Learning Reflection During Covid-19 Pandemic: Teacher Perception Toward Google Form Based Test

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Abstract: This study aims to analyze the usability of Google Form as an online learning assessment tool. This study uses a quantitative approach through survey methods. Respondents in this study were teachers from various levels of education ranging from elementary to high school levels and from various subjects. The respondents' answers were collected by using a Google Form questionnaire. The analysis results show that using Google Forms is the most straightforward alternative for conducting online assessments. Assessment through Google Form has the principle of being an open system, so it takes the ability to use it. The novelty in this study is to determine the proficiency of Google Forms as an assessment tool during the COVID-19 pandemic and teacher perceptions of the assessment principles using Google Forms. Using Google Forms as an assessment tool during the Pandemic requires additional teachers' competencies for designing a better assessment process. Thus, the comparison of the assessment principle with the assessment process using Google Form to conduct a Pedagogical Review can be considered in designing an assessment using Google Form.

INTRODUCTION

Assessment of student learning outcomes is a teacher activity in making decisions about student achievement in the learning process (Bariah, 2019; Gao, 2020). Assessment is an essential point for measuring abilities and advancing students' skills in class. Educators must provide good assessments in students' cognitive, affective, and psychomotor domains with efficient and quality techniques and methods (Hariono et al., 2021).

During in-person learning, the teacher conducts the assessment by giving questions to students directly. However, the situation is quite different during the COVID-19 pandemic, where the alternative way to achieve this is by organizing online learning globally (Abduh, 2021; Gamage, 2020). These changes are not easy challenges for teachers and students in the learning process, namely downloading songs and conventional methods

for e-learning platforms (Atsani, 2020; Giatman et al., 2020). It impacts the assessment of learning that must be done online.

During the implementation of online learning, teachers use several supporting applications in giving assignments or learning assessments, one of them is Google Forms (Mulatsih, 2020). Previous research has stated that Google Forms can support learning in subjects/lectures that have been programmed in the classroom (Herlina et al., 2019). According to (Anderson, 2019), Google Form is an easy free accessible application from electronic devices and supports various questions. In addition, it can also organize student assignments or exercises to be more efficient (Iqbal et al., 2018). Google Form can be an alternative for teachers in conducting evaluations. It is due to the teacher's interest in making evaluations through the Google Form (Mardiana & Purnanto, 2017). In addition, it is easy to access through a tool that can be set to perform an assessment automatically (Hadianti et al., 2021).

The use of Google Forms is perfect for teachers in developing fun things (Scheef & Johnson, 2017). It can increase profits in classroom learning, such as encouraging students to provide comments and collect reflections after learning (Nguyen et al., 2018). Therefore, it is necessary for teachers' perceptions of assessments using Google Forms in learning during the COVID-19 pandemic.

Based on the background and literature review above, the problem in this study is the use of Google Forms as an online assessment tool. The analysis refers to the Objectives, namely Accurate, Objective, Fair, Open, Integrated, Holistic, Accountable, and Educative. Based on the formulation of the problem, this study has several studies: 1) how is the reliability of Google Forms as an assessment tool during the COVID-19 pandemic? 2) What is the teacher's perception of Google Forms related to the assessment principle? And 3) What is the perception of teachers who do not use Google Forms related to the assessment principle?

METHOD

This research uses a quantitative approach with a survey method. Participants in this study were 115 teachers (n = 69 teachers using google form, n=46 teachers not using google form) from various levels (primary, junior high school, and senior high school) and various subjects, as shown in Table 1. 46 statements consisted of forty positive statements and six negative statements. The instrument has been validated and revised based on input from the validator.

Table 1. Respondent Distribution

No	Criteria		N	Frequency (%)
1	Google Form	User	69	60.00
		Non-user	46	40.00
2	School LMS	Provided	56	49.70
		Not provided	59	51.30
3	Type of School	Public	60	52.20
		Private	55	47.80
4	Teaching experience	< 5 years	93	80.90
		5-10 years	7	6.10
		years	12	10.40
		> 20 years	3	2.60

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Empirical analysis on the questionnaire for teachers using Google Forms, the instrument is stated valid with an internal consistency value of 0.83 using Cronbach alpha (Özden, 2008). The instrument's reliability also shows that the reliability value is 0.84 with a reasonable interpretation (Meeker et al, 2017). Furthermore, the questionnaire for teachers who do not use google form has an internal consistency value of 0.89 using Cronbach alpha and instrument reliability of 0.89.

