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## Research Article

### Exploring Pre-Service Teachers' Knowledge and Perceptions of Classroom Assessment: A Pathway to Enhanced Pedagogy

Cleo Jude A. Joaquin\*

College of Education, Capiz State University, 5800, Philippines

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#### \*Corresponding author:

E-mail:

[cjajoaquin@capsu.edu.ph](mailto:cjajoaquin@capsu.edu.ph)

#### ABSTRACT

This present study investigates the extent to which pre-service teachers understand classroom assessment and their conceptions of its effects on student learning and improvement of instruction. In the survey response of 106 pre-service teachers, the knowledge in assessment procedures was strongly positive. However, there is room for development in areas such as planning for varied learners, data interpretation, and feedback (average mean = 3.74).

The mean score of 4.00 reveals that pre-service teachers consider assessment important for identifying students' strengths, and fine-tuning education, but targeted training in real skills is recommendable for delivering assessment effectively at an educational institution.

**Keywords:** Pre-Service Teacher, Assessment, Knowledge, Perceptions

## Introduction

Class assessment is an essential mechanism in the whole process of writing, teaching, and learning. Not only is the recording of the student's behavior, but it is also a part of the teaching process wherein feedback is given, and students' learning is improved. Thus, preservice teachers wanting to become future educators must understand the assessments if they are to start the process of changing student outcomes for the better.

However, studies have indicated that pre-service teachers need better knowledge of practical classroom assessment, and their perception of practice is also inadequate, leaving a gap in their skills in using those practices when joining the teaching profession. A teacher needs to know his individual students ability

and classroom assessment helps teachers to confirm what students already know and what they need to learn (Willam, 2011).

According to William and Thompson (2008) assessment system in the classroom is one form of formative assessment. The nature of classroom assessment defines what is valued and what students are learning clearly, what is assessed and how it is assessed. Clark (2012) strongly argued that substantial learning gains are possible if teachers use classroom assessment in formative manner. According to the curriculum the classroom assessment must be formative and the purpose of this assessment is to support students' learning and improve the quality of learning (National Secondary Education Curriculum, 2012). Additionally, Blasé

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(2020) argues that assessment literacy is essential in this era where important decisions about students, educators, and educational systems are being made based on collected student data. It is critical to understand the appropriate roles that student assessment can play in determining levels of student achievement and educational accomplishment, as well as in guiding improved learning

Thus, this research aims to determine the factual knowledge of the preservice teachers on classroom assessment and their perceptions of it. This is a crucial step in identifying the current preparedness for evaluation and how the teacher education programs view it. Suppose future teachers need a better understanding of how students learn. In that case, they might not be able to successfully manage activities that use facial expressions and body language to show how much students understand and how open they are. Because of this, they might not fully understand how and why classroom assessment is essential for teachers.

Thus, in pursuing these areas, this study seeks to identify significant concerns and future potential in preparing preservice teachers for practical classroom assessment. Finally, the study will give a 'snapshot' of where the field is heading' and thus highlight ways of enhancing practice and practice-based learning to expand and enhance the knowledge related to the development and preparation of teachers for the future. This endeavor aligns with the new trends in the social construction of teachers as global competitive instructors equipped to foster innovations, learn in response to students' diversity, and improve assessment for learning.

## Methods

### *Research Design*

This study employed a descriptive quantitative research design, which aimed to quantify pre-service teachers' knowledge and perceptions of classroom assessment. The descriptive nature of the study allowed the researcher to gather and analyze numerical data that reflected trends, frequencies, and patterns related to pre-service teachers' assessment knowledge and their attitudes toward its implementation in the classroom.

### *Participants*

The participants consisted of pre-service teachers enrolled in a teacher education program at Capiz State University-Main Campus Roxas City. A sample size of 106 participants was targeted to ensure adequate representation and statistical power. Participants were selected using a stratified random sampling technique to account for different specializations.

