



“A Study Of The Development And Utility Of Rubrics For measuring The Learning Outcomes Of Student Teachers”

Dr. Bhagwat Vasant Bhad

Associate Professor

S.N.D College of Education, Babhulagon

1. Introduction

The process of imparting knowledge and acquiring knowledge has been going on since ancient times. As other sectors have developed, the education sector has also developed. There have been changes in the study and teaching process. Teaching is considered an art as well as a science. Whether teaching is an art or a science, its systematic study is mandatory. It requires thorough training.

A student becomes a teacher through a teacher training course. Today's student teacher is going to act as future teacher. The way he acquires knowledge and skills today. Accordingly, he teaches tomorrow as a teacher. The main objective of the teacher training course is to bring about a qualitative change in the student teachers. With the explosion of knowledge, education and training are also undergoing drastic changes.

The National Teacher Education Council has implemented a new curriculum in India from the academic year 2015. According to the new goal, the expectation is to create a perfect teacher in the 21st century. Accordingly, the curriculum was innovated in various universities in view of overall development. Along with the new curriculum, new techniques, new study and teaching methods were included in it. Along with this, various evaluation tools were included to measure the results of the study, whether the objectives are achieved or not.

But no holistic tool is used to measure cognitive, emotional and functional development. Different measuring tools are used for each part. And since only skills are measured, it was felt that creating a rubric for measuring the final behavior of teacher education would make it easier to measure behavior holistically.

The concept of rubrics is so new. For that, the researcher has not found its Marathi meaning till now. "Rubrics" in English were used in Marathi. This concept is included in the syllabus of Savitribai Phule Pune University's B.Ed Course No. 104 "Assessment and Evaluation for Studies". But the researcher did not get the information about it in any reference book. The researcher has chosen the presented research topic for

research with the thought that the study of student teachers can be done with the evaluation tool of learning outcomes of Rubrics.

2. Title of the Problem

“A study of the development and utility of rubrics for measuring the Learning outcomes of student teachers”

3. Statement of the Problem

Developing and Validating the Usability of Rubrics for Measuring Learning outcomes of Student Teachers in a College of Education.

4. Operational Definitions

1. Learning outcome -

Findings from rubrics for measuring student teachers' academic performance.

2. Student Teacher

Students admitted for B.Ed degree in Savitribai Phule Pune University Affiliated College in Nashik District.

3. Measurement

Analyzing the findings of rubrics for measuring student teachers' learning outcomes is a measure of specificity.

4. Rubric

Rubrics are a grading guide used by student teachers to assess the quality of feedback given in context of learning outcomes.

5. Usability

Applicability means verifying the achievement of teacher training program objectives through rubrics developed for measuring student teachers' learning outcomes.

6. Development

In the present research, the creation of rubrics for measuring the academic performance of student teachers is development.

5. Objectives of the Research

1. Analyzing the teacher training curriculum in terms of learning outcomes.
2. Developing rubrics for measuring the learning outcomes of student teachers.
3. To verify the utility of rubrics for measuring student teachers' learning outcomes.

6. Assumptions

1. Various assessment tools are used to measure the learning outcomes of student teachers.
2. Student teachers' learning outcomes is measured in small areas rather than as a whole.
3. It is possible to measure the learning outcomes of student teachers with the help of rubrics.
4. Rubrics can be developed to measure learning outcomes from teacher training courses.

7. Importance of the Research

In the present research, rubrics will be created and implemented to measure the academic performance of student teachers in the College of Education and the usefulness of the rubrics can be checked.

The presented research is useful in terms of student teachers, teachers and education process.

For Student teacher

1. Student teachers will be aware of their own strengths, limitations, abilities.
2. Student teachers will receive reimbursement for progress in relation to their study results.
3. Student teachers will be able to discover their ability, knowledge, level of understanding.
4. Students can be motivated by reviewing their understanding.
5. Student teachers will be guided to develop their various ideas and skills, written verbal or otherwise.
6. The overall graph of the final behavior will be understood by the student teacher.
7. Learning outcomes can be measured in all three areas namely cognitive, affective and action skills.

For teacher

1. Learning and teaching process can be facilitated based on the needs and knowledge of the students.
2. Reimbursement for studies can be made by identifying the misconceptions of the students.
3. Adequate improvements can be made by determining the effectiveness of the study.
4. Understanding the final behavior of the student teachers will enable the student teachers to be properly guided.

