

Development of Instrument for Improving Teaching Basic Skills through Microteaching

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Abstract

Microteaching activities are part of the course of Teaching Competence Development. This course is designed to equip students with basic teaching skills, teacher competence, teacher / educator ethics, and teaching practice (microteaching). This research used descriptive method for identification and analysis of micro teaching instrument based on lecturer appraisal and peer assessment of student followed by development method (Research And Development). The micro teaching assessment instrument currently used does not include the basic teaching skills aspects a teacher must possess. Therefore, in this research, the development of micro teaching assessment instrument in the course of Teaching Competence Development is based on basic teaching skill to improve teaching skill for biology teacher candidate. The result of instrument analysis by the experts found that on the aspect of Basic Teaching Skills obtained the value of 89.06, the aspect of the language 100, and the evaluation aspect 100. The results of the calculation of both experts averaged and obtained the value of the feasibility of 91.25%. These results indicate that the product of the Micro Teaching Instrument based on the Basic Teaching Skills developed into the category is very feasible.

Keywords: Assessment Instruments, Basic Teaching Skills, Biology Teachers, Microteaching.

INTRODUCTION

Microteaching is a series of simplified learning processes, aiming to train and improve teaching skills and manage the learning process. Hanafi (2013) micro teaching is a learning training to prepare students to have appropriate teaching skills with teacher's competency. Micro teaching activities are part of the course of Teaching Competence Development. This course is designed to equip students with basic teaching skills, teacher competence, teacher/ educator ethics, and teaching practice (micro teaching). Micro teaching or micro teaching is a new technique in order to develop teachers' teaching skills (Hamalik, 2004).

In order for the learning objectives to be achieved then made various efforts from start planning, use of teaching and learning strategies up to the implementation of assessment and feedback. One way that can be done is to identify and analyze the results of the evaluation that has been done so that it can be used as feedback for further learning. Micro teaching function is divided into several functions namely instructional, coaching and experimental (Asril, 2012).

One of the evaluation results that can be identified and analyzed for further improvements in learning feedback is by examining the instruments used in the micro teaching assessment. Assessment instruments used adopted from Program Pengenalan Lingkungan Kependidikan (PPLK). Basic teaching skills is a provision that must be possessed by a teacher because teaching is not merely convey material but rather a lot of complex objectives. Mastery of materials and techniques of basic teaching skills by students can help students in managing the learning process so that learning can run effectively and efficiently. The importance of raising the basic teaching skill aspects of the micro-teaching assessment instrument is used as the basis for developing a basic teaching-based micro teaching assessment

instrument. The instruments often used in the micro teaching assessment still have not established the basic competence of prospective teachers toward basic teaching skills (Aprilia, 2014). The existence of basic skills aspects of teaching on the instrument of micro teaching assessment is expected to motivate students in displaying and applying it in the teaching practice and provision to become future teachers. Therefore, in this research will be developed the instrument of micro teaching assessment on the subject of Teaching Competence Development based on basic teaching skill to improve teaching skill for biology teacher candidate.

METHOD

Identification and analysis of micro teaching assessment instruments are conducted at Universitas Sultan Ageng Tirtayasa. This research used descriptive method for identification and analysis of micro teaching instrument based on lecturer appraisal and peer assessment of student followed by development method (Research And Development) with 4-D model (Define, Design, Develop, and Disseminate) according to Thiagarajan et al. (1974) in developing a micro teaching assessment instrument. However, in this study only limited to Develop stage only.

1. Define stage: Needs analysis of curriculum and evaluation tool.
2. Design stage: Preparation of tests in the form of ideal product criteria on the assessment criteria that pay attention to the content feasibility aspects and linguistic. At this stage, the preparation of the initial product of micro teaching Instrument in accordance with the criteria for the preparation of micro teaching instrument based on basic teaching skill.
3. Developing stage: The completed micro teaching instrument will be validated by the experts and the revision of the initial product to the final product of the micro teaching instrument.
 - a. Assessment of micro-instrument instrument by expert (Assessment is done by a material expert and evaluation evaluation expert, consisting of lecturer or expert. The results of the initial product assessment are used to correct the deficiencies so that the resulting micro teaching instrument is feasible for use in learning.
 - b. Revision of micro-teaching instrument and product preparation (Micro-teaching Instrument) End.

