Evaluation on Teaching Mentoring Program Based on Reflective Pedagogy Paradigm

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ABSTRACT

Background: The aim of Jesuit education in brief is to produce graduates who have the intellectual and emotional capacity to be humanist, open to change, and full of love to serve others. To form graduates with such qualities, the Reflective Pedagogy Paradigm (RPP) is a critical part of the learning process. In order to teach using the RPP, an academic program was needed and developed in Jesuit institutions. For this reason, a study of an academic mentoring program was conducted in the Faculty of Pharmacy, Sanata Dharma University, Yogyakarta, Indonesia. This study is aimed to evaluate the mentoring process on RPP practice in the classroom. Method: One lecturer from the Community Pharmaceutical Service Course participated in the mentoring process. The mentoring activities were conducted in four separate meetings with different materials in each meeting. The evaluation was done by assessing: (1) recorded video from mentoring sessions based on an evaluation rubric; (2) personal reflection from the participating lecturer; and (3) the results of student’s reflections and action plans. Results: The result shows that: (1) the mentee teaching performance based on video assessed by two observers was 14.25 ± 3.4 (72% perform), (2) personal reflection from the lecturer indicated readiness to teach and make improvement, (3) overall student reflection journal based on rubric scoring by two observers were 13.62 ± 1.65 (68% achievement), and several students showed follow up activity in community service. Conclusion: After participating in mentoring activities, faculty is: (1) ready to perform RPP for large group student, (2) capable to make continuous improvement for teaching, and (3) capable to stimulate better achievement of students, as well as stimulate students to do follow-up in the community service. Key words: Ignatian Spirituality, Reflective Pedagogy Paradigm, Academic mentoring program, Teaching preparation, Lecturer development.

INTRODUCTION

The main aim of Jesuit education is to develop fully-human persons who will be “men and women for and with others”, in accordance with the spirit and example of Jesus Christ. Jesuit school graduates are expected to be socially-active persons who have the intellectual competence, the conscientious willingness to develop their personal, moral and emotional dimensions, to be full of love, and concerned commitment to achieve justice in the service of the people. Reflective Pedagogy is a mindset (paradigm) and a way for lecturers to act in order to help students’ growth and development into a humanistic person. The three main elements of the RPP are ‘experience, reflection, and action’ which are context-based and always get evaluated in a cycle of pedagogical assessment and reflection. The learning experience for both lecturers and students alike involves the deeper study, personal understanding, and mentored training based on their own activities. The meaning of reflection is to deepen the understanding of learning activities, seek the meaning of humanity, society, and find motivation, awareness, encouragement, and confidence in all experiences, while the meaning of action involves plans to act accordingly, with positive intentions to undertake concrete actions. The reflective learning strategy that will be applied in this study is the...
Ignatian Pedagogy Paradigm, or known in Indonesia as the Reflective Pedagogy Paradigm (RPP). Learning strategies that are made in reference to the RPP cycle involve the following expanded version: context, experience, reflection, action and evaluation. This strategy is made according to individual and environmental factors to obtain optimal reflection skills for both students and also lecturers. Lecturers who will implement reflective learning strategy (like RPP) should get a mentored training to keep them engaged and able to reflect in order to effectively implement the learning process.² Thirty

In order to apply the cycle learning of RPP, the mentoring program for lecturers is needed, for example by doing a video-recorded microteaching to provide feedback for improvement of the learning process.³ This activity is known as an academic mentoring program. For this research, mentoring is defined as the one-to-one support of a novice or less experienced practitioner (mentee) by a more experienced practitioners (mentor),⁴ designed to assist the development of the mentee expertise in teaching with RPP. We used “one to one mentoring”, to adopt cura personalis, one of Jesuit education principle. Cura personalis means concern for the individual person.⁵ The benefit of using RPP-learning promises to help teachers be better teachers. It enables teachers to enrich the content and structure of what they are teaching and also helps teachers to motivate learners by providing the occasion and rationale for them to relate what is being studied to their own world experience.⁷ We believed that this model, will support the lecturer to internalize, improve and be ready to teach using Reflective Pedagogical Paradigm. During mentoring activities all activities should be documented, and the mentee should make self-reflection on the learning process.⁸ This process named the process as reflective experiencing, in which someone commits time to reflect about the experience in the context of improving the learning process outcomes.⁹ To enhance the performance of the mentee, a mentorship dialogue and an appreciation statement are required, so that the mentee could feel appreciated, being listened to and have the opportunity to respond criticisms and suggestions for improvements.⁵,¹² In view of this, we conducted this study to assess the performance of lecturer to teach based on RPP after academic mentoring program.

