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# Reflection in Teacher Development

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## Abstract

Correlative and empirical studies on reflection seem to have a lack of concern regarding teacher development. This chapter presents the reflective practitioner development model (RPDM) for professional development of teachers based on principles of reflection and measurement of the development of teachers' reflective abilities and self-efficacy. The model focuses on reflective development of practitioners with self-efficacy, the procedure of the program, and the measurement of reflection and self-efficacy of teachers. It was tested through collecting quantitative and qualitative data. The findings suggest that the model had strong evidence for the educators to use, including the support to creating and promoting reflection and self-efficacy.

**Keywords:** reflection, self-efficacy, professional development, measurement

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## 1. Introduction

The continuous development of societies requires a growing need for individuals who are well prepared for their profession. In order to find out whether individuals are well prepared, measurement and evaluation procedures can take place. Continuous development, as each profession requires, is also a requirement for teaching. Earlier, Schön [1] made an influence on teacher education and development stating when practitioners reflect, this can work as a corrective for reflection helps questioning the everyday practice and experiences. Individuals find themselves in an uncertain or unique situation which is experienced by surprise, puzzlement, or confusion. Recently, professional development is based on constructivist approach, and teachers are seen as active learners who teach, assess, observe, and reflect [2–6]. To achieve these tasks, teachers should become reflective practitioners who can question themselves, reflect on their practices, build new pedagogical techniques when needed, and develop their expertise using continuously-acquired knowledge of the profession. In this way, they can

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reflect-for-action, reflect-in-action, and reflect-on-action. With this emerging need, this chapter focuses on presenting a new model for teachers and educational institutions to create a reflective teaching and learning environments in which reflective practitioners are involved.

Although there are many models and/or studies which have been implemented on teacher development, the literature indicates a lack of special emphasis on any research for the overall measurement of reflective development teachers in preservice or in-service programs while there is an extensive nature of the research on teacher education, reflection, and teacher beliefs independently [7–11]. Research on the effect of a reflective development process on teachers' reflective behavior and self-efficacy is also underrated. Taking evaluation as the generative source of other elements of curriculum [12], this chapter focuses on presenting some ways for teachers' reflective development with a new model called reflective practitioner development model by Kayapinar [13], shortly RPDM, ensuring and maximizing the use of reflection and self-efficacy.

The model emerging from "experiential learning" [14] tries to support professional development of teachers by using reflection and continuous development. As teachers are not always able to develop their knowledge and skills needed and/or required by the institution at which they work, reflection can play an effective role in self-improvement. Such an improvement can be provided by the practitioner's own comprehension of self and practice [15]. Reflection makes them able to observe, act, and evaluate their experiences and develop a habit of learning from those experiences. They become able to frame practical issues they face everyday, question them, reframe them within different perspectives, and take action [16], so they can become reflective practitioners. In this way, they may adopt a reflective stance to practice as a means of on-going professional development [17].

Continuous development, as reflection does, takes learning as a continuous process grounded in experience which requires the resolution of conflicts relating to or resulting from experience [18].

Self-efficacy refers to people's beliefs about what they are capable for taking action successfully in order to achieve desired outcomes [19]. One's judgment of capabilities and competences within a specific framework is the concern of self-efficacy. In brief, it concentrates on one's own assessment of abilities building on personal experiences in the past.

In-service professional development of teachers using a new model to develop teachers' reflective abilities and self-efficacy beliefs can develop teachers' reflective abilities and self-efficacy beliefs, and their awareness of the potential of engaging in problem identification can be raised through noticing and questioning events of everyday practice [20]. In this regard, the primary purpose of this chapter is to present some ways that teachers develop their reflective abilities and self-efficacy beliefs for teaching practices in a reflective in-service development program and demonstrate the potential of the new model for reflective practitioners to initiate the procedures and the context of the model that could be involved.

