



## ASSESSMENT SKILLS OF PRE-SERVICE TEACHERS: BASIS FOR THE DEVELOPMENT OF AN ASSESSMENT SKILLS DEVELOPMENT GUIDE

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### ABSTRACT

This study assessed the self-reported assessment skills of the pre-service teachers of BatStateU ARASOF-Nasugbu in the Academic Year 2021-2022. Specifically, the study aimed to explain the sex-disaggregated perception of pre-service teachers on their assessment skills in terms of six constructs; the commonly used assessment tools and methods by teachers and the perception of the assessment tools and methods relevant to the development of their assessment skills; challenges in developing assessment skills; and the assessment skills development guide for pre-service teachers that can be developed. The study utilized the mixed methods design with a borrowed survey questionnaire and self-made interviews as the data-gathering instruments. The respondents were 382 students from the six programs of the College of Teacher Education (CTE).

The study's findings revealed that both male and female pre-service teachers are highly competent in grading and assessment ethics; however, both groups of respondents are moderately competent in constructing assessments, administering assessments, performance assessments, and communicating assessment results with others. It also revealed that a combination of traditional and alternative assessment tools and methods are commonly used by teachers and are somewhat liked by the respondents. The pre-service teachers acknowledged that their teachers' assessment tools and methods effectively develop their assessment skills. Most respondents encountered personal, academic, and technical challenges when dealing with the development of assessment skills. Considering these, an assessment skills development guide for pre-service teachers was developed.

**Keywords:** *assessment skills, assessment tools, assessment methods, disaggregated, guide*

### 1. INTRODUCTION

Teacher education programs have always included evaluations of student progress and learning. In order to significantly increase the number of qualified, competent, and committed teachers, knowledge and skills are incorporated into training. (Ismail and Jarrah, 2019). Pedagogical content knowledge is one component of teaching expertise that deals with what the teachers know on how to teach (pedagogical knowledge) and their understanding of the subject matter they teach (subject matter knowledge).

As a result, one of the most essential but complex responsibilities of both pre-service and in-service educators is learning to assess. To demonstrate thorough and significant pedagogical content knowledge (PCK) when it comes to assessment, CHED Memorandum Order No. 74, series of 2017, prescribed the courses in Assessment in Learning 1 and 2 in the program's curriculum that focuses on the fundamentals, development, and application of traditional assessment instruments as well as other types of assessment to help improve the teaching-learning process.

In the context of assessment literacy by Xu and Brown (2016), the authors noted that assessment literacy encompasses assessment skills that refer to the individual's skills and competence in distinguishing between appropriate and inappropriate assessment methods. Assessment literacy which includes assessment skills is believed to be vital in the country's current educational system due to the new curriculum for K to 12 implemented in 2013 and the assessment reform that started in 2015 (Plata et al., 2018). The recent changes have increased pressure on teacher education institutions to develop aspiring teachers who are skilled in assessment in order to prepare future generations of teachers who will have sufficient knowledge of assessment and who will be able to apply assessment in a thoughtful manner in a classroom setting in the 21st century.

To maximize possibilities for developing assessment-skilled teachers, most institutions like BatStateU-ARASOF Nasugbu provide assessment courses to teach best practices in classroom assessment on undergraduate levels. Pre-service teachers had the opportunity to develop their assessment skills and views. This can have long-term consequences for pre-service teachers,



affecting their cognition, that is to say, what they believe, and think, and are known as qualified teachers.

However, several studies have found that pre-service and even in-service instructors lack basic assessment skills (Coombs et al., 2018; De Luca & Klinger, 2010; Odo, 2016; & Volante & Beckett, 2011). In a study conducted by Beziat and Coleman (2015), the authors found out that pre-service teachers still lack assessment skills despite being enrolled and having completed courses and training on classroom assessment. In addition, despite the recent research discoveries, De Luca (2012) said that information is scarce to strengthen instructors' assessment skills effectively and efficiently.

The researchers believe that it was just correctly essential to focus our attention on the field of assessment since it is one of the components of teaching alongside curriculum and instruction. Since they are all related in some way, pre-service teachers must possess strength and knowledge in assessment. The assessment abilities of BatStateU ARASOF-Nasugbu pre-service teachers were thus the focus of this study. The study aimed to explain the profile disaggregated perception of students on the six areas of assessment skills. Likewise, this aimed to determine the assessment tools and methods commonly used by teachers and their relevance to developing their assessment skills.

## 2. OBJECTIVES

The goal of this study was to evaluate the pre-service teachers' proficiency in assessment for the Academic Year 2021–2022. It discussed the assessment skills of the prospective teachers both in elementary and secondary education, considering their sex in terms of constructing assessments, administering assessments, performance assessment, grading, communicating assessment results with others, and assessment ethics.