MATERIAL AND METHODS
Research design

We conducted the research in the Faculty of Pharmacy, Sanata Dharma University, Yogyakarta, Indonesia from March until September 2014. This research received an ethics committee approval (Ref: KE/FK/233/EC) from Medical and Health Research Ethical Clearance (MHREC), Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Material development

Before conducting the research, we developed pharmacotherapy learning plan based on RPP, a student journal for reflection and diary. The designed pharmacotherapy learning plan and the student reflection journal were validated by experts and being used in mentoring. The mentoring program was conducted in four meetings, with duration of 100 min in each meeting.

Subject

The lecturer who participated in the mentoring program fulfilled the following criteria: (a) expert in pharmacotherapy, (b) had not been awarded a lecturing grant from teaching and learning centre Sanata Dharma University or had gained the grant more than 3 years ago to avoid unnecessary similar training, and (c) joined the previous RPP seminar conducted by researchers. Students who participated in the mentoring process were the students of Pharmacist Education Program (PEP) who were in the professional service learning or final year undergraduate students.

Analysis

All mentoring activities were video recorded and then analyzed by two assessors (incl. YW). The lecturer also wrote personal reflection about her teaching. The student participants also wrote reflection about the course and documented their activity in diary. The assessment for student reflection was done by two assessors (incl. YW) and diary was analyzed by YW.

RESULTS

Mentee performance in teaching based on RPP

Under the mentoring process, the obtained data is as follows:

Based on Figure 1, the mean score was 14.25 (with maximum score of 20). It shows that the performance of the mentee during the mentoring process has achieved 72%. As seen in Figure 1, the assessment score at the first meeting was relatively low, because the mentee still struggled to understand and find the form of teaching and learning process based on RPP. Meanwhile, at the next three meetings, the dynamic development in teaching and learning was evident. Improvements were indicated by scores between 15 to 17. This condition is already a
good indicator that the mentee was able to implement the teaching and learning process based on RPP for the upcoming semester.

The detail on the mentee performance development on all stages of the RPP is presented in Figure 2. This stages are context, experience, reflection, action and evaluation. It is expected by the end of four meeting score of each stages is at least 3.

**Context**

In Figure 2, the mentee's scores were fluctuating. The average was 2.93, which means that the mentee had explored students’ prior knowledge, described the stages of the learning process and explained the relevance of the course to the students' working field after graduation. For exploration of prior knowledge, the mentee gave tasks to the students a few days before the mentoring process to read literature or create a resume on course material or facilitate discussion at the beginning of class.

**Experience**

Based on Figure 2, there was also dynamic assessment at this stage. The relatively low score at about 2.5 was only found at the 1st meeting, while at the next three meetings the performance scores had reached 4 or the maximum score. Based on the results, the average was 3.65. The conducted activities were as follows: (1) teaching using power point presentation and playback film or animation; (2) facilitating student’s group discussion and role play simulation, followed by providing feedback on these activities and giving opportunity for students to give their argumentation; and (3) asking the students to make conclusions and suggestions for lessons if necessary.

**Reflection**

Based on Figure 2, the mean score reflects stagnancy at the first three meetings with 1 point increase at the last meeting. Based on the above scores result, the average yield assessment was 2.25. Lecturer activities included distributing student journal reflections and describing how to write a reflection at the 1st until 3rd meeting, while at the 4th meeting the lecturer also shared student reflections results from last week in addition to the fore-mentioned two activities. This change at the 4th meeting explains the increased score of the mentee.

