Examining Assessment Practices of K-12 Public School Teachers in Maguindanao Province

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Abstract

The Philippines was categorized in the lowest 70s in the 2018 PISA results among the 79th participating countries. Consequently, the authors believed the key factor of assessment is to improve teaching practices and students’ academic achievement; thus, this study aimed to examine the teachers’ assessment practices by employing a modified Assessment Practices Inventory (API) scale. The scale was tested with 42 secondary school teachers to determine its preliminary validity and reliability; a Cronbach alpha of .736 indicates acceptable reliability. The study employed 194 respondents of public high school teachers. According to this result, educators routinely assess to determine lesson progression and fine-tune student learning. Besides, some teachers need to gain knowledge of establishing validity and reliability. Hence, it is extremely urged that the K-12 teachers in Maguindanao, Philippines, must attend seminars to improve their skills in formulating questions of higher thinking skills.

1. Introduction

Teachers may affect the growth of students’ performance in the classroom (Lam, 2018). As they are the main stakeholders of the learning process, teachers benefit students from teaching and learning (Ben Hailaya & Alagumalai, 2012). However, their effectiveness in making the instructional process successful relies upon many aspects, including the solid understanding and implementation of educational principles requiring assessment (Lee, 2017). This criterion is further accentuated by the assessment aspect of professional teacher standards such as the Philippine National Teacher Standards (DepEd, 2006). Thus, assessment is defined as a robust understanding of effective assessment practices (Huber et al., 2020). It can use the knowledge to quantify the skill progression of a teacher's professional development and student learning performance in different ways; hence, the importance of teacher assessment practices (TAP) (Mertler & Campbell, 2005; Gebril & Plakans, 2014). TAP in this new study refers to the teacher’s level of practice in a classroom-based learning context to enable discourse.

The primary study’s motivation is that the Department of Education (DepEd) has led and encouraged this nationwide effort through its slogan ‘Sulong EduKalidad’ (Push for Education Quality); these are four key areas, which include:

• Upskilling teachers and school leaders into transforming career development.

• Reviewing and updating the curriculum.

• Continuous development of the climate of learning; and

• Cooperation between rising stakeholders (DepEd, 2015).

Besides, the deped mandated to assure K-12 teachers should have access to quality basic education for all Filipino teachers and students. It is committed to engaging in national and global system assessments to guide its efforts in improving K-12 education quality. To end this, DepEd has joined the 2018 Programme for International Student Assessment (PISA) as part of the Quality Basic Educational Reform Plan and a step towards globalization of the country's quality of K-12 Education Reform. However, the unexpected results received that the Philippines ranked in the lowest 70s in PISA results among the 79th participating countries (OECD, 2018). The DepEd was also administered the NAT (National Achievement Test). Nevertheless, it only managed to generate mediocre results throughout the six years.

In 2010-2011, even their top MPS was below the required competency, at 68.2, and the results for high school learners were significantly worse. Their soundest MPS was 49.3 in 2007-2008, which is 75% below average and suggests the necessity for corrective measures and the value of boosting student performance (Ben Hailaya & Alagumalai, 2012). These reminisce, the low education quality in Maguindanao public high school, is one of the crucial motivations for this new study and building effective capability on teachers’ assessment practices.
2. Literature

2.1. Assessment

According to Gu (2014), the desire for high-quality assessment methods in the classroom drives the need for assessment competencies. The examination and improvement of teaching methods, as well as the monitoring and promotion of students' learning, necessitate these procedures (DeLuca & Johnson, 2017). Stiggins (2004) and Stiggins et al. (2007) argue that good assessment practices produce more substantial student learning. As a result, education research has included a focus on assessment procedures. Studies on assessment practices have been conducted to improve teachers' assessment skills in the classroom to learn more about instructors' assessment-related requirements and activities (Ruecker & Crusan, 2018).