In addition, the assessment tools and methods commonly used by teachers were identified too. Likewise, the study determined the respondents' perception of the assessment tools and methods relevant to the development of their assessment skills. Hence, it explained the challenges encountered by the respondents when they are developing their assessment skills. These served as the basis for the end view of proposing an assessment skills development guide.

## 3. MATERIALS AND METHODS

The study applied a mixed-methods research approach, which combines quantitative and qualitative techniques in the same research inquiry.

Quantitative research design measures and collects numerical data to generalize results, while qualitative design describes and interprets the perception of individuals on the phenomena being studied. Therefore, in a mixed-methods study, the strengths of each approach are employed to solve a given problem (Spillson, 2018).

### 3.1 Research Environment

The study was carried out by researchers at Batangas State University-ARASOF Nasugbu in R. Martinez St., Brgy. Bucana, Nasugbu, Batangas. It is one of the Batangas State University's satellite campuses located in District I in the province of Batangas. This school was chosen as the researchers were enrolled in its College of Teacher Education.

On September 11, 1997, the Commission on Higher Education issued Order No. 46, s. 1997, which led to the establishment of the College of Teacher Education (CTE) at BatStateU-ARASOF Nasugbu. The university is dedicated to developing competent, well-rounded teachers who can compete in the field and who have the technical, pedagogical, and research abilities to promote lifelong learning and act as agents of constructive social change. The said college or department offered the Bachelor of Elementary Education (BEEd) Program, the Bachelor of Secondary Education (BSEd) Program majors in English, Mathematics, Sciences, Social Science, and Filipino, and the Bachelor of Physical Education (BPEd) Program.

Because it is much easier to access and more convenient for the researchers to gather the necessary data following the desired information for the study, the aforementioned institution was the one the researchers decided to use for their investigation.

### 3.2 Participants of the Study

Out of 895 aspiring teachers at BatStateU-ARASOF Nasugbu for the Academic Year 2021–2022, 382 students - representing the first through fourth years of their studies - participated in this study. The respondents were from the six programs of the CTE, including the BEEd Program, BSEd Program majors in English, Mathematics, Sciences, and Filipino, and the BPEd Program.

The students from different programs in CTE are the chosen respondents since the researchers believe that these respondents would give them the information and data they needed in this study. Furthermore, the chosen respondents have taken pedagogical content knowledge courses related to assessment. The study's respondents were chosen using a technique known as stratified random sampling. The number of respondents from



the six programs is divided into several exclusive groups using it. The number of respondents per program at each college was calculated using the formula  $(n/N) \times \text{stratum size}$ . The estimated sample size of respondents was calculated by the researchers using Cochran's Formula, with a margin of error of 0.06 and a confidence level of 99 percent.

**Distribution of Respondents According to Sex Profile**

SEX	Frequency	Percentage (%)
Male	74	19
Female	308	81
Total	<b>382</b>	<b>100</b>

As per the distribution of respondents according to sex profile, 74 or 19% of the respondents are male while 308 or 81% are female. This implies that most of the respondents are female out of 382 total respondents.

**Distribution of Respondents According to Program Profile**

PROGRAMS	Frequency	Percentage (%)
BEEEd	100	26
BPEd	17	4
BSEd-English	142	37
BSEd-Mathematics	53	14
BSEd-Sciences	53	14
BSEd-Filipino	17	4
Total	<b>382</b>	<b>100</b>

According to the breakdown of respondents by the programs or courses they are enrolled in for the present Academic Year 2021–2022, 100 or 26% of the respondents are from BEEEd. Both BPEd and BSEd-Filipino have 17 or 4% of the total respondents. There are 142 or 37% of the respondents who belong to BSEd-English. Lastly, there are 53 or 14% of the total respondents belong to BSEd-Mathematics and BSEd-Sciences.

**3.3 Data Gathering Instruments**

In this study, two kinds of data-gathering instruments were used. The researchers utilized an adapted survey questionnaire and interview protocol.

**Questionnaire.** The study utilized survey questionnaires through Google Forms. The researchers used the questionnaire of Al Bahlani (2019). The borrowed questionnaire modified some items from Alkharusi (2009) and Alkharusi et al. (2012). The faculty members who have a very good background verified the survey questionnaire's content validity. The reliability test was done after a pilot test on 20 participants and it was revealed that the internal consistency reliability was 0.79.

The adapted survey questionnaire was applied to obtain information regarding the assessment skills of BatStateU-ARASOF Nasugbu pre-service teachers. The researchers will also add some items that can determine the assessment tools and methods that were mostly used by the teachers and their relevance to their development of assessment skills.

In administering the questionnaires, the researchers followed these processes: first, the researchers provided a list of the assessment tools and methods that were commonly used by teachers. Then, the researchers wrote letters of permission to the students in different programs in the college involved in the study. The permission letters were embedded in Google Forms and their link was distributed electronically by sending it through G-Suite Mail and Messenger. Upon approval, the respondents are provided with the following sections containing the questionnaire. The content of the Google Form survey is provided with clear directions and states that their given responses will be handled with confidentiality and will be used for this study only.

