were 23 students in seventh semester who implemented teaching practicum for 2 months. Data were analyzed using Bogdan & Biklen approach, through data reduction, categorized the data into many themes and sub-themes, and then make conclusions as results.

RESULT AND DISCUSSION

Result

The information about the readiness of prospective teachers in carrying out teaching practice activities was obtained through a questionnaire addressed to teachers as supervisor as well as teaching practice students. The result of questionnaires related to the readiness of the teacher candidates was reduced into several sub-themes, namely the readiness of teaching practice students, the students' ability at teaching practice, the ability of teaching practice students, the obstacle during teaching practice, the strategy in guiding students, the development of the teaching practice student skills, and suggestions for future teaching practice implementation. Student readiness was seen from readiness in pedagogical, professional, social, personality, and lesson plan planning. Students' ability was seen from the ability to implement learning and close learning. The obstacle during the teaching practice were viewed from the teacher's point of view in guiding students as well as student constraints during teaching practice. The development of students' ability was seen from before and after the implementation of teaching practice program. The results of the reduction of each sub-theme is presented as follows.

The Students' Readiness in Teaching Practice

Pedagogical Competence

The students' readiness related to pedagogical competence could be seen from the ability of learning process management. Management included the design and implementation of learning and understanding the learners. The preparation of learning includes making syllabus, lesson plans, and various learning media. The readiness of learning implementation included the mastery of learning methods or learning models, while understanding students included the mastery of students' characteristics. Table 1 shows that readiness of pedagogical competence of

teaching practice students had been good, especially which was related to learning planning. However, students still needed to improve in terms of learning implementation and understanding the students' characteristics.

Table 1. The Readiness of Students Pedagogical Competence (Teachers' Point of View)

Student Pedagogical Competence	Sub Theme	Verification Result
Students' pedagogical competence had been good. Students always reviewed the syllabus, made and constructed lesson plan and learning media, and consulted the learning instruction to the supervisor.	Lesson plan	The readiness of students' pedagogical competence had been good (making lesson plan and constructing instructional media).
Students pedagogical competence had been good, but lack in the implementation of learning. The mastery of learning methods needed to be improved.	Learning implementation	Students needed to improve the learning implementation (the mastery of learning methods) and understand students' characteristic.
The understanding of the students' characteristics was still lacking. Mental readiness had been good.	Understanding students' characteristic	

Table 1 is the result of data reduction related to the readiness of students' pedagogical competence from teacher's point of view. Table 2 also shows the same result but from students' point of view. In conclusion, students have been ready for pedagogical competence, despite the classroom management and material management still need to be improved.

Table 2. The Readiness of Students Pedagogical Competency (Students' Point of View)

Student Pedagogical Competency	Sub Theme	Verification Result
Students had prepared learning instructions such as students' worksheet.	Lesson plan	Students had been ready for pedagogical competence.
Students have not ready yet. They only mastered a few of learning methods. Students have been ready, but they were still unable to condition the students in the classroom.	Learning implementation	However, Students still found the difficulties in class such as classroom management and materials management.
Students had recognized students' characteristics.	Understanding students' characteristic	

Professional Competence Readiness

Teaching practice students also had to prepare their professional competence. Professional competence is the ability of a teacher in understanding and mastering learning materials which accordingly to the competencies or subject. A teacher must understand the material that will be presented to students, so that it will create a profound learning process and students will be confident of the teacher ability. Students' readiness on professional competence could be conducted by deepening and expanding the understanding of the subject. The professional competence of a science-related teachers did not only know what material they taught, but also know how the cause and effect of the subject material which being taught. Table 3 shows that the professional readiness of most students had been good, especially in the mastery of subject material. However, students still needed to improve their ability related to practice questions in order to make the learning process become more varied.

Table 3. The Readiness of Students Professional Competence (Teachers' Point of View)

Students Professional Competence	Sub Theme	Verification Result
Students had mastered the subject material, but they still had to improve their ability in practice questions	The mastery of subject material	The readiness of students' professional competence has been good, but students also needed to increase the variation of practice questions and how to solve them using simpler way.
There were still lack in solving the practice question	Practice question	

There are various ways that students can do to prepare their professional competence, such as consulting learning instructions with mentors, studying, reading various references, and preparing a large set of questions. Table 4 shows that most students had been ready for professional competence. However, there were some students who had not yet understood the material, references to varied questions, learning method, and learning trajectory.