Assessment in the classroom, as defined by Zhang and Burry Stock (2003, p. 324), "encompasses a broad spectrum of activities for constructing paper-pencil tests and performance measures, to grading, to interpreting standardized scores, to communicating test results, and to using test results in decision-making." This description provides a basis for studying methods of evaluation. Rowntree's (1987) and the AFTs, NCMEs, and NEA's (to name a few) more comprehensive frameworks are supplied by professionals in the field (1990). The book by Stiggins et al. (2007) describes the framework created by Stiggins (2004) as the key to effective classroom evaluation. These guidelines highlight four fundamental aspects of effective classroom evaluation. Assessing something requires thinking about its 'goal,' 'the learning target,' 'assessment structure,' and 'assessment communication.'

2.2. Assessment practices

Assessment practices, which refer to what and how creative assessments are carried out in teachers' work contexts, are the other important component of assessment literacy among teachers. These tools pertain to educators' beliefs and knowledge (Lam, 2018). Lee's (2017) research followed four educators as they shifted their professional identities from language instructors to advocates for social change. After a year of writing teacher education, the informant teachers felt confident enough to try new approaches to teaching and assessing writing, such as genre-based pedagogy, process writing, blogging, and giving students feedback using self-designed rubrics (Lee & Coniam, 2013; Hawe & Dixon, 2014). The results showed that using novel assessment approaches required teachers to negotiate their identities through more training and a shift in assessing students' work (Lee, Mak & Burns, 2016).

The research mentioned above shows that instructors' existing beliefs and behaviors must be modified by creative assessment strategies to suit student needs and institutional expectations. The research, as mentioned earlier, generally delved into facets of teacher assessment literacy (TAL) over the years (DeLuca & Johnson, 2017). There has yet to be a comprehensive study of TAL so far. This includes secondary school educators' teaching and grading methods (Hamp-Lyons, 2016). Moreover, most TAL research has been done in either higher education or general knowledge to determine whether the participants can be assessed. Experts have emphasized the importance of evaluation as a necessary quality for teachers to carry out their professional duties and influence student outcomes effectively.

Furthermore, additional factors among educators, such as assessment techniques and teaching, are connected to assessment literacy. This document compiles research and literature on assessment methods, focusing on three components of assessment. These are: 1) goal, 2) structure, and 3) communication.

The authors researched if secondary school teachers in the Philippines have sufficient assessment practices. As a result, we tried to ask the following research questions.

1) What is the assessment practice methods of Grade 10 and Grade 12 teachers?

2) How do teachers use assessment strategies and resources to boost students' knowledge and skills?
3. Methods

3.1. Framework

The theoretical foundation of this research is drawn from Teacher Assessment Literacy in Practice (TALP) modeled by Xu and Brown's (2016) conceptual framework. The TALP model was chosen for this research since it has been validated and is self-contained. Since this study aims to examine the assessment practices of secondary school teachers, we adopt one of its six primary components ‘teacher assessment literacy in practice,’ a crucial component of TALP. Hence, the framework places a premium on instructors’ personalities and pedagogical methods.

3.2. Research Design

The researchers here used a mixed methods approach. When discussing how to collect, analyze, and ‘mix’ quantitative and qualitative methodologies to understand a research subject better, the map was used as a metaphor (Creswell, 2008). The study made explicit use of this design's 'embedded type' by using one research method as the primary source of data and another manner to support it.

Quantitative and qualitative data are gathered simultaneously using the embedded mixed-methods strategy. Both types of evidence are complementary to one another. This methodological approach was chosen so that we might benefit from both quantitative and qualitative data in our analysis of the issues we set out to investigate (Creswell, 2008). This approach's combination of quantitative and qualitative techniques yields fruitful insights into the data. As a result, this framework is being examined for the study.

It relies primarily on quantitative methods and uses qualitative methods to supplement them. However, the quantitative method in this paper was a simple descriptive analysis using a questionnaire. At the same time, the qualitative approach employs open-ended interviews that can help fill in the gaps in the data.

For this study, the authors focused solely on the K-12 teachers of students in grades 10 and 12. These levels were determined since they were part of the country's national assessment tests (e.g., the National Achievement Test [NAT]). These tests' results provided the basis for selecting classes, as they were included in the research study. Besides, the 2018 PISA survey questionnaires were only for 15-year-old students. This level is enrolled in Junior High Schools of Grade 10 students in the Philippines. Thus, the author's primary rationale for selecting these two grade levels. This paper proposed a framework for teacher assessment practices (TAP) based on previous research. See Figure 1 down here.

