



**TO DEVELOP PROGRAMME ON PRACTICE TEACHING FOR  
ENRICHMENT OF PEDAGOGICAL CONTENT KNOWLEDGE OF  
STUDENT TEACHER AND FIND ITS EFFECTIVENESS**

**Dr. Shivaji B. Desai**

*Principal,*

*Sinhgad Technical Education Society's*

*Smt. Kashibai Navale College of Education & Training*

*(B.Ed.) Kusgaon (Bk), Lonavala Pune – 410401*

**Abstract :**

*Education plays a vital role in the development of any nation Education is at the confluence of powerful and rapidly shifting educational, technological and political forces that will shape the structure of educational systems across the globe for the remainder of century.*

*Teacher Education Institute, we have to adopt new innovative practices, methods and approaches to train the forthcoming teachers in the age of globalization and various new challenges. Therefore, we have to develop Innovative Research approach in Teacher Education for the better Education of the teacher trainee. The research purposed to test out the efficacy of pedagogical content knowledge among the student teacher on the assumption that Pedagogical content knowledge is used by the Teacher educators & teacher trainees for teaching practice lesson of Marathi, Hindi & English is beneficial for their achievement. Present study considers PCK training package for successful practice teaching of language.*

*This Research study focuses on the effect of pedagogical content knowledge on the teachers Students. The present research is done through Quasi- Experimental Design. The sample collected was student teachers from B.Ed. College. The tools for data collection used were Inventory, pre-test& post-test of the teacher trainees, objective type written test of 100 marks & some practice lessons are given to the students. After administering the program it's seen that Pedagogical content knowledge Programme helped the student teachers to clear their concepts in Marathi Hindi & English method. It also showed that student teachers motivation and performance was improved when instruction was adapted to student teachers learning preferences.*



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**Keyword** – Effectiveness, pedagogical content knowledge, teacher trainees.



Teacher is the backbone of any education system. Teacher help in shaping the society and training the students are Social Fabric which determines the life and values of any community or nation .Teacher Education is one of the most important sides on which the effectiveness of system of education is based .At present there are some challenges weaknesses in the field of Teacher Education Programme.

The new vision of education is curricular goals integrate content with process and affective outcomes and aim for development of autonomous, confident and capable individuals to change the view of teachers professional development .Today the need of motivating the teacher education for strength is arising .Teacher education is a soul of whole education process.Teacher education plays a vital role in maintaining the quality of Education. Education plays a vital role in the development of any nation Education is complete development of the child, so that he can make his original contribution to human life according to his best capacity ( Opines Nunn (1979).

The education system of a country is the bank on which the nation draws a cheque. If we want strong, reliable and skilled workers than we must overhaul and lubricate the next generation. Pedagogy is a relatively new set of ideas about the purpose and the process of teaching the phrase itself didn't appear within academic literature until about two decades ago. But its post proponents tried to violate the existing system calling for an antiestablishment revolution in the school and soon some changes were made in the educational systems which became more audacious later when conservatives reigned.

Educational attainment of the children depends to a large extent on the quality of the teacher. Teacher is the backbone of the society .He actively shares the responsibility for reconstructing a social order, the values and traditional belief .Tomorrow nation will depend upon the type of citizens trained & quality of education. Present study considers PCK training package for successful practice teaching of language.

### **Objectives of the Study**

1. To study pedagogy content knowledge of the teacher trainees having Marathi, English& Hindi methods for practice teaching.
2. To implement the PCK programme on practice teaching for the teacher trainees having Marathi, English & Hindi methods.
3. To study the effectiveness on PCK programme of practice teaching on achievement of the teacher trainees.

### **Null Hypothesis**

1. There will be no significant difference in the achievement scores of the teacher trainees in practice teaching after implementation of the programme.

### **Research Hypothesis**

There will be significant difference in the achievement scores of the teacher trainees in teaching practice after implementation of PCK

### **Need & important of the Research**

1. This research is very necessary to develop the content knowledge of the teacher trainees.



2. Teacher trainees couldn't explain new concepts while teaching lessons in the school. So this research will help them to clear their concepts & to write the lesson note conduct the lesson effectively.
3. This research is important for the teacher trainees to make the teaching learning process effective. "In Shulman's view, pedagogical content knowledge is a form of practical knowledge that is used by teachers to guide their actions in highly contextualized classroom settings. This form of practical knowledge entails, among other things:
  - (a) Knowledge of how to structure and represent academic content for direct teaching to students;
  - (b) Knowledge of the common conceptions, misconceptions, and difficulties that students encounter when learning particular content; and
  - (c) knowledge of the specific teaching strategies that can be used to address students' learning needs in particular classroom circumstances.