RESULTS AND DISCUSSION

This needs analysis is done by analyzing evaluation report of PPLK implementation of teacher candidate in Faculty of Teacher Training and Education (FKIP) of Sultan Ageng Tirtayasa University, analyzing micro teaching instrument used in several study programs in FKIP Untirta environment, and analyzing the result of application of micro teaching instrument which is used in several courses in the FKIP Untirta environment. Based on the result of evaluation report of PPLK implementation of FKIP Untirta teacher candidate for three to four years back (2013-2016), prospective teachers have not been able to manage the class well, have not been able to explain the material easily understood by the students, and not yet skilled in giving feedback (feed back) for students. Criteria for professionalism of teachers include the ability to master materials, manage PBM, class, media or resources, master the educational base, recognize the interaction of teaching learning, assess student achievement, recognize the functions and service programs BP, and recognize the school administration (Yusutria, 2017)

The findings indicate that the prospective teachers do not have readiness of competence in accordance with the demands of Undang-Undang Guru dan Dosen No. 14 of 2005, especially on pedagogic and professional competence. In addition, if it is related to basic teaching skills according to Turney (1973) in Mulyasa, then the teacher candidate does not yet have or need to develop the skills of providing strengthening, classroom management skills, and teaching skills. These three skills are needed in teaching, so it is necessary to be owned by prospective teachers for the purpose of learning can be achieved. Furthermore, the findings of the instrument analysis result are that the instruments used are still not uniform and use the standards of the Government's GPA (Teacher Performance Appraisal Instrument) 1 and the GPA (Teacher Performance Assessment Instrument) 2. The instrument contains a highly complex assessment component, if applied to prospective teachers who are still learning or training to teach. In addition, instruments are not given space or columns to provide authentic records in each aspect of the assessment, so that the competence and skill development of each prospective teacher is not represented. Observation guidelines are made to vary according to each type of basic teaching skill that is trained (Helmiati, 2013). The findings indicate that the instruments used by some study programs in the FKIP Untirta environment have not established the basic competence of the teacher candidate toward basic teaching skills. This study also analyzes the application of the instruments in the course of Pembinaan Kompetensi Mengajar (PKM). The results of the instrument implementation analysis stated that there are still many prospective teachers who have not applied the eight basic skills of teaching well. This can happen because the teacher candidate is only doing teaching exercises based on the assessment aspects of the micro teaching instrument used, which does not contain some basic teaching skills indicators properly. The three results of the analysis indicate that micro teaching activities or courses are very important for prospective teachers, so that related things including instruments need to be well prepared. The results of the instrument can be followed up by giving feedback from the lecturers, so as to provide sufficient supplies for prospective teachers to implement competence or skills in order to become a professional teacher candidate.

The design stage is the stage of designing the micro teaching assessment instrument based on the needs analysis, and followed up by literature study. Library study is done by collecting information from print and electronic media to the issues discussed and reviewed supporting theories for the development of the instrument. This instrument has indicators of basic teaching skills that are clearly detailed, making it more measurable for every aspect of basic teaching skills that must be raised by prospective teachers and assessed by lecturers. The application of this product can foster the skills and creativity of prospective teachers in teaching in the classroom because indirectly this instrument requires the emergence of basic teaching skills that must be possessed by the teacher. One of the assessment product instruments that needs to be developed is the basic micro teaching skills to fulfill and practice all 8 basic teaching skills (Dewi, 2018).

In the development of this instrument, the instrument is divided into 3 parts of the instrument component namely the introduction, core, and cover. Instruments developed in addition can be used by the appraiser is a lecturer or instructor micro teaching, but also used by peer assessment (peer

assessment), so that on each part of the instrument components adjusted to the appraiser. In the introductory section, it contains the name of the praktikan and the class (rated), the date of the assessment, and the assessment guide. In the core contains the assessment aspects and indicators that must be filled or assessed by the assessor. On the cover contains the scoring guidelines and the appraisal's signature. The design of the instrument made in this study is in the form of non test instrument. Scale used in the instrument is Guttman scale, the selection of this rating scale to facilitate the user of the instrument when performing the assessment, because only choose two choices that is Yes and No. The Guttman scale is an excellent scalogram or scale analysis method to convince researchers of the dimensional unity of attitudes or traits studied (Suranto et al: 2004).