The TAP proposed framework here has three critical components, namely 1) 'assessment goals' to set the tempo of class and boost student achievement 2) 'assessment structure' is creating examinations with a table of criteria, giving students clear instructions, and utilizing rubrics to evaluate their work, and 3) 'assessment communication' to provide comments and explain grades and feedback to students and parents which were taken from the available literature and this study objective.

3.3. Participants

The participants (n=194) are K-12 teachers of Grade 10 and Grade 12 from public secondary schools in the province of Maguindanao, which are 71 males (36.6%) and 123 females (63.4%). The study revealed that females comprised more than half of the teachers in Grade 12 (63.4%), and slightly more than half were in Grade 10 (51.5%).

Over one-third of the teachers are 30-39 years old (39.7%), making up most of the study population. The age group were closely followed by those 40-49 years old (18.6%), 50-59 years old (16.5%), and then 25-29 years old (14.9%). Those below 25 years old (9.8%) and below 60 or above are the smallest group (0.5%) of the teachers’ age gap.

More than one-third (or 36.1%) of teachers with 6-10 years of teaching experience, followed by more than a quarter (30.1%) of the teachers with 1-5 years, followed by those with 11-15 years (8.8%), then by those with 16-20 years (12.9%), those with 21-
25 years of (4.6%), those with 26-30 years (5.7%), and those with more than 30 years of experience in teaching is the smallest group of teachers (1.0%).

Regarding their academic qualifications, more than four-fifths of them (84.0%) have undergraduate degrees, while the rest 20% have a postgraduate degree or are currently doing their postgraduate.

3.4. Data Collection Analysis

3.4.1. Ethics

Permission to conduct the research was obtained from the regional level to the provincial and municipal levels of the Ministry of Basic, Higher and Technical Education (MBHTE) of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) in Southern Philippines before the study was conducted to fulfill the research ethics criteria. After permission was granted, we sent the survey questionnaires to the school heads/principals of the Grade 10 Junior High School and Grade 12 Senior High School of public secondary schools. The official records of the School Division Office, MBHTE-Maguindanao II, were used to compile the lists of participating schools. The MBHTE Regional Office approved the study on August 7, 2020 (see Appendix C) so that it may be carried out in the province of Maguindanao. Second, on September 18, 2020, the Maguindanao II Central Office of the Schools Division. Therefore, the study was conducted after receiving all appropriate authorizations.

3.4.2. Sampling

Before data collection, all teacher participants involved in the interviews and survey questionnaires signed the informed consent. However, they could only withdraw from this project if their rights and safety were not shielded. Most schools are in remote areas. Simultaneously, regarding the crisis affected by this current global Covid-19, only those accessible and without any danger to the researcher have finally been chosen—the total teachers’ respondents n=194 from 32 public secondary schools in 10 municipalities.

It was through by distributing the questionnaire during the lockdown affected by the current global Covid-19. Thus, some PDF questionnaires were sent via Facebook and then returned via Facebook messenger. Teachers used facemasks while answering the survey questionnaire. Besides, we interviewed some participants via phone with permission to record their voices.

Two hundred and fifty paper surveys were distributed to the principals of 32 public secondary schools participating in the study. Two hundred surveys (75%) were returned after two months. All 194 questionnaires were validated and included two sections: demographic data and questions about the assessment's goals, structure, and communication. The completed survey included 20 questions: There were nine items for the "assessment goal," 7 for the "assessment structure," and 4 for the "assessment communication." A five-point Likert scale was used for all rating categories (e.g., 5 – all the time, 4 – frequently, 3 – occasionally, 2 – seldom, and 1 – never).

The first part of the profile gives some background of the respondents, including their gender, grade level, age bracket, teaching experience, and academic background. The second component included three factors from the Practices of Assessment Inventory (PAI) scale, developed based on the existing research literature and the TIMSS teacher questionnaire (IEA, 1999).

