

Heuristic Reflection for Teachers for Better Learning Teaching Interaction

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ABSTRACT

A reflection on teaching is a way to maintain and improve teachers' competence which is officially required. One of the reflection sessions to conduct is the end-meeting reflection. The reflection helps teachers evaluate their teaching practice which has been done to confirm the accomplishment of lesson objectives and to improve their future teaching quality. However, the absence of reflection activity occurs not due to the lack of awareness about the importance of reflection, but mainly because of the administrative work load and the tight teaching schedule. Therefore, the researcher aims to propose a reflection model to conform teachers' insufficient time in doing a reflection. The theories of reflection and the feedback from practitioners underlie the proposed heuristic five-minute end-meeting reflection model which can be done at the junior high school level.

Keywords: *heuristic, pedagogic competence, professional competence, reflection*

INTRODUCTION

UU No.20/2005 about National Education System, UU No.14/2005 about Teacher and Lecturer and PP No.19/ 2005 about National Education Standard have acquired teachers in Indonesia to possess higher competence (PLPG, 2014). The competence comprises pedagogic competence, personal competence, professional competence and social competence. Teachers' competences can be maintained or developed through various strategies, either formal or non-formal education or training.

One of the strategies which can be done by teachers is a reflective practice. The reflective practice is supposed to contribute to better learning-teaching interaction. Therefore, teachers need to conduct the reflective practice on a regular basis to lead to meaningful learning experiences for all their students. It can be conducted as an

end-meeting reflection, end-lesson unit reflection, or end-semester reflection.

It is through a reflective practice on their teaching that teachers can conduct an autonomous self-development as professionals. Stenhouse in Myers (2011, p. 27) claims that extended professionals need to reflect critically and systematically on their practice, have commitment and skills to study and question their own teaching, and have a concern to question and to test theory in practice. Furthermore, it is conducted with the emphasis on professional accountability through evidence-based outcomes as the attempt to raise educational standard and to maximize the learning potential of all students (Myers, 2011, p. 26).

Despite the importance of the reflective practice on teaching, it is often avoided to conduct by teachers. There are some factors which hinder the practice of reflection.

Although most teachers are already aware of the importance of conducting a reflection on their own teaching, the administrative work load which goes along with the implementation of the new curriculum hinders the reflection activity. In addition, the tight teaching schedule also provides teachers with insufficient time to do the reflection on their teaching. Teachers donot have much time to write a reflection on their teaching which is considered time consuming.

Hence, teachers need a model of reflection on their teaching which can be done within their limited available time. The researcher, therefore, is eager to propose a reflection model which can be done by teachers within short time period on a regular basis, that is after each session. With such reflection model, teachers are expected to make use of their limited available time to evaluate their teaching activities to match with the objectives to achieve from the session. In this end-meeting reflection, teachers will critically question theirteaching practice and will attempt to acquire necessary information, skill and attitude themselves to solve certain problems. In other words, teachers will heuristically gain new ideas for their future teaching situations.

THEORETICAL REVIEW

Reflection

Concept of Reflection

Boud, Keogh, and Walker (1985) have stated that reflection in the context of learning is a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation. It may take place in isolation or in association with others. The experiences to explore are essentially those referring to the teaching experiences which have been done. A

reflection takes place when a teacher –reconstructs, re-enacts and/or recaptures the events, emotions, and the accomplishmentl of his or her teaching (Schulman, 1987)

Another idea about reflection is proposed by John (2000), saying that in a reflection one can confront, understand and work towards resolving contradiction within her practice between what is desirable and actual practice. Therefore, she is more empowered to make more appropriate action in future situations. Similarly, Richards also states that a reflection is a conscious process of recalling and examining past experience, from which an evaluation, a decision making and a source for planning and action are based.

Principally, you can reflect on any theoretical and practice within your professional development. It is either positive or negative event which is placed in the reflections. It can be:

1. Good examples of your practice
2. Meaningful events
3. An event that frustrated you
4. An event where you wanted to improve your knowledge
5. An event that made you happy, sad, distressed, or a moral dilemma

Sources of Reflection

There are several sources of reflection which can be done by teachers. Richard and Lockhart (1996) propose the sources of reflections as follows:

1. *Teaching Journal*

It is the written or recorded accounts of teaching events. The process of writing the journal may stimulate the insights about teaching

2. *Lesson Report*

It is a written record which describes the main features or events in a lesson.

