

Effect of Reflective Teaching Practices on Student Learning

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Abstract: *This study explores the teachers' perception about reflective practices of ten primary school teachers teaching grades 4 and 5 and the effect of these practices on student learning. Analysis of the data clearly indicated that teachers defined reflection as a critical thinking of the actions taken by the teachers in the class. The teachers' response showed that reflecting on classroom teaching helped them to enhance their teaching skills, pedagogies and subsequently students learning. It is also revealed through teachers' journals that the teachers have the ability to identify the dilemmas and issues and to some extent change their strategies as well and try to solve the issues. But in most of the cases teachers wrote reflections at technical and factual level and horizon limited to catering few areas of teaching learning process. The results of the students' assessment show that student scores improved after teachers started reflective practices. Training in this aspect can develop this skill in the teachers.*

Key Words: *Primary school teachers, reflective practices, student assessment scores, private junior school in Pakistan*

Introduction

Teaching is a professional endeavor. Teachers, as professionals have to use effective and useful teaching practices to help the students to acquire important and necessary skills and attitude (Arends, 2014). From beginners to an effective teacher, an individual has to go through transformation process by acquiring basic knowledge about teaching, strengthen the wisdom gained by practice and reflecting on what they went through (Arends, 2014). Schon (1987) and Zeichner (1996) claimed that to realize the complexity of classroom and importance of solving day-to-day problems, teachers must reflect. Due to its ever-growing importance in education practices, reflective practices have been made an integral part of the teacher education for prospective teachers in many countries. In the last three-decade lot of research is conducted on reflective practices in teaching, especially its impact on preservice teachers' professional development. According to Rayford (2010), in many high impact school in US, students' achievement has risen which resulted in more focus on reflective practices.

Keeping in mind the importance of reflective practices in teaching and its effectiveness, researchers in Pakistan have conducted research on reflection in teaching profession in Pakistan. Most of the literature which is written in the context of Pakistan on reflection focuses more on its importance in prospective teachers' perspective. This qualitative study intends to seek in-depth analysis on the impact of reflective practices on students learning of grades 4 & 5 students of a private school in Lahore. The school is part of a semi government system and like any other system in vicinity, it has its own training programme running since 2000 exclusively for the needs of its teachers. Teachers here are familiar with the term reflective practice for two reasons:

1) In lesson plan journals teachers have to reflect descriptively on their teaching practices; 2) Regular training for new inductees and senior teachers on all the aspects of teaching which includes reflection as well.

This qualitative study will add into the existing literature on reflective practices with a relatively new dimension. As discussed earlier, research on reflective teaching is very limited, therefore, this study will contribute for the researchers and educationists in Pakistan. The research question for this study are:

- What are teachers' perception about reflective teaching/practices?
- What reflective strategies do teachers apply in the classroom and what is its impact on students learning?

Literature Review

Yip (2006) in his study suggested that reflective practice since long is a matter of concern in professional practices. Due to the importance of reflective practices in teaching, a task force of Council of Chief State School Officers (CCSSO), while drafting the model standards for teacher licensure described ten principles for knowledge and disposition for teachers and added that the teacher has to be a reflective practitioner in order to continually evaluate the impact of teaching (Krol, 1997).

Though most of the research on reflection and reflective teaching focuses more on preservice teacher education, a wide range of literature is available on reflection and its importance in teaching learning process. Carlo, Hinkhouse and Isbell (2010), in their study revealed that in US, teacher education programmes focus on making their future teachers "reflective practitioners". Risko, Vukelich & Roskos (2002), believed that reflection on their "instructional decisions" will help the prospective teachers to learn from their experience and become good practitioners. Zeichner and Liston (1991) while assessing different researchers' work concluded that whatever teachers do in the class is acceptable as far as they reflect on their work.

As mentioned above, most of literature and study on reflective practices focus on prospective and novice teachers' perception and how they take reflective practices. In spite of its importance "the art of reflection" is a difficult and complex task because of its multifaceted approach (Carlo, Hinkhouse & Isbell, 2010). It is influenced by individual capacity to "monitor thinking" and how that individual is open to new perspective (Risko, Vukelich & Roskos, 2002). Risko, Vukelich & Roskos (2002) further, through their research and study of empirical and theoretical literature suggested that many researchers are of this view that "developing deep level of reflection is difficult for prospective teachers" and at the same time these researchers were able to figure out few reasons for this. Hillocks (1995) in his study in concluded that students learning abilities and teachers' attitude towards it affect their reflective abilities. If they think that their students have the ability to succeed, then they tend to reflect on their teaching practices and try to change their way of teaching.