### *Data Collection Instrument*

**Knowledge of Classroom Assessment:** This part included Likert-type measures intended to assess pre-service teachers' comprehension of fundamental concepts, functions, and methods of classroom assessment (e.g., formative vs. summative assessments, rubrics, feedback, and self-assessment).

**Perceptions of Classroom Assessment:** This section employed items that were anchored on scales, ranging from strongly agree to strongly disagree, to gauge the attitudes, beliefs, and confidence of pre-service teachers towards using classroom assessments. It included, but was not limited to, the perception of the need to undertake assessment as part of the instruction, the difficulties of carrying out such assessment, and student assessment as a means of improving students' performance.

The questionnaire was reviewed by assessment experts and education professionals to ensure that it covered all relevant aspects of classroom assessment knowledge and perceptions. The survey was pilot tested on a small group of pre-service teachers to ensure clarity and to refine any ambiguous questions. Cronbach's Alpha was used to assess the internal consistency of the Likert-scale items, ensuring the reliability of the questionnaire.

### *Data Collection Procedure and Analysis:*

Assessment experts and education professionals reviewed the questionnaire to ensure that it covered all relevant aspects of classroom assessment knowledge and perceptions. The survey was pilot-tested on a small group of pre-service teachers to clarify and refine ambiguous questions. Cronbach's Alpha was used to assess the internal consistency of the Likert-scale items, ensuring the reliability of the

questionnaire. Frequencies, percentages and means were used to summarize the data related to the participants' knowledge and perceptions of classroom assessment.

### **Ethical Considerations**

Ethical issues were considered in this research, especially in obtaining informed consent and confidentiality. We informed the students who volunteered that they could withdraw from the study without facing any penalties. We sought informed consent by distributing forms and providing a briefing on the study's purpose, risks, and benefits before the actual data gathering. Participants under the age of 18 had to obtain parental consent. We removed the identifying information of all student samples and kept them in a locked filing cabinet, accessible only to authorized study team members, to ensure the privacy of student records. On the other hand, we reported the study's results in aggregate form to safeguard the confidentiality of the patients. The ethics committee preceded the study and adhered to the specified ethical principles.

### **Result and Discussion:**

The study involved a total of 106 pre-service teachers. Analysis of the demographic data indicated that 80.2% of the respondents were female, while 19.8% were male. Most participants (34%) were Filipino Bachelor of Secondary Education (BSED) majors involved in field research in public schools. 40.6% of these participants were located in metropolitan regions. The field study lasted for two semesters, providing participants with a diverse array of activities, all focused on classroom evaluation. The analysis of the data revealed that there were also significant differences based on sex, location, and level of training. Constant support from female pre-service teachers improved assessment knowledge ( $M = 3.8$ ) compared to males ( $M = 3.52$ ). When evaluating students' perceptions of the impact of assessments on the teaching methods, we noticed a similar trend: males scored marginally lower than females, with females scoring  $M = 3.89$ , males scoring  $M = 3.70$ , and  $d = 0.5$ . Pre-service teachers who engaged in 1-2 training sessions, such as assessment workshops, achieved the highest

average scores among all groups in general assessment knowledge ( $M = 3.85$ ), as well as their perceptions of the impact of assessments on teaching ( $M = 3.96$ ). This implies that moderately focused training in this area of emphasis may be the most conducive to nurturing the pre-service teachers in the use of classroom assessment techniques and strategies.

### **Knowledge of pre-service teachers in classroom assessment methods and strategies**

Our study presents the minimum degree of knowledge that pre-service teacher candidates need for classroom assessment. This level encompasses the ability to locate objects and a comprehensive understanding of one or more components of the assessment procedures. The absence of intermediate scores suggests that the team members possess a high level of familiarity and preparedness for successfully implementing classroom assessment processes, as seen by an average mean score of 3.74.

Pre-service teachers demonstrate a notable degree of confidence in their comprehension of various assessment methods, such as portfolios, peer evaluation, and self-assessment, as evidenced by their highest score of 3.90. Furthermore, they demonstrate proficiency in developing computer-based evaluations that correspond to educational goals (mean = 3.84) and distinguishing between formative and summative evaluations (mean = 3.82).