## 2. The RPDM context

Reflection, requiring personal and intellectual growth of oneself and of others, is a meaning-making process and a systematic, rigorous way of thinking which moves a learner from one

experience into the next with deeper understanding in interaction with others [21]. In order to develop teachers' reflective abilities and their awareness of the consequent demands of time and expertise which may be imposed on teachers [22–25], integrated foundation courses in McGill University-RCJY English teaching project were used to test the new reflective practitioner development model for 16 weeks. The project provided English instruction for local college students' mastery of English at the technical workplace. The teachers' reflective development process within the new model was initiated by the head/academic coordinator in 2012–2013 academic year. A total of 45 teachers went through the in-service development processes, teaching practices and the gaps perceived between what had been provided and what had been needed at the end of the previous year.

The model contains the following elements: (i) measurements of teacher reflection, for example, using Teacher Reflection Scale, in short, TRS [26]; (ii) measurements of teachers' self-efficacy beliefs, for example, using the Teachers' Sense of Efficacy Scale, in short, TSES [27]; (iii) professional development (PD) workshops; (iv) reflective (classroom) observations; (v) feedback; (vi) focus group discussions; (vii) co-planning; and (viii) peer observations.

### **2.1. Measuring reflection**

Measuring reflection of each teacher provides important data and evidence of each teacher's reflective abilities in the beginning of the teaching and learning process. This can be done in different ways. The best way of doing it is the use of a valid and reliable scale to compare the reflective performances of the teachers in the beginning of the teaching and learning process and at the end of it. Some sessions for formative evaluation can also be held to see the continual reflective development of the teachers. These sessions can be arranged by superiors based on the course calendar and examination systems. Comprehensive experiences of preparation will make teachers feel well-prepared, so they will consequently be more persistent in the profession, and, teach in a more effective way than their less well-prepared colleagues [28]. The professional's own perception of his or her practice driven by well-preparedness and readiness to teach can foster improvement of the practical [15]. Accordingly, each teacher can respond the items in TRS to develop reflective abilities in a valid and reliable manner. The purpose of using a reflection scale is to see whether, or in what sense, each teacher is aware of and interprets teaching experience, and is able to generate possible explanations and solutions for the confusions or problematic situations by being able to describe those [16]. In this way, teachers' reflective abilities of noticing and questioning events of everyday practice and of especially themselves can be framed and their reflective abilities can then develop, and their awareness of the potential of engaging in problem identification can be raised through noticing and questioning events of everyday practice [20]. This measurement can be supported with an easy and purely personal way of reflection, which is teacher diary. In and/or after each lesson, teachers make notes and/or write their feelings and reactions considering the entire lesson objectives and each activity or technique they used during the lesson. They can use two simple questions to do that as in the following:

1. What have I done?
2. What can I do for the better?

The responses to these questions will probably be helpful for describing their reactions and feelings for each lesson holistically and for each learning point and unexpected occurrence in the lesson analytically. Still, it is good to do this alone, but better to do it with a colleague or a mentor who can record, give feedback, and look into each reaction with a background knowledge and experience of reflective teaching.

RPDM study showed a significant change in teachers' reflective behavior at the end of an in-service practitioner development process ( $Z = -2.711$ ,  $p = 0.007$ ). The mean scores increased sharply from 69.53 to 80.13%.

## 2.2. Measuring self-efficacy

TSES is used in order to reveal and check the teachers' reflective abilities and self-efficacy perceptions because the beliefs of teachers as learners concerning their abilities to do an activity and the value of this activity may influence their individual selections, insistences and performances to carry out the activity [29]. In addition to this, teachers are required to successfully manage their students' study skills, enthusiasm, motivation and such other skills of themselves as self-control, conflict management, and decision making. Thus, self-efficacy belief has a role as a tool for management and control power for teachers to provide effective teaching for themselves and effective learning for their students. It can influence either students' motivation to participate more readily in the lessons, work harder, and persist longer and emotional reactions through their learning or teachers' motivation as choice of activities, level of effort, persistence, and performance in their teaching practices [30]. TRS and TSES measurements are a good way for the teachers to raise awareness about reflection and self-efficacy, to mirror teachers' own concrete experience in the teaching-learning environment, and later, to lead the way for them to reflect, conceptualize, and evaluate what they have experienced in that environment.