Table 4. The Readiness of Students Professional Competence (Students' Point of View)

Students Professional Competence	Sub Theme	Verification Result
Students had been already ready because of consultation with the tutor	Professional competence in general	Students' professional competence had been ready, but they still needed to deepen the subject material and references the various practice questions.
Students had been already ready, because they had studied before teaching the materials		
Students had been already ready, because they had read various references and prepared various questions		
Students were still lacking in practicing the varied questions	Practice question	
The materials being taught were still not deep enough	Deepening of matter	

Social Competence Readiness

Not only pedagogical and professional competencies, teaching practice students also required to have good social competence. Teachers' social competence is teachers' ability to interact with students, other teachers, or communities. The preparation of social competence of teaching practice students' related to how social attitudes response the surrounding. Table 5 shows that the preparation of students' social competence in general had been very good. This is the evident from the interaction between students and school residents

Table 5. The Readiness of Student Social Competence (Teachers' Point of View)

Students, Social Competency	Sub Theme	Verification Result
Students' social competence had been good. Students were able to socialize with students and school residents	Interaction with school residents	Students' social competence had been very good. It could be seen from the interaction between students and school residents.
Students' social competence had been good. It could be seen from the social relationships among students in working together		
Students' social competence had been good. Students were able to communicate with teacher before the implementation of teaching practice and express the opinions using polite expressions.		

The results in Table 5 cannot be separated from the preparation of the students before the teaching practice program. Table 6 explains that

there are various preparations made by students related to improve the social competence, ranging from communicating with fellow students to the school community. In triggering the communication, students practiced 5S (*senyum, sapa, salam, sopan, dan santun*) during teaching practice program. Thus, it can be concluded that students' social competence has been ready.

Table 6. The Readiness of Student Social Competence (Students' Point of View)

Students' Social Competence	Sub Theme	Verification Result
Students' social competence had been ready. Student was able to communicate with other students, friends, and school residents. Teaching practice students had been ready and were also able to maintain communication with students and teachers. Students had been ready to adjust to the new environment by conducted 5S (<i>senyum, sapa, salam, sopan, dan santun</i>) during teaching practice program.	Interaction with school residents	Students' social competence has been well prepared.

Personality Competence Readiness

Aside of social competence, there is a personality competency that must also be prepared by teaching practice students. Social competence and personality competence are closely related to individual's character. Essentially, teacher's personality competence is related to the teacher's ability to become a role model for students in terms of steady personality, wise, have a noble character, and authoritative. Table 7 shows that students' personality competence had been very good.

Table 7. The Readiness of Student Personality Competence Readiness (Teachers' Point of View)

Students Personality Competence	Sub Theme	Verification Result
Students were good, polite, and able to act and talk like a real teacher. Students had tried to be humble, courteous, and friendly. Students had been already confident in front of class.	The attitude as a role model	Students' personality competence had been very good.

The results in Table 7 are also supported by the results in Table 8. However, there were some students who had not ready yet, such as students had not been confidence yet to appear

in front of the class and also felt less assertive. Thus, students' personality competence had been ready.

Table 8. The Readiness of Student Personality Competence (Students' Point of View)

Students Personality Competence	Sub Theme	Verification Result
Students' personality competence had been ready. Students also tried to possess a good personality. Students personality competence had not been ready and mature yet, and also had lack of confidence. Students personality competence had not been ready and strict yet.	The attitude as a role model	Students' personality competence had been very good. However, some students were still lacking in confidence.

The Quality of Lesson Plans

Lesson plan is a requirement for teachers or prospective teachers before conducting teaching and learning process in classroom. A good lesson plan should be structured systematically, because it will be manifested in students. Lesson plan is also related to the process of composing the subject matter, the use of instructional media, the use of the learning approach/ learning method/ learning model, and the assessment in a considerable time allocation to achieve the learning objectives. Basically, the lesson plan aims for the implementation of learning can be more efficient and effective. Table 9 explains that the quality of the students' lesson plan had been good. However, students needed to add some methods or learning models to be more varied.

