

Examining Assessment Methods in Pandemic-Era Online Distance Learning

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Abstract - Assessment is a pivotal aspect of online distance learning, posing challenges to educators' readiness and involvement. This study identifies prevalent assessment methods used during the pandemic in online distance learning, specifically investigating their adoption among teachers in the Philippines. The research assesses the relationship between online assessment methods and respondents' demographics, Internet and social media profiles, and online learning competencies. Participants, drawn from an open online course, completed a survey questionnaire, yielding 44 analyzable responses. Key findings indicate that multiple-choice and short-answer exams, review and critique tasks, learning logs, summaries or reflections, online discussions, virtual labs, and simulations were highly employed during the pandemic. Conversely, annotated bibliographies and postcard quizzes were utilized less frequently. Proficiency in technological tools significantly influenced the use of assessment methods. Moreover, differences in method utilization were noted based on respondents' gender, civil status, highest educational attainment, and internet or social media profiles. In conclusion, teachers in the Philippines demonstrated moderate utilization of standard online assessment methods. Recommendations include reintroducing these assessment tools to teachers through comprehensive and context-specific training to enhance their skill set to utilize these methods effectively.

Keywords: Electronic learning, Online learning, online assessment, technology-enhanced flexible learning, distance learning

1 Introduction

Online distance learning is highlighted as the learning modality during the COVID-19 pandemic. It equates to distance learning that is supported by technology. Online distance learning (ODL) modality comes with synchronous and asynchronous sessions. During synchronous sessions, students and teachers meet virtually for in-depth learning activities, such as doing online discussions or performance tasks. ODL also highlights more asynchronous class-paced activities that are intended to lessen the screen time of both students and teachers [1]. While ODL is implemented, looking into the different learning engagements is still essential. While teachers are conscious of and keep up with learner engagement with co-teachers, content, and learners, learner engagement with assessment and feedback was not given much focus and became a challenge. This resulted in students being disengaged with online assessment and feedback. Students find it more stressful to deal with online proctored exams than face-to-face ones. Online assessment is also a challenge due to the complex computer setup that teachers require.

In contrast, some teachers are not skilled enough to troubleshoot with their students. Also, technical procedures could be too complex for students to accomplish, leading to their lack of interest in assessment activities. Academic dishonesty and how to avoid it is a significant concern, as well as copyright issues on the assessment tools used. The coverage of learning outcomes is questioned due to how assessment is conducted online. These challenges contributed to the learners' commitment to submitting assessment activities [2]; [3]. All these contribute to assessment as a critical aspect of online distance learning.

Assessment is considered an essential part of measuring the learners' progress in knowledge and skills in education. "It provides observable evidence of learning, determines student progress, and demonstrates understanding of the curriculum." Moreover, assessment shapes the learners' independent, self-directed, and even lifelong learning in terms of knowledge and skills through exams and tests, performance tasks, and evaluation activities [4]. As with face-to-face assessments, online assessments comprise the formative, the summative, and the combined types. Formative assessments enable teachers to

give and learners to receive appropriate feedback regarding the learners' course mastery and meeting the learning objectives. Teachers analyze activity results and create modified instruction based on the analysis to improve student learning that prepares them for a graded assessment. In turn, students utilize the feedback to improve their knowledge and skills and better scaffold them in achieving the learning objectives. Common examples of online formative assessments are online discussions in blogposts, open forum activities, chats, and short and frequent quizzes with short answers and multiple-choice questions. Summative assessments come in the form of graded activities wherein the learner's results, outputs, and outcomes are the teacher's basis for an all-inclusive and objective decision on whether or not the learner has mastered the course and achieved the learning objectives. A sound summative assessment should reflect a balance between quantity and quality learning. Thus, utilizing a rubric in grading students is a must. Online, they usually come in the form of assigned tasks or assignments, course projects, e-portfolios, presentations through web-based tools, and major course exams such as midterm and final term exams.

The combined type of assessment is activities that can be used as scaffolding and can also be used for grading. Examples are case studies, simulation, experiential practicum, and self-evaluation[5]. Popular online assessment tools teachers use are online quizzes that give the students' scores right after taking the exam and provide instant feedback, such as Socrative and Google Forms. Popular to teachers is an assessment tool called Mentimeter and Poll Everywhere. It carries learning templates for attendance, quizzes, listening skills, formative assessments, icebreakers, after-lecture surveys, and real-time polls during discussions that are viewable to teachers and students. Teachers also go for game-based assessment tools such as Kahoot, wherein they can choose from thousands of learning games or the teacher can create one in just a short time[6]. Aside from gamified assessment tools, students prefer online quizzes and assignments. However, they get better grades in assignments over online quizzes[7].

