

Improving Teaching Practicum by Relating Learning with Practical Life Skills: An Action Research

By

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Abstract

This article is based on study designed by research network established at Directorate of staff Development (DSD) Lahore. The study was focused to improve the quality of teaching practicum in pre service institutes keeping in view National Professional Standards for Teachers. I decided to select a trainee teacher who needed guidance regarding use of practical life skills and examples during teaching of graphic representation in the area of math to fourth graders. Research was conducted in Government College for Elementary Teachers, GCET (W) H-9 Islamabad, with a prospective teacher of B.Ed. It was a collaborative action research. I talked with prospective teacher in friendly way and told her about the plan to improve the lesson by relating it with practical life skills. I delivered a model lesson before the trainee with good examples from environment to make the relationship with practical life skills. Trainee observed the model lesson and made the notes of her observation. Then she delivered the lesson and I observed the lesson in this way five cycles were made during one month. After each cycle new plan was prepared in the light of observation and reflections, then plan was implemented through action. Student's behavior was observed, their class work and home work were gathered, students interview were made, formative and summative assessments were also given. Expert teacher educators observed the lessons and also gave feedback that prospective teacher delivered the lesson with very good examples of practical life skills and her teaching skills were also improved. The combination of these data sets suggests that teaching learning processes is improved when teacher uses examples from practical life skills.

Keywords: *Prospective Teachers, Teaching Practicum, Practical life skills*

Introduction

Teacher education plays a vital role in raising the standard of education. It is matter of fact that teachers' skill will have a profound impact on achievement of students (Moore,2005). To improve the standard of teacher education at Government Colleges for Elementary Teachers (GCETs) Punjab, a research network was established by Directorate of Staff Development (DSD). Since action research can be used by teachers and administrators to solve the problems (Santrock,2006), group of researchers decided to apply it to find out local problems at teacher education institutes in order to improve teacher education programs at GCETs. We all as members of group thought individually and discussed, it was unanimously concluded that all of us were thinking about quality of teaching practicum in our institutes. It was decided to conduct an Action Research to

improve teaching practicum. Through practicum Student teachers are enabled to acquire beginning teaching competencies. The practicum is core component of teacher education program. Having experience and observation it is found that usually when prospective teachers start teaching practice they do not deliver the lessons successfully and they also don't try to transform the knowledge as a result rote memorization is promoted. Future teachers are also not equipped with desired teaching skills so, schools' administration do not allow teaching practice in schools. When it was decided to do the research for improvement of Teaching Practicum, all members of network were of the view that we will observe and improve this practicum in the light of National Professional Standards for teachers. Policy and Planning Wing of Ministry of Education Pakistan Government in collaboration with United Nations Educational Scientific and Cultural Organization (UNESCO) has developed National Professional Standards for Teachers in consultation with stake holders in all provinces and areas in 2009. They are aimed for Primary level beginning teachers. These Professional Standards for Teachers have been officially adopted by representatives of provinces in National Steering Committee meeting held on 7th November 2008. Standard based education is considered important source for quality assurance. National Professional Standards (NPS) state knowledge, skills and competencies of teachers are very important to enhance students learning. We decided problems from the document individually. I considered social life skills as important component to improve teaching practicum .In area of social life skills I decided to improve teaching practicum by making the relationship of learning with practical life skills including real life examples from environment.