For learning process

1. Based on rubrics, both teachers and students will benefit from achieving excellence in response and grading student achievement.
2. Rubrics will help balance the learning and teaching process.
3. Rubrics will emphasize the importance of the learning process. It will help to understand the level of achievement rather than just numerical marks.
4. Responsibilities expected from the teacher can be determined from his profession.
5. To what level, stage, level of achievement students have progressed, it will be possible to check the level of predetermined expectations set in the rubrics.
6. This will emphasize the importance of quality by reducing the importance of marks in education.

8. Hypothesis

• Research Hypothesis

A significant difference is found between the student teachers' traditional measurement method and the developed rubrics.

• Null Hypothesis

No significant difference was found between the student teachers' academic achievement measured using the traditional measurement method and the developed rubrics.

9. Scope, Limitations & Delimitations

• Scope

1. The present research is related to all colleges of education in Maharashtra.
2. The educational scope of the present research is concerned with measuring student teachers' learning outcomes.

• Limitations

1. The findings of the present research are based on the analysis of the responses to the rubrics given by the student teachers.
2. In the present research, only Marathi medium colleges of education have been considered.

• Delimitations

1. The present research pertains only to the student teachers in the College of Education during the academic year **2019-2021**.
2. In the present research, only two colleges affiliated to Savitribai Phule, Pune University of Nashik district have been selected.
3. The present research is limited to the component of measuring the learning outcomes of student teachers.

10. Review of Related Literature & Research

Research Literature Type	Book	Journals	News Paper	Handbook
Quantity	09	03	01	02

Level	Research Paper	M.Phil. Research	Ph.D. Research
Quantity	50	02	03

11. Research Methodology

According to the objective of the research, **multi research method** has been used for the present research.

12. Research Design

The present research used a one group pretest post-test design

13. Data collection Tools

In the present research, for the continuity of the objective number three and also to measure the academic performance of the student teachers, the Rubrics developed for the first year course no.101 to 107 and the second year course no.201 to 205 have been used.

14. Statistical Tool

The following statistical measures have been used for data analysis in the research.

- Mean
- Standard deviation
- T Test
- Graphical presentation

15. Population, Sample and Sampling method

- Population

For the present research, all the student teachers of the college of education affiliated to Savitribai Phule Pune University have been included in the population.

- **Sample and Sampling method**

In the present research, for objective No.3, the sample is selected by lottery method using probability based simple random sampling method.

A total one hundred student teachers and 15 assistant professors have been included as a sample in the present research.

16. Variables

In the present research, the researcher has presented the following points.

- **Independent Variables**

Researcher-developed rubrics for measuring student teachers' Learning outcome.

- **Dependent Variables**

Responses by student teachers through an evaluation tool developed rubrics for measuring learning outcomes

17. Results of research

Validating the utility of Rubrics for measuring student teachers' learning outcomes.

Null Hypothesis

No significant difference is found between student teachers' academic achievement measured using the traditional measurement method and developed rubrics.

Group	sample	Mean	SD	Correlation	T value	D. of F.	T table Value	Significance Level (0.01)
control	100	57.08	8.11	0.87	18.94	99	2.63	research hypothesis is accepted
experimental	100	63.90	10.06					

Analysis

The mean score of student teachers in the control and experimental groups is 18.94. The tabulated value is 2.63 at the 0.01 significance level for the degrees of freedom 99. The obtained value of 10.94 is significant as it is greater than the table key value of 2.63. Therefore, at 0.01 level of significance, the null hypothesis remains the same and the research hypothesis is accepted.

Interpretation

A meaningful difference is found between the student teacher's learning outcome measured using the traditional measurement method and the developed rubrics.

18. Educational contribution of research

1. The said handbook will be useful for the evaluation of the faculty and students of the College of Education.
2. The utility and contribution of rubrics among various assessment tools will be illustrated because learning outcomes are predetermined in Rubrics, student teachers are given direction on what to learn?
3. Teachers are also comfortable teaching according to learning outcomes
4. Various colleges of education can use these handbooks for evaluation of various subjects
5. It will help the students to fill in the gaps as they get an idea of their progress.
6. Since the structure of the objective and study result is fixed in front of the students, parents and teachers, there will be no obstacles in the study and teaching process and the study will be of a good quality.

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