Online assessments have become common ground to the academe during the COVID-19 pandemic, and different experiences on their usage have been presented. In Portugal's higher education institutions, teachers' and students' challenges were analyzed on online assessments. Initially, teacher skills in handling ODL assessments were at different levels. Hence, they had informal and formal sharing of experiences and assessment platforms. When they established their assessment systems, there came the concern of using fraud-free models and the realization that teachers were more focused on summative assessments than formative ones. On the side of the students, the problem was more of the different technical resources used in attending class sessions as well as privacy issues on turning on their cameras and audio and sharing their screens during performance assessments. In the end, an integrated assessment solution was established, using both summative and formative methods based on authentic assessment models. Also, the assessments should have the students' approval to participate in the assessment, and their devices allow assessment to enhance their skills[3]. In Türkiye, formerly Turkey, students' perception of online assessment and its relationship with their performance was studied. It was revealed that students do not prefer viewing content and participating in graded online discussions afterward. Online quizzes got the highest preference from students.

In contrast, assignments got the highest value as the assessment tool to give the learners high grades [7]. In the Middle East College case study on preventing academic dishonesty during assessment, teachers resorted to creating different questions for different students to preserve academic integrity in assessment, and they discovered it to be the best assessment method. It was also revealed that synchronous presentations are the next best assessment option. The results also show that the combination of various assessment methods, e.g., submission of a document with the online presentation, facilitates the prevention of academic dishonesty in learner assessment with the teacher verifying the learner's work during the presentation [2].

This research paper seeks to identify prevalent assessment methods used in online distance learning during the pandemic, particularly among teachers in the Philippines. The study aims to measure how these online assessment methods are utilized. Furthermore, it examines the correlation between the utilization levels of these methods and respondents' demographic details, Internet and social media profiles, and their competency in online learning.

2 Literature Review

In online distance learning, a myriad of assessments can be implemented. They come in simulations or real-world scenarios and case studies; peer-to-peer evaluation and critiquing; 1-minute or 100-word summary, synthesis paper, and reflection; laboratory reports and virtual laboratories; interactive tutorials and even games. Collaborative work comes in the form of collaborative inquiry projects, breakouts, and virtual group discussions. Familiar and popular assessment methods in face-to-face modality are also used, namely multiple choice, short answer exams, polls and surveys, and portfolios. Other assessment forms include learning logs, troubleshooting, diagrams and flowcharts, annotated bibliography, and postcard quizzes.

In online learning, simulations are tasks in real-world and work scenarios that assess experiential learning and skills and are completed virtually, free from real-world hazards. Though virtually and safely conducted, it should be realistic and in a context such that accurate results and outputs can be assessed[8]. The downsides of simulations are their cost, the authenticity of the simulation environment when done online, and, in the teacher's case, the time spent mastering or training with the simulation tools needed for online learning[9]. Case studies also illustrate real-life problems that need to be analyzed and solved. This assessment tool utilizes problem-based learning, wherein student reasoning, decision-making, and problem-solving skills are measured [10]. What is challenging about using case studies as an assessment tool is that it can create bias, and the analysis of data may take longer [11].

Peer-to-peer evaluation as an assessment tool paves the way to critiquing, another type of

assessment, in a more structured and organized manner through a series of activities in which learners in pairs, for example, give feedback to each other's output or performance. This develops the learners' skills in giving feedback to others constructively while preparing to do self-assessments and levelup their work[12]. Peer reviews allow students to participate in feedback while reflecting on what they have learned and conveyed to their peers and teachers consistently and constructively [13].

Another form of ODL assessment that is very familiar to teachers and students is the online quiz, which is the closest to the traditional assessment tool. Doing it online provides a high student engagement in assessment. Like pen-and-paper exams, they come in different question types such as multiple choice, short answer, and fill-in-the-blanks. The primary advantage of this type of assessment is how questions and choices can be randomized so that each learner takes a unique quiz regarding the order of questions. It can be a formative and summative assessment [13]. Another familiar but virtual type of assessment is giving students open-ended or essay questions. This is considered the most commonly used qualitative type of assessment, and this allows learners to " explore their thoughts, feelings, and opinions, while testing their overall comprehension of a topic" at the same time, develop critical thinking and problem-solving skills of the learners since higher-order learning is evaluated in this method. There is a need for students to be given ample time to think, organize, and write their essays[13].