The survey instrument used consists of eight aspects that follow as an assessment. The dimensions and objectives related to the questionnaire items are as follows (See Article Attachment).

Table 2. The Aspect of Assessment

No	Aspect	Items	Explanation
1	Accurate	1A, 2A, 3A, 1B, 2B, 3B	This item aims to determine the teacher's perception of the accuracy of the assessment using Google Forms.
2	Objectives	4A, 5A, 6A, 4B, 5B, 6B	This item aims to determine the teacher's perception of the objectivity of the assessment using Google Forms.
3	Fair	7A, 8A, 9A, 7B, 8B, 9B	This item aims to determine the teacher's perception of the ability of Google Forms to support the implementation of a fair assessment.
4	Overt	10A, 11A, 12A, 10B, 11B, 12B	This item aims to determine the teacher's perception of the ability of Google Forms to support the implementation of an honest assessment.
5	Integrated	13A, 14A, 13B, 14B	This item aims to determine teacher perceptions regarding the ability of Google Forms to support the implementation of an integrated assessment.
6	Holistic	15A, 16A, 17A, 15B, 16B, 17B	This item aims to determine the teacher's perception of the ability of Google Forms to support the implementation of a holistic assessment.
7	Accountability	18A, 19A, 20A, 18B, 19B, 20B	This item aims to determine the teacher's perception of the ability of Google Forms to support the implementation of an accountable assessment.
8	Educational	21A, 22A, 23A, 21B, 22B, 23B	This item aims to determine teacher perceptions regarding the ability of Google Forms to support the implementation of educational assessments.

The data were then analyzed using the theory response items with the estimated agreement indicating the teacher's tendency. Data analysis was carried out using the Quest program. Furthermore, teacher tendencies are categorized based on Table 3. Mi scores are calculated using equation 1, and SBi scores are computed using equation 2 (Elvanisi et al., 2018; Wulantina & Maskar, 2019).

$$M_i = \frac{1}{2}\left(Maximum\,Score + Minimum\,Score \right)$$

$$SB_i = \frac{1}{6}\left(Maximum\,Score - Minimum\,Score \right)$$

Table 3. Teacher's Perception Category

Score	Category
X > Mi + 0,5 SBi	Appropiate
Mi + 0,5 SBi > X > Mi - 0,5 SBi	Sufficient
Mi - 0,5 SBi > X > Mi - 1,5 SBi	Deficient
X < Mi - 1,5 SBi	Not appropiate

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RESULT AND DISCUSSION

Perceptions of Teachers Who use the G-Form

Google forms are the most straightforward alternative to carry out the online assessment process. Teachers who already have a school LMS still choose Google Forms as an alternative for the assessment. This study indicates that 44.93% of teachers who actively use google forms have independent school LMS.

Of the total of 69 of the teachers who actively used google forms as an alternative assessment during the pandemic, 42% stated that Google Forms tended not to meet the assessment principle. As many as 17% of teachers indicated that they were not suitable, 22% indicated conveniently. Only 19% of teachers considered that the google form was appropriate or fulfilled the assessment principle, as shown in Figure 1.
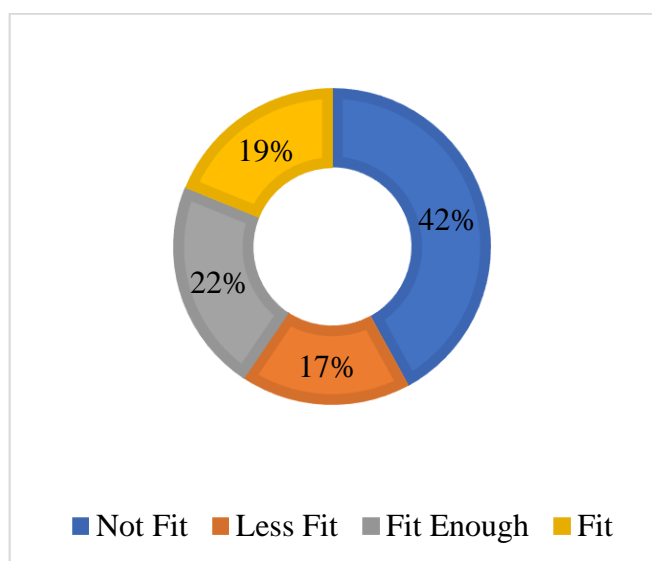