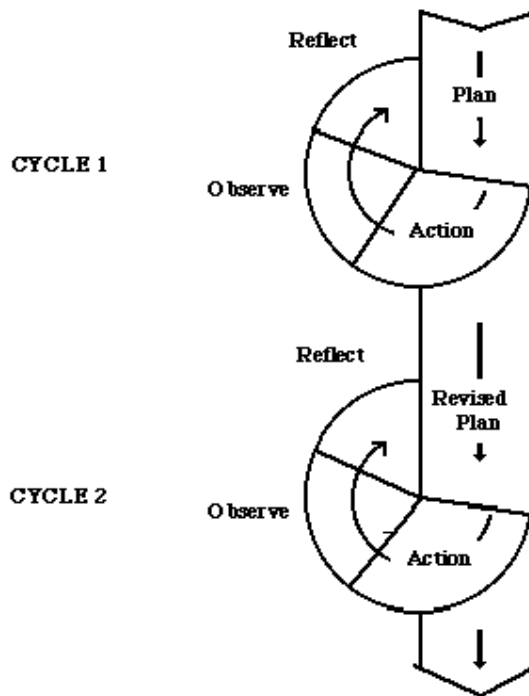
Theoretical Framework

Action Research is made to solve local problems. It can be used in educational settings to solve specific classroom or school problems. Action Research is defined as a form of self-reflective enquiry undertaken by participants in social situations in order to improve rationality and justice of their own practice, their understanding of these practices, and situation in which practices are carried out.(Carr and Kemmis ,1986). The purpose of Action Research is to improve processes of education immediately in one or two classrooms at one school or several schools, it is conducted by teachers and administrators instead of educational psychology researchers (Santrock 2006). Classroom teacher can conduct researches to improve their teaching practices (Creswell, 2005).The purpose of Action Research when conducted by administrators and teachers is to improve the processes of education immediately in one or two classrooms at one school or several schools.(Santrock, 2006). Classroom teacher can conduct researches to improve their teaching practices (Creswell, 2005).

Noffke (1997) categorized the purposes of action research as professional understanding, personal growth and political empowerment. Professional purpose deals with staff development and adding to knowledge base for teaching. Lewin (1946) first described Action research as proceeding in spiral of steps for continuous improvement. Each cycle is composed of planning, action, observation and reflections. To do action research one develops a plan to improve the situation, then makes action to implement

the plan. During action observation is made about effects of action and finally reflections are recorded about effects as basis for next planning. This process continues to achieve the goal. Action research cycles do not directly achieve the desired goal but as the cycles are repeated after reflections and research develops, the short term goals criteria for success may shift. (Cunningham, 2008). Thus it is a process which takes shape as understanding increases.

A Simple Action Research Model Maclsaac, (1995)



Literature Review

Cunningham (2008) conducted an action research to identify, implement, and evaluate the use of personal response pads (clickers) to enhance active learning in context of large-lecture sections of elementary accounting and found action research quite useful in helping to evaluate the success of classes, teaching because, students according to their learning styles improved students learning. It was concluded when kinesthetic learners were addressed by planned lessons using tactile strategies through an action research (Julie, 2010). A significant number of pre-service teachers indicated that engaging in action research expanded their conceptions of teaching (Kitchen & Stevens, 2008)

Learning is not just memorizing principles, concepts, knowledge, and information but also internalizing and applying them in working environment as well as in real life situations. It has been observed through researches that if teachers make relationships

between learning inside the classroom with children real world it positively affects performance of students. Bomar and Nebrask (2009) conducted a research on 8th Graders and concluded that understanding and achievement in mathematics was improved when lessons were centered around real life problem solving. The interest value of students also increased (Bomar & Nebrask, 2009). Transfer of knowledge to the students will be better if real life problems are used in the classroom. A study was conducted with Grade three students they were given four different real life problems. It was concluded that mathematical problem solving is a transfer of challenge requiring children to develop schemas for understanding new problems as belonging to a familiar type of problem for which they know solution (Fuchs, Fuchs, finelli, Courey & Hamlett, 2004). Wedege (1999) also considered learning a social process by observing several individuals everyday life. It was concluded that by a value of creating a social and useful importance to the subjects we teach in order to provide relevance to our classroom. Learning becomes more enjoyable for students by real life application of mathematics in the classroom. A research conducted on 120 prospective teachers from 12 Teachers Training Institutes for appraisal of practicum. They found gap between theory, practice and real life situation and concluded that novelty and innovation are completely missing (Gujar, Arshad & Ramzan, (2010). The practicum play important role in reducing gap between theory and practice, it also provides the context for student teachers to develop their personal teaching competencies (Smith & Lev-Ari, 2005) Prospective teachers are provided appropriate knowledge of theory during training in Teachers Training Institutes but only few of them can deliver lesson by making relationship of learning with practical skills and real life examples. This situation compelled me to conduct action research in this area. This research was aimed to improve teaching skills by using relevant examples from practical life skills. The purpose of study was to observe the teaching practicum and to identify the trainee teacher who needed improvement regarding use of practical life skills during teaching, when trainee teacher was identified it was decided to make a plan for improvement in perspective of National Professional Standards for Teachers.

Methodology

Research was conducted in GCET (W) H- 9 Islamabad, with a prospective teacher of B.Ed. It was a collaborative action research. I observed different prospective teachers and found one who needed guidance to improve her teaching by relating it with practical life skills.

Participants

One prospective teacher at B.Ed level was selected for study with her own consent to participate. She was twenty years old. The student sample was composed of eighteen students of Grade four of Laboratory School of Government College For Elementary Teachers in Math class, aged between nine to twelve years. Ten were boys and eight were girls. They all belonged same community and were ethnically same.