In ODL, forums and discussions can be done asynchronously and synchronously. Nowadays, the teacher can give an activity where students are given the space to convey their ideas, expound on the topic, and levelup their understanding of the lesson through a forum post activity, and all of the class can view, reply, and learn something from it; this can be done asynchronously. Meanwhile, synchronous sessions could become productive by spending it with an online discussion, which is a suitable venue for deepening knowledge. Here, the teachers "guide the online discussion by posting prompts and thought-provoking questions."This could become the most effective

method of qualitative assessment when paired with close monitoring on the part of the teacher. The teachers could also take note of those active and passive participants in forum and discussion activities [8].

With the advent of polling apps, teachers are already adapting the usage of quick polls and surveys during discussions. They allow for quick feedback from your students, especially on intricate or complex topics, and the teachers get the result quickly while discussing. The real-time feedback allows the teachers to quickly decide whether to continue the lesson, repeat, or expound the discussion. This assessment method is highly engaging to students. This could also be used to measure learner satisfaction, break the ice, and ask about their choices in a discussion [13].

3 Methods

This study was conducted online as part of an open online course from August 2021 to February 2022. The respondents were teacher-participants of the course. Two survey questionnaires were used to extract data sets, and 44 responses were analyzed. These 44 responses were from the assessment module survey activity participants who completed both surveys.

A 5-point Likert scale was used to express the frequency of utilizing online assessment methods, with 1 equating to never; 2, rarely; 3, occasionally; 4, a moderate amount; and 5, a great deal as well as to show the teachers' online learning competencies on tools: 1 is equal to poor; 2, fair; 3, good; 4, very good; and 5 equating to excellent. A 4-point Likert scale was utilized to indicate the teachers' competency in concepts and operations, with 1 equating to poor; 2, fair; 3, good; and 4, very good.

The following statistical tools were utilized in this paper: frequency and percentage in determining the teachers' demographic profile, teacher's internet and social media profile, and teachers' social technographic profile; overall mean to determine teachers' online competencies on concepts, online learning competencies on operations, online competencies on tools, and level of utilization of assessment methods; chi-square test to determine significant relationships;

and one-way analysis of variance (ANOVA) to determine significant differences.

4 Results

Table 1 shows the teachers' demographic profile. The study was participated by 44 teacher respondents from all over the Philippines. Most respondents are female (68%), and only 18% are male; 14% did not indicate sex. They come from a broad spectrum of academicians, from pre-school (5%), elementary (18%), junior high school (9%), senior high school (11%), and college and graduate school (41%); 16% did not indicate their teaching category. For their educational attainment, 41% are bachelor's degree holders, 34% have a master's degree, and 11% have a doctorate; 14% did not indicate their educational attainment.

Table 1. Teachers' Demographic Profile

Demographic Profile	f	%
Sex		
Male	8	18%
Female	30	68%
No data	6	14%
Total	44	100%
Civil Status		
Single	19	43%
Married	18	41%
Widowed	0	0%
Others	1	2%
No data	6	14%
Total	44	100%
Teaching Category		
Pre-School	2	5%
Elementary	8	18%
Junior High School	4	9%
Senior High School	5	11%
College/Graduate School	18	41%
No Data	7	16%
Total	44	100%
Highest Educational Attainment		
Bachelor	18	41%
Master	15	34%
Doctorate	5	11%
	6	14%

No data	44	100%
Total		

Table 2 presents the teachers' internet and social media profiles. On their experience in connecting to the Internet, most teachers (41%) found it 4. In contrast, no one found it very difficult. Among the 44 teachers, 86% have Facebook accounts, and 73% do not have Twitter accounts, while only 14 have a Twitter account. Six respondents did not provide any answer.

Displayed in Table 3 is the teachers' social technographic profile. Most teacher respondents are spectators (32%), meaning they read blogs monthly, listen to podcasts, watch videos from other users, and read online forums, consumer ratings/reviews, and tweets. There is only one teacher who belongs to creators (2%), another teacher who belongs to critics (2%), and another one a collector (2%); 23% are conversationalists who weekly update their status on a social networking site and post updates on Twitter.