Table 9. The Readiness of Students Lesson Plan

Readiness of Students Lesson Plan	Sub Theme	Verification Result
The quality of students' lesson plan has been good, although students found difficulties in preparing lesson plan at the beginning but in the end of the implementation of teaching practice program the lesson plan had been good. Lesson plan made by students was in accordance with the steps of learning. Students' lesson plan has been good, but students need to improve using various method or model of learning	Preparation of lesson plan	In general, the quality of students' lesson plans had been good, but students need to improve the variation of learning methods and learning models
	The use of learning methods or learning models	

In planning the lesson plan, there were some difficulties experienced by teaching practice students. The difficulties were related to the preparation of learning instructions, learning activities, the use of learning methods or learning models, and also time allocation. To overcome these problems, students also used various strategies. Table 10 shows various strategies to overcome the difficulties in preparing learning instructions and learning activities. Students also consulted learning instruction to teacher. In terms of the difficulty of using learning methods or learning approaches, students tried to find learning methods or learning models that could help students understand the materials.

Table 10. The Difficulties in Preparing Learning Instruction and Its Solutions

The Difficulties	Sub Theme	Verification Result
Difficulty: developing learning activities which made students understand the materials. Strategy: consulting the learning activities to the experts	Developing learning activities	In general, students were still difficult in planning the learning instructions, especially in designing students' worksheet, preparing the materials, arranging the time allocation, and developing the lesson plan.
Difficulty: determining learning models and learning methods which accordingly to the students' characteristic Strategies: searching and implementing the learning models to help students understand the materials	The use of learning methods or learning models	However, there were various strategies which could be conducted by students to overcome these problems.
Difficulty: syntax had to be included in lesson plan Strategies: consulting the problem to the teacher and checking the previous lesson plan Difficulty: developing students' worksheet Strategy: consulting the problem to teacher	The development of learning instructions	
Difficulties: time allocation and developing lesson plan Strategies: allocating the considerable of time to develop lesson plan including the rubric	Time allocation	

Student Ability in Teaching Practice

Students' Ability to Implement Learning

Teachers' ability related to the learning implementation could be seen from classroom management, the mastery of the learning materials, delivering materials, facilitating

students' needs, asking questions and answering students' question, so do the preparations made by students before doing teaching practice program. Table 11 also shows that some students had mastered the class. In addition, students also had been good in mastering and delivering the materials, facilitating students' needs, asking questions and answering students' question. It was also the evident of the students' enthusiasm during learning season. Thus, it can be said that the ability of teaching practice students in implementing learning had been good, but they still need to improve classroom management skills.

Table 11. The Data Reduction of Students' Ability in Conducting Teaching and Learning Process

Students' Ability	Sub Theme	Verification Result
Students were able to handle the classroom well. Students were still lacking in classroom management Students' Ability in Conducting Teaching and Learning Process had been good and students were also enthusiastic	Classroom management	Students' ability in implementing learning process had been good, but they need to improve the ability in managing the classroom.
Students had been good in mastering and delivering the learning materials, facilitating students, and answering students' question.	Mastering and delivering materials	

It cannot be denied that there were still difficulties experienced by professional teachers in learning implementation in the classroom, so are the teaching practice students. The dominant problem experienced by most teaching practice students was related to the classroom management as illustrated in table 12, that the difficulty in conditioning the classroom in order to be conducive as well as the difficulty in terms of how to draw students' attention to concentrate to the lesson. However, teaching practice students did not remain silent about the problems encountered, there were various strategies used to conditioning the classroom and simply by rebuking to be able to make students focus on the lesson.

Table 12. The Difficulties in Managing the Classroom and Its Solutions

The Difficulties and Its Solutions	Sub Theme	Verification Data
Difficulty: conditioning the students Strategies: changing sitting position, giving some time to be silent, grouping students based on their heterogeneity, giving students learning medias, increasing the volume when speak in the classroom, engaging students in classroom activities, approaching students Difficulty: driving students' attention Strategy: managing the students	Class-room management	Most of students were unable to manage the classroom to be in a conducive situations and drive students' attention to the lesson. There were various strategies to manage the classroom, while to drive students' attention, teacher need to rebuke students

Students' Ability to Close the Learning Session

Another teachers' responsibility is also to be able to close the learning session. The ability to close the learning session is related to the ability of reflecting and concluding learning materials. Students also equipped with such things. Table 13 shows the evident that in general students' ability in closing the learning session had been good. It means that students still needed to improve the time management, so that there were enough time to reflect and draw conclusions related to learning materials together with students.