The author worked as tutor to teach the prospective teacher about teaching skills. The author has five years experience as Teacher Educator and has doctorate degree in Education.

Setting, Time, Topic and Materials

Research was conducted during regular math class. The study was lasted for four weeks, and daily class time was 35 minutes. Topic selected for study was learning Graphs. Different materials were used during lessons, including text book, charts, calendars, Attendance registers, graph papers and colored markers etc.

Educational Objectives

After one month teaching, the prospective teacher will be able:

1. To use more real life examples to elaborate the lesson.
2. To involve students and give feedback.

After one month learning the students will be able:

1. To respond actively in finding more examples of graphs.
2. To identify the use of graphs in social life.
3. To perform well in the summative assessment.

Procedure

This research was to improve teaching practicum of a prospective teacher. It was completed in five cycles. In each cycle after observation planning was made to implement, then action and finally reflections and observations were made. Observations of one cycle led towards planning of next cycle. In Cycle one I gave the model lesson to the children of the other section which was not involved in the research. The topic was Graphs in math. In the beginning my role was dominating, but as we moved through different cycles the role of prospective teacher became empowered and independent. I tried to become less empowered.

Table 1: Cyclic Process

Cycle	Plan	Action	Observation and Reflections
1	I planned the lesson. Prospective teacher was desired to observe. Plan was flexible.	I delivered the lesson. Used everyday life examples. Students were encouraged to ask questions. More examples were used.	Trainee took the notes. Two senior teacher educators recorded observations. Students took interests. Some students learned application of graphs.
2	Prospective teacher (PT)	PT delivered the lesson	PT was not flexible in

	<p>was guided to plan the lesson. Suggested to use examples of money, pencils and students' height to localize the lesson. She prepared worksheets to assess the lesson. I prepared observation sheet to record observation.</p>	<p>according to plan. Used some examples from surroundings Draw the graph with help of children. Asked some questions from students during lesson. Made assessment with help of work sheet at the end of lesson.</p>	<p>her plan. Few students could actively respond. She could not elaborate her lesson with more simple examples. She did not encouraged students' questions. I told her in friendly way where she needed improvement.</p>
3	<p>PT prepared next plan in continuous consultation with me. She developed work sheets for student. Some fellow prospective teachers were requested to observe the lesson.</p>	<p>She delivered lesson inflexible way to some extent. She involved some active students to share examples She assigned one problem from book to solve at home.</p>	<p>Students' response ratio was better. Some difficult examples used by her were pointed out which made confusion. Fellow PTs also shared their comments. She was guided to start the lesson by assessing previous work.</p>
4	<p>PT prepared a plan including suggestions discussed in reflections. PT collected more local materials to elaborate the lesson.</p>	<p>Lesson was started with interesting questions about breakfast She represented that information graphically. Told about favorite breakfast in class through graphs.</p>	<p>Children were very excited to tell about breakfast. They were active in making graphs. Spontaneous examples used by trainee were more relevant. Most of children gave correct answer to oral questions. Children raised good examples.</p>
5	<p>PT made the next plan independently. She planed to use scale in graphs. Same fellow PTs were requested to observe the class. Some new activities were planed.</p>	<p>She delivered the lesson confidently. She gave very interesting example about traffic on the road by counting different vehicles on the busy road in five minutes. Children were provided chance to take some data</p>	<p>All students actively participated in class. PT was very confident and flexible. Fellow PTs shared that students enjoyed the class. Children raised many good examples</p>