Table 2. Teachers' Internet and Social Media Profile

Internet and Social Media Profile	f	%
What is your experience in connecting to the Internet, whether in school or at home?		
1 – very difficult	0	0%
2	1	2%
3	9	20%
4	18	41%
5 – not difficult	10	23%
No data	6	14%
Total	44	100%
Facebook Account		
Yes	38	86%
No	0	0%
No data	6	14%
Total	44	100%
Twitter Account		
Yes	6	14%

No	32	73%
No data	6	14%
Total	44	100%

Table 3. Teachers' Social Technographic Profile

Social Technographic Profile	f	%
CREATORS (monthly publishes blogs and websites, uploads videos you created, uploads audio/music you created, writes articles or stories, and posts them online)	1	2%
CONVERSATIONALISTS (weekly updates status on a social networking site, posts updates on Twitter)	10	23%
CRITICS (monthly posts ratings/reviews of products or services, comments on someone else's blog, contributes to online forums, and edits articles on a wiki)	1	2%
COLLECTORS (monthly uses RSS feeds, vote for websites online, add "tags" to web pages or photos)	1	2%
JOINERS (monthly maintains a profile on a social networking site and visits social networking sites)	8	18%
SPECTATORS (monthly reads blogs, listens to podcasts, watches videos from other users, reads online forums, consumer ratings/reviews, and tweets)	14	32%
INACTIVES (none of the above)	3	7%
No data	6	14%
Total	44	100%

Presented in Table 4 are the online learning competencies of teachers' concepts. The concept competency of flexible learning, online learning, and blended learning has the highest mean of 3.76, which is described as very good. In contrast, gamification and game-based learning in the classroom have the lowest mean of 3.0, which is described as good. The overall mean for teachers' online learning competencies for concept competency is described as very good at 3.33.

Table 5 displays the operations competency of the teachers' online learning competencies. The

operations competency of teaching synchronously using a video conference tool has the highest mean of 3.68, which is described as very good while creating an educational website has the lowest mean of 2.37, which is described as fair. The overall mean for teachers' online learning competencies for operations competency is 3.18, described as good.

Table 4. Online Learning Competencies on Concepts

Concepts Competency	Mean	Description
Flexible Learning, Online Learning, Blended Learning	3.76	Very Good
Educational Technology Instructional Designing	3.42	Very Good
Managing Online Teaching Resources	3.50	Very Good
Bi-chronous Delivery Strategies	3.21	Good
Gamification and Game-based in the Classroom	3.00	Good
Learner-to-Assessment Engagement in an Online Learning Environment	3.32	Very Good
Digital Tools for Research	3.13	Good
Emerging Innovations in Teaching and Learning	3.32	Very Good
Overall Mean	3.33	Very Good

Table 5. Online Learning Competencies in Operations

Operations Competency	Mean	Description
managing an online class using a learning management system	3.58	Very Good
teaching synchronously using a video conference tool	3.68	Very Good
creating pre-recorded lecture videos	3.53	Very Good
creating interactive presentation	3.32	Very Good
searching references using open education resources	3.39	Very Good
organizing teaching resources using the Cloud	2.97	Good
creating instructional online	3.18	Good

repositories using video-sharing platforms		
creating educational website	2.37	Fair
networking using a social learning platform	2.95	Good
gamifying content using online tools	2.87	Good
conducting interactive discussions using online polls, voting, word cloud, and other real-time online activities	3.24	Good
creating rubrics using online tools	3.34	Very Good
searching and reviewing related literature using advanced search tools	3.16	Good
collecting data using survey tools	3.47	Very Good
writing using advanced word processing techniques, proofreading, and checking manuscripts using open and free software tools	3.24	Good
indexing, sharing, and publication using online academic networks	2.63	Good
visualizing data using a spreadsheet	3.16	Good
Overall Mean	3.18	Good

Table 6 shows the teachers' online learning competencies on tools. The tools competency of using Google Drive has the highest mean of 4.16, described as very good. In contrast, the usage of ORCID has the lowest mean of 1.61, which is described as poor. The overall mean for teachers' online learning competencies on tools is 2.92, which is good.

