



# Questionnaire of Students' Responses in Use Google Classroom: Validity and Reliability Tests

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## Abstrak

Fenomena penggunaan Google Classroom sebagai platform E-learning dalam pelaksanaan kegiatan belajar mengajar secara daring di masa pandemi telah banyak bermunculan. Berdasarkan fenomena tersebut, tanggapan siswa terhadap penggunaan Google Classroom sebagai platform online dalam pembelajaran bahasa Inggris diselidiki dalam penelitian ini. Dalam menyusun angket soal yang valid dan reliabel penulis melakukan uji coba soal angket. Kriteria valid; jika  $r_{hitung} > r_{tabel}$  sedangkan item kuesioner reliabel jika item kuesioner memiliki nilai Cronbach's Alpha  $> 0,60$ . Hasil validitas item 27 item yang dianalisis hanya 26 item angket yang valid dan 1 item tidak valid karena item ini memiliki nilai hitung  $< 0,312$  yaitu 0,245. Hasil reliabilitas menunjukkan 26 item dari 4 dimensi dianalisis dan semua item reliabel dan konsisten karena memiliki nilai Cronbach Alpha  $> 0,60$ . Setelah kuesioner dibagikan kepada sampel diharapkan data memperoleh validitas dan reliabilitas.

**Kata Kunci:** Google Classroom, Validitas, dan Reliabilitas, Kuesioner

## Abstract

The phenomenon of using Google Classroom as an E-learning platform in implementing online teaching and learning activity during pandemics has been appearing. Based on the phenomena, students' response toward the use of Google Classroom as an online platform in learning English was investigated in this study. In preparing a valid and reliable items questionnaire the writer was conducted a try-out items questionnaire. The criteria valid; if  $r_{count} > r_{table}$  while, items questionnaire is reliable if items questionnaire has Cronbach's Alpha value  $> 0.60$ . The result of validity items is 27 items was analyzed only 26 items questionnaire was valid and 1 item not valid because this item has value  $r_{count} < 0.312$  that is 0.245. The result of reliability showed 26 items from 4 dimensions were analyzed and all items are reliable and consistent because it has Cronbach Alpha value  $> 0.60$ . After the questionnaire was distributed to the sample hopefully data were gaining validity and reliability.

**Keywords:** Google Classroom, Validity, and Reliability, Questionnaire

## 1. INTRODUCTION

The effect of Covid-19 has been changing the teaching and learning process. The teaching and learning processes are usually conducted face to face and now have been conducted online. Implementing online teaching and learning activity is an effective solution to avoid the increase of Covid-19 disease. In conducting online teaching and learning activity, teacher and student can use technology as facilitators to implement the teaching and learning processes. The use of technology and platform facilitated students and teachers to conduct learning through long distances.

In implementing online learning teachers usually used several platforms to help them in teaching activities. According to Ferdianto & Dwiniasih (2019), the teaching and learning online process can be done through WhatsApp group, Zoom, and Google Classroom platform. Based on primary observation the phenomena appeared in SMP N 4 Tegallalang Gianyar. The school used the Google Classroom Platform in the teaching and learning process. Teacher used this application because it helps the teacher give students learning material online, students can see the material assignment post through their gadget and

### History:

Received : August 05, 2021

Revised : August 09, 2021

Accepted : November 10, 2021

Published : November 25, 2021

**Publisher:** Undiksha Press

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facilitate online teaching and learning in a pandemic situation. Google Classroom features applications also offer facilities that help students and teachers interact through virtual online classes. Google Classroom features help instructors and learners to implement the online teaching and learning processes during pandemics. Furthermore, this learning application tool can be accessed on all devices such as smartphones, laptops, and computers that facilities both teachers and students to conduct online classes long distances.

Widodo & Slamet (2020) argue Google Classroom is an e-learning platform that can be used as learning media during pandemics because it can be used as an effective learning tool in collecting student assignments and helping students to submit their tasks. According to Bell (2015), Google classroom is designed to help teachers and students communicate and collaborate, manage the assignments, be paperless and stay organized. Teachers are also able to monitor each students' progress and return it after it has been graded Yates & Bird (2017). Furthermore, Shaharaneet al., (2016) agree that Google Classroom is an effective tool for learning because it helps the students to improve their learning through active participants in online discussions. More, it facilitated students to save material, documents, assignments (Setiadi, 2020).

Based on the phenomena that appeared, students' respond toward the use of Google Classroom as an online platform in implementing English teaching and learning during the pandemic was investigated in this study. In measuring students' respond, a questionnaire was used as an instrument for gaining data. According to Riyanto & Atmawan (2020) questionnaire is a set of questions or statements and must be answered by the respondents. Questionnaire can be in the forms of conventional and online.

However, because of the pandemic situation and students attending classes online. Online questionnaire was distributed in this study. By online questionnaire students can respond questionnaire anywhere. The questionnaire was made in Google form and distributed through online to respondents. An online questionnaire was try-out first in order to know the validity and reliability of the item questionnaire. Validity and reliability testing must be done before the item is used to gain data research. Nuryani (2019) stated the quality and the truth of data are determined by the quality of instrument. The purpose of validity and reliability testing in this study is to analyze items questionnaire from 4 dimensions; Classroom management, Flexibility, safety, and security, and promote collaboration.

## **2. METHOD**

In analyze validity and reliability tests, this study used quantitative research method and analyzed through statistic program SPSS version 26. To know the validity and reliability of instruments, the writer conducted try-out items questionnaire to 40 respondents beyond of subject. The try-out questionnaire was distributed in VIID class and consist of 27 items from 4 dimension. The first dimension is Classroom Management. Classroom Management consists of seven items, item number 1 until 5. Items number 1,2,3,4 and 5 are positive item and 6,7 is negative. Second is flexibility. The flexibility dimension also consists of seven items. The number of items are 8 until 14. Item number 8 and 13 is negative statemen and item 9,10,11,12,14 is positive item statement. The third dimension is safety and security dimension. This dimension consisted of six items statements. The number items are 15 until 20. Item numbers 17 and 19 are negative statements and items number 15,16,18,20 are positive. The last dimension is Promote Collaboration. Promote Collaboration dimension consist of seven items statemen, where the number of items is 21 until 27. Item number 25 and 27 belong to negative statement and item number 21,22,23,24,26 is a positive statement. All items questionnaire from 4 dimensions was made by the writer based on the grand theory

used. The questionnaire used the Linkert Scale, where statement items questionnaire consisted of 5 option answers; strongly agree, agree, neutral, disagree, and strongly disagree.

The population of this study is seventh-grade students SMP N 4 Tegallalang Gianyar in the academic year 2020/2021. Where the population is 193 students from 5 classes. The number of students in each class can see in the [Table 1](#).

**Table 1.** Student Number in Each Class

Class	Number of Students
VIIA	39
VIIB	39
VIIC	37
VIID	40
VIIIE	30

To determine the sample this study was using a random sampling technique. Random sampling technique is technique sampling that requires selected subjects randomly in a population. The sample of the study was VIID class and consisted of 40 respondents.

Before measuring what should be measured it needs to know the extent quality of the instruments themselves. Quality means the accurate and valid items questionnaire used to gain data research. To know the validity of the instrument, one needs to conduct a validity test first. According to [Ghozali \(2011\)](#) validity test is used to know whether valid or not that questionnaire before used as a tool for collecting data. To determining valid or not items questionnaire, this research used Pearson Product Moment analyzes and done through SPSS programs version 26. The criteria validity