Table 13. The Ability to Close the Learning Session

The Ability to Close the Learning Session	Sub Theme	Verification Result
Students were able to close the session well.	The ability to close the learning session	In general, students ability in closing the learning session, had been good, but students also needed to improve the time management, so they had enough time to reflect and conclude the lesson.
Students had been good in closing the session, and also conducting reflection and making summary Students needed to improve the ability in reflecting and emphasizing on the essential concept, and evaluation. Students had not conclude the material yet	Doing reflection Drawing conclusion	

Table 12 shows that students' ability to close learning had been good. In fact, professional teachers sometimes encountered the difficulties too. Table 13 shows that teaching

practice students were still having difficulty in closing and following up on learning. The difficulties experienced by teaching practice students included time management, drawing conclusions, and evaluation. Basically, if time management is good, then there is enough time to draw conclusions with the learners at the end of the lesson.

Table 14. Difficulties in Closing the Learning Session and Its Strategies

Difficulties and Strategies	Sub Themes	Verification Result
Difficulty: time management Strategy: giving assignment	Time management	In general, students were difficult in closing and conducting follow-up learning.
Difficulty: unable to draw conclusion Strategy: giving stimulus, drawing conclusion, giving deadline, reviewing material	Drawing conclusion	There were some strategies in coping the difficulties.
Difficulty: students were not willing to do their assignment Strategy: reviewing materials that had been studied Difficulties: students were lazy in working and collecting homework Strategy: showing assertiveness	Evaluation	

Constraints in Guiding Teaching Practice Students

The implementation of a well prepared teaching practice was also inseparable from various obstacles. Some of the obstacles were related to time limitation, so that students were less hone the ability of becoming prospective teachers. It was also felt by teacher as supervisor in guiding students. Table 14 shows that some teachers had no problem in guiding the students. However, some teachers still found difficulties due to time constraints to guide students. In addition, the delay in submitting the lesson plan was also a constraint for teachers to direct students during the process of teaching and learning activities in the classroom.

Table 15. The Difficulty in Guiding Students

The Difficulties in Guiding Students	Sub Theme	Verification Result
The delay in submitting the lesson plan	Learning instruction	Most of teacher did not find any difficulties in guiding students, but most of them had not enough time to guide the students
Time limitation No obstacle	Time No obstacle	

Teaching practice students also experience some obstacles during teaching practice program. Table 16 shows that most teaching practice students experienced the dominant constraints associated with learning equipment facilities, coordination, school policy, and culture. However, there are several strategies undertaken by students related to the problem.

Table 16. Students Difficulties during Teaching Practice

Students Difficulties during Teaching Practice	Sub Theme	Verification Result
Difficulty: projectors were not available in some classes Strategy: borrowing projector or not using projector Difficulties: supporting facilities in mathematics teaching and learning were not sufficient enough, such as ruler, and Cartesian coordinate board Strategy: conducting the learning using incomplete facility	School facilities	Most of students encountered some difficulties during teaching practice program in term of learning instruments, coordination and culture. There are various strategies to overcome these difficulties.
Difficulty: lack of coordination between students and school Strategies: preparing and improving coordination with the school Difficulty: being a substitute teacher and teaching immediately without enough preparation Strategy: borrowing teacher's handbook as a guideline during teaching process Difficulty: lack of coordination between students and their own group. Strategies: revising and improving coordination among students.	Coordination	
Difficulty: incompatibility between school's policy and reality Strategy: adjusting to the reality	School Policy	
Difficulty: the differentiation of students' culture and background. Strategy: adjusting to the new environment	Culture	

Strategy in Guiding Teaching Practice Students

Various obstacles in the teaching practice implementation require various strategies to handle it. The less harmonious relationship between teacher and student could be overcome with the introduction in the initial stage, and also guidance and support from supervisor. Those methods could be used to overcome the problem. The problem of students' anxiety and the use of verbal or nonverbal language could be overcome by doing guidance or consultation

before the implementation of learning. It was also conducted by teachers in guiding teaching practice students. Table 16 shows that there are various strategies used by the teacher to guide students, ranging from pre-implementation guidance, evaluation at each teaching and learning process, and using D-P-D (Discussion-Practice-Discussion) methods.

Table 17. The Strategies in Guiding Students

Strategies in Guiding Students	Sub Theme	Verification Result
Coordinated before the teaching practice program Conducting evaluation in the end of learning session and giving the advices in terms of the learning implementation Discussion-Practice and Observation-Discussion (D-P-D)	Coordination	Various strategies were used by teachers in guiding students

Development of Teaching Practice Student Ability (Before-After)

The implementation of teaching practice is expected to increase the pedagogical, professional, social, and student competence. This can be seen from some teachers' statement regarding the development of student's ability between before and after participating in teaching practice program in Table 18. Table 18 shows that all students had improved their ability including the improvement in classroom management, delivering learning materials, communication skills, and self- confidence.