	A summative test was planned to assess the achievement of objectives.	and make graph in the area of their interest. Summative test was conducted at the end of lesson.	Class was more interactive. PT encouraged students' questions.
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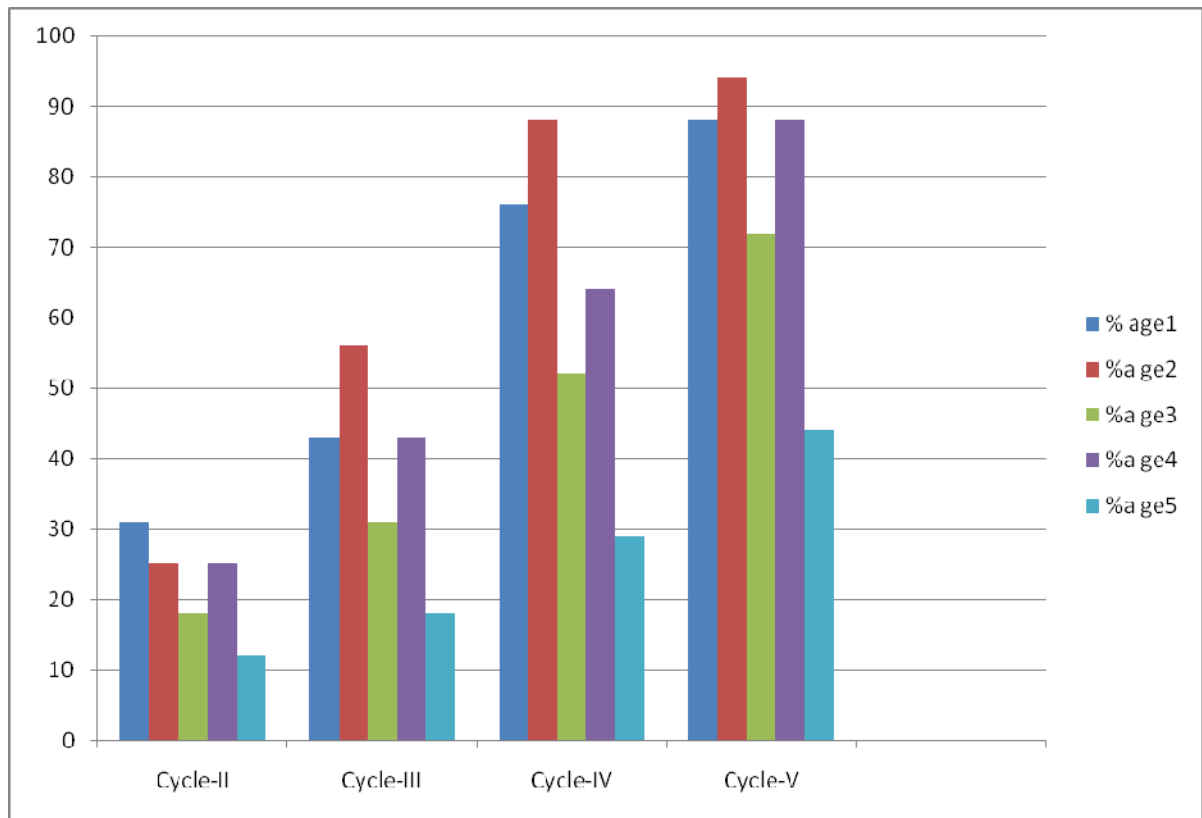
Assessment

Two types of assessment were made during the study, such as assessment of prospective teacher and assessment of fourth grade students. Observation sheets prospective teacher were developed, oral and written tests for the students were also given. Interviews were also conducted with senior teacher educators and fellow prospective teachers who observed the class during Cycle 2 and Cycle 5. Formative assessment was conducted after each cycle and summative assessment was also made at the end of the study.

Analysis

Analysis of Observation during Cycle 2-5

After observations of Cycle 2-5 it was found that students' participation and understanding improved with improvement in the lessons by using real life examples.

Figure 1: Improvement In Students' Response

- Percentage 1 Shows number of students who actively participated in the class
 Percentage 2 Shows number of students who responded correct to the oral questions
 Percentage 3 Shows number of students who asked questions
 Percentage 4 Shows number of students who made graphs correct independently
 Percentage 5 Shows number of students who used new examples for making graphs

In cycle 2 only 31% students actively responded while in cycle 5 this active participation reached to 88%. It shows gradual improvement in teaching learning process through real life examples.

In the beginning 25 % students responded correct while 94% students gave the correct response in cycle 5. Only 18% students asked questions in cycle 2, this ratio increased to 72% in cycle 5

In the beginning cycle 2 only 25% students could make independently correct graphs with given data, while in cycle 5. It improved to 88%.

Although the number of students who could create new examples other than book was very less but it also improved as the cycles repeated. There were only **12%** students in cycle **1** while it raised to **44%** in Cycle **5**.

Table 2 Number of Spontaneous Examples Used by Prospective Teacher.

No. of Cycle	Total No. of Spontaneous examples	No of Useful Examples	No Of Examples not Useful
Cycle 2	--	--	--
Cycle 3	2	1	1
Cycle 4	2	2	
Cycle 5	6	5	---

In Cycle 2 She delivered the lesson according to plan but she did not use any Spontaneous example during the lesson .In Cycle 3 and Cycle 4 she tried to some extent but only one was relevant. In Cycle 5 She used 6 spontaneous examples and 5 were relevant to the topic.

Table3 Teaching skills used by Prospective Teacher.