TSES measurements also revealed that there is a sharp increase in self-efficacy scores of the teachers after the application of RPDM. The mean score increased from 77.45 to 86.15. Statistical analysis also showed a significant change in favor of RPDM ( $Z = -4.360$ ,  $p = 0.000$ ).

Apparently, the mean is higher at the end of the RPDM process, which might mean that the teachers are more reflective and their reactions toward problematic situations, confusions, or irregularities in professional teaching environment. One of the factors which lead to these results is professional development workshops. These workshops which provide opportunities for teachers to share ideas, improve their knowledge, and gain insight to reflect and find ways to develop are explained in the following.

## 2.3. PD workshops

Educational organizations need to approach collaborative time with a focus on teacher learning and development that are on organizational practice and how they relate to teacher efficacy sources that is in need of consideration [31]. Workshops, in this sense, could benefit both teachers and the leadership team. For teachers, workshop contents might emerge from both the academic coordinator by using a reflective stance, and it can lead formal observations,

peer observations, focus group sessions, and critical reflections. In these workshops, teachers can deliver short presentations on problematic aspects of their daily teaching practice that they strive to better. In order to encourage teachers to present and bring out some discussion for the potential growth, they can work in pairs or groups first. Later, they can be more motivated to engage in a more elaborate brainstorming session. These brainstorming sessions can be helpful for exchange of strategies and techniques to overcome possible challenges. These pairs or groups then make larger groups sharing and discussing experiences in a more comprehensive way. Teachers can then contribute to their reflective abilities and sense of efficacy by cooperation, question-answer, feedback, and reinforcement. In this way, possible confusions, moments of hesitation in the classroom, engagement of students with learning to achieve the objectives, and management of the teaching and learning process, applying practical techniques to real-life environments, and meeting specific needs of both students and teachers can lead to development and improvement of reflective abilities.

#### **2.4. Reflective observations**

Observation sessions and immediate feedback exchange are used for reflection-on-action to reflect on the experience by discussion on classroom practice and challenges in the classroom environment. Reflective observations can also be employed for assessing and mirroring the development of the professional. Within the RPDM cycle applications, these observations should occur at least twice; one in the beginning right after the first application of TRS and TSES measurements; one at the end right before the second application of TRS and TSES measurements. These reflective observations can also be employed as teachers' formative and summative performance evaluations which could be held in periodical sessions regarding the needs for each teacher. Teachers, in this way, will be able to see their progress of the reflective practitioner. The findings of these reflective observations can also be used as motivational tools for reflective feedback and idea exchange in reflective sessions of practitioner development held immediately after the observation session. These reflective feedback and idea exchange sessions provide opportunity for critical reflection and discussion on the observed sessions. The outcomes of these sessions can be marked as part of the path for the reflective development process. Reflective observations are a good way of seeing challenges and gaps which give opportunities for teachers to fulfill their role effectively. Follow-up observations should also be scheduled until the teachers see they are on the right track. The observation tool should cover all the criteria needed to see the real performance of the teachers depending on the performance expected from the teachers considering the expected outcomes of the curriculum. In RPDM study, the observation scores of the teachers increased significantly ( $Z = -5.737$ ,  $p = 0.000$ ). Relatively, the mean score increased sharply from 55.65 to 73.51.