Although the respondents achieved excellent scores in terms of their knowledge of all assessment methods and their intention to use them to enhance student learning (means = 3.81 and 3.79, respectively), the lower ratings indicate the presence of additional areas for growth. These studies include coming up with test designs for different types of students (mean = 3.64), using past data to plan future lessons (mean = 3.58), and giving useful advice (mean = 3.57), all of which are areas where future teachers-to-be don't have a strong professional stance. Due to their insufficient teaching experience, pre-service teachers find it challenging to develop assessments that are fair to all students' needs. Similarly, pre-service teachers struggle with lesson planning, primarily due to their limited understanding of how to interpret and utilize student performance.

Even when suggesting constructive ideas, there is a lack of confidence because theoretical exposure is insufficient to solve practical teaching problems. These aspects emphasize the importance of continued practical development and support in order for them to feel professionally equipped.

The research findings unequivocally demonstrate the importance of classroom assessments, irrespective of their design, in promoting learning and teaching, as indicated by an average mean score of 4.00. Pre-service instructors highly value the fundamental understanding of teacher-student assessments, since they enable the diagnosis of student abilities up to a maximum rating of 4.10.

Moreover, pre-service teachers agree that purposeful assessment of students within the classroom enhances their learning outcomes and evaluates the quality of instruction, both with a score of 4.08. This exemplifies a strong understanding of how assessments may support teaching and learning by guiding the adjustments that prioritize learners' interests.

The observed trend indicates a general recognition of the value of evaluations in monitoring students' progress, as compared to the previous assessment (mean = 4.01) or other characteristics such as the students' level of understanding (mean = 3.98). A mean score of 3.97 indicates that pre-service instructors believe that evaluation feedback motivates learners and equips them for future difficulties.

Pre-service teachers recognize formative evaluations as essential components to ensure all students receive differentiated instruction (mean = 3.96) and to adapt their teaching and learning methods based on the assessment outcomes (mean = 3.94). The aforementioned findings suggest that evaluations play a crucial role not only in evaluating students' performance but also in implementing effective strategies to meet students' objectives.

On the whole, the results indicate that pre-service teachers comprehend the significance of assessments in enhancing the effectiveness of both students and teacher.

## **Conclusion**

Certainly, the survey responses highlight the conception held by pre-service teachers of

classroom evaluations as a tool to inform student learning and instructional development. They acknowledge that besides identifying students' strengths and weaknesses, assessments are also instrumental in driving better learning outcomes and assessing the effectiveness of the curriculum. The high value that pre-service teachers placed on assessments' work in monitoring student progress, differentiating instruction, and providing feedback suggests that they view assessment as essential to both student success and teaching excellence.

Still, though validated confidence in the integrity of an assessment was high, there remain several areas for further development; these included designing usable assessment questions/items for different types of learners, interpreting the data provided by those items/questions and providing a response tailored to that level. Pre-service teachers are prepared to perform effectively when they enter classroom environments by specifically addressing these areas within teacher education programs. In sum, the results suggest a strong foundation in assessment literacy, but there are also areas for growth (e.g., practical classroom application and data-driven instruction) that can be further informed by additional data during implementation.

Lastly, the findings point to a need to further train pre-service teachers about creating assessment tasks that support varied learning styles. These workshops on alternative assessments (portfolios, peer assessments, and self-assessments, for example) will assist them in honing their assessment skills. The workshops will emphasize professional development in data analysis and the provision of effective feedback. Pre-service teachers need to experience transcoding the assessment data and modifying their teaching in response to these results. Practice formative and summative assessments through case studies and classroom simulations. The hands-on approach to creating these types of assessments based on learning objectives will enable pre-service teachers to make better-informed decisions about student performance. Initiate mentorship programs in which knowledgeable educators instruct pre-service teachers on unique assessment methods. Include reflective activities for

them to look over their own assessment and sort of test themselves.

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