**Scoring.** For the purpose of acquiring data, the researchers employed the Likert Rating Scale in their survey questionnaire. Four (4) is the highest on the scale, with one (1) being the lowest.

The following scale was used to measure the respondents' responses about their level of assessment skills.

Scale Value	Ranges of Weighted Mean	Verbal Interpretation
4	3.51-4.00	Highly Competent
3	2.51-3.50	Moderately Competent
2	1.51-2.50	Low Competent
1	1.00-1.50	Needs Improvement

Using the following scale, responses regarding the frequency of usage of various assessment tools and procedures by instructors were assessed.

Scale Value	Ranges of Weighted Mean	Verbal Interpretation
4	3.51-4.00	Always
3	2.51-3.50	Sometimes
2	1.51-2.50	Rarely
1	1.00-1.50	Never

The following scale was used to measure respondents' responses regarding how much they liked or disapproved of various assessment techniques and instruments employed by teachers.



Scale Value	Ranges of Weighted Mean	Verbal Interpretation
4	3.51-4.00	Liked Strongly
3	2.51-3.50	Liked Somewhat
2	1.51-2.50	Disliked Somewhat
1	1.00-1.50	Disliked Strongly

The following scale was used to score the responses of the respondents about how well the assessment tools and methods were perceived in relation to the improvement of assessment skills.

Scale Value	Ranges of Weighted Mean	Verbal Interpretation
4	3.51-4.00	Strongly Agree
3	2.51-3.50	Agree
2	1.51-2.50	Disagree
1	1.00-1.50	Strongly Disagree

**Interview.** To get the necessary information about the difficulties pre-service teachers faced in advancing their assessment skills, researchers conducted interviews. The interview employed in this study is a Standardized interview. This type of interview contained open-ended questions which were delivered to the interviewee in a specific order.

These interviews were done after retrieving the responses of the respondents to the survey questions. After answering the survey questionnaire, the researchers sent a follow-up personal message through Messenger to ask their permission to participate in answering the interview questions. The interview was conducted through Google Meet and Messenger Video Call and the researchers recorded the given responses with permission obtained from the respondents.

### 3.4 Data Gathering Procedure

The researchers requested permission from the Program Chairpersons of the CTE Department to conduct the study, distribute questionnaires, and conduct interviews. After the approval of the request, the researchers sent the questionnaire embedded in Google Form link to the respondents through Messenger or their GSuite Mail accounts. Afterward, the data was collected automatically in the Google Form by downloading it in a spreadsheet form after the respondents' submission of responses.

The researchers sent a follow-up personal message to each respondent, inviting them as an interviewee who would answer a few open-ended questions. The interview participants were those

students who responded to the questionnaire and those who volunteered for the researchers' convenience and data consistency.

After gathering the data from both the survey and interview, all the data has been presented. In the survey questionnaire, the responses were tabulated showing the disaggregated assessment skills of respondents when grouped according to their sex, the assessment tools and methods frequently used by teachers, the most like and most dislike assessment tools and methods of the respondents, the respondents' perception toward those assessment tools and method and their challenges when it comes to the development of assessment skills. In the interview, responses were transcribed and codes were generated from these. Afterward, the researchers analyzed and interpreted the result.

### 3.5 Statistical Treatment of Data

For the valid and reliable result of the study, the researcher employed the following statistical tools:

**Frequency and Percentage.** These were utilized to define the respondents' demographic characteristics, in particular the sex and program of the pre-service teachers at BatStateU-ARASOF Nasugbu.

**Weighted Mean.** This was used to describe the pre-service teachers' perception of their assessment. Particularly, this described the perception in each indicator of six areas of assessment skills as disaggregated to the profile variable, sex. In addition, the mean will also describe the most used assessment tools and methods, the most liked and disliked among those, and their relevance to the development of pre-service teachers' assessment skills.

**General Weighted Mean.** It was utilized to calculate the total average mean in order to derive the general results. In light of each of the six areas of assessment skills, it subsequently described the pre-service teachers' level of sex-disaggregated perception. The most preferred assessment tools and methods used by pre-service teachers will also be revealed, along with the general frequency of usage of assessment tools and methods. In addition, this was also used to measure the respondent's perception of the relevance of the assessment tools and methods to their development of assessment skills.

**Test for Mann-Whitney U.** This was used to compare variations in pre-service teachers' self-reported assessment abilities when sex is used as the profile variable for the grouping.

### 3.6 Qualitative Data Analysis



The researchers conducted interviews through Google Meet and recorded them with permission. The process includes transcription, translation, In-vivo coding, pattern coding, categorization, generalization, and validation in analyzing the data gathered.