In the view of Shulman (and others), pedagogical content knowledge builds on other forms of professional knowledge, and is therefore a critical—and perhaps even the paramount—constitutive element in the knowledge base of teaching (Rowan et al., 2001. p. 2)."

Present study considers pedagogical content knowledge training package for successful practice teaching of Marathi Hindi & English methods.

### **How PCK is Developed**

1. Pedagogical content knowledge is deeply rooted in a teacher's everyday work. However, it is not opposite to theoretical knowledge. It encompasses both theory learned during teacher preparation as well as experiences gained from ongoing schooling activities.
2. pedagogical content knowledge is influenced by factors related to the teacher's personal background and by the context in which he or she works.
3. Pedagogical content knowledge is deeply rooted in the experiences and assets of students, their families and communities

### **Pedagogical Content Knowledge**

The concept of pedagogical content knowledge is not new. The term gained renewed emphasis with Lee Shulman (1986), a teacher education researcher who was interested in expanding and improving knowledge on teaching and teacher preparation that, in his view, ignored questions dealing with the content of the lessons taught. He argued that developing general pedagogical skills was insufficient for preparing content teachers as was education that stressed only content knowledge. In his view, the key to distinguishing the knowledge base of teaching rested at the intersection of content and pedagogy (Shulman 1986)

Shulman defined pedagogical content knowledge as teachers' interpretations and transformations of subject-matter knowledge in the context of facilitating student learning. He further proposed several key elements of pedagogical content knowledge:



- (1) knowledge of representations of subject matter (content knowledge); (2) understanding of students' conceptions of the subject and the learning and teaching implications that were associated with the specific subject matter; and (3) general pedagogical knowledge (or teaching strategies). To complete what he called the knowledge base for teaching, he included other elements: (4) curriculum knowledge; (5) knowledge of educational contexts; and (6) knowledge of the purposes of education (Shulman, 1987).

To this conception of pedagogical content knowledge, others have contributed valuable insights on the importance and relevance of the linguistic and cultural characteristics of a diverse student population.

### Statement of the problem

To develop programme on Practice Teaching for Enrichment of Pedagogical Content Knowledge of Student Teacher and find it's Effectiveness.

### Operational Definitions

#### 1. Academic achievement

Conceptual Definition

Conceptual definition "Academic achievement can be defined as excellence in all academic disciplines ,in class as well as excellence in sporting ,behavior, confidence ,communication skill, punctuality assertiveness ,Arts, culture" ( Hornbay A.S.,2000)

**In this research**-Academic achievement is the scores achieved by the student teacher in content based test & practice teaching.

#### 2. Effectiveness-

Conceptual Definition-

Producing result that is wanted or invented, producing a successful result (Hornbay A.S 2000)

**In this research** - Effectiveness means a change seen in the achievement scores of student teachers in content test practice teaching the PCK program.

#### 3.Pedagogical content knowledge

Conceptual Definition-

Pedagogical knowledge means the "how" of teaching, generally acquired through education coursework and personal experiences. Content knowledge, on the other hand, is the "what" of teaching. It is different from the knowledge of a disciplinary expert and from general pedagogical knowledge.

**In this research** A programme including content knowledge, general pedagogical knowledge, pedagogical content knowledge & curricular knowledge.

### Assumption of the study

Pedagogical content knowledge is used by the Teacher educators & teacher trainees for teaching practice lesson of Marathi Hindi & English.

### Scope of the Study-

1. This research includes one B.Ed College of Lonavala city.



2. This research includes B.Ed teacher trainees.
3. This Research includes Boys and Girls.
4. This Research study focuses on the effect of pedagogical content knowledge on the teachers Students.

#### Delimitation of the Study-

1. This research will be delimited for Marathi, Hindi and English medium.
2. This research study is related to pedagogical content knowledge Programme.
3. This research will be delimited for one B.Ed College of Lonavala City.
4. Co-education B.Ed College will be taken into consideration
5. This research study is delimited for the subject Marathi,Hindi & English education only.

#### Limitations of the Study-

1. There is no control of any kind on the variables such as Family,Social, Financial of the Student teacher, some problem may occur in the academic achievement through pedagogical content knowledge Programme.
2. The Program will focus on the academic achievement of the teacher trainees in teaching practice of Marathi Hindi & English through pedagogical content knowledge Programme.

#### Population

All co- Education B.Ed. colleges in Pune District formed as population of the research study. All B.Ed. Students teachers enrolled in are assumed as population.

#### Sample

Researcher has selected purposive sample from Non –probability based sampling method. Purposive sample was selected for study for Experimental 70 students (Marathi Hindi &English Method) of B.Ed. college of SKNCOET (B.Ed) Lonavala.