This stage of development or development stage is the third stage of a series of development research stages with 4D design. Develop stage is done by two stages, namely expert validation and revision in accordance with expert advice or comments. After the initial product is produced at the design stage, instrument validation is performed by the expert to assess its feasibility. Assessment includes the eight basic skills of teaching, language aspects, and evaluation aspects undertaken by two expert lecturers. The assessment instrument is a questionnaire that has been modified in accordance with the needs of researchers. Expert assessment results are listed in the following tables and figures:

Table 1. Expert Test Results

Aspects of instrument assessment	Aspects	Expert 1	Expert 2
Aspects of basic teaching skills	Skill of Asking	4	4
	Skill of Strengthening	2	3
	Skill of Giving Variations	4	4
	Skill of Opening and Closing Learn	4	4
	Skill of Explaining	4	4
	Skill To Guide Small Discussion	4	3
	Skill of Managing Class	3	4
	Skill of Teaching Small Groups And Individuals	2	4
Language		4	4
Evaluation		4	4
Total score		35	38
Value		87,5	95

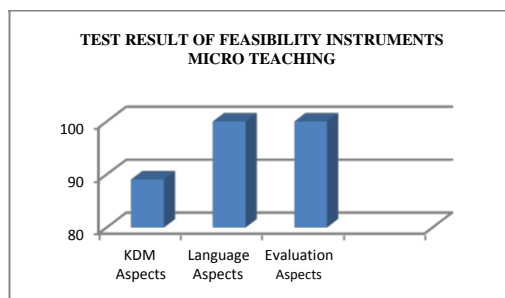


Figure 1. Feasibility Test Result of Micro Teaching Instrument

Aspects of Basic Teaching Skills obtained a score of 89.06, 100 language aspects, and evaluation aspects 100. The results of both experts' calculations averaged and obtained a feasibility score of 91.25%. This shows that the Micro Teaching Instrument based on Basic Teaching Skills goes into the

very feasible category. Aspects of basic teaching skills consist of questioning skills, strengthening skills, variation skills, open and close learning skills, explaining skills, small discussion guide skills, classroom management skills, small group and individual teaching skills (Turney in Mulyasa, 2011).

The following are assessments of each aspect of basic teaching skills:

1. Skill of Asking

Based on the assessment of the two experts, on the aspect of questioning skills obtained a maximum score of 4 (four). All indicators on questioning skills are met because on the assessment sheet it contains aspects of questioning skills, the assessment sheet contains indicators that correspond to aspects of questioning skills, and each indicator does not overlap with other indicators.

2. Skill of Strengthening

Based on the results of the assessment of both experts, on the skill aspects of questions obtained score 2 (expert 1) and 3 (expert 2). According to expert 1 on the assessment sheet there are still indicators that are not in accordance with the strengthening skills aspect and there are indicators that overlap with other indicators whereas according to expert 2 there are still indicators that overlap with other indicators.

3. Skill of Giving Variations

Based on the assessment of the two experts, on the aspect of variation skills obtained a maximum score of 4 (four). All indicators of variation skills are met because in the assessment sheets contain variation skill aspects, the assessment sheet contains indicators that correspond to the variation skill aspect, and each indicator does not overlap with other indicators.

4. Skill of Opening and Closing Learn

Based on the assessment of the two experts, on the aspects of open and close learning skills obtained a maximum score of 4 (four). All indicators of open and closed learning skills are met because on the assessment sheet it contains aspects of the skills of opening and closing learning, the scorecard contains indicators that correspond to aspects of the skills of opening and closing learning, and each indicator does not overlap with other indicators.

5. Skill of Explaining

Based on the assessment of the two experts, on the aspect of the skills explain obtained a maximum score of 4 (four). All indicators on the explaining skill are met because on the assessment sheet it contains the skill aspects of explaining, the scoring sheet contains indicators that correspond to the skill aspects explained, and each indicator does not overlap with other indicators.

6. Skill to Guide Small Discussions

Based on the results of the assessment of the two experts, on the skill aspects of guiding small discussions obtained a maximum score of 4 (four) for experts 1, while the score 3 for experts 2. All indicators on the skills to guide the discussion are met because on the assessment sheet contains aspects of discussion guide skills, indicators corresponding to the skill-guiding aspects of the discussion, and each indicator does not overlap with other indicators. While according to expert 2 there are still indicators that overlap with other indicators.