Rayford (2010) in her study about teachers' perception about reflective process, concluded that majority of the teachers think that reflective practices are useful in enhancing their overall teaching with the mean score of 4.20. In the same survey, with the mean score of 4.14, teachers believed that reflection helps in finding their weaknesses and strengths. With the mean score of 4.12, elementary school teachers took reflection as a tool to design better lesson plan.

Cimer and Palic (2012), revealed that during an interview session when seven elementary school teachers were asked to list the characteristics of reflective practitioners, teachers listed many characteristics like "evaluating own performance, encouraging students to think, openness to change, being aware of own deficiencies and trying to improve them and assessing own performance" as the reflective practices. Some of the characteristics which are not directly related to reflective practices were also mentioned by the teachers; those characteristics better define an effective teacher.

Dewey (1933, 1938) considered as the pioneer on reflective practices in teaching practices, mentioned that reflection begins with the dilemma. He further added that the teachers who stop or prevent themselves from making inferences or conclusion about a dilemma and instead they collect the information, analyze or study the problem, gain new knowledge and make desirable decision are the effective teachers. So, according to Dewey reflective skills are essential to become an effective teacher.

Daniels (2002) mentioned in her study that many people think reflection is just recalling what is read, but reflection and recalling are two different things. She further added that reflection is "looking back with a goal of moving forward". This "looking back with a goal of moving forward" involves several steps, they include; recognition of "puzzlement", consideration of other ways to frame that puzzlement, collecting and examining information, intervening (if needed), and monitoring the intervention (Jacob, 1995). Argyris (1966) study with 165 top executives revealed that those executives were not aware of their behaviour pattern and what impact these patterns have on others. Both Argyris and Schon (1974) used the term "espoused theories" according to which a person thinks they are true but they don't have the evidence for it. They suggested that these theories develop due to "single loop learning" occurred by participating within a culture either by experiencing the phenomena or observing it. Argyris and Schon (1974) believe that reflection occurs in "double loop learning" when one inquires about his or her espoused theory; this allows them to find the gap and difference between theory and action-though they think reaching to this level is a difficult task. Schon (1983) coined two terms "reflection-on-action" and "reflection-in-action". Reflection-on-action can easily be documented as it is thinking and reflecting after the actions is taken in the class. This type of reflection helps in changing the action accordingly for future. Whereas action-in-reflection, though includes the same reflective process or cycle, but it occurs "concurrently" with the lesson or action. This type of reflection results in immediate action(s) during the lesson (Carlo, Hinkhouse & Isbell, 2010). These two reflection types do involve technical aspects of teaching, they are also "value laden" and originate from "experiential and contextualized knowledge".

Pollard et al. (2005) in their book "Reflective Teaching" mentioned when describing reflective teaching that principally teachers have to plan, make provision and act. On the other hand, reflective practitioners besides carrying out the mandatory tasks monitor, observe and collect evidences keeping in mind students' interests and feelings. After collecting these evidences

critical thinking over them is critical to analyze and evaluate the data. This critical analysis helps in making judgment and revisiting and revising the plan. Teachers who reflect are the researchers as well; they start by asking questions about their practice in the class, on the basis of these questions they make an action plan for collecting data from multiple sources (to assess their own action and the impact of those actions on their students), thus the good practitioners have to develop good monitoring skills (Daniels,2002).

Teachers use several ways to reflect on their class practices. These include portfolios, journaling and “reflecting-in-action, on-action as well as for-action” but journaling was considered as the most favourite among the teachers who were involved in the study (Rayford, 2012). In her study Rayford (2010) discussed that reflection in the classroom provides teachers with an opportunity to improve their teaching and hence increase student learning. Berube and Dexter (2006) take one step further and suggested that it is a challenge to involve the teachers and heads in “reflective instructional dialogue” in order to develop teaching and “increasing student achievement”.

Methodology

Purpose of this qualitative study was to investigate about the teachers’ perception of reflective practices and the impact of these practices on students’ learning. According to Creswell (2007), qualitative research is “an intricate fabric composed of minute threads, many colours, different textures, and various blends of material.” Qualitative research approach allows researchers to collect data from the field or natural settings in order to understand the “context or settings in which participants in a study address a problem or issue” (Maxwell, 2008).