It provides a quick and simple procedure for monitoring what has happened, how much time was spent on different part of the lesson and how effective the lesson was.

3. *Survey and Questionnaire*

Survey and questionnaire are used to gather information on affective features of teaching and learning, such as motivation, attitudes and beliefs. A large number of information can be collected quickly.

4. *Audio and Video Recording*

The benefit of having audio and video recording for reflection is that they can be replayed and reexamined many times. Details of the events in a lesson can also be captured.

5. *Observation*

It is a way to gather information about teaching rather than a way to evaluate the teaching.

6. *Action Research*

It is the implementation of an action plan which is designed to provide change in some aspects of teacher's class.

3. *Collecting Data*

The next stage is gathering data that help teachers in identifying the actual cause of the problem.

4. *Analysing the Data*

It is the last step in which a teacher will analyze the data which has been collected. Teachers need to consider how the findings can help them come to the solutions of the problem.

The other stages in a reflection cycle are proposed by Gibb (1988). There are six stages in the cycle as presented in figure 1 below:

Stages of Reflection

There are several stages in a reflection cycle. McKay (2002) proposes four stages in conducting a reflection. Those stages are as follows:

1. *Identifying a Classroom Problem*

Teachers make a list of problems occurring in a class which have been taught and relate each of the problem with their own teaching belief and values.

2. *Hypothesizing a Cause*

This is the next step in which a teacher consider the possible causes of the problem.

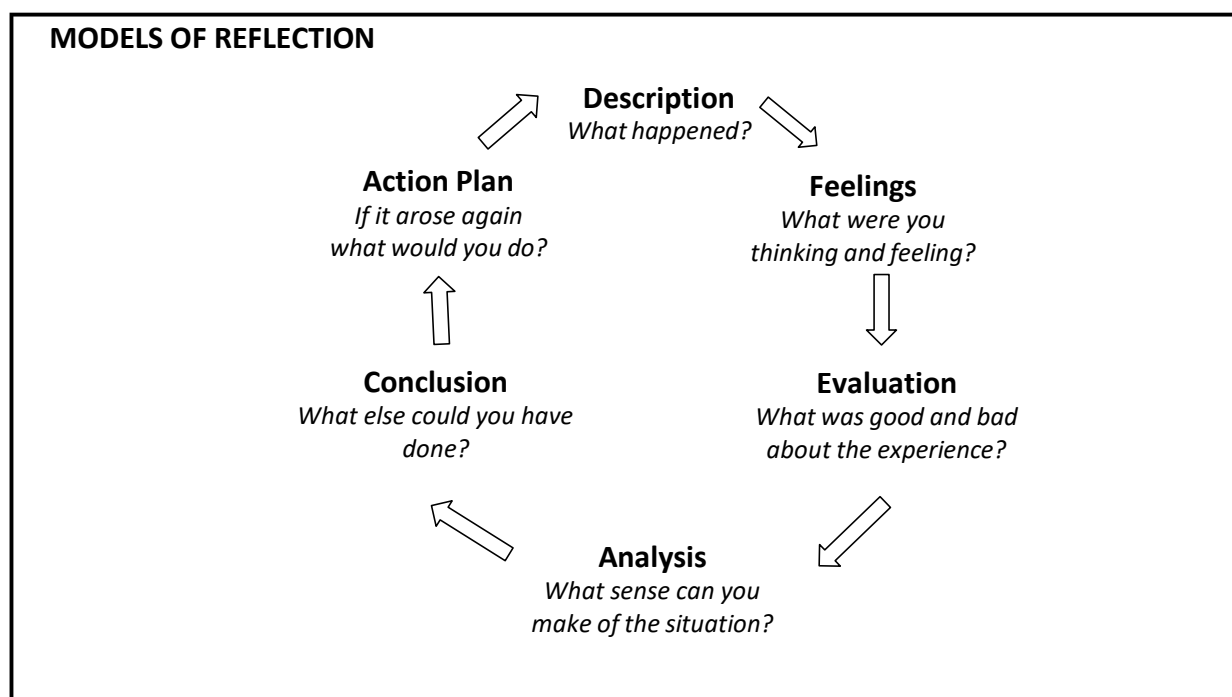


Figure 1 Gibbs Reflective Cycle

In the reflective cycle, Gibbs proposes six stages in conducting a reflection. The six stages comprise *Description*, *Feelings*, *Evaluation*, *Analysis*, *Conclusion* and *Action plan*. The six stages are clarified further by Jasper (2003) as follows:

1. Stage one: Description of the Event

Consists of a detailed description of the events you are reflecting on.