**Transcription.** The researcher reviewed the data to gather information after transcribing the verbatim recordings of the interview sessions into Microsoft (MS) Word documents.

**Translation.** The transferred data to paper that is in Filipino were translated into English language.

**In Vivo Coding.** For the first coding cycle, the researchers used participants' actual language in their responses to generate codes (Patel, 2014).

**Pattern coding.** The researchers grouped it into smaller sets of themes from the list of codes. The themes were categorized into the aspects of challenges in the development of assessment skills to make relations unto the themes.

**Categorization.** The relationships between coding concepts and the interview questions were used to group the themes

**Generalization.** To extract the main thought from the interview, the researchers determined the responses' commonalities within each established theme.

**Validation.** The researchers validated it by reading over the transcripts again in order to confirm the results and the final themes that were created.

## 4. RESULTS AND DISCUSSION

### 4.1 Respondents' Sex-Disaggregated Perception of Assessment Skills

This part shows the pre-service teachers' sex-disaggregated perception of the assessment skills in terms of constructing the assessment, administering the assessment, performance assessment, grading, communicating assessment results with others, and assessment ethics.

#### Constructing Assessment

In common, both female and male pre-service teachers perceived that they are moderately competent in constructing assessments with a general weighted mean of 3.30 for females and 3.40 for males. As it clearly shows, regardless of sex, most pre-service teachers responded that they still need to develop their constructing assessment skills to attain higher levels of self-perceived skillfulness in the said area. As the table suggests, most of the female and male respondents perceived that on average, they are competent in writing clear general

instructions which ranked highest in both groups of respondents with a weighted mean of 3.43 and 3.46 as per female and male respondents, respectively.

This finding could be attributed to the perception of the respondents that they can follow the guidelines and that they are aware of what should be avoided when they are constructing directions aligned to the assessment tasks that the students can easily understand.

The finding reaffirms Alkharusi's (2011) study that pre-service teachers' level of skill in constructing assessments is relatively average even though they may have only recently completed an assessment course.

On the other hand, female respondents disclosed that the least of them perceive average competence in writing questions for higher cognitive levels which ranked lowest with a weighted mean of 3.22. This finding could be ascribed to the respondents' view that although they can construct items or questions for varied assessment tasks, they may still find some challenges when aligning it to students' higher-order cognition, such as analyzing, evaluating, and creating levels. The least of the male respondents perceived that they are moderately competent in using assessment results in developing treatment plans for low-achieving students with the lowest weighted mean of 3.32. This finding could be implied that pre-service teachers can use assessment results for planning and implementing interventions for students who might be facing difficulties in their academics but they are not sure if what they provide is effective and intensive enough.

The aforecited quotes from interviews showed that the female respondents encounter difficulty in determining the appropriate assessment considering the students' cognitive levels and that they are still in the process of learning it. Additionally, male respondents understand that constructing an assessment is tedious. If the students fail to perform desirably, their constructed assessment can be reflected on them. Thus, it is essential to consider the skills of the students before doing an assessment. This likewise reaffirms the finding of Al Bahlani (2019) that respondents consider themselves to have a lower level of competence in constructing assessments among other areas.

#### Administering Assessment

In general, both the female and male pre-service teachers certainly considered themselves to be moderately competent in administering the assessment with a general weighted mean of 3.45. As is presented, most of the female respondents perceive high competence in providing the



necessary instructions and announcements to students before the assessment which has the highest weighted mean of 3.56 and male respondents are highly competent in considering the time, place, and conditions of the assessment with the highest weighted mean of 3.54. This could be an indication that the pre-service teachers can inform the students beforehand about what needs to be done throughout the assessment process. They also perceived that by taking into account several factors, they can manage well the administration process.

The aforementioned quotes similarly clear that female and male respondents perceived that they are skilled in administering assessment because they also see this task as the easiest to employ and that they are comfortable doing it. In addition, the respondents mainly engaged themselves in explaining and instructing directions and expectations concerning the assessment and in monitoring the students. The finding is paralleled to the study of Chit and Hnit (2020), which proved that the respondents possess good assessment skills in administering an assessment.

On the other hand, male respondents still view themselves as competent in the said area because they make adjustments when it comes to administering an assessment to stick with the guidelines amidst technological issues. The finding is similar to the study of Alkalbani, et. al. (2012) wherein the respondents perceived themselves to be moderately competent in one of the areas of educational assessment which is administering assessment methods.

On the other hand, the least of the female respondents report moderate competence in accommodating and answering oral questions from students with the lowest weighted mean of 3.32, and the least of the male respondents reported themselves as moderately competent when it comes to following required procedures when administering the teacher-produced assessment which is considered to have the lowest weighted mean of 3.40. This finding could be ascribed that there are times when they can't attend immediately to the concerns of the students related to the assessment process and there may be some distractions that can hinder them to administer the assessment conveniently.