Descriptive statistics were used to examine all data, and the results included frequency counts, percentages, and averages. The author examined all items and the pilot test's validity and reliability using SPSS software. A research assistant and statistician experienced in quantitative data analysis used STATA software for double-checking the compiled data.

3.5. API Reliability
According to Eissinga et al. (2013), Cronbach's alpha might be from 0 to 1. Higher alpha values indicate higher internal consistency and more excellent scale dependability. Some researchers, however, have suggested that even if the alpha value is just 0.70, the researcher can still be confident in the scale's reliability (Lavrakas, 2008, p. 210). A pilot study was conducted with 42 regular K-12 teachers from CSU-Laboratory High School. This study has a respectable level of reliability, as measured by a Cronbach alpha of .736 (Eisinga et al., 2013; Lavrakas, 2008, p. 210).

The author discovered that Hailaya (2014, p. 144) validated the API questionnaire in his Ph.D. thesis. However, we modified some terminologies and items to suit them efficiently but effectively in this new study. Thus, we revalidated the API scale (see Appendix B).

4. Findings

Here, we present the findings from the statistical analyses of the survey and interview data used to answer the study's two research questions. We distributed a questionnaire to capture Research Question (RQ) 1 on the levels of assessment practices. Then, we conduct an interview to address RQ 2 regarding the types and strategies of teachers' assessments (see Appendix A).

4.1. Research Question 1: Level of Teachers' Assessment Practices of Grades 10 & 12

<table>
<thead>
<tr>
<th>School Level</th>
<th>Kolmogorov-Smirnova</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Total</td>
<td>0.132</td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>0.114</td>
<td>94</td>
</tr>
</tbody>
</table>

The results of the S-W test showed that the score of Grade 10 teachers is $P=0.002<0.01$, and the score of Grade 12 teachers is $P=0.164$. At the same time, combined with the histogram, grade 12 obeys the normal distribution, while Grade 10 does not conform to the normal distribution. It is recommended to use the Mann-Whitney Test.

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>School Level</td>
</tr>
</tbody>
</table>
### Table 4.3. Standardized Form

#### Comparison of Differences between Grade 10 and Grade 12

<table>
<thead>
<tr>
<th>School Level</th>
<th>M (P_{25}, P_{75})</th>
<th>Mann-Whitney U test</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>80 (76,82)</td>
<td>Z = 0.937, P = 0.349</td>
</tr>
<tr>
<td>12</td>
<td>80 (76,83)</td>
<td></td>
</tr>
</tbody>
</table>

The results of the S-W test and the histogram showed that the data of Grade 10 did not obey the normal distribution, so the two-sample Mann-Whitney U test was used. The results show that the median of Grade 10 is 80 (76,82), the median of Grade 12 is 80 (76,83), and there is no statistical difference in the overall distribution of the two grades (Z = 0.937, p = 0.349 > 0.05).

Table 4.4 presents the score means of TAP concerning the assessment goal of Grade 10 and Grade 12 teachers from the selected public high schools in Maguindanao province. Nine items about the assessment goal questions. Three of them are the topmost positive responses "I use an assessment to determine whether lesson objectives have been met," "I use assessments to find out what my students have learned," and "As stated in my teaching objectives, I make a test that measures attributes and behaviors."

#### Table 4.4. Mean score of Assessment Goal
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I use assessments to determine whether lesson objectives have been met.</td>
<td>2 (1.%) 10 (5.2%) 57 (29.4%) 125 (64.4%)</td>
</tr>
<tr>
<td>2</td>
<td>I use assessments to find out what my students have learned.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I make students more knowledgeable by using various tests.</td>
<td>1 (0.5%) 15 (7.7%) 112 (57.7%) 66 (34.0%)</td>
</tr>
<tr>
<td>4</td>
<td>I work to strengthen students' higher-order thinking skills through assessment.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>As stated in my teaching objectives, I make a test that measures attributes and behaviors.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I plan my lessons based on the results of my assessment.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I set the pace of my classes based on the results of assessment.</td>
<td>5 (2.6%) 21 (10.8%) 94 (48.5%) 74 (38.1%)</td>
</tr>
<tr>
<td>8</td>
<td>I use the results of assessments to figure out the best ways to help my students learn.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I use assessment results to provide students with feedback.</td>
<td></td>
</tr>
</tbody>
</table>