Table 18. Students' Development during Teaching Practice (Teachers' Point of View)

Students' Development	Sub Theme	Verification Result
The students' ability increased after involving in teaching practice than in the beginning of the class. Students' personal competence, social competence, professional competence, and pedagogical competence had been good. In the end of the session, all competences had been good.	General theme	Students' classroom management skills, ability in delivering materials, communication skills, self-confidence and teaching experience had improved.
Students' classroom management were getting better	Classroom management	
Students' ability in delivering learning materials had improved Students' competences were getting better, in term of articulation and self-confidence The increasing of learning experience.	Delivering learning material Communication Teaching experience	

In addition, teaching practice students also experienced the development of capabilities during teaching practice program. Table 19 shows the development of students' abilities to accomplish all competencies that must be possessed by professional teacher or prospective teacher. The development of the perceived capability of students after participating in teaching practice activities included pedagogical competence, professional competence, social competence, and personality competence.

Table 19. Students' Development during Teaching Practice (Students' Point of View)

Students' Development	Sub Theme	Verification Result
Students were more confidence and mature in encountering others people who had different characteristics.	Personality competence	The students' development focused on the personal competence, professional competence,
Students were more fluent in using formal language.	Social competence	social competence, and pedagogical competence.
Students were more capable in managing the classroom	Pedagogical competence	
Students were more ready in various conditions		
Students were better in managing the learning materials and become more professional	Professional competence	
Students' ability in making lesson plan and teacher administration improved		
Students knew more how to make lesson plan based on the right syntax and students' handbook		

Suggestions Related to Teaching Practice Implementation

There were some advices given by teachers as supervisors, such as the improvement of classroom management, the optimization of time management, the improvement of social competence, the making of learning instruction and teaching practice provisions in order to achieve the better implementation of teaching practice in the future. The result of data reduction related to suggestions from teachers for the improvement of teaching practice implementation in the future is presented in Table 20.

Table 20. Teachers' Suggestion for the Improvement of Teaching Practice

Suggestion	Verification Data
Improving classroom management	The suggestions were improving classroom management, time management, social competence among teaching practice components, as well as the preparation in term of teaching practice provision and making learning instructions.
Improving social competence between students, teachers, and lecturers	
Improving provision from the former university	
Improving time management	
Improving the ability in making lesson plan	
Developing experience from the teaching practice activities	

Discussion

The teaching practice program or known as Praktik Pengalaman Lapangan (PPL) conducted annually by a certain level in university students are considered as an opportunity for students to apply the theories that had been learn (Azeem, 2011: 308). The teaching practice program is also a time for students to evaluate their own teaching experience through interaction with teachers and lecturers, through self-reflection, apply various approaches, strategies and skills with a purpose to create meaningful learning (Komba & Kir, 2013: 157). In addition, teaching practice is also considered as an important thing to do, because teaching practice program develops teaching experience and prepares students to the real work (Msangya, Mkoma, & Yihuan, 2016: 113). Teaching practice program involves many aspects such as universities, schools, and students. In addition, teaching practice program is initiated from preparation to evaluation such as advices from related parties. Ideally, the entire teaching practice process includes classroom observation, preparation of lesson plans, actual classroom teaching, discussion with supervisors, and teaching documentation (Komba & Kir, 2013: 158). In detail, some aspects that need to be considered in the implementation of teaching practice is the students' readiness in implementing teaching practice program, the ability of teaching practice students, the constraints in guiding teaching practice students, strategies in guiding teaching practice students, the development of teaching practice student skills before and after implementing teaching practice, and suggestions related to the implementation of teaching practice provided by the teacher supervisors of teaching practice students at the school.