2. Stage two: Feelings

Teachers recall and explore the things that were going on inside their head. For instance, how teachers were feeling when the event started; and what they were thinking about at the time the events happened.

3. Stage three: Evaluation

It is the stage to evaluate or make a judgment about what has happened. Consider what was good about the experience and what was bad about the experience or didn't go so well.

4. Stage four: Analysis

An event is broken down into its component parts, so they can be explored separately. For instance, what went well; what went wrong or did not turn out as it should have done; and in what way did you or others contribute to this.

5. Stage five: Conclusion

A large number of information is used to base the judgment. During this stage you should ask yourself what you could have done differently.

6. Stage six: Action Plan

It is the time to plan what would be done if you encountered the event again. For instance, would you act differently or would you be likely to do the same? What additional knowledge and skills do you need to develop?

It can be concluded that in a reflection, teachers will look back on their teaching

practice at a certain time and place, calling some aspects of their teaching into question – such as whether what have been done agree with some goals, analysing and evaluating the teaching practice and eventually making some plans to try out some strategies or ideas for future teaching improvement.

Heuristic

Heuristic refers to experienced-based techniques to solve a problem. It can refer to the *trial and error* method to solve a problem or to accomplish a project. It enables a person to learn something for themselves. He/she will try to acquire necessary information or knowledge, skill and attitude to gain a solution of a problem or to accomplish a project.

Theoretical Framework

The pre-understanding of the proposed reflection model is stated as follows:

1. A reflection is a tool to improve teachers' teaching quality. Therefore it should enable teachers to evaluate the learning-teaching practices which have been done and to gain new ideas for future teaching situations and for better learning-teaching interaction.
2. The proposed model will be developed based on the concepts of reflection and will have to conform teachers' insufficient time in doing a reflection on their teaching.
3. The proposed model is the end-meeting reflection model which is done on a regular basis within teachers' limited available time. The reflection is to confirm that the events during the lesson provide meaningful learning experiences to achieve the lesson objectives.

METHODOLOGY

Method

This study aims to propose an end-meeting reflection model which can be done on a regular basis by teachers of English. The need analysis results were gathered from the interview and discussion with teachers, together with theories on reflection which were analysed and generated. This data is then used as the reference to construct the reflection model.

A questionnaire on a self-reflection on teaching practice and a discussion, either a formal discussion in a colloquium conducted on October 31, 2014 or informal discussion with junior high school teachers, were used as the instruments to gather the needed data. The participants were junior high school and senior high school teachers of English.

Operation

The research is conducted in the following procedure:

1. Describing the problem which occurs, related to the implementation of reflection
2. Deciding a research problem to solve.
3. Selecting research method/design.
4. Deciding research instrument, and participants/respondents
5. Collecting the data.
6. Analysing the data.
7. Describing/interpreting the data.
8. Concluding the data

DATA ANALYSIS

The result of the questionnaire, the interview and the discussion, either formally with the participants of a colloquium held in Sanata Dharma University on October 31, 2014 or

informally with several English teachers of some junior high schools, indicated that teachers understand the importance of doing a reflection on their teaching practice. However, most of them agree that the main obstacle in conducting the reflection is their available time which is limited due to their tight teaching schedule and the great number of administrative works to do as part of the new curriculum implementation. Therefore, the teachers tend to neglect the written practice of reflection on teaching and prefer to do the reflection informally; for instance by talking about their teaching experience to their colleagues.