This study is a qualitative case study research design which helped me to explore the impact of reflective practices on students’ learning. Advantage of case study according to Yin (2009) is it helps in determining the decision, identifying implementation process and finding results. Participants of the study answered open-ended semi structured questionnaire. Weekly journals of the same teachers were also studied. Students’ performance record in 1st assessment and mid-term exams of the session 2016-2017 was also made a part of data.

Purposefully five teachers with more than five years of teaching experience in the school and five teachers with less than five years of teaching experience were selected for the study. The assumption behind selecting these teachers was that senior teachers would be more familiar with the reflective practices and less experienced would be less familiar with the reflective process as studies on reflective practices suggest that teachers “develop and deepen” reflective practices as they grow in their profession. This would help to find the impact of proper reflective practices on students’ learning. Table 1 given below shows the biographic information of participating teachers.

Table 1

Experience (in years)	Qualification	Total
13	MA – T1	1
10	BA- T2, MA T3	2
7	MA-T4, MA-T5	2
2	MA-T6	1
1	MA-T7	1
Less than a year	MBBS-T8, MA-T9, MA-T10	3
Total		10

It is obvious from the table that participating teachers experience ranged between 13-less than 1 year. One teacher has MBBS degree, nine teachers have masters' degree and one teacher holds a bachelor's degree.

Interview questions by Rayford (2010) were adapted and modified into an eight-open-ended questionnaire in order to get the participating teachers idea about reflection, reflective practices and their impact on students learning. Teachers were asked to write the answers of these questions so that their meaning would be clarified and to validate the data.

Teachers use many approaches to develop their reflective skills which include micro teaching, portfolios and journal writings. Keeping in mind the importance of journal writing in reflective practices, weekly journals of the participating teachers were also studied and reviewed. The weekly journals of the school involved in study are used for multiple purposes. They are used to write the weekly planner, students' portfolios, students' results of assessments and exams. Evaluation and reflection are the part of planner writing and mandatory for the teachers to pen down their teaching experiences.

To assess the impact of reflective practices on students learning, overall aggregate of all the classes of participating teachers was gathered with the teachers and school principal permission.

Both the data collection tools were descriptive in nature so thematic analysis was used to identify the themes. This is the "principal technique" or process which is used in qualitative research for data analysis (Yin, 2009).

Results and Discussion

The purpose of this qualitative case study was to describe the impact of reflective practices on students' learning in one of the private junior schools of Lahore. The study also explored participating teachers' perception about reflection and reflective practices and strategies being used by the teachers to reflect on their lessons. Weekly journals, by the teachers, aided to further consolidation of responses by the teachers in the questionnaire.

Table 2 shows the themes and categories emerged from questionnaire about teachers' perception of reflective practices.

Table 2

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Common Theme
Q 1	Reflecting up the feedback and observation -T9	Analysis of experience and making changes T1, T6	Action by teacher in response of student reflection T2, T10	Critical thinking after the action T3, T5, T7, T8	Image of our action T4	-----	Critical thinking after the action (4)
Q 2	Based on reflection T2, T9	Implementation of new change T6	Understanding and critical evaluation of practice T3, T4	Assessing what went well and what problems expressed T8, T7 T10	High order thinking skill T5	Ability to reflect in teaching learning process T1	
Q 3	Assessing students learning and teachers teaching T1, T2, T3, T4, T5, T7, T10	To assess whether outcomes are met or not T9	To improve practices for future T6, T8	-----	-----	-----	To assess students learning and teachers teaching (7)

In response to question 1, varied responses and themes emerged when teachers were asked about their perception of reflective practices. Four teachers out of ten suggested that reflection is a critical thinking after the action is taken. In response to question 2 three teachers suggested that reflective practice is assessing the teaching actions in terms of their usefulness. In response to question 3, majority of the teachers replied that reflective practices help in assessing students' learning and their teaching. These responses show that majority of the teachers are clear about what reflection is as majority mention it as thinking critically after the action is taken and it helps in further improving the teaching practices.

Table 3 shows the themes and categories that emerged when teachers were asked about the strategies they use to ensure reflective practices.

Table 3

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Common Theme(s)
Q4	Test and reviewing and observing behaviour pattern T1-T10	Students active participation T1-T10	Questioning technique T2, T5	Summative assessment T6	-----	-----	Testing and reviewing behaviour patterns and class participation (10)
Q5	Reflection in action done often T1-T10	-----	-----	-----	-----	-----	Reflection in action (10)
Q8	Weekly journals All teachers	Coordination with colleagues All teachers	Peer observation T8	Classroom observations All teachers	-----	-----	Weekly journals, coordination with colleagues, classroom observations (10)

All the ten teachers named test and observing behaviour pattern and assessing students’ class participation as a mean to collect data to identify the puzzlement or dilemma in the class. As far as reflection in action is concerned all the participating teachers said that they do it as and when needed. In response to question 8 of the questionnaire all the teachers mentioned weekly journals and coordination meetings as the techniques by the school management to ensure reflective practices in the classroom.