#### **2.5. Reflection and feedback**

Kayapinar states reflections are concise, bullet-pointed inquiry regarding staff members' thoughts, critical flashbacks, and self-questioning on their performance [13]. Reflections can be used by both teachers and the leadership team, and each reflection session, as long as it is done in a habitual way, it could drastically improve teachers' teaching and learning

environments and their professional skills. Teachers can also include a few lines on their lesson plans, attendance sheets or in a separate notebook or binder for recording their insights and comments about the lesson plan, its flow, and the way students were engaged and responded. Continuous reflection would serve teachers as a great benefit. These reflections could then be archived to build on previous observation sessions and gain a sense of development of a reflective practitioner. Specifically, the teachers are recommended to ask themselves the following three questions emerging from two basic questions of reflection that are “What have I done?” and “What can I do for the better?” [26] suggested by Kayapinar [13]:

- i. Which elements of my learning environment helped my students’ success?
- ii. Which elements of my learning environment impeded my students’ success?
- iii. How can I improve my learning environment?

The quality and quantity of teachers’ reflections could be evaluated in reflective feedback sessions between the teacher and the superiors. These sessions could be scheduled on week days and can be held in office hours. They can also be gauged implicitly or explicitly through formal observations. Reflections could then be discussed during the post-observation feedback sessions or focus group sessions or before each formal observation and factored into the assessment.

## 2.6. Focus group discussions

Focus group discussions comprise interaction within a group based on prespecified topics [32], and they can contribute to reflection and sense of efficacy by its nature and features like organized discussion [33], collective activity [34], and interaction [35]. Organized discussion, collectivity, and interaction enable participants to ask questions, to get feedback, to re-evaluate and reconsider their own understandings and experience. In the RPD cycle, the academic coordinator to discuss and comment on, from personal experience, the topic that is the reflection of classroom practice, assembles the teachers. Information on experiences is elicited in a way which allows the academic coordinator and the teachers to find out why an issue looks prominent. The gap between what people think they do and what they do can be better found out by asking the following two questions: “What have I done so far?” and “What can I do for the better?” [26].

Many participants can find opportunities on reflection, working on confusions, and finding solutions in a collaborative way empowering. This can lead to a sense of efficacy and autonomy by using reflective insights on teacher and student behavior within a structured group work process and collecting information for precise issues which are complicated, unknown, or disturbing.