Figure 1. Level of teachers' agreement for appropriateness

In more detail, 46.15 % of 19% of teachers with school LMS availability agreed that the Google Form had met the assessment principle. As many as 46.57% of the 22% of teachers with LMS availability stated that the google form was excellent to fulfill the assessment principle. Meanwhile, 50.00% of 17% of teachers from schools with LMS availability stated that the google form did not meet the assessment principle, and 41.38% of 42% said that the google form tended not to meet the assessment principle. However, the teachers still actively use the google form as an alternative assessment.

These results indicate that LMS use, especially in the assessment features, is still not optimal. The assessment/exam feature in the LMS is not quite popular for several reasons; the learning system in the LMS needs to be integrated, which cannot use only one feature (Irawan, 2020; Mansah ARH, 2021; Ramadhani et al., 2019). Another factor is the tendency of LMS to require independent servers placed in each school (Sakova & Chevereva, 2020; Ukhov et al., 2021). This server is less stable than Google's advanced servers. Therefore, it takes a long time to refresh/load than using the LMS, especially the

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test feature. Furthermore, the analysis based on each aspect of the assessment is shown in Figure 2.
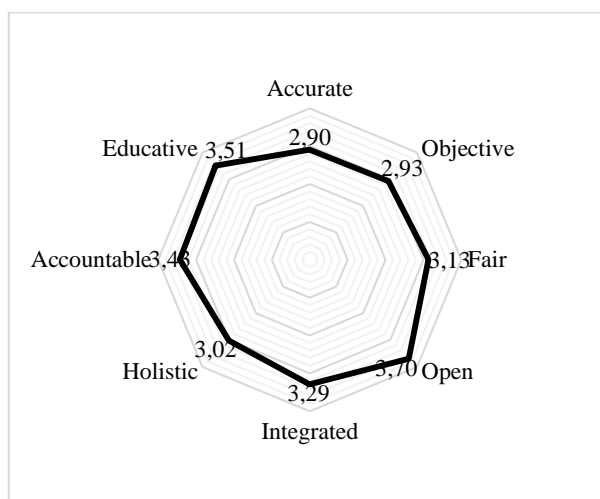

Figure 2. The Perception of Teacher Towards the Suitability of Assessment Using The G-Form in Each Aspect

Figure 2 is the level of teacher approval regarding the suitability of the google form with the assessment principle. Each score is displayed on a maximum scale of 4.00. Based on Figure 2, the transparency has the highest level of conformity with a score of 3.70 out of 4.00 or 92.50%. This claim is quite reasonable because technological assistance assessments tend to be more open (Rohimat, 2021). Openness in the technology-based assessment process, such as the google form, includes the ease of dissemination, f duplicating, and opening access to parties interested in the assessment results through the sharing feature.

Based on the teacher's experience as an active user, accuracy is the least highlighted principle of assessment using the google form with an average score of 2.90 from a scale of 4.00 or a percentage of 72.50%. These results illustrate a possibility of bias in making an assessment using the google form. However, the statement items that refer to this principle tend to be related to the "construction" aspect of the questions in the test (Novitasari et al., 2017). So, indirectly, this principle is also closely related to the teacher's ability to formulate questions. The compiled questions indeed have to be supported by the features in the google form. Furthermore, by referring to the interpretation in Table 1, based on the teacher's experience, it can be stated that the google form has met the assessment principle in each aspect.

Perceptions of Teachers Who use the G-Form

Besides the google form, many free and online platforms can support the implementation of the online assessment process where some teachers try to use these alternatives. In this part, the teachers who responded had used the google form as an alternative assessment. The conclusions obtained based on the perception of teachers who are not actively using the google form are shown in Figure 3.
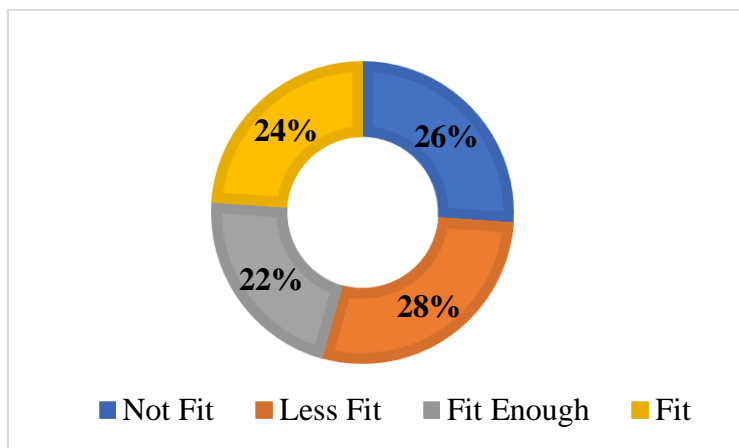
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Figure 3. The Approval Level of Teacher as The User Based on The Appropriateness