### **Performance Assessment**

As can be seen, both female and male pre-service teachers report moderate competence in terms of performance assessment with a general weighted mean of 3.43 and 3.48 for both groups of respondents respectively. This finding could be attributed to the respondents' perception that they

can satisfactorily meet the task assigned to them when they are assessing the participation of students that encompasses discussion, completing tasks, demonstration of knowledge, and development of certain skills all linked to the learning objectives of the subject.

In addition, in the performance assessment, the respondents mainly engaged themselves with the learners because they monitor their participation as well as progress concerning the assessments. The finding is paralleled to the study of Murukutla (2019) that teachers have perceived positive skillfulness when using performance assessment.

On the other hand, the least of the female respondents report moderate competence in defining rating scales and rubrics for performance assessment and using the rating scale/checklist while observing students' performance with both indicators having the lowest weighted mean of 3.34. While least male respondents reported themselves as moderately competent when it comes to using the rating scale/checklist while observing students' performance too with a weighted mean of 3.37 which ranked lowest. These findings could be attributed that some of the respondents might have faced unfamiliarity with the concept of rating scales and rubrics thus it might have limited them also to construct the said assessment tools well.

This finding is paralleled to the study of Zhang and Stock (2010) which proved that problems were particularly prominent in performance assessment.

### **Grading**

As is observed, the female and male pre-service teachers possess high competence in terms of grading with a general weighted mean of 3.53 for females and 3.62 for males. This indicates that the pre-service teachers that can meet the needed requirements to exhibit grading procedures well. Now, turning to the details, both female and male respondents are highly competent in avoiding bias (personal preferences) in grading which ranked highest in both groups of respondents with a weighted mean of 3.67 and 3.72 as per female and male respondents, respectively. This finding could be accredited to the perception of the respondents that when they are grading or assigning marks, they take into account that their opinions have nothing to do with the actual performance and level of learning of students. They exhibit objectivity and treat the grading process as rational and fair.

On the other hand, it was revealed that the least number of female and male respondents report moderate competence in determining students' grades according to students' average performance



which ranked lowest in both groups of respondents with a weighted mean of 3.47 and 3.48 as per female and male respondents, respectively. The respondents' perception may explain this result that they have yet to develop an assessment of students' performance or achievement over a predetermined period and skillfully convert it into summarized grades or marks.

The aforementioned quotes from the interview displayed that female and male respondents have faced some concerns in determining grades because they somehow lack knowledge of computation and classifications of quantitative descriptions that they experienced unfamiliarity and confusion. This is in connection with the respondents viewing themselves as moderately competent in this area. The result is identical to the study of Efendi, et. al. (2018) that relatively the self-perceived assessment skills of prospective teachers on valid student grading procedures are at an acceptable level but still not at maximum competence.

#### **Communicating Assessment Results with Others**

Generally, this implies that the pre-service teachers can do their part in assessing students, providing feedback, and sharing the assessment outcomes with both students and parents. Now turning to the details, it was revealed that most of the female and male respondents perceived that they are highly competent in communicating assessment results to students which ranked highest in both groups of respondents with a weighted mean of 3.51 and 3.60 as per female and male respondents, respectively.

This finding could be imputed that respondents are well aware that they need to inform their students of what results are they getting after assessment activities.

The aforementioned quotes from interviews adhere that the female and male respondents perceived their competence in communicating assessment results with others highly because their focus is on identifying the things that need improvement that they can observe from assessment results and as well as seeking improvement for their students by giving feedback. This finding is paralleled to the study of Zhang and Stock (2010) that stated that teachers should be able to use assessment results in making decisions when it comes to student's educational placement as well as to make improvements in a class.

On the other hand, it can also be seen that the average number of both male and female pre-service teachers still perceived themselves as moderately competent in communicating assessment results to parents having the lowest weighted mean of 3.26 and 3.28. They are aware that they have to learn more about how they will be able to adopt a way of reaching out to parents in

other to share and disseminate the assessment results of their children.

#### **Assessment Ethics**

At the onset, it is clear that both female and male respondents report high competence in assessment ethics with a general weighted mean of 3.53 for females and 3.57 for males. This indicates that they can follow and observe several guidelines when they are conducting their assessment practices. The table clearly shows that the majority of female and male respondents perceived that they were highly competent in informing students of the objectives before applying the assessment. The indicator received the highest weighted mean of 3.60 and 3.68 as per female and male respondents, respectively. This finding could be accredited to the perception of the respondents that before the implementation of the assessment, the pre-service teachers ensure that the students are aware of what is expected of them. They make it to a point that they provide students opportunities to be informed on what they are about to do by including it in their presentations, lesson plans, and instructions for varied activities.