Teaching skill	Cycle 2	Cycle 3	Cycle 4	Cycle 5
Prospective teacher made eye contact.	Some times	often	always	always
Prospective teacher gave feedback	Some times	Some times	often	always
Prospective teacher encouraged questions	never	Some times	often	often
Prospective teacher made elaboration where needed	never	never	Some times	often

In the beginning she was not making eye contact frequently. Feedback was also some times and she also did not encouraged questions from students, she also failed to elaborate where needed. As the Cycles repeated, observed teaching skills refined. She always gave feedback and also made eye contact. She often made elaborations and also encouraged questions from students.

Analysis of Assessment made at the end of each Cycle

Table 4 Number of Correct Responses In continuous Assessments.

No. of Cycle	No. of Students	Perfect work	Good Work	Partially Correct Response	Partially incorrect Response	Fully incorrect Response
Cycle 2	16	2	2	4	3	5
Cycle 3	16	7	3	4	1	1
Cycle 4	17	10	4	1	2	00

Cycle 5 18 14 2 1 1 00

Results of formative assessments showed that after Cycle 2 only two students showed perfect work while five students showed fully incorrect work and other nine showed response in between. These incorrect responses gradually became almost reverse as the Cycle 5 completed. At the end of 5th cycle 14 students showed perfect response, two students showed good work and no one showed fully incorrect response.

Analysis of Summative Assessment at the end of Cycle1-5.

In response to descriptive question *why we make graph to Show Data?* Out of 18 students 9 students gave fully correct response, 6 students gave partially correct answer and only 3 students gave incorrect answer.

Table 5 True and False Statements

Statements	No. of Students	No. of true answers	% age	No. of false answers	% age
Graphs are made to explain data	18	15	83%	3	17%
In graph we need data of one variable	18	16	88%	2	12%
Graph always move from downward to upward	18	14	77%	4	23%
Graphs show quick picture of data	18	18	100%	0	0%
X-axis is on vertical direction	18	11	61%	7	39%
We can use graphs in subjects other than math	18	17	94%	1	6%

Range of true responses varied from 61% to 100% in all items. For majority of statements the true responses were above 80%.

Interview with fellow Prospective Teachers & Teacher Educators

Interview with fellow prospective teachers and senior teacher educators who observed the class indicated that: Teaching skills of prospective improved with practice and guidance. She learned to elaborate the lesson with examples familiar to students. PT became successful in creating interactive environment in the class. Students were actively involved through activities. Response and achievement of students amazingly improved.

Discussion

Cunningham(2008) and Julie,(2010) conducted an action research to improve learning and found that learning improves as a result of action research. Students' achievement in this study also showed same results. Findings of study are also closely in

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accordance with previous studies conducted by Bomar and Nebrask (2009) Fuchs, Fuchs, Finelli, Courey & Hamlett, (2004), concluded that understanding and achievement in mathematics improves when lessons are related to real life problem. Wedege (1999) also considered learning a social process. Kitchen & Stevens (2008) concluded that teaching practicum improved as a result of action research. This study also found that teaching skills of prospective teacher improved when she was provided guidance through an action research.

Action research is always conducted in real life situations so it is not possible to fully control the extraneous variables. There were some problems due to which the prospective teacher and I have to change our plans. Present study was conducted for only four weeks as more time was not available due to schedule of college so I have to limit my study to one small topic only. If more time could be available more improvement was possible in trainee's teaching skills.

When we talk about gap in theory and practice obviously it is due to absence of real life examples and relationship of learning with practical life skills in our teaching. When lesson is centered around everyday life examples it becomes part of cognition, knowledge is transformed and child can apply this knowledge in novel situations of real life. When teacher do not make relation between teaching and real life then knowledge is scattered in mind and remains in bits. These bits cannot become part of cognition. This is the reason that children memorize bulk of knowledge in exams but they forget it after certain period of time and only little knowledge is retained. In teacher training Institutes usually theory is emphasized and practice is ignored. In our examination system a big portion of assessment is related to theory, so students and teacher both ignore the practice component and result is poor practicum. If the practicum have to be improved it is very essential to revise the assessment system. Teaching of methods is usually taught theoretically in pre service training institutes and practice is included at the end of session. If the component of teaching and observation is started in the beginning of the session and model lessons are delivered according to National Professional Standards for Teachers, it is hoped that better teaching practicum may be resulted. In the present study there was amazing improvement in teaching practicum due to continuous feedback and guidance to the trainee from teachers and peers after delivering the lesson. Further action researches may be done in this area by focusing different components of National Professional Standards for Teachers

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