From the teachers' perspective, the students' readiness in implementing teaching practice activities included the readiness of four competences such as pedagogical competence, professional competence, social competence, personality competence, and the ability in making lesson plan. The readiness of pedagogical competence of teaching practice students could be seen from learning preparation, learning implementation, and understanding students' characteristics. In general, teachers in the school said that the students' readiness of pedagogical competence had been good in term of making lesson plan and constructing instructional media. However, the mastery of learning methods and understanding the students' characteristics still needed to be improved. Students also expressed the same condition. Based on the aspects of learning preparation, learning implementation, and understanding students' characteristic, students' pedagogical competence had been ready, but the improvement in classroom conditioning and material management were still needed. In term of the students' difficulties in pedagogical issues, Ogonor & Badmus (2006: 1) stated that pedagogical competence tends to have higher levels of difficulty than other competencies.

The second competence is professional competence. Professional competence relates to the mastery of subject material as well as the mastery of practice question. One of the objectives of teaching practice implementation is to create teachers who have professional skills (Msangya et al., 2016: 113). Based on the results submitted by teachers, as supervisor, the students' professional competence had been good, but students still needed to increase to practice various practice questions and how to solve them using simple methods. Students also showed the same opinions about the professional competence. Students' ability in solving the practice questions and deepening of the material had been good, but some students still needed to deepen the learning material and practice more practice questions. These evidences are in line with Perry (Azeem, 2011) that teaching practice provides an opportunity for students to develop specific knowledge according to their field.

Another competence to be considered is social competence. Social competence is related to the interaction with the school residents. The interaction between students and schools

residents could be seen from communication or socialization for discussion before the learning implementation. In general, from teachers' perspective in the school, the readiness of students' social competence had been very good especially in the interaction between students and school residents. Moreover, students' perspective also showed that the readiness of students' social competence had been very good. In conclusion, the social competence of teaching practice students was well prepared.

Another competence that must be possessed by teaching practice students is personality competence. Personality competence is related to the attitude and character of teaching practice students. According to Msangya et al. (2016: 113), another goal of the implementation of teaching practice is to create teachers who have the attitude and ethics which accordingly to the commitment to the profession. In teachers' point of view, teaching practice students already had the attitude as a role model. In general, the readiness of students related to personality competence had been very good. Merryfield (Azeem, 2011) stated that teaching practice provides an opportunity for students to show a good attitude by doing a good learning process. However, a slightly different result was presented from students' point of view on students' readiness in personality competence. Some students had been ready enough, but some others have not yet, because they were still lack of confidence, less assertive and not having mature personality.

The learning process cannot be separated from the development of lesson plans. It also needed to be considered in the implementation of teaching practice. Based on the observation from teachers' point of view, lesson plan could be seen from two aspects, namely the preparation of lesson plan and the use of learning methods or learning models. The lesson plan made by student was good, but the use of variations learning methods or learning models was still needed. Although the lesson plan made by the teaching practice students has been declared good, in fact some students still found it difficult to create the lesson plan along with the strategy. Some difficulties encountered by students were the learning tools preparation, learning activities, the use of learning methods or learning models, and time management. Ogonor & Badmus (2006: 1) mentioned that one of the obstacles encountered during teaching practice is pressure in time management.

However, various learning planning difficulties could be overcome by students in various ways such as the preparation of learning tools and the preparation of learning activities, as well as consultation with teachers. In addition, the use of various learning methods and techniques could also overcome the problems in the teaching practice implementation (Azeem, 2011: 308). So that, it could be generalized that students still found difficulties in planning the lessons, especially in designing lessons activities, preparing learning tools of students' worksheet, preparing learning materials, allocating time, and preparing lesson plan.

Various preparations that had been done either by students or teachers were expected to achieve the expected results. The successful implementation of teaching practice could not be separated from the students' ability at teaching practice which was the core activity of annual teaching practice program. Students' ability at teaching practice could be seen from two core aspects: the ability to conduct and close learning. The implementation of teaching practice also could be seen from how students managing the classroom, mastering subject materials, and delivering subject material to students. In general, based teachers' view of point, students' ability in implementing learning had been good, but they needed to improve the classroom management skill. Constraints in the classroom management was perceived by teaching practice students. Most students felt difficult to make the classroom to be conducive and attract students' attention to the lesson. However, teaching practice students also undertook various strategies to manage the classroom, while to get students' attention they also admonished students.

The learning implementation could not be separated to close the learning session. The ability of teaching practice students in closing the learning session was also seen from how to reflect, summarize, or draw conclusions. Based on the teachers' observation, the overall ability of students in closing the learning session had been good. However, some aspect still needed to be fixed in term of managing the time allocation, so there was a plenty time for reflection and conclusions. Students' view of point also showed the same result. The closing of learning session was related to manage the time allocation, draw conclusions, and evaluate the learning process. In general, students were still having difficulties in closing and doing follow-

up learning. However, teaching practice students also undertook various strategies to overcome obstacles such as giving assignment, giving stimulus, giving early learning conclusion, giving deadlines, or reviewing materials that had been studied.