On the other hand, it was disclosed that the least female respondents are moderately competent in avoiding the use of assessment as a way to punish students for their behavior with the lowest weighted mean of 3.42. This finding could imply that the average number of female respondents may sometimes find themselves using assessment as a way to discipline some of their pupils when they misbehaved. However, the least male respondents report moderate competence in keeping the assessment results of each student confidential which received the lowest weighted mean of 3.46.

This finding could be attributed that the male respondents were still developing their skills in holding their students' assessment data and sharing it with the necessary parties only.

#### **Test of Significant Difference According to Sex**

In comparing the respondents' perceptions of their assessment skills between the sexes, the Mann-Whitney U test found no statistically significant differences. Particularly, all of the indicators of assessment skills in terms of constructing assessment (U=3.500, p= 0.059), administering assessment (U=8.000, p= 1), performance assessment (U=13.500, p= 0.157), grading (U=3.500, p=0.191), communicating assessment results with others (U=9.500, p= 0.53), and assessment ethics (U=10.000, p=0.599) were found to have insignificant differences with significance value greater than 0.05. Hence, null hypotheses are



accepted as p values are more than the 0.05 significance level.

#### 4.2 Assessment Tools and Methods Commonly Used by Teachers and Respondents' Perception of the Relevance of These to the Development of Their Assessment Skills

##### Assessment Tools and Methods Commonly Used by Teachers

Generally speaking, the 34 assessment tools and methods being classified by the researchers were sometimes used by the teachers with a general weighted mean of 3.31. As the table suggests, among the mentioned assessment tools and methods, 13 of them were used always by the teachers. Performance tasks are seen to be used always ranked first with a weighted mean of 3.77. Second, on the rank is individual assignments with a weighted mean of 3.73 and then, multiple-choice tests ranked third with 3.78. Presentations have a weighted mean of 3.70 it is ranked fourth. Next in the ranking are quizzes ranked fifth with 3.68 as its weighted mean and then the true or false test ranked sixth with 3.66. Seventh on the rank are group works, short answer questions, and chapter tests all having a weighted mean of 3.62. Then, eighth in the rank is the major examination which gained a weighted mean of 3.61. The ninth rank is oral questioning with a weighted mean of 3.60 And, rank ten is the essay with 3.59 as its weighted mean and the eleventh on the rank of the most used always assessment tools and methods is graded recitation with 3.53. It can be concluded that these thirteen assessment tools and methods are the most observed during synchronous and synchronous classes.

On the other hand, among the 34 mentioned assessment tools and methods, the lab report was the least used with a weighted mean of 2.59. This finding could be attributed to the fact that not all programs in the education department have laboratory classes. As such, this strengthens the study of Sewagegn (2019) that revealed that lab report was not predominantly used by teachers in the university.

##### Most Liked and Disliked Assessment Tools and Methods by Pre-Service Teachers

Meanwhile, Table 4.9 above summarizes the preference of the pre-service teachers when it comes to the assessment tools and methods commonly used by teachers. At the onset, it is clear that the 34 assessment tools and methods classified by the

researchers were liked somewhat by the pre-service teachers as they gained a general weighted mean of 3.30. According to the presented table, 10 of the mentioned assessment tools and methods, were liked strongly by the students or the pre-service teachers. *Multiple choice test* is the most liked strongly by the respondents that ranked first with a weighted mean of 3.76. Second, on the rank is the *true or false test* with a weighted mean of 3.64, and then *performance tasks* ranked third with 3.63. *Quizzes* have a weighted mean of 3.58 and it is ranked fourth. Next in ranking is *individual assignment* ranked fifth with 3.57 as its weighted mean and then *group works* have a weighted mean of 3.54 is ranked sixth among the most liked strongly assessment tools and methods. Seventh on the rank are *presentations, matching-type tests, and short answer questions* with all having a weighted mean of 3.52. Then eighth in the rank is the *major examination* with a weighted mean of 3.51. It can be observed that the respondents mostly liked traditional assessment tools and methods.

However, the *case study* was the least liked by the respondents with a weighted mean of 2.64. One respondent stated that case study is his least favorite since he is not good at writing and because it needs a lot of work to do such as researching and analyzing.

##### Pre-Service Teachers' Perception of the Relevance of Assessment Tools and Methods on Their Assessment Skills

A glance at the table reveals that the with a general weighted mean of 2.83. According to Table 4.10, most of the respondents accept that *the assessment tools and methods used by my teachers effectively develop my skill in recognizing assessment ethics* with the highest weighted mean of 2.90. This finding could be imputed that respondents felt that their exposure to these assessment tools and methods made them more well-versed on the standards that they should meet in their assessment practices. It may also imply that they have first-hand experience in recognizing the ethical use of varied assessments in the classroom.

On the other hand, it was disclosed that the least of the respondents agree that *the assessment tools and methods used by my teachers effectively develop my skill in conducting performance assessments* with the lowest weighted mean of 2.77. This finding could imply that the average number of respondents was still satisfied with the help of the assessment tools and methods in enhancing their skill in conducting performance assessments as it supports them in achieving their goals.