DISCUSSION AND THE DESIGN

The heuristic end-meeting reflection model will be developed based on the context of education, particularly English education, in Indonesia and the concepts of reflection. In this section, the context of English education in Indonesia will be elaborated. Then, it will be followed by the elaboration of the concepts of reflection which underlie the proposed reflection model, which will focus on the cyclical process and techniques in practicing the proposed model.

The Context of the Proposed Reflection Model

Teachers' competence

Teachers in Indonesia, including teachers of English, need to possess and develop high competence. There are four competences to possess and to develop, namely pedagogic competence, personal competence, professional competence and social competence. This requirement is presented in UU No.20/2005 about National Education System, UU No.14/2005 about Teacher and Lecturer and PP No.19/2005 about National Education Standard (PLPG, 2014). These

four competences will contribute to teachers' competence in conducting their teaching practice.

Since a reflection on teaching is constructed as one of the strategies in developing teachers' competence, particularly that of teachers of English in Indonesia, it will expectedly comprise teachers' pedagogic competence, personal competence, professional competence and social competence. The focus of these competences is stated as follows:

1. Pedagogic Competence

It is teachers' competence in maximizing students learning potentials while understanding students' various characteristics. Teachers are also expected to understand theories and principles of teaching and learning, including the benefits of applying technology in their teaching and learning.

2. Personal Competence

It refers to teachers' competence in presenting themselves as professionals, who are highly responsible, confident, and keep the ethics of their profession as a teacher. They are also expected to provide good examples which agree with the religion, social and cultural norms in Indonesia.

3. Professional Competence

It refers to teachers' competence in preparing and in conducting the teaching and learning process as well as in achieving the teaching and learning objectives. Teachers need to comprehend the learning materials and creatively develop the learning materials.

4. Social Competence

It refers to teachers' competence to be objective, polite, effective and emphatic in the social relationship with their colleagues, the society or the parents.

Obstacles in conducting the reflective practice

Teachers are basically aware of the importance of doing reflection to develop their competence, particularly to improve their teaching quality in order to create a better learning teaching interaction. However, the hesitation to conduct the reflection on their own teaching practice often occurs. Most teachers agree that since teacher-reflection/self-reflection on their teaching practice is an optional activity, they prefer to not doing a reflection. In addition, a reflection on teaching practice is mostly considered as a time consuming activity in which teachers have to spend time to write down their reflection while they have tight teaching schedule and other important administrative work to do due to the implementation of the new curriculum, the 2013 Curriculum.

Considering the teachers' insufficient time to conduct a reflection on their teaching, they need a model of reflection on teaching which can be done within their limited available time. Therefore, the proposed reflective model is that which can be done only in a few minutes. A reflection which is named the heuristic five-minute end-session reflective model is therefore proposed.

The Concepts of the Proposed Reflection Design

In conducting a reflection on teaching practice, teachers will focus on the teaching experience which has been done. Teachers may involve their feelings and emotions when recalling, considering and evaluating a specific activity or process of the past teaching experience. As Pollard states in Myers (2011, p. 29) that a reflection is the powerful agent to understand *'self'* since teachers do not only describe what they observed and thought about a specific context, but also recount feelings, emotions and ideas for future possibilities. The

reflection itself can be presented in various forms.

The description of a specific activity or process in teachers' teaching practice can be presented in several forms, one of which is in a form of a lesson report. Richard and Lockhart (1996) state that a lesson report can be one of the resources of reflection. It does not only describe the main features or events in a lesson but also presents what have happened in the lesson in a quick and simple procedure. It is through this report that teachers can easily recall the information of the teaching practices that they really did.

While filling in or writing a record/ report about the lesson which has been done, teachers can stimulate their insights, feelings and emotions about their teaching practice. They eventually can focus on the meaningful events, either the good events or the frustrating ones, to reflect and to evaluate. Teachers then identify the problems to solve heuristically with the gained information/ knowledge, skill and attitude.

Furthermore, a successful reflection requires positive individual's attitudes. Dewey (as cited in Rodgers, 2002, p. 858) believes that a reflection can broaden one's knowledge when it is guided by these following attitudes:

1. Whole-Heartedness

It is the total engagement that indicates teacher's curiosity and enthusiasm for subject matters, such as the actual content which he/she is teaching, the learners' learning, the teacher's teaching and how it is affecting the students' teaching.