## 2.7. Co-planning

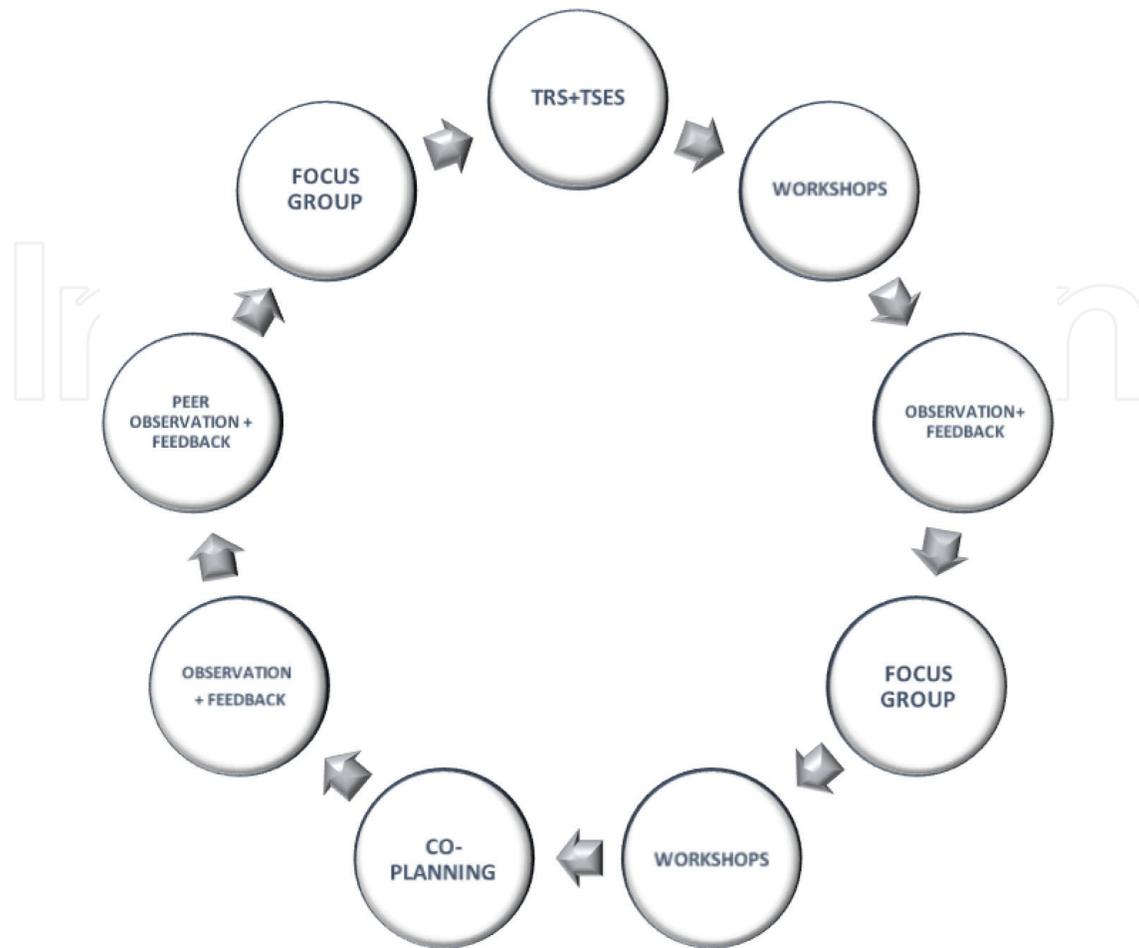
While co-planning has been noted in some fashion at all institutions, its potential has yet to be fully realized. The core benefit of co-planning is reflection-for-action [13]. Reflection-for-action is also called flash-forward of the classroom practice. It improves both the collective

sense of efficacy by exchange of continuous feedback and the quality of lesson plans by opening up teacher's office hours, critical reflections, post-observations meetings, and preparation for workshops. The updated system is run as follows; teachers –within their respective level/section- will devote one day of office hours to planning a lesson using the template given. They have a discussion on these lesson plans and give feedback to each other until they have consensus that the particular lesson plan reflects the objectives and the outcomes of the particular class. Then the final draft is presented to others teaching the same course in order to be used by everybody. Using this way, teachers can plan for the entire week or a two-week period depending on the number of teachers who teach the same course. This helps everybody be on the right track as they make discussions, exchange ideas, share feedback, fill in the gaps, improve themselves, and grab an opportunity of continuous development. Archiving these lesson plans provides another advantage in daily practice. Archived lesson plans can be used on demand when one of the teachers calls in sick, a new hire should step into the classroom immediately, or the semester begins. Co-planning can also be measured using formal and peer observations in an implicit way, or it can be measured explicitly via some prespecified criteria, checklist, or rubric of best practice.

## 2.8. Peer observations

Teachers with skills, which need to be developed in one area, could be paired with teachers boasting strong skills in that same area. They could either pair themselves up-having reviewed their reflections- or be paired by the leadership team. Teachers can go over the lesson plan and review each item in it as well as the criteria and objectives of peer who will do the observation. These criteria can be determined either previously by the teachers and the leadership team based on the objectives or by the peers who will do the observation and who will be observed based on the objectives. The peers should have the opportunity for a quick reflection session and peer dialog after the observation, and they should share their notes for future reflection. Following peer observations can be based on these reflective outcomes and the objectives of the session which will be observed. Peer observations can also be measured implicitly or explicitly by formal observations or making use of reflective outcomes of each peer observation and post-observation discussions. Peer observations, besides being a useful form of professional development, are a tool to build a team of trust among colleagues, provide mutual support, and enrich student learning especially when the observee and the observer work together and reflect on the teaching practice held in the observed session. The observed sessions can become more effective when the observees model new ideas and/or techniques they acquired at professional development workshops. Based on the components explained so far, the Reflective Practitioner Development Model can be visualized in the way below, and it can give an idea about the reflective model briefly [13].