Based on Figure 3, teachers tended to state that the google form was not meet the assessment principle. This data is evidenced by as many as 26% of teachers stated that they were not appropriate, and 28% of teachers stated that they were not suitable. On the other hand, as many as 22% of teachers still stated that the assessment using the google form was still quite relevant to the principle of assessment and as many as 24% of teachers stated that it was relevant.

This result is quite different from the assumption expressed by teachers who actively use google forms as an alternative assessment during the pandemic. In more detail, the response of teachers who are not actively using the google form is shown in Figure 4.
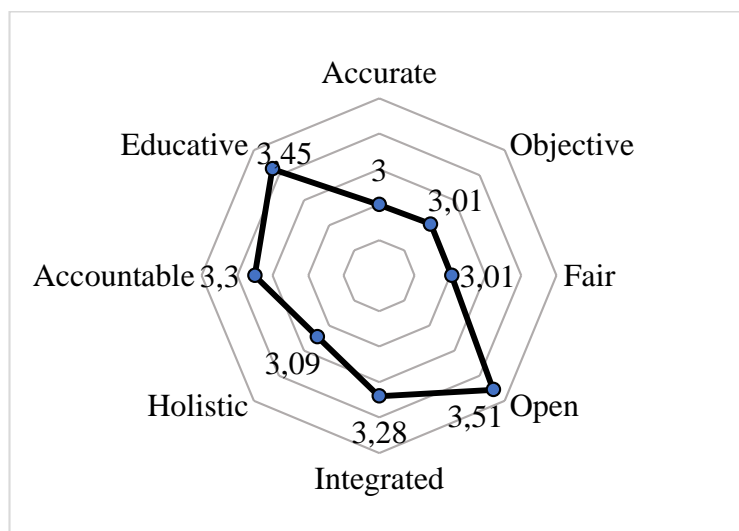

Figure 4. Teacher Perceptions of the Suitability of Assessment using the G-Form in each Aspect

Based on Figure 4, the teachers overall stated that the google form met the principle of assessment in every aspect of the assessment. The average approval was higher than the teachers who actively used the google form. On the principle of accuracy, the average score for the principle was 3.00. The same result was also found in the objective aspect; the average score was only 2.93 lower than the average score given by active users teachers. However, there is no significant difference in teacher perceptions either based on

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experience for teachers who were the user or from the observations for teachers who did not use google form.

Furthermore, on the principle of fairness and openness, teachers who did not use the google form assumed that the google form's assessment was less fair and less open (Wibowo & Rahman, 2021), with an average score of 3.01. This score was lower than the score given by the teacher based on experience using google form with an average score of 3.13 for the fair aspect and 3.70 for the openness. This finding shows that, in principle, the google form fulfills the fair and honest principle depending on the teacher in designing the assessment (Abdurrahman et al., 2020; Hariono et al., 2021).

In the integrated, holistic, accountable, and educative aspects, the average score given by active users by teachers was the same as the average score given by overall teachers. The estimations given are based on observations by teachers who were not actively using google forms. Meanwhile, it was proven by experience made by teachers who the active user.

CONCLUSION

Google form is, in principle, an open system that requires the ability to operate. The use of google forms as a medium for conducting assessments during the pandemic also needs the ability. Teachers' additional competencies are also required to design a good assessment using the google form. The comparison of the assessment principle with the assessment process using the google form aims to conduct a pedagogical review; thus, it can be considered for designing an assessment using the google form. The pedagogical study carried out is based on the experience of teachers who actively used the google form in assessment during the pandemic or to the teachers who did not use google form. Furthermore, it is necessary to confirm studies related to pedagogical reviews associated with the use of google forms for academic assessments to produce online assessment signs using google forms.

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