Table 6. Online Learning Competencies on Tools

Tools Competency	Mean	Description
Moodle	2.55	Good
Zoom	3.84	Very Good
MS PPT	4.08	Very Good
Canva	3.34	Very Good
YouTube	3.97	Very Good

Google Drive	4.16	Very Good
Weebly	1.87	Fair
H5P	1.66	Poor
Mentimeter	2.63	Good
Poll Everywhere	2.50	Fair
Kahoot	2.79	Good
RubiStar	1.84	Fair
Google Form	4.00	Very Good
Mendeley	2.03	Fair
Google Advanced Search	2.87	Good
ORCID	1.61	Poor
MS Excel	3.97	Very Good
Overall Mean	2.92	Good

Table 8 displays the teachers' level of utilization of the assessment method. On the first method of simulations, case studies, or peer reviews, 6.82% of respondents answered that they have never used this assessment method, 20.45% said that they rarely use this assessment, 34.09% expressed that they have used it occasionally, another 34.09% have used it in a moderate amount, and only 4.55% have used it a great deal. Simulations, case studies, or peer reviews as an assessment method mean 3.09, described as used occasionally. The usage of 1-minute summary and reflection or lab reports among teacher respondents are as follows: no one answered that they have never used this assessment method, which implies that at some point, they have used this method;13.64% said that they rarely use this assessment;31.82% expressed that they have used it occasionally;the majority at 43.18% have used it in a moderate amount; and 11.36% have used it a great deal. 1-Minute summary and reflection, or lab reports as an assessment method, has a mean of 3.52, described as used in a moderate amount. On the assessment method of online discussions, virtual labs, or simulations, none of the respondents answered that they have never used or rarely used this assessment method; 13.64% expressed that they have used it occasionally; 50% or the majority have used it in a moderate amount, and 36.36% have used it a great deal. As an assessment method, online discussions, virtual labs, or simulations have a mean of 4.23, which is described as used greatly.

Also presented in Table 8 are interactive tutorials or games as an assessment method which was never used by 4.55% of the respondents; 11.36% said that they rarely use this assessment; 38.64% expressed that they have used it occasionally, and it is the level that has the highest percentage; 29.55% have used it in a moderate amount; and 15.91% have used it a great deal. Interactive tutorials or games as an assessment method have a mean of 3.41, which is described as used in a moderate amount. The usage of surveys, animations, or 100-word summaries as an assessment method among teacher respondents are as follows: 6.82% have never used this assessment method, 20.45% said that they rarely use this assessment,27.27% expressed that they have used it occasionally, the majority at 38.64% have used it in a moderate amount, and 6.82% have used it a great deal. Surveys, animations, or 100-word summaries as an assessment method have a mean of 3.18, described as used occasionally. On the assessment method of collaborative inquiry projects, synthesis papers, and portfolios, 4.55% of the respondents answered that they have never used this assessment method, 6.82% rarely used this assessment method,25.00% expressed that they have used it occasionally,36.36% or the majority have used it in a moderate amount, and 27.27% have used it a great deal. Collaborative inquiry projects, synthesis papers, and portfolios as an assessment method have a mean of 3.75,described as used in a moderate amount.

Found in Table is the method of multiple choice, short answer exams, review, critique, learning logs, summaries, or reflections wherein none of the respondents answered that they have never used or rarely used this assessment method, 9.09% expressed that they have used it occasionally, 22.73% have used it in a moderate amount, and the majority at 68.18% have used it a great deal. Multiple choice, short answer exams, reviews, critiques, learning logs, summaries, or reflections as an assessment method has a mean of 4.59,which is described as used a great deal. The usage of troubleshooting, or diagrams and flowcharts among teacher respondents are as follows: 13.64% answered that they have never used this assessment method,25% said that they

rarely use this assessment, 31.82% or the majority expressed that they have used it occasionally, 20.45% of the respondents have used it in a moderate amount, and 9.09% have used it a great deal. Troubleshooting, or diagrams and flowcharts as an assessment method, has a mean of 2.86, described as used occasionally. On the assessment method real-world scenarios, 2.27% of the respondents answered that they have never used it, 4.55% rarely used this assessment method, 20.45% expressed that they have used it occasionally, 29.55% have used it in a moderate amount, and the majority at 43.18% have used it a great deal. As an assessment method, troubleshooting, or diagrams and flowcharts, has a mean of 4.07, described as used in a moderate amount.