The successful implementation of teaching practice was not only dependent on teaching practice students, but also teachers as supervisor who provided guidance and direction to the students. Being a supervisor, teacher also experienced various obstacles during guiding students in teaching practice program. Some obstacles were related to learning tools and time allocation. The delay in submitting learning tools or lesson plan become obstacle that some teachers had to encounter. Furthermore, another obstacle was the limited time in providing guidance. However, most teacher as supervisor did not experience significant constraints in guiding teaching practice students. Some constraints encountered by teachers made teachers could not provide maximum guidance to teaching practice students (Ogonor & Badmus, 2006: 1).

Students also experienced their own obstacles related to learning facilities, coordination, school policy, and culture. Those obstacles were felt by most of the teaching practice students. The learning facilities constraints were also submitted by Ogonor & Badmus (2006: 1). However, in overcoming the constraints of limited facilities students, various strategies were applied to overcome them by using available facilities or borrowing facilities from other schools. The constraints in making good coordination was overcome by repairing and improving coordination either with other students or the school, while constraints in school policy and cultural constraints could be overcome by adjusting students to the new environment.

Various obstacles encountered by teachers in guiding teaching practice students were addressed by several strategies such as coordination, evaluation, and applying methods. The strategy used in the coordination constraint was to guide students before teaching practice program implementation. The strategies used to overcome evaluation constraints were conducted by conducting evaluation at the end of the teaching and learning activities and providing suggestions related to the learning implementation. The strategy used to overcome the constraints in terms of methods was

conducting discussion-practice-discussion (D-P-D). Effective interaction between students and teacher was supported by the opinion of Kelly & Tannehill (2012: 48) that during the teaching practice implementation, students are in an ideal position to get direction and discuss with teachers and lecturers as well as other colleagues in school.

The teaching practice implementation conducted by the university certainly has a goal to improve the ability of prospective teacher before actually becoming a professional teacher. It is all because the quality of an educator is directly proportional to the quality of education produced (Anthony & Walshaw, 2009: 150). Therefore, teaching practice students are expected to experience significant progress between before and after the implementation of teaching practice program. The development of the students' ability was related to classroom management, material delivery, communication, teaching experience, and general development. Based on the data, it is found that according to teachers' perspective, students' abilities had improved, such as in managing the classroom, delivering learning material, communicating with colleagues and teachers, increasing teaching experience, and become more confidence.

Students also experienced the development of their skills after involving to teaching practice program. Their personal competence, social competence, pedagogical competence, and professional competence had improved. Students' self-confidence and attitude also increased. They were able to use Bahasa more fluent, master the classroom with various conditions, manage learning material, and make lesson plan. Brown & Brown (Azeem, 2011) also mentioned that teaching practice program gives students opportunities to improve their competencies such as student self-confidence.

Teaching practice program is one of the qualified teacher education program which is expected to be better in every implementation. It is because a teacher has an important role in the formation of one's future as the next generation (Msangya et al., 2016: 113). The success of teaching practice implementation can be achieved if there are evaluations and suggestions submitted for future improvement. Some suggestions provided by teacher as supervisor include improving classroom management, time management, social competence among teaching practice components, as well as teaching

practice preparation and making learning instructions.

CONCLUSION

The teaching practice activity began with the students' readiness in pedagogical competence, professional competence, social competence, personality competence, and also the quality of the lesson plan. In general, based on observations by teachers, students' ability in implementing learning during teaching practice had been good, but students still needed to improve in managing the classroom. During teaching practice program either teachers or students was still experiencing their obstacles. The constraints experienced by the teachers were related to learning instructions and time allocations. The obstacles experienced by students were related to learning equipment facilities, coordination, school policy, and culture. However, both students and teachers had their own various strategies in overcoming these obstacles. Thus, according to the teacher, during the teaching practice, students experienced an increase in the ability of managing classroom, delivering materials, communicating, becoming more confidence and improving teaching experience. The increased ability was also felt by students such as increasing confidence and becoming more mature in attitude, becoming more fluent in using Bahasa, mastering various condition, managing material, and increasing ability in making lesson plan.

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