2. Directness

It is an attitude of not being self-conscious, distracted or constantly preoccupied with how others perceive one's performance. Therefore, one should trust in the strength of his/her

experience without spending a lot of time worrying about the judgment of others.

3. *Open-mindedness*

It refers to the willingness to of seeing, understanding and accepting all ideas and new ways with intelligent criticism.

4. *Responsibility*

It leads to the real-life implication. Being responsible implies what should be done in the future or leads to an action as a consequence of careful thought.

The Proposed Reflection Model

By taking the context in English Education in Indonesia and the concepts of reflection into account, a reflection model is proposed. Teachers are required to develop their competences. One of the strategies to develop teachers' competence is through conducting a self-reflection on their own teaching practice to develop their professional quality. As the result, the researcher aims to propose a reflection which can be used on a regular basis in order to acquire new insights to develop better learning-teaching interaction in the future teaching situations.

The heuristic five minute end-meeting reflection model is therefore proposed to suit teachers' need in doing a reflection. The goal of the proposed reflective model is to develop and improve teachers' efficiency in learning-teaching process and their self-actualization. Since the proposed reflective model focuses on the events to achieve the lesson objectives and the ideas for better learning-teaching in the future situation, the pedagogic and professional competences will be more emphasized than the personal and social competences.

The proposed reflection model is heuristic since in the reflection teacher will gather new insights by referring to their self-experienced to solve their own teaching

problems in future situations. The teacher can learn from the context, feelings, and events which occur during his/her teaching practice to deal with future situations. In addition, the reflection should refer to past events in the specific time and place of the teacher's own teaching practice.

The end-meeting reflection is considered appropriate to develop one's learning-teaching competence and practice since the reflection is conducted right after a session ends. Therefore, a teacher still has fresh memory about the learning and teaching practices to reflect on. The reflection on teaching practice which is conducted on a regular basis will eventually help teachers to make professional judgments to influence their future teaching which then enhance teachers' pedagogic expertise.

The reflection which can be conducted within five-minute time is proposed due to the importance of conducting a reflection on teachers' own teaching practice and due to their limited available time to do it. Therefore, the 'five minute' term implies that the reflection model can be done with a quick and simple procedure which suits teachers' limited available time, not necessarily means that the reflection model must be done and completed exactly within the five-minute period.

The reflection will not be considered as the time-consuming activity and can be done quickly on a regular basis on the condition that the teacher does not postpone the reflection activity. He/she should do it right after the session ends in which the memories of the events are still fresh in mind to be explicitly written on the reflection form. In addition, the proposed reflection model can be conducted within a short period of time on the condition that the teacher provides positive attitudes in conducting the reflection.

As Dewey has proposed, there are positive attitudes which are acquired in conducting a reflection (Rodgers, 2002), namely *whole-heartedness, directness, open-*

mindfulness and *responsibility*. Therefore, the teacher can conduct a reflection quickly when he/she involves curiosity and enthusiasm. The curiosity and enthusiasm provides energy for the teacher to gather information needed in conducting a reflection. The teacher also needs confidence and self-awareness in observing and reflecting upon various events: that is his/her actions, thoughts and feelings. Those various events should be seen from different perspectives along with acceptance of some possibilities. In addition, the teacher must consider and be willing to accept/adopt the consequences of the projected step.

Through a reflection on the teaching practice, teachers try to acquire necessary knowledge, skill and attitude themselves to solve a problem, that is to create a better teaching learning practices. Teachers will reflect on the teaching outcomes and how these have been met. Teachers are allowed to involve their feelings or emotions while thoroughly recalling certain events of their past teaching practice. Eventually, they will identify certain problems occurred and find possible solutions for a better learning-teaching situations. The heuristic five-minute end-meeting reflection form can be seen in appendix 1 and the example of the reflection implementation can be seen in appendix 2.

As a reflection is a cyclical process, the five-minute end session reflection model involves three stages which teachers will follow in doing the reflection. The three stages in the proposed reflection model are:

1. *Description*

Teachers will have to describe the general information of the lesson, which includes information on the date, topic of the lesson, and objectives of to achieve from the lesson.