Presented in Table 8 are annotated bibliography postcard quizzes as an assessment method that was never used by 20.45% of the respondents; 25% said that they rarely use this assessment; 29.55% expressed that they have used it occasionally, and it is the level that has the highest percentage; 18.18% have used it in a moderate amount; and 6.82% have used it a great deal. Annotated bibliography postcard quizzes as an assessment method have a mean of 2.66, described as used occasionally. The usage of polls and surveys as an assessment method among

teacher respondents are as follows: 6.82% have never used this assessment method, 9.09% said that they rarely use this assessment, 38.64% or the majority expressed that they have used it occasionally, 31.82% have used it in a moderate amount, and 13.64% have used it a great deal. Polls and surveys as an assessment method have a mean of 3.36, described as used occasionally. On the assessment method of breakout and virtual group discussion, 9.09% of the respondents answered that they have never used this assessment method, 6.82% rarely used this assessment method, 34.09% or the majority expressed that they have used it occasionally, 29.55% have used it in a moderate amount, and 20.45% have used it a great deal. Breakout and virtual group discussion as an assessment method has a mean of 3.45, described as used moderately. The assessment method with the highest mean is multiple choice, short answer exams, review, critique, learning logs, summaries, or reflections at 4.59, which is described as used a great deal. In contrast, the one with the lowest mean is annotated bibliography postcard quizzes at 2.66, described as used occasionally. The overall mean for the level of utilization of assessment methods is 3.51, which is described as a moderate amount of utilization of online assessment methods.

Table 8. Level of Utilization of Assessment Method

Assessment Methods	Never f (%)	Rarely f (%)	Occasionally f (%)	A moderate Amount f (%)	A great deal f (%)	Mean	Description
1. simulations, case studies, or peer reviews	3(6.82)	9(20.45)	15(34.09)	15(34.09)	2(4.55)	3.09	Occasionally
2. 1-minute summary and reflection or lab reports	0(0.00)	6(13.64)	14(31.82)	19(43.18)	5(11.36)	3.52	A Moderate Amount
3. online discussions, virtual labs, or simulation	0(0.00)	0(0.00)	6(13.64)	22(50.00)	16(36.36)	4.23	A Great Deal
4. interactive tutorials or games	2(4.55)	5(11.36)	17(38.64)	13(29.55)	7(15.91)	3.41	A Moderate Amount

5. surveys, animations, or 100-word summaries	3(6.82)	9(20.45)	12(27.27)	17(38.64)	3(6.82)	3.18	Occasionally
6. collaborative inquiry projects, synthesis papers, portfolios	2(4.55)	3(6.82)	11(25.00)	16(36.36)	12(27.27)	3.75	A Moderate Amount
7. Multiple choice, short answer exams, review, critique, learning logs, summaries, or reflections	0(0.00)	0(0.00)	4(9.09)	10(22.73)	30(68.18)	4.59	A Great Deal
8. troubleshooting, or diagrams and flowcharts	6(13.64)	11(25.00)	14(31.82)	9(20.45)	4(9.09)	2.86	Occasionally
9. real-world scenarios	1(2.27)	2(4.55)	9(20.45)	13(29.55)	19(43.18)	4.07	A Moderate Amount
10. annotated bibliography, postcard quizzes.	9(20.45)	11(25.00)	13(29.55)	8(18.18)	3(6.82)	2.66	Occasionally
11. polls, survey	3(6.82)	4(9.09)	17(38.64)	14(31.82)	6(13.64)	3.36	Occasionally
12. Breakout and virtual group discussion	4(9.09)	3(6.82)	15(34.09)	13(29.55)	9(20.45)	3.45	A Moderate Amount
Overall Mean						3.51	A moderate amount

Table 9 displays the results of the analysis made to ascertain whether or not a significant relationship exists between each of the components included in the respondents' demographic profile and their level of utilization of assessment methods. It is worth noting that only operations and tools in online learning competencies appeared to be significantly related to the level of assessment method utilization. The utilization level of assessment depends on the teachers' operations and tools competencies. Advanced teacher skills in tools and operations would mean advanced usage of assessment methods.