The figure below simply gives a cycle of RPDM. The cycle starts with TRS and TSES measurements, so each teacher's reflection and self-efficacy levels are measured in the beginning of the process to be compared at the end of the Reflective Practitioner Development Model program. These measurements are followed by the first round of necessary workshops of professional development and reflection. These workshops can also be driven by teachers' reflections and/or focus group sessions. Teachers could come prepared to deliver a short presentation on a



**Figure 1.** Components of RPDM.

problematic aspect of their teaching practices in the teaching and learning environment. Next is the observation and feedback step. The teachers are observed and motivated to reflect on the experience as soon as possible and discuss on immediate feedback on specific successful engagement with the students or confusions and problematic situations in the classroom environment. Next, focus groups session or sessions are arranged to discuss the reflections of classroom practice, and the experiences are elicited in a way which allows the teachers to find out why an issue is worthy of note. The second round of workshops is then held to fill in the gaps and see the improvements of the teachers. Later, co-planning is held in order to reflect-for-action giving an opportunity to flash-forward the classroom environment. It also improves both the collective sense of efficacy by exchange of continuous feedback and the quality of lesson plans. Then observation and feedback sessions are organized again to give an opportunity for teachers to reflect on their practices in order to receive appropriate feedback on their teaching performance. These observations precede peer observations and feedback sessions which are held by peers who are more experienced or chosen by the observee. The second round of focus group discussions are held again to create an environment for teachers to share their experiences by reflecting and exploring attitudes and feelings and drawing out precise issues that may be unknown, confusing, or causing pressure in the environment. Finally, TRS and TSES measurements are used for the second time to see possible differences

which RPDM has created throughout the practitioner development program. The RPDM timeline is presented in the following to make this process more apparent to see [13]:

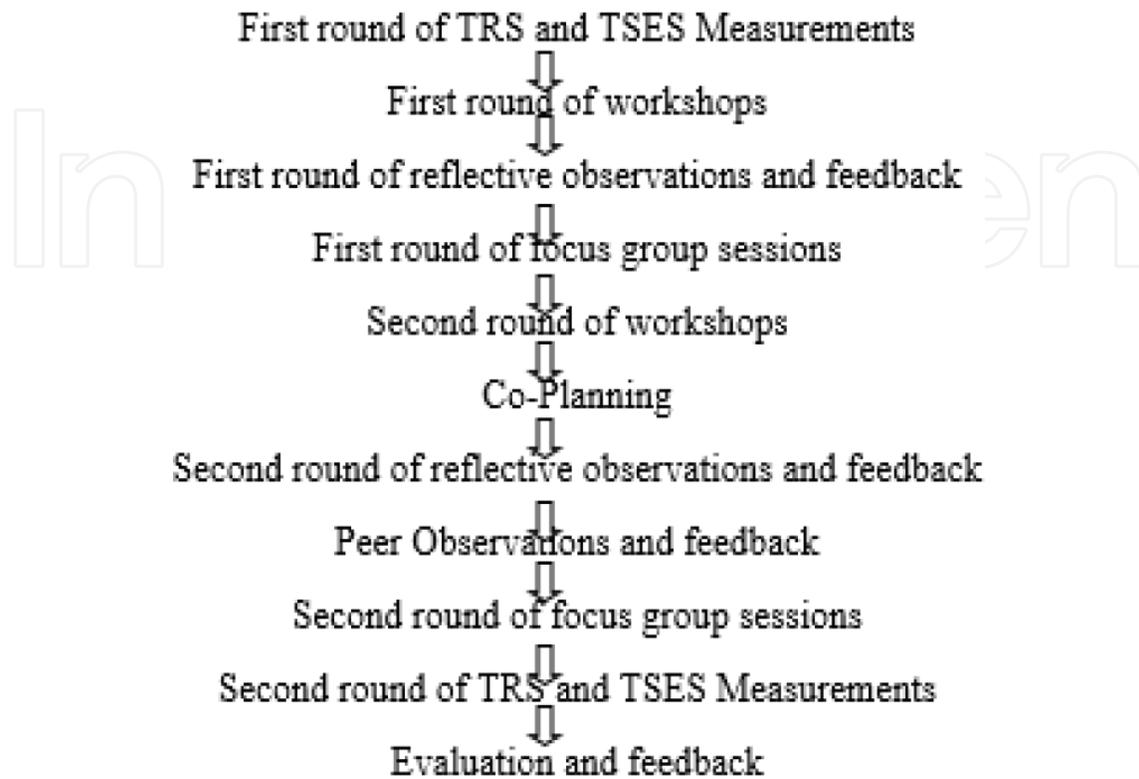


Figure 2. RPDM timeline.

Using the components in **Figure 1** and the timeline presented in **Figure 2**, the reflective practitioner development model cycle was adapted to Kolb's reflective cycle. This cycle is presented below [13] (**Figure 3**).

The cycle gives us the stages of reflective learning. First a new experience or situation is encountered. This experience starts with TRS and TSES measurements and necessary workshops in RPDM cycle, and the teachers start teaching. For most of them, reflection and self-efficacy are new experiences when they respond to TRS and TSES scales and are given related workshops. While they are experiencing this new encounter or situation, they are motivated to reflect on their practices, and reflective observation starts to see any inconsistencies or irregularities between the experience and the understanding of the teacher. This stage is supported by observations by an outer party who can reflect and guide on the reflections of the teacher. The stage of abstract conceptualization starts with the focus group discussions, workshops, and co-planning. At this stage of the cycle, the teacher begins to reshape his or her ideas and the existing concepts in his or her mind are welcomed to be modified. This stage is also supported by focus group discussions and workshops, so the teacher can find answers to the questions which cannot be answered by the existing knowledge or experience of the teacher herself/himself. Co-planning completes this process by working on amendments and modifications with a peer, usually a more experienced one. Last, the active experimentation