Legend: 5 – all time, 4 – frequently, 3 – occasionally, 2 – seldom, 1 – never

The K-12 public high school teachers responded positively to item 1, "I use the assessment to determine whether lesson objectives have been met," with 125 (or 64.4%) of them answering "all the time" and 57 (or 29.4%) of them responding "frequently." This suggests that the teachers, as mentioned above, are fully aware of the significance of employing assessment in the form of quizzes, graded recitations, and examinations as the ideal plan for assessment. This is the case if the teachers in question are the ones being discussed. These assessment forms must be linked to the lesson's goals to determine whether the objectives were accomplished and whether the assessment structure possesses more content validity and reliability. In an interview question, some teachers needed help understanding the methods of establishing validity and reliability.

The second topmost statement is that the said teachers responded affirmatively to the question, "I use assessments to find out what my students have learned," with 102 (or 52.6%) of them answering "all the time" and 75 (or 38.7%) responding "frequently." This could imply that the teachers believe an assessment is most useful when the measured skills are specified in detail. When used appropriately, assessment can measure the student's performance. This is an essential component of teaching and learning because it is the most effective way to comprehend the students' capabilities.

In our interview question, how do you understand assessment? Three teachers out of 20 believed that assessment is essential to evaluate and judge a particular performance of the students. For instance, Ms. Fatima of Grade 10 said, "I believe the Assessment is to measure and to consider a specific performance of the students [Interview, November 5, 2020]. Mr. Nasir said, "I assess students based on their rubrics because I believed that the teachers must prepare in a particular task" [Interview, November 5, 2020]. Likewise, Ms. Nancy of Grade 12 said, "Assessment is vital in teaching learning since this is the best way to understand your student's abilities and capacity. Indeed, I am good at assessing my students since I align with the Department of Education (DepEd) curriculum. I always ensure that every step of my students checks my students' strengths and weaknesses [Interview, November 5, 2020]. These teachers used assessment types that were in line with the deped strategies, although they should have mentioned the details in their interview what types of their practicing Assessments.
The third topmost item on the assessment goal with a positive response was question 5, which stated, "As stated in my teaching objectives, I make a test that measures attributes and behaviors," with 88 (or 45.4%) answering "all the time," and 93 (or 47.9%) answered "frequently," that is, with the aggregated response of 181 (or 93.3%). This could mean that the teachers are skilled in developing test items that establish specific skills to measure the specified trait or behavior in the objectives of their lesson plan, i.e., the skills should be genuine. Conversely, more than 21 (10.8%) of the teachers working in Maguindanao's public junior high and senior high schools responded negatively "seldom" to question 4, "I work to strengthen students' higher-order thinking skills through assessment," and 85 (43.8%) of the said teachers answered they "occasionally" developed an assessment that tests high-order thinking skills of the students. The said teachers need to be required to attend seminars, workshops, or conferences that would improve their skills in formulating questions of higher thinking skills. Furthermore, some teachers need to enhance or develop their skill in crafting appropriate assessment tools with item 6, "I plan my lessons based on the results of my assessment," and item 7, "I set the pace of my classes based on the results of assessments" and item 9 "I use assessment results to provide students with feedback."

In our interview question, what assessment tools do you use to rank them? Ms. Naima replied she used most of the time paper and pencil test methods. "Okay! The type of Assessment that I use most of the time is the paper and pencil test and essay type. Through these tools, I can assess my learners if they comprehend my topic or not [Interview Excerpt 2: Naima, December 5, 2020]." Likewise, Mr. Juan applied the same. "Umm... assessment practices, which I applied most often, are closed and open-ended questions through paper and pencil tests. That would satisfy my students. I have tried different practices, but, in the end, I found out that they will need something else. That made me decide to return to the traditional practice, the paper and pencil test [Interview Excerpt 3: Juan, November 7, 2020]." In short, Naima and Juan typically used traditional strategies, namely, paper, pencil tests, and essay type, to improve their student's performance. Through these strategies, they could measure their students' comprehension and difficulties.