Table 9. Test of Relationships Between the Profiles and Level of Utilization of Assessment Methods

Demographic profile	χ^2	p-value	df	Remarks
Sex	7.73	0.46	8	Not Significant
Civil status	6.00	0.99	16	Not Significant
Teaching category	13.55	0.85	20	Not Significant
Highest educational	5.9	0.9	12	Not Significant

attainment				
Internet and Social Media profile	χ^2	p-value	df	Remarks
FB	3.77	0.88	8	Not Significant
Twitter	4.81	0.78	8	Not Significant
Internet Satisfaction	8.50	0.99	20	Not Significant
Social Technologic	25.99	0.57	28	Not Significant
Online Learning Competencies				
Concepts	χ^2	p-value	df	Remarks
Concepts	33.41	0.22	28	Not Significant
Operations	97.97	0.00	64	Significant
Tools	303.42	0.00	64	Significant

Delineated in Table 10 is the result of the ANOVA analysis in determining whether the respondents' assessment method utilization across the different groups significantly differs. As can be gleaned from the Table, teaching category, concept competency, and tools competency do not significantly differ. This result is manifested in their *p*-value, greater than the margin of error at 0.05. This shows that although there are differences in their weighted means, such differences have not reached the significance level. Thus, the teacher-respondents among the different groups have the same degree of assessment tool utilization.

The utilization of online assessment methods significantly differs among teachers regarding sex, civil status, and highest educational attainment. Similarly, their utilization of assessment methods significantly differs regarding their internet and social media profiles, including online learning operation competencies.

Table 10. Test of Differences between Profiles and Level of Utilization of Assessment Methods

demographic	F	p-value	Remarks
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profile			
Internet and Social Media profile	F	p-value	Remarks
Sex	156.21	0.00	Significant
Civil status	158.10	0.00	Significant
Teaching category	0.47	0.50	Not significant
Highest educational attainment	132.79	0.00	Significant
Online Learning Competencies			
Concepts	F	p-value	Remarks
Concepts	1.50	0.22	Not significant
Operations	5.36	0.02	Significant
Tools	3.44	0.07	Not significant

5 Discussion

The results reveal a spectrum of utilization levels for various assessment methods in online distance learning among teachers in the Philippines during the pandemic. Specific methods like online discussions, virtual labs, and simulations received a notably high utilization level, indicating that these were frequently employed in the educational landscape. On the other hand, methods such as annotated bibliography or postcard quizzes were reported to be used occasionally, indicating a lower prevalence in instructional practice. The mean value across all assessment methods suggests a moderate level of utilization overall among teachers. These findings bear significant implications for educators and policymakers. Methods garnering higher utilization rates, such as online discussions and virtual labs, signify their perceived effectiveness in facilitating learning and engagement within the online classroom [14]. This suggests that these interactive and collaborative

methods might be valued for their ability to simulate real-world scenarios and foster active student participation.

Conversely, the lower utilization of certain methods, such as annotated bibliography or postcard quizzes, could prompt a reevaluation of their relevance and effectiveness in the online teaching environment. Understanding the reasons behind their infrequent use could offer insights into the challenges or limitations hindering their adoption[15]. Moreover, the utilization distribution across various methods suggests a need for tailored support and training for educators. For instance, methods like simulations, case studies, and peer reviews, despite being occasionally utilized, might benefit from additional guidance or resources to increase their integration into teaching practices. Recognizing the importance of comprehensive support mechanisms could enhance the effective implementation of various assessment techniques.

On the other hand, examining relationships between various profiles and the level of utilization of assessment methods among educators in the Philippines during the pandemic revealed intriguing insights. The statistical analysis indicated that demographic profiles, including sex, civil status, teaching category, and highest educational attainment, showed no significant relationship with using assessment methods. This suggests that these demographic factors did not significantly impact how educators utilized different assessment techniques in the online teaching environment. Moreover, the statistical analysis revealed no significant associations when considering internet and social media profiles, such as engagement with platforms like Facebook and Twitter, as well as internet satisfaction and social technologic factors. This implies that educators' usage of these platforms or their satisfaction with internet services did not notably influence their utilization of assessment methods. However, in contrast, the study unearthed significant relationships between online learning competencies and the level of utilization of assessment methods. Specifically, educators' competencies in the operational aspects and tools of online learning showed a significant association with their assessment methods. This implies that a

higher level of competence in operating online learning tools is directly correlated with a more substantial utilization of various assessment methods. It underscores the vital role of educators' technical proficiency in shaping their use of diverse assessment techniques in the online teaching landscape[16]. The implications of these findings are multifaceted. While demographic and social profiles may not significantly influence educators' adoption of assessment methods, the strong correlation between online learning competencies, particularly in operational skills and tool utilization, and implementing assessment methods suggests the critical importance of enhancing educators' technical proficiency. Training and support focusing on honing these competencies could notably enhance the diverse utilization of assessment methods among educators, potentially enriching the online learning experience for students[17].