**Action**

Based on Figure 2, there was also a dynamic assessment at this stage. Based on these results, the average score was 2.2. The management of this stage was quite difficult for the mentee. This stage was carried out in two phases. The first stage was assigning homework for the group of students and the mentee to present the results of last week’s reflection and motivate students to apply this knowledge in the community. The second stage was monitoring the student activities through the weekly diary. This use of diary served two functions: to document the activities they performed, and to remind students...
to conduct the action plan that they had written in the reflection journals. Finally, at the 4th meeting, the mentee was able to motivate students by giving examples of possible activities and let them make consultation outside of class.

**Evaluation**

Evaluation was not only done on the academic aspect, but also on humanitarian aspects. Based on the results, the average was 3.18. At the 1st meeting, the mentee was still having difficulties in managing this stage. After given feedback by the two observers (as mentors), the mentee made improvements in the process. Evaluation of students was done through giving homework and feedback about the role-play process. By doing this step during the learning process, the mentee prepared students to be ready to apply their knowledge in the community.

**Student reflection and activities**

Based on Figure 3, the assessment result for each type of question in the students reflection journal showed improvement. The presented results are data from the 2nd, 3rd and 4th meeting, because at the 1st meeting, the researcher found an imprecise question and needed to correct it and consulted with the experts.

The results of the total score of the journal reflections on the 2nd, 3rd and 4th meeting amounted to 11.74, 14.31, and 14.83 out of the total maximum score of 20. The inter rater reliability on student reflection journal by two observers was 0.83. These results showed an improvement in the students’ ability in writing a reflection on the learning process.

One of the assignments in the student journal reflections was: “Describe your action plan as a follow-up to the knowledge and life values that you have learned after studying this material”. This question aimed to know what the students had obtained during the learning process and the planned follow-up actions. As seen in Figure 3, the action plan writing scores increased from time to time of this subject. The learning situation should be put in the context or the real situation, so the students really understand the goals and achievements of the learning process based on the course material. By understanding the context, students are expected to be motivated to apply their gained knowledge in the action stage.

The lecturer who consistently performs this stage of context has successfully prepared the students to participate in the learning process and has provided clarity for students on the learning process that will be experienced, which is also known as *prelection* in Jesuit education.

The aforementioned description of *prelection* was in line with the mentee reflection on this stage of context. For example, her reflection at the 3rd meeting is as follows: I explained the significance of the use of oral contraceptives after giving the questions on what should be known about oral contraceptives, the importance of mentoring for the users about oral contraceptives because of the possible dangers that can arise, and guidance is certainly should only be given by pharmacists due to to their expertise in the field. According to initial assignment of students that I have read, it appears that the student has already had a good initial understanding of the pill, but they still do not understand the type, manner and means when patients forget to take the pill. This became my focus in teaching.

**Experience**

This learning process has helped the students to construct knowledge by doing a comparison, contrast, evaluation, analysis, and synthesis for all mental and psychomotor activities to better understand the real world applications. These activities are able to integrate cognitive and affective aspects directly and/or indirectly. The use of different variations of instructional media to optimize the absorption of knowledge by students.

Stage of experience for students could be understood as: (1) the action to feel something deeply; and (2) activities that involve the brain, heart, senses and will. Without the combination of the “brain” (intellectual understanding) and “heart” (feelings), learning will not move the will to perform an action. The lecturer presentation consisted of power point presentation and film/animation with group discussion activities were a process to improve the deep understanding of the course material, while the role play simulation was a process to achieve integration of the brain, heart, senses and will. The innovation in teaching by engaging students to discuss and showing the performance of a simulated scenario could contribute significantly in achieving learning success. Furthermore, the feedbacks from the lecturer...
were a process to strengthen the integration process. During the group discussions, the lecturer accompanied the students from one group to another to assist the discussion, with the purpose to develop the potential of the students in the group to gain further understanding of the knowledge. This activity can also be called as *cura personalis* in Jesuit education. Encouragement through feedbacks on the performance of the role-play is considered as reinforcement. This stage of experience is a process of active learning for students. Active learning process is ideally performed at this stage in the form of personal interaction of students with course materials, group discussions and sharing the results of these discussions. All the stages of active learning had been successfully done in this mentoring activity. Here is the result of the mentee personal reflection at this stage, which was taken from the 2nd meeting:

I explained the counseling as a whole, which ranged from understanding the structure, the factors that influence and support communication, different types of communication and principles of effective communication. I gave examples of bad communication and how to fix it. I gave the students the opportunity to practice doing counseling and gave feedback on what has been done in the role play for improvements.