The above data analysis shows that mostly teachers use assessment techniques and observing student’s response to reflect on their lessons and to identify any puzzlement. Teachers’ response for “inflight decision” shows that they often reflect during lesson but majority do it while critically thinking on the action once it is done. Writing weekly journals, coordination meeting to interact with the fellow colleague and observations are the techniques used by the school management to inculcate reflective practices in the school.

Table 4 shows teachers’ response on impact of reflective practices on students’ learning.

Table 4

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Common Theme(s)
Q	Create	Developin	Improving	Better	Understandin	-----	

6	healthy learning environment T5	g alternative strategies T2, T3, T8	teaching technique s T1, T2, T7, T8, T9, T10	planning T4, T6	g of students' learning styles T4	Improvement in teaching performance (6)
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All the teachers agree that reflective practices help them to improve students' learning because reflective practices help them to get feedback from students and help them in understanding their learning styles and needs. All the teachers participating in the study were of the view that reflection helps them enhance their teaching further and make interventions and alter their strategies as and when required.

Content analysis of teachers' weekly journal also revealed teachers' perception about reflective practices and their impact on students learning. Below are some of the reflections written by the participating teachers:

T1: "The planned work was completed. Few of the students faced difficulty in multiplying 2 with 3 digits, major reason was the multiplication tables. Multiplication tables will be practiced loudly in the class."

T5: "Planned work has been completed. As the students have done the research work, so this helped me a lot to share more information on benefits of fiber optic communication."

T6: "The concept and rules of an Acrostic Poem are well taught and practiced in the class. every last 5 minutes of the lesson will be given for the drill of Acrostic Poem."

T10: "Both sections respond(ed) well. There are few slow learners in one class section who take extra time to complete their work. I gave extra time and attention to them."

The excerpts from teachers' journal show that the teachers to a greater extent can make inferences about the issues in the class, collect information through multiple sources and tried to alter the strategies. Though all of them wrote their reflections factually and technically and recalled and collected facts about their observation and in some cases mentioned about the altered strategies but none of the teachers mentioned the reason of selecting the strategies or a critique of their reasoning.

Aggregate of percentages of students' scores in the subjects taught by eight participating teachers (T1, T2, T4, T5, T6, T7, T8,T9) show quite explicitly that although midterm exam have more content than the first term exam, students' performance of the participating teachers improved in midterm exams. In some cases, improvement is marginal and in some cases, it is quite substantial.

Conclusion

This study method investigated the impact of reflective practices on students learning. The perception of teachers about reflection and the reflective practices they employ was determined through a questionnaire and after reviewing their journals. Impact of reflective practices on students' learning was determined through the result comparison of 1st Assessment and Mid-Term Exam of the students taught by participating teachers.

The data analysis suggests that teachers have adequate knowledge of what reflection is as far as what its literal meanings are. However, in depth knowledge and different phases of reflection is lacking in all the teachers especially in the teachers with less teaching experience. Few of the senior teachers elaborated the reflective process well but there is a further need of deep understanding of complete reflective cycle and process.

Questionnaire further reveals that school principal and senior mistresses have established a culture of reflection in the school through coordination meetings where teachers share their dilemmas and successes. Classroom observations are regular part of school policy which further help the teachers to reflect on after getting the feedback. This approach by the school management helps in enhancing students' learning and their academic achievements. Reflection in some teachers' journal lack critique and reasoning of their actions and majority of them mention task completion and "my lesson went well" as the major part of reflection. There is a need of training session as teachers need to be guided on how to ask questions to themselves while reflecting on their practices and how to critique their decision and mention the same in their journals.

All the ten teachers point that reflection helps them to identify weakness in the teaching practice and enhance their teaching ability, design better teaching plans and alter their strategies as and when required. They were of the view that reflection is a great tool to improve students leaning. Result comparison establishes this assumption that reflective practices improve students learning. It is recommended that a longitudinal action research on teachers' reflective practices and their impact on students by increasing the time duration and population of the study in order to make the study more authentic and reliable.

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