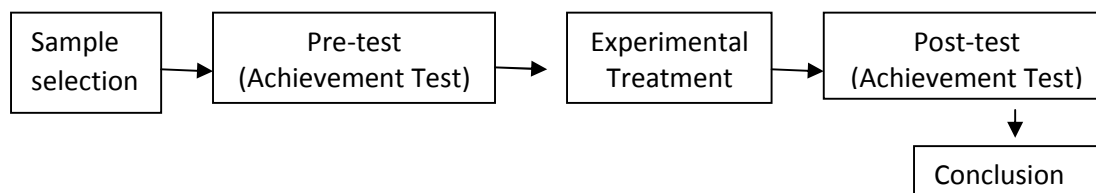
**Tools.**In present research work data is collected by using are pre-test, post-test.

#### Research methodology

The present research is done through a Quasi-Experimental Design

#### Design of the Research

Single group pre- test & post-test design.



#### Preparation of Achievement test:

Achievement test have been constructed to measure the present performance in relation to a skill or knowledge, which has been acquired as result of training. They are designed to measure to individual quality of learning in a particular school subject or course study at end of the instruction.



Achievement test can be defined as “A systematic procedure for determining the amount a student’s has learned through instruction.” To test the effectiveness the researcher prepared an achievement test of 100 marks .Savitribai Phule Pune University level format was used to prepare the test .

#### **Preparation of program:**

The researcher has given the student teachers an inventory to detect the learning of the student. After giving the inventory the researcher identified the learning of the student. The researcher found that most of the student were using various references, online self learning, WebBrowsing, power point presentation.

#### **Administration of program:**

The program was implemented during the compulsory lectures allotted in the timetable .The researcher took 10 sessions with includes PPT, E-learning & some demo lesson to administer the programme.

#### **Data Collection –**

Researcher has collected the data by taking pre-test & post-test of the teacher trainees .Objective type written test of 100 marks & some practice lessons are given to the students. Afterwards papers were checked & marks were given.

#### **Data Analysis & Interpretation**

The data collection during the pre-test & post-test were analyzed by using the “t” test Graphical presentation was done with the help of line & bar graph. On the basis of result of analysis of the data, hypothesis was tested & conclusions were drawn.

#### **Observation**

In the pre-test no any student teacher got more than 47 marks .There were 13 students who got 35-47 marks. In the post-test 35 students of experimental group got 75-98 marks. In comparison with the student teachers of control group student teachers of experimental group got more marks in the post-test.

#### **Interpretation**

There is a great improvement in student teachers of experimental group in the achievement level of the scores of post-test as compare to the pre-test. So we can say that our program was successful.

#### **Testing of Hypothesis**

**Null Hypothesis** –There will be no significant difference in the achievement scores of the teacher trainees in practice teaching after implementation of the programme

Test	N	Mean	S.D	“t” value
Pre-test	40	50.95	14.37	8.26
Post-test	40	77.05	13.87	

From the above it is seen that the obtained “t’ value is 8.26 which was greater than “t” table value 2.76,so the effectiveness of the pedagogical content knowledge Programme is significant at 0.01 level .It



means that there is a significant difference in the scores of teachers students of pre-test & post-test after implementation of the PCK programme. Hence the stated hypothesis no-1 is rejected.

### FINDINGS & CONCLUSIONS.

1. The program developed by the researcher was effective for teaching practice of Marathi English and Hindi through PCK for teacher trainees.
2. The teacher trainees of Experimental group demonstrated a significant progress than the control group.
3. The teacher trainees of Experimental group have shown greater improvement in teacher practice through PCK.
4. The pedagogical content knowledge Programme in teaching practice of Marathi Hindi & English was fruitful.
5. The achievement scores of each every B.Ed. student teacher in teaching practice of Hindi & English were increased after the implementation pedagogical content knowledge Programme.
6. Pedagogical content knowledge Programme helped the student teachers to clear their concepts in Marathi Hindi & English method.
7. The achievement level of B.Ed. student teachers was increased & they got very good marks in the post test. (content based test & practice teaching)
8. It also showed that student teachers motivation and performance was improved when instruction was adapted to student teachers learning preferences.

### Suggestions for further study

1. In the present study, single group pre-test & post test design was used to study the Effectiveness. Control group may be used to compare the effectiveness of program with regular teaching.
2. The entire syllabus can be planned and its effectiveness studied over a longer period.
3. In the present research the researcher has basically relied on the PCK. Different models of teaching can be taken into consideration and its effectiveness can be verified.
4. A study on Effect of PCK on student teachers and finding its effectiveness D.T.Ed. & M.Ed. level.

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