7. Skill of Managing Class

Based on the results of the assessment of the two experts, the aspects of the skills of managing the class obtained a score of 3 for expert 1 and a maximum score of 4 for experts 2. According to the expert 1 sheet of assessment still exist that has not been in accordance with the aspects of managing the class, whereas according to expert 2 all the indicators on the skills of managing the class fulfilled because on the assessment sheet contains aspects of classroom management skills, the assessment sheet contains indicators that fit the aspects of classroom management skills, and each indicator does not overlap with other indicators.

8. Skill of Teaching Small Groups and Individuals

Based on the results of the assessment of the two experts, on the aspects of small-group teaching skills and individual scores obtained 2 for expert 1 and a maximum score of 4 for experts 2. According to the expert 1 sheet of assessment still exist that has not been in accordance with the aspects of teaching small groups and individuals and there are still indicators overlap with other indicators, whereas according to expert 2 all indicators on small group and individual teaching skills are fulfilled because on the assessment sheet it contains aspects of small-group and individual teaching skills, the assessment sheet contains indicators that correspond to aspects of small-group and individual teaching skills, and each indicators do not overlap with other indicators.

The result of the expert's assessment on the language aspect, the two experts give a maximum score of 4 (four) means that the language used is clear and does not give a double / ambiguous interpretation, the sentences used in the assessment sheet are easy to understand and communicative, and the grammatical accuracy is good). In the evaluation aspect, both experts give a maximum score of 4 (four), this means that the instrument used is in accordance with the micro teaching instrument based on basic teaching skill, the scoring of each precise aspect, and the instrument used can develop students' teaching competence. The use of instrument assessment in assessing the Microteaching teaching process shows that the assessment is carried out thoroughly and comprehensively (Padmadewi & Artini, 2019). The revision or improvement stage is the last stage of the study. Micro Teaching Instrument Based on Basic Teaching Skills is done revision phase in accordance with suggestions and comments from experts. The revisions made to the basic skills aspects of teaching are as follows:

1) Skill of Asking Aspect

Indicators are changing at the suggestion of experts. Firstly, the curiosity indicator is considered less observable and needs to be added operational. The indicator was revised to ask questions to guide. Second, the indicator raises questions that monitor the student's learning progress during the learning process (when process, clarify, summarize, and / or summarize the material, and reflect with the involvement of students), replaced with statements that draw out the learners' knowledge. Third, the questioning process indicator is done correctly (not appointing one student to answer and giving the opportunity to think), the sentence edition is changed and the question is asked for all learners, so the indicator becomes a question addressed to all learners and gives the opportunity to think.

2) Skill of Strengthening Aspect

On the skills aspect of strengthening all indicators revised on the advice of the experts and consideration of the results of the researcher's analysis. Both experts commented that the indicators of apperception should be incorporated into the skills aspect of opening learning. Apperception is done when opening lessons such as linking the material that has been studied with the material to be studied (Suwarna et al: 2013). This indicator is revised to use spoken language (verbal) and body gesture (non-verbally) appropriately. In indicators using spoken (verbal) and non-verbal language are revised to give a positive impression to learners who argue or ask questions.

3) Skill of Giving Variations Aspect

One expert commented that the indicators of maximizing the media in accordance with the competencies to be achieved and involving the students in their utilization should be separated into two indicators as they contain two statements.

4) Skill of Opening and Closing Learn Aspect

In the aspect of open and close learning skills all indicators are revised on the advice of experts and consideration of the results of the researcher's analysis. One expert suggests that the skills aspects of opening and closing the learning should be a separate aspect and each indicator is adjusted. The revision results can be seen in Table 2. In the skills aspect of opening and closing the learning all the indicators are revised on the advice of the experts and the consideration of the results of the researcher's analysis. One expert suggests that the skills aspects of opening and closing the learning should be a separate aspect and each indicator is adjusted. The revisions can be seen in Table 4.5.

5) Skill of Explaining Aspect

In the explanatory skills aspect, one indicator is revised on the advice of the experts and the consideration of the results of the researcher's analysis.