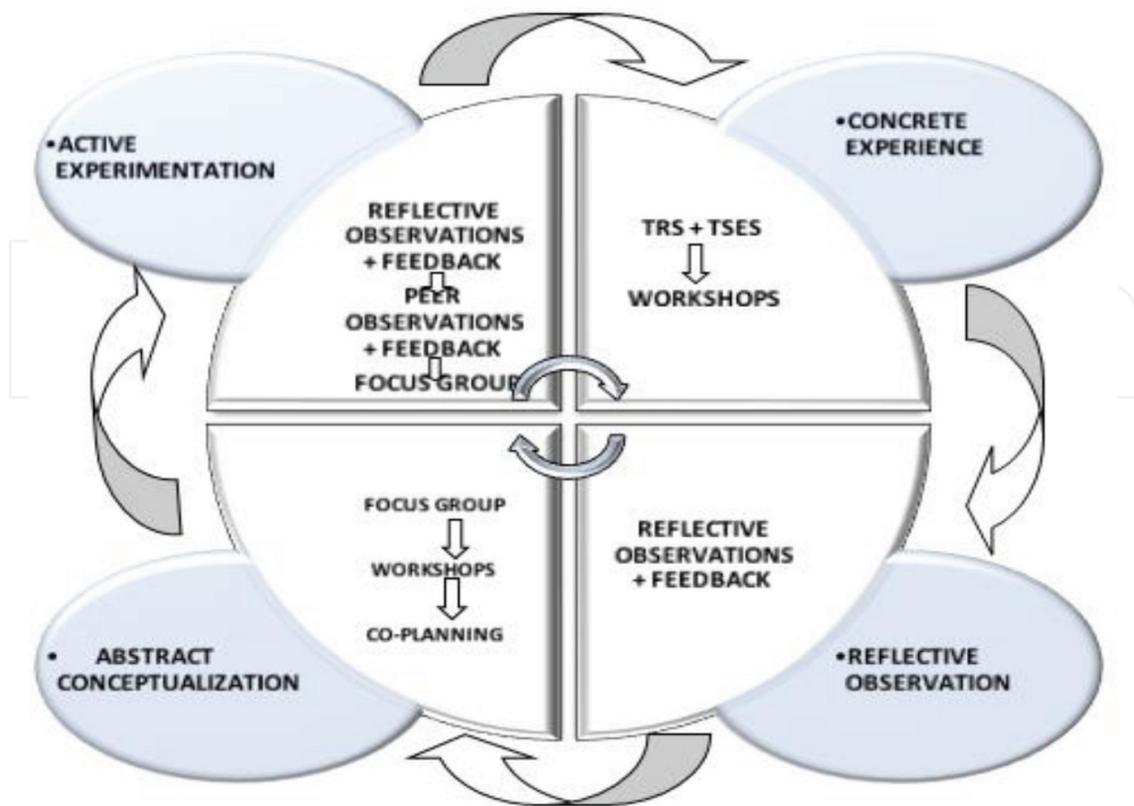


Figure 3. RPDM cycle.

stage takes place for the teacher to see the application all the new concepts, knowledge, ideas, techniques, etc., depending on the necessities during the teaching and learning process. This stage is also realized with the second round of reflective observations, peer observations, and focus group discussions while the teaching is being continued. This stage fills in the gaps and completes the process of reflective practitioner development. Finally, the teachers take TRS and TSES to see their development throughout the model process.

### 3. Conclusion

The reflective practitioner development model raises awareness and advances teachers' reflective development and sense of efficacy. The reflection scores of the teachers in the study gives evidence to this development (the TRS mean score is 80.13 in the second round whereas it is 69.53 in the first round.) This was supported with the result of the correlation analysis ( $p = 0.007$ ). Similarly, the TSES mean score of the teachers show a higher level of self-efficacy in the second round application (86.15) when compared to the mean score of the first round (77.45). This was also supported with the result of the correlation analysis ( $p = 0.000$ ). Moreover, focus group discussion sessions fitted the objectives and the development of the model clearly. The teachers apparently became aware of the reflective processes and more reflective with a high level of sense of efficacy. Teachers' evaluation of the process is positive (80.14%) and their feedback on the evaluation of the ongoing

professional development via their open ended comments also indicate that the professional environment was collaborative and reflective, and this made them develop personally and professionally. Especially the corrective action plans and the workshops which were organized periodically that are tied in with professional development resources and mentoring based on observation data and reflection were highly appreciated. The lack of communication between the teachers and the leadership time to time could be seen as a weakness in this research, which should be taken into consideration as an important step for future improvement of RPD. Another step for future improvement of the model could be student questionnaires and evaluations of the program and teachers' reflective practice. In addition, a larger number of teachers could be included in the program to meet the requirements of normal distribution and to have more reliable results of the statistical analyses. Focusing only on reflective abilities and sense of efficacy that are emphasized in the teaching and learning process could also do observations. Some questions might arise for the effect of reflective thinking and teaching, and the change in teacher attitudes, beliefs, and performances. This might lead far-reaching implications for decision makers and teacher educators to question the possibilities of reflective thinking and teaching for all preservice teachers since each of them gains insight and increases higher levels of reflective thinking by becoming reflective agents while challenging problems and having opportunities for learning and practicing reflective skills. In sum, this study gives an insight to a built-in procedure of a new design and model of reflective teaching and reflective practitioner development as a professional development program for the teachers, assesses the strengths and weaknesses, and makes suggestions for improvement.

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