Table 4.5 presents the score means of TAP concerning the assessment structure of Grade 10 and Grade 12 teachers. Seven items about the assessment goal questions. Three of them are the topmost positive responses "I use a reference table or standard procedure to convert scores to grades," "I use the answer key when grading multiple-choice, true-false, and matching objective tests," and "I will analyze the findings of the assessment using the scale that was established."

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Question</th>
<th>Response</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>I create a table of requirements as a guide for constructing the exam.</td>
<td></td>
<td></td>
<td></td>
<td>6 (3.1%)</td>
<td>100 (51.5%)</td>
<td>80 (41.2%)</td>
</tr>
<tr>
<td>11</td>
<td>I follow explicit instructions when evaluating tests and initiatives.</td>
<td></td>
<td></td>
<td></td>
<td>4 (2.0%)</td>
<td>28 (14.4%)</td>
<td>79 (40.7%)</td>
</tr>
<tr>
<td>12</td>
<td>I use the answer key when grading multiple-choice, true-false, and matching objective tests.</td>
<td></td>
<td></td>
<td></td>
<td>1 (0.5%)</td>
<td>14 (7.2%)</td>
<td>102 (52.6%)</td>
</tr>
<tr>
<td>13</td>
<td>Other assessment categories, such as essay tests, projects, and student demonstrations, are graded using rubrics.</td>
<td>6 (3.1%)</td>
<td>89 (45.9%)</td>
<td>53 (27%)</td>
<td>42 (21.6%)</td>
<td>4 (2.1%)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I use a reference table or standard procedure to convert scores to grades.</td>
<td></td>
<td></td>
<td></td>
<td>5 (2.6%)</td>
<td>29 (14.9%)</td>
<td>103 (53.1%)</td>
</tr>
<tr>
<td>15</td>
<td>I employ established procedures to derive grades from a variety of assessment methods.</td>
<td>1 (0.5%)</td>
<td>15 (7.7%)</td>
<td>95 (48.9%)</td>
<td>68 (35.0%)</td>
<td>15 (7.7%)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I will analyze the findings of the assessment using the scale that was established.</td>
<td></td>
<td></td>
<td></td>
<td>2 (1.0%)</td>
<td>12 (6.19%)</td>
<td>94 (48.4%)</td>
</tr>
</tbody>
</table>

Legend: 5 – all time, 4 – frequently, 3 – occasionally, 2 – seldom, 1 – never
Table 4.5 above mentioned shows the above that the K-12 public high school teachers responded positively to question 14, "I use a reference table or standard procedure to convert scores to grades," with 103 (or 53.1%) of them responding "frequently" and 12 (or 6.19%) of them responding "occasionally." This suggests that the teachers are fully aware of the significance of employing assessment rubrics, namely multiple-choice, true-false, and matching objective tests as their typical assessment structures. These assessment forms must be linked to the lesson's structure to determine whether the objectives were accomplished. In an interview question, what strategies do you use to assess your students? Ms. Katrina answered, "Regarding the size of my class is about 60-65 students; I mostly use a grouping activity, a quiz bee type wherein students must prepare a 1/8 illustration board on which they write their answer and flash it at a given period. The second frequently employed assessment form I used is the essay because I know if my students have fully understood our topics [Interview, December 5, 2020]. Katrina implied her assessment design by adopting grouping activities such as quiz bee and asked her students to illustrate on board. Likewise, Mr. Nasir replied, "Okay! Ahh... during previous years until these years, I usually gave a selection type or multiple choice and essay type that compares two terms in which students can identify two terms between these words and other words [Interview, November 5, 2020]."

Table 4.6 presents the score means of TAP concerning the communication of assessment of Grade 10 and Grade 12 teachers. For items about communicating assessment questions. Two of them are the topmost positive responses "I take the time to explain the grading system to both my pupils and their parents," and "I describe to my pupils' parents what the outcomes of the national examination mean (e.g., average score, percentile rank, etc.)."