**Reflection**

Reflection is the heart of the RPP and is a bridge between the effectiveness of the teaching and the learning by students. Reflection means conducting careful consideration to the use of memory, understanding, imagination, and feelings about science, experience, ideas, desired purpose or spontaneous reaction to capture the meaning and the intrinsic value of what is learned. The reflection results, which are shared with all students in the next meeting, will make the students better able to learn from the entire community in the classroom. This sharing is the ‘bridge’ between the topics in the lecture and the learning experience in the actual classroom.

As a means of reflection, we used mentee and student reflection journals. By writing journal reflection, it can be a means to promote one’s inner dialogue, fostering inspiration and new ideas, sharpening awareness, and emotional processing, to become active learners, reach enlightenment, and cultivate honesty of expression as well as train the ability to write. In the reflection process, there are two main purposes: understanding and judging. Understanding aims to find the meaning of an experience by assessing the obtained data (information input) based on the sensory experience (seeing, hearing, touch, taste, and smell). Furthermore, it will trigger various concepts, formulation of hypotheses, elaboration of theory and able to provide a definition of the gained experience. Judging aims to determine value, to verify the relationship between what is seen and experienced, or to verify hypothesis made from data obtained from the five senses. There is also decision-making that is reflected from the writing of action plan at the end of the reflection. Writing this weekly reflection will strengthen and challenge or trigger reconsideration, which will increase the action to be taken in the future.

Underscoring its importance, the reflection of lecturer at the 4th meeting was as follows:

I reminded the students again on the procedure to write reflections. To facilitate the students, I summarize the procedures in a power point presentation. I shared reflection results from students which were written with the mind and taste. These reflection examples were included in power point presentation as well. By doing this, I wish to facilitate students in writing reflections, as in the three previous meetings I always forget to share their results.

**Action**

Processing experiences through reflection will shape attitudes and values of the students. Reflections are not a complete process if these do not guide a person in making decision, commitment and concrete action. In the learning process, action is defined as: to interpret the results of learning with the mind and heart to realize the knowledge in real-life practice. Actions that can be applied in the RPP include: project-based learning, service learning, essays, developing business plan, etc. By doing these activities, students are not only able in theoretical level, but also able to apply their knowledge in the field.

That homework is a process of repetition that strengthens students’ understanding of the course material. In making the homework, the students need to use higher-order thinking skills and the ability of imagination as reinforced with video recording. This process will provide support for their self-confidence and motivation to apply their knowledge in society. Weekly diary entries become a means for students to become a reflective practitioner and develop the ability to engage in knowledge internalization. The reason for this activity is that writing in their diary helps students able to be both inward and outward looking.

During the first three meetings, the mentee already had motivated students, but she had not committed to accompany them through consultation before joining the service learning. Only at the 4th meeting, the mentee was willing to assist students. One of the reflections on 4th meeting is as follows:

I motivated students to apply the knowledge in the communities. If there is trouble, I was ready to discuss outside of class hours.
with them. I am willing to provide consultation outside lectures on diabetes education because this material is difficult.

The motivation of the students to be engaged in service learning is an attempt to realize the hallmark of Jesuit education, to be men and women for and with others. The application of knowledge in society will make students gain greater meaning and better understand their position in the world and also enable them to be agents of change in the future.

Evaluation

Evaluation is conducted periodically to encourage the lecturer and students to observe the intellectual growth, attitudes, and actions that are aligned with the principles of men and women for and with others. Knowledge and skills are evaluated by exams, portfolios, projects, etc. Meanwhile, the development of attitudes and personality are evaluated by personal interviews, review of the learner journal/diary, interpersonal relationships, and observing the activity of learners in the classroom and other aspects.

In her reflection, the mentee writes as follows:

During performance of counseling role play by students in the class, other students were assigned to fill out an observation form. It is important for them to recognize aspects in the counseling process that were already good and aspects that still need improvement. These forms are excellent to provide a personal feedback to each student group. I assessed the role play based on existing checklist. It is easier for me to do the feedback and it helps me to be more systematic, and it is easy to be followed by students.