6) Skill to Guide Small Discussion Aspect

In the skill aspect of guiding small discussion of revised indicator that is indicator formulate result of discussion and forming follow up less precise, student that should be subject, teacher guide so that indicator is changed to guide learners to formulate result of discussion.

7) Skill of Managing Class Aspect

In the aspect of classroom managing skills, one expert commented that the indicators performing learning in a sequence are more appropriately used on the skill aspects of explaining. The skill principle should be systematically explained by making the structure or order of the presentation so that the explanation is easily accepted and made no mistake (Suwarna et al: 2013).

8) Skill of Teaching Small Groups And Individuals Aspect

In the aspect of small group and individual teaching skills, one expert commented that the indicators of organizing learning appropriately and effectively are more appropriate as an indicator of classroom management skills so that the indicators are changed to give attention to each learner.

Aspects of basic teaching skills, language aspects, and evaluation aspects are aspects assessed by experts. However, these three aspects are only aspects of basic teaching skills that should be revised according to experts. In addition to the basic skills aspects of teaching, one expert suggests that the

instrument format, aspect columns and indicators be separated. Overall, the Micro Teaching Instrument

Table 2. Instrument for Assessing Microteaching Based on Basic Teaching Skills

Aspect	Indicator
skill of opening learn	Delivering learning goals to motivate learners that the material to be learned is important
	Delivering the key issues that learners must pay attention
	Connecting the learned material with what will be learned
	Provide direction on the activities to be undertaken during the learning process
skill explaining	Demonstrate mastery over learning materials
	Delivering material in sequence
	Associate material with other relevant knowledge, or with real life.
	Using examples, illustrations, and proper emphasis
skill of asking	Encourage the enthusiasm of learners by raising relevant questions
	Asking questions to guide
	Ask questions to dig up learners' knowledge
	Questions are addressed to all learners and provide opportunities for thinking
skill to guide small discussions	Describes the discussion steps
	Encourage learners to express their opinions
	Allow students to participate
	Guiding learners to formulate the outcome of the discussion
skill of teaching Small Groups And individuals	Give attention to every learner
	Approach personally to be more familiar Make a personal approach to be more familiar
	Build relationships among learners to be more familiar
	Guiding and facilitating learners to learn
skill of strengthening	Use spoken language (verbal) and body gesture (non-verbally) appropriately
	Provide a positive impression to learners who argue or ask questions
	Provide positive comments to motivate learners
	Provide appropriate feedback (feed back) on positive or negative responses from learners
skill of Giving variations	Utilizing the media to the maximum in accordance with the competence to be achieved
	Involving learners in the utilization of instructional media
	Variations of tone, volume, and speed of sound are precise and clear as needed
	Mimic, visibility, and motion are done precisely and clearly, making effective position Changes
skill of Managing Class	Implement learning in accordance with the competence, goals, and characteristics of Learners
	Taking preventive action against interference in the learning process
	Respond appropriately to visible distractions
	Implement learning in accordance with the planned time allocation.
skill of closing learn	Reflecting and clarifying
	Formulate conclusions or summaries by involving learners
	Delivering the next glimpse of the material to motivate (curiosity learners)
	Carry out follow-up by providing direction or activities as well as tasks as remedial / enrichment materials

Based on Basic Teaching Skills has fulfilled the inner requirements the preparation of Micro Teaching instruments based on basic teaching skills and included in the category is very feasible, but improvements in various aspects of basic teaching skills need to be done so that the Micro Teaching instrument is more perfect and can be used widely, especially in the subjects of PKM (Pembinaan Kompetensi Mengajar) in the course Biology Education FKIP-Untirta to equip and improve teaching skills for prospective biology teachers.

CONCLUSION

This development research produces the products of the Basic Teaching Instrument which includes aspects of open learning skills, explaining skills, questioning skills, small discussion guiding skills, small group and individual teaching skills, strengthening skills, variation skills, classroom management skills, and closing skills of learning. The result of the instrument assessment analysis by the experts found that in the aspect of Basic Teaching Skills obtained 89.06, the language aspect 100, and evaluation aspect 100. The results of the calculation of both experts averaged and obtained the value of the feasibility of 91.25%. These results indicate that the product of the Micro Teaching Instrument based on the Basic Teaching Skills developed into the category is very feasible. The Micro Teaching Instrument can be used to assess teaching practice more measurably because it uses indicators of basic teaching skills for each aspect.

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