Further, examining differences between various profiles and the level of utilization of assessment methods among educators in the Philippines during the pandemic has produced noteworthy insights. The statistical analysis revealed significant differences in the utilization of assessment methods concerning specific demographic and internet/social media profiles. Specifically, sex, civil status, highest educational attainment, engagement with social platforms like Facebook and Twitter, and internet satisfaction demonstrated significant associations with adopting assessment methods. These findings imply that these demographic and internet/social media factors substantially shape how educators employ diverse assessment techniques in online teaching environments. In contrast, the teaching category and specific aspects of online learning competencies, such as understanding concepts and using tools, did not exhibit significant differences in using assessment methods. This suggests that these particular facets might not significantly impact the breadth or manner in which educators apply various assessment techniques in their online teaching practices[18]. The implications of these findings are significant. The identified significance of demographic factors like sex, civil status, and highest educational attainment in influencing the utilization of

assessment methods underscores the importance of acknowledging these aspects when designing strategies or interventions to enhance the integration of assessment techniques in online teaching. Understanding and accommodating educators' diverse demographic backgrounds and engagement with social platforms can potentially enrich their approach to using assessment methods, contributing to a more comprehensive and practical online learning experience. Moreover, the identified significance related to social media engagement, particularly on platforms like Facebook and Twitter, and internet satisfaction emphasizes the need to consider educators' comfort and familiarity with these platforms when designing training programs or educational interventions. Enhancing educators' skills and familiarity with these platforms could potentially lead to more effective and diverse utilization of assessment methods, further enriching the online teaching landscape[19].

6 Conclusion and Recommendations

The research aimed to comprehensively analyze the utilization of various assessment methods in online distance learning among educators in the Philippines during the COVID-19 pandemic. The investigation encompassed multiple dimensions, examining the relationships and differences between demographic profiles, internet/social media engagement, and online learning competencies concerning using assessment methods. The findings elucidated the multifaceted landscape of factors influencing the adoption of assessment methods. The results showcased significant associations between specific demographic attributes, such as sex, civil status, and highest educational attainment, with the utilization of assessment methods. This highlights the importance of considering these demographic factors when devising strategies to enhance the integration of assessment techniques in online teaching practices.

Moreover, the study unveiled noteworthy relationships between engagement on social media platforms like Facebook and Twitter, along with internet satisfaction and the utilization of assessment methods. Recognizing the influence of educators' comfort and proficiency with these

platforms may inform tailored interventions to enrich their approach to employing assessment methods[20]. However, specific dimensions, such as the teaching category and some aspects of online learning competencies, did not exhibit significant associations with using assessment methods. This suggests that these specific factors might have a limited impact on how educators apply various assessment techniques in the online teaching environment.

Several vital recommendations emerge based on the objectives, results, and conclusions drawn from this study on using assessment methods in online distance learning during the pandemic among educators in the Philippines. Firstly, it is imperative to devise tailored professional development programs to enhance educators' online learning competencies, particularly in operational skills and tool utilization. Addressing these technical competencies can significantly impact the comprehensive integration of diverse assessment methods, ultimately improving the online learning experience. Secondly, acknowledging the significance of demographic factors such as sex, civil status, and highest educational attainment in influencing the utilization of assessment methods calls for a need to recognize and accommodate educators' diverse backgrounds. Designing strategies considering these demographic attributes and providing support can facilitate a more effective and comprehensive approach to employing assessment techniques in online teaching practices.

Moreover, given the significant associations found between engagement on social media platforms like Facebook and Twitter and the level of internet satisfaction with using assessment methods, educators can benefit from training initiatives focusing on utilizing these platforms effectively for educational purposes. Enriching educators' familiarity and skills with these platforms could enhance their approach to employing assessment methods, thereby improving the overall online learning landscape[21]. Additionally, understanding the relationship between specific internet and social media profiles and the integration of assessment methods emphasizes the need for ongoing support and resources.

Encouraging educators to leverage these platforms for educational purposes and providing guidance on best practices can amplify the effectiveness of various assessment techniques in the online teaching environment.

Acknowledgment

We express our gratitude for the funding generously provided by the Philippines's Private Education Assistance Committee through the Association of Christian Schools, Colleges, and Universities of the Philippines. Our sincere appreciation also goes to the participants of the International LET-IN 2022 Conference, held from October 6-8, 2022, conducted via Zoom, for their valuable comments and suggestions on the initial version of this paper.

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