Table 4.6. Mean Score of Assessment Communication

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Question</th>
<th>Response</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>I take the time to explain the grading system to both my pupils and their parents.</td>
<td></td>
<td>_</td>
<td>_</td>
<td>16</td>
<td>105</td>
<td>73</td>
</tr>
<tr>
<td>18</td>
<td>The meaning of the evaluation results is something that I go over to my kids as well as their parents.</td>
<td></td>
<td>_</td>
<td>2</td>
<td>18</td>
<td>99</td>
<td>75</td>
</tr>
<tr>
<td>19</td>
<td>I describe to my pupils' parents what the outcomes of the national examination mean (e.g., average score, percentile rank, etc.).</td>
<td></td>
<td>1</td>
<td>24</td>
<td>89</td>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>On test results from students, I provide remarks.</td>
<td></td>
<td>7</td>
<td>92</td>
<td>48</td>
<td>43</td>
<td>4</td>
</tr>
</tbody>
</table>

Legend: 5 – all time, 4 – frequently, 3 – occasionally, 2 – seldom, 1 – never

Table 4.6 shows the teachers responded positively to item 17, "I take the time to explain the grading system to both my pupils and their parents," with 105 (or 54.1%) of them responding “frequently” and 16 (or 8.2%) of them answered “occasionally.” Those teachers imply that they communicate the results of their assessments to students and their parents as appropriate while delivering feedback and explaining grades. They stated that they frequently employed acceptable procedures and assessment tools. They also stated that they frequently followed appropriate procedures. When the author asked in an interview regarding communication types, "When you are grading your student, what kind(s) of feedback do you find to be the most helpful?" 15 out of 20 respondents replied they normally call the student's parents about the results of their evaluation grades and ask them to maintain their good grades or whether they asked the parents and students for remedial tests or study very well for the next time to acquire passing grades, particularly the student who have low scores on their academic performance.

1.1. Summary
From the abovementioned interviews, some teachers needed help understanding the methods of establishing validity and reliability. The said teachers need to be required to attend seminars, workshops, or conferences that would improve their skills in formulating questions of higher thinking skills. Furthermore, some teachers need to enhance or develop their skills in formulating appropriate assessment tools and strategies on items. Yet, educators understand the most effective method for assessing students is combining quizzes, graded recitations, and examinations. This is the plan that has been determined to be the most effective. According to the interview respondents of 15 of the 20 teachers interviewed, multiple-choice questions appeared to be the most common type on the assessment form they utilized most of the time. The completion of filling-the-blank type was indicated to be the second most frequently used type by three of the respondents, and the essay or rubric types were demonstrated by three of the participants. According to their mean scores, they generally indicated that they frequently practiced the assessment goals. However, they also consider assessment structure and communication are keys to quality classroom assessment.

5. Discussion

Teachers in public secondary schools of Maguindanao, both in Grade 10 and Grade 12, notice the assessment as vital to the quality of the classroom-based evaluation, as was indicated earlier. Specifically, they think about why they are undertaking an assessment, how to pick the proper methodologies for the job, and how to share the results effectively. In addition, most of the educators polled said that multiple-choice and completion examinations are the most often used evaluation forms in their classrooms. These findings suggest that teachers in the Maguindanao use effective assessment procedures, focusing on the assessment's goal to guide lesson planning and raise student achievement. In this body of work, several teacher assessment strategies have been described, and the importance of these skills for educators in the classroom has been emphasized. The belief that teachers familiar with assessment tools are better positioned to implement effective pedagogy and foster higher student learning underpins this emphasis.

A study by Hailaya (2014, p.114) on how public and private schools in grades 6- and Fourth Year teachers used assessment. He claims that the 'Purpose of' was their top priority whenever they used assessments or engaged in appraisal activities. They also mentioned frequently considering the 'Assessment Design' and 'Communication' when evaluating. Therefore, they typically select and utilize assessment methods or instruments to produce valuable findings in their assessment procedures. Similarly, they mentioned giving kids and parents feedback on assessments when necessary. They said they mainly employed the proper techniques and assessment methods/tools. According to the findings, secondary and sixth-grade educators routinely pay attention to assessment goals, strategies, and outcomes.