The aforecited quotes from interviews with respondents revealed that the usage of





assessment tools and methods had an impact on their performance when different assessment formats were utilized. It can also be inferred that their comfort level with performance evaluations influences how they feel about giving students the chance to successfully demonstrate their knowledge, skills, and attitudes. As such, this strengthens the study of Keakitse (2017) that teachers' perceived skill in classroom assessment practices reflects their perceptions of their skill in conducting classroom assessment practices.

### 4.3 Respondents' Challenges in the Development of Their Assessment Skills

This part presents the responses collected from the interview on the challenges encountered by the pre-service teachers when they are developing their assessment skills. Of the 382 respondents to the survey questionnaire, 31 of them participated in answering the open-ended questions in the interview.

*Personal issues.* Seventeen out of thirty-one respondents stated that they experienced various concerns related to themselves that affect their assessment skills development. Students were able to describe that they feel that they lack something. This can be an indication that the practical issues of pre-service teachers among themselves in terms of lacking skills and having undesirable attitudes, emotions, and reactions limit them in their pursuit of enhancing their assessment skills.

*Lack of knowledge on taxonomy of objectives.* Ten out of thirty-one respondents mentioned that they don't have enough knowledge when it comes to understanding, creating, and matching learning objectives to their assessment. This has repercussions on their ability in constructing assessments, one of the six assessment skills identified in this study. In connection, with the lack of knowledge in difficulty in constructing questions as reported by the respondents, two respondents mentioned that they faced difficulty also in providing clear instructions and statements.

The study of Adedoyin (2012) is similar to the result as the author revealed that teachers are still not that knowledgeable and they still lack the necessary assessment, thus, development needs regarding classroom assessment skills must be emphasized especially in understanding more about objectives, connecting assessments to objectives of the lesson and constructing good ability tests supported by clear questions and guidelines.

*Difficulty in constructing assessments.* This challenge was mentioned by the majority of the respondents the most. An assessment process would not be possible without this skill. Hence,

competence in this area is highly commended and appreciated. However, there are still respondents who despite being introduced to this concept in various courses shared that they lack knowledge and experience regarding constructing assessments. The above-mentioned answers of the respondents revealed that the challenge in constructing an assessment effectively was rooted in a lack of knowledge, insufficient experience, various considerations, and the fact that this assessment task is not easy, to begin with. All the above problems influence the pre-service teachers negatively in making themselves creative and proficient in their subsequent assessment practices.

*Difficulty in choosing appropriate assessment.* Nine respondents cited that they have worries about deciding the appropriate assessment tools and methods to be used that will serve the intended purposes. These intended purposes deal with alignment to the subject matter and the student's grade level, progress, and characteristics. Hence, it was revealed that they are challenged on both aspects of choosing the assessment and choosing what approach must be followed.

*Time Constraints.* Six respondents are noted to struggle with effectively using their time in the development of their assessment skills. Some of them do experience complying with tasks and requirements in different courses while trying to improve their skills in assessment.

This result was strengthened by the study of Forsell et al. (2021) which revealed that teachers see having limited time as a barrier to having good assessment skills because it leaves them with the challenge of finding opportunities to practice assessment. Furthermore, time constraints on the part of the respondents affect their conduct in assessment situations and leave them with less application.

*Hesitation for support.* It was found from the interview sessions that there are students who are sometimes confused when doing assessment-related activities yet they admitted as well that they do not resort to asking for clarification from their classmates and professors. Contrary to the mentioned insights, a respondent reported that she indeed received enough support from her professors by stating that the professors helped her by teaching her strategies on how to apply various assessment tools and methods in a specific subject. However, her challenge lies in grasping information.

The finding disclosed that the students are aware that there are immediate persons that can help them with the topic of assessment but they are hesitant to ask for support or assistance due to some reasons. This result is related to the study of Sethusha (2012) as it concluded that the manifestation of this reliance on individual



assessment conduct can serve as an obstacle to achieving the desired level of competence in assessment skills.

*Change on learning setup.* Four respondents stated their concern with the flexible learning setup concerning the development of their assessment skills. This finding from the interview uncovered the viewpoints of the pre-service teachers that the change in learning set-up provides them with challenging assessment situations because they need to focus on understanding their students while at the same time carrying out the assessment process to gather evidence of each student's knowledge, skills, and attitude.

*Technological issues.* It was evident that most of the assessment tasks that were constructed were then provided online. That is why technical requirements such as the availability of digital tools, connectivity, and accessibility are needed to effectively carry out varied assessments. However, three respondents shared their experiences when it comes to issues concerning technology.

This implies that with problems in internet connectivity and inadequacy of technological tools, the pre-service teachers are confined to learning and doing more about assessment. They faced difficulty in demonstrating effectively and efficiently their assessment skills.

#### **4.4 The Proposed Assessment Skills Development Guide for Pre-Service Teachers**

This part shows the proposed assessment skills development guide that is for BatStateU ARASOF-Nasugbu pre-service teachers which is based on the results of the study. Assessment Skills Development Guide for Pre-Service Teachers was the chosen title for it is intended to guide the ways or steps on how pre-service teachers can become assessment-skilled or assessment-literate. In addition, it includes several considerations that must guide the prospective teachers along the assessment cycle.

Specifically, the content of the developed guide was divided into four parts. The first part is all about the overview of the guide that describes what it is all about. The second part, on the other hand, describes assessment skills and its six constructs or areas which are constructing the assessment, administering the assessment, performance assessment, grading, communicating assessment results with others, and assessment ethics. Furthermore, the third part is all about developing assessment skills which aimed to provide information on varied steps, ways, and considerations that pre-service teachers can reflect on to enhance each area of assessment skill

respectively. Moreover, the last part serves as the conclusion that aimed to explain from the researchers' perspective how the proposed guide can support pre-service teachers in their endeavor to develop their assessment skills.

### **5. CONCLUSIONS**

From the results of the study, the following conclusions were drawn:

Both female and male pre-service teachers of BatStateU-ARASOF Nasugbu perceive high competence in the areas of grading and assessment ethics; however, both groups of respondents perceive moderate competence in constructing assessments, administering assessments, performance assessments, and communicating assessment results with others.

Most of the respondents indicate that traditional and alternative assessment tools and methods are sometimes used and that these are somewhat liked. Likewise, the respondents positively perceive that the assessment tools and methods used by the teachers help effectively in the development of their assessment skills.

The majority of respondents encountered challenges such as personal, academic, and technical issues when dealing with the development of assessment skills.

The guide was based on the findings of the study as endorsed as the Assessment Skills Development Guide for Pre-Service teachers for the improvement of pre-service teachers' abilities in the assessment process.

### **6. RECOMMENDATIONS**

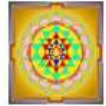
The following recommendations are listed below based on the findings and conclusion:

Pre-service teachers should be encouraged to seek training and practice and explore various ways how they can enhance their assessment skills. Pre-service teachers may take into consideration the application of the researchers' proposed assessment skills development guide that recommends strategies that they can use to improve their assessment skills abilities as future teachers.

Future researchers may conduct a study that aims to find out specifically the techniques and strategies used by the pre-service teachers to continuously improve their competence in assessment.

### **REFERENCES**

[1] Ismail, S., & Jarrah, A. (2019). Exploring Pre-Service Teachers' Perceptions of Their Pedagogical Preferences,



Teaching Competence and Motivation. *International Journal of Instruction*, 12(1), 493.

[2] Philippine Commission on Higher Education Memorandum Order No. 74, series of 2017. *Policies, Standards, and Guidelines for Bachelor of Elementary Education (BEEd)*.

[3] Xu, Y., and Brown, G. T. L. (2016). Teacher assessment literacy in practice: a reconceptualization. *Teach. Educ.*, 58, 149–162. doi: 10.1016/j.tate.2016.05.010

[4] Plata, S., Arnuco, A. & Madrunio, M. (2018). *Assessment education of pre-service English teachers in the Philippines: Prospects and challenges*. Routledge.

[5] Coombs, A., DeLuca, C., LaPointe-McEwan, D., & Chalas, A. (2018). Changing approaches to classroom assessment: An empirical study across teacher career stages. *Teaching and Teacher Education*, 71, 134-144. doi: 10.1016/j.tate.2017.12.010

[6] DeLuca, C. (2012). Preparing Teachers for the Age of Accountability: Toward a Framework for Assessment Education. *Action in Teacher Education*, 34(56), 576-591.

[7] Spillson, A. (2018, October 24). *Mixed Method in Design Research*. Ux Collective. <https://uxdesign.cc/mixed-methods-in-design-research-f91007903d26>

-and-summative-assessment-infographic

[8] Alkharusi, H. (2011). Teachers' Classroom Assessment Skills: Influence Of Gender, Subject Area, Grade Level, Teaching Experience and In-service Assessment Training. *Journal of Turkish Science Education*, 8(2), 39-48.

[9] Chit, Y., & Hnit, M. (2020). A study on self-perceived assessment skills of basic education school teachers. *JISAE: Journal of Indonesian Student Assessment and Evaluation*, 6(2), 133-139. <https://doi.org/10.21009/JISAE.062.03>

[10] Alkalbani, M., Hussain, A., Said, A. & Alnabhani, H. (2012). Educational Assessment Attitudes, Competence, Knowledge, and Practices: An Exploratory Study of Muscat Teachers in the Sultanate of Oman. *Journal of Education and Learning*, 1(2), 217-232.