2. *Identification*

Teachers make a list of the main activities or events to achieve the

objectives of the lesson, including the teaching aids or media which have been used in the lesson. Then, teachers question and identify which of the events and supporting teaching media could work well and which could not work well.

3. *Analysis/ Evaluation*

On this stage, teachers consider possible causes of the problems occurred and sit back to make a list of potential solutions to solve the problems, which can be applied in the same lesson in the future teaching situation.

By the time a teacher has completed the three stages in the reflection cycle, he/ she must be ready to implement the result of his/her reflection in future situations. Put differently, the teacher must be ready for an experiment wherein the teacher aims to try out what he/she has learnt from the previous reflection into the future teaching and learning situations.

CONCLUSION

A reflection on a teaching process is important for teachers to evaluate the teaching practices which have been done and to acquire new ideas for the future teaching practices. Due to the importance of doing a teaching reflection, teachers need a reflection model to conform their insufficient time in doing a reflection due to the administrative work load and the tight teaching schedule. The proposed heuristic five-minute end-meeting reflection model expectedly can be conducted by teachers to learn from their own teaching experience right after the teaching session with a quick and simple procedure. It is also expected to support teachers' professional and pedagogic competences, particularly in improving their teaching quality.

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APPENDIX 1: THE END-MEETING REFLECTION FORM

Class : _____

Date & Time : __ Topic/ Lesson : _____

Objectives/ Goals: _____

No.	POINTS	VG*)	G*)	S*)	IS*)	NOTES (emotional responses, problems & solutions)
1.	Language Teaching Procedure					
	a. Pre-teaching/ Elicitation					
	b. Concept- checking					
	c. Other activities (mention)					

2.	Use of teaching media (flashcards/hand-outs/CD/ Audio/Video)					
	a. Effective use					
	b. Techniques					
3.	Rapport with Students - Provide chances to maximize the learning potentials of all students Teacher as the model for students - The model of using English, either spoken or written, for students					
4.	The objectives of the lesson (choose one): ☐ achieved ☐ not achieved					
5.	Conclusion/ summary					

*)Notes: VG= Very Good G= Good S= Sufficient IS= Insufficient

APPENDIX 2: THE EXAMPLE OF THE END-MEETING REFLECTIONClass : **VIII B**Date & Time : **November 7, 2014**Topic/ Lesson : **Chapter V/ Meeting 1/ 'My uncle is a zookeeper'**Objectives/ Goals: - **Students are able to understand and to communicate the definite and indefinite number of people, animals or things**

No.	POINTS	VG*)	G*)	S*)	IS*)	NOTES (emotional responses, problems & solutions)
1.	Language Teaching Procedure					- the pictures about the zoo that I used really attracted students in getting into the topic. - The pair work and the individual work went well. - However, I need to find more alternative for effective concept-checking. I think I can make use of pictures of things/ animals/ people for more attractive concept checking.
	a. Pre-teaching/ Elicitation		√			
	b. Concept- checking			√		
	c. Other activities (mention)					
	- Pair work - Individual work	√				
2.	Use of teaching media (flashcards/hand-outs/CD/ Audio/Video)					- Flashcards, small cards and hand-outs worked well. - I am happy that students were engaged with the topic because of the interesting game with the cards. - Yet, I need to get more colourful flashcards, and try to use audio next time.
	a. Effective use		√			
	b. Techniques		√			
3.	Rapport with Students • Provide chances to maximize the learning potentials of all students			√		I am happy that most students enjoyed today's lesson. Yet, I need to find alternative activities for Bimo, a fast learner who refused to play games today. I think a pictorial worksheet can be tried as the alternative. Students who refuse to take part in games can therefore do the practice from the worksheet.
4.	The objectives of the lesson (choose one): ☒ achieved ☐ not achieved					-students could use 'there is/are..', 'Is/are there..?', 'there are some...', etc properly.
5.	Conclusion/ summary Overall, I feel happy with the teaching and learning practice today. For the improvement, I need to provide more colourful flashcards, try to get an audio to related topic, and to prepare alternative activities for student like Bimo who refused to take part in a card game as part of the learning practice in class.					

*)Notes: VG= Very Good

G= Good

S= Sufficient

IS= Insufficient