Consequently, assessment standards such as those implemented in New Zealand and Australia have been created to enhance instructors' assessment skills (DeLuca & Johnson, 2017). Lam's (2018) recently published paper proposed different components of teacher assessment literacy in assessment practices (TALIP), which refer to what and how innovative assessments are conducted in teachers’ work contexts and identify areas for possible intervention or improvement (Xu & Brown, 2016; Looney et al., 2017). However, despite the continued emphasis on assessing teacher competence, areas remain for improvement. First, research studies on assessment practices require further development. Numerous studies have been conducted on teacher assessment, but more on literacy and the concept of assessment of teachers’ knowledge and abilities. However, assessment practices have received less attention (Plake & Impara, 1997; Schafer & Graham, 2002).

In addition, most assessment research has only been conducted in the United States and a handful of other Western countries, including Hong Kong (Lam, 2018). This type of research has not yet been done in the Philippines, particularly in more rural regions like Maguindanao province. The findings have implications for educational development and policy assessment, yet the study's shortcomings should also be noted. According to the results, Grade 10 and 12 K-12 teachers must be more literate in student evaluation. This suggests that teachers in Maguindanao still need to gain assessment skills to be more competent in assessment methods in the classroom. This indicates that the school system of MBHTE policies
should be reviewed to evaluate whether student assessment has been made a focus and priority. Otherwise, applicable assessment policies must be included in the evaluation or reviewed and enhanced. This is especially important considering the recently implemented K-12 program across the country, which attempts to introduce additional assessment standards. Several local educators have recommended this reform, and our study backs them up. Furthermore, at the undergraduate and graduate levels, an academic degree focusing on educational assessment may be given (Ben Hailaya & Alagumalai, 2012). Moreover, the Philippine Regulation Commission (PRC) should develop and expand assessment questions that mirror the needed assessment techniques in the National Licensure Test for Teachers.

6. Conclusions and Recommendations

Using a modified questionnaire, this study aimed to investigate teachers’ assessment procedures. It also tried to bring attention to the problem of evaluation procedures used by K-12 in-service teachers of Maguindanao. After looking into the different aspects of the problem, the researchers in this study came to some new conclusions on how teachers assess their students and the relationships such practices have with other elements. However, the findings did not point to any apparent connection, either directly or indirectly, between the assessment techniques and the outcome variables. Despite this, it is generally agreed that this study makes some contributions or adds information to further relevant researchers. It has resulted in the delivery of extra knowledge and information that helps expand the understanding of assessment, its function in supporting student academic progress, and its fundamental importance in education, training, and practice. This study has similarly produced conclusions based on empirical evidence that could assist in guiding future development efforts in education, particularly in the province of Maguindanao and throughout the country. The researchers generally understood that boosting education quality in any nation requires a strong focus on standardized testing. As a direct result of this, there is an immediate demand for a comprehensive national study of the evaluation of teachers in the Philippines, which the government should pay attention to.

This research might be replicated nationwide to determine which teachers would benefit most from mandatory professional development through seminars, workshops, or conferences focused on developing higher-order thinking questions. Furthermore, some educators have room to grow in their ability to design valid and reliable means of evaluating student work. Considering it is strongly recommended that the Philippine Government, under the Bangsamoro Ministry of Basic, Higher, and Technology Education (MBHTE), make teachers’ assessment practices a focus of any in-service teacher education and training academic conference programs, either in the Philippines or elsewhere.

Declarations

Author contribution statement

Nhelbourne K. Mohammad: Conceived and designed the experiments, analyzed and interpreted the data, and wrote the paper.

Hongliang Ma: Menthol and supervised the entire article.

Akrim: Contributed reagents, materials, analysis tools or data; Conceived and designed the experiments.

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Data Availability Statement

The data are accessible via the first author upon reasonable request.

Conflicts of Interest
The authors declare that they have no conflicts of interest.

References


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Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Appendixfile.docx
- Questionnaire.docx