Student reflection and activities

By writing journal reflections, students reach deep understanding of all the process that has been experienced. This insight is shown by an increasing number in scores on the second and third question that were related to the knowledge and the values obtained (as seen at Figure 3). This increase indicates that students developed better understanding of the value of the knowledge acquired during the learning.

Some of the results of the reflection paper are as follows:

1. I participated in community health services, such as charity service and counseling (as told by student 1 at 2nd meeting);

2. The action I plan to do is providing correct information and education related to the use of birth-control pills to my housemates, and preventing its abuse, as in treating acne (as told by student 3 at 3rd meeting);

3. In providing education to patients with diabetes, you should focus to what has been delivered. In addition, information delivery should be in a joyful atmosphere and should use language that is easily understood by the patient, as well as willing to be a listener and a good communicator, so that the patients understand more about the treatment he received. This is expected to improve therapy compliance of patients with diabetes mellitus (as told by student 6 at 4th meeting).

Writing journal reflection is the main tool to strengthen active learning. The ultimate goal of this reflection is to enable students to apply their knowledge to the public, or at least show intention of it by having a plan of action. Meanwhile, the reflections help the students to be able to find a linkage between knowledge and reality. During this stage, it is important to make students have interaction with their social environment.

Interestingly, after the 3rd and 4th meeting, there were some students who made the follow up by providing drug information to neighbours or family. One person provided information about birth control pills and three persons provided information about antidiabetic drugs. The following are some of their reasons for their activities:

1. I provide information about birth control pills medicine to my neighbor who happens to ask it to me last Monday. The benefits that I gained is that I came to realize that not all oral contraceptive users know about side effects or contraindications that should be a concern. By providing this information, I became more confident because my acquired knowledge proved to be very useful in the community (as told by student 1 at 3rd meeting);

2. My landlord is suffering from diabetes and I ventured to ask about his diabetic condition. From my chat with him, he became demotivated to meet doctors because he felt there was no improvement from his disease, his blood sugar level was always above 200 and he actually did not take his medications regularly. I advised him to consult a doctor again and asked him to take medication on a regular basis. I also told him the possible harm if the medication is not taken regularly, that is the blood sugar will become uncontrolled and can lead to complications. I gained benefits from the experience, such as that I feel to be a responsible person, because as a future pharmacist I have shared my knowledge to people in need. My chat with my landlord was the beginning of my concern to give attention to my neighbors who may need my knowledge as a prospective pharmacist (as told by student 3 at 4th meeting).

Based on the follow-up by the students, it has been shown that the encouragement given by the mentee at the end of the course could lead students to actuate the action plans they had written in the reflection journal. The motivation made by the lecturer is important to trigger students in applying their knowledge for the community. If students follow the encouragement, then
the students will obtain an experience to support their preparedness after graduation, while also strengthening the understanding of the gained knowledge. Furthermore, the implementation of the action is a shift from reflection-on-action into knowledge-in-action. By applying real action, the students are no longer being a consumer of knowledge, but becoming the producer and applier of knowledge.

The limitation of the study due to the only one lecturer that being trained in teaching preparation. So all the result can not be generalized, but can be as a model for teaching preparation. We recommend to apply one-to-one mentoring as a part of introducing and/or strengthening the application of RPP

CONCLUSION

After participating in mentoring activities, faculty is: (1) ready to perform RPP for large group student, (2) capable to make continuous improvement for teaching, and (3) capable to stimulate better achievement of students, as well as stimulate students to do follow-up in the community service

ACKNOWLEDGEMENT

The research is done under funding from Sanata Dharma Foundation

CONFLICT OF INTEREST

The author declare that they have no competing interests.

REFERENCES

SUMMARY

• One lecturer from the Community Pharmaceutical Service Course participated in the mentoring process.
• After participating in mentoring activities, faculty is: (1) ready to perform RPP for large group student, (2) capable to make continuous improvement for teaching, and (3) capable to stimulate better achievement of students, as well as stimulate students to do follow-up in the community service.

ABBREVIATIONS USED

RPP: Reflective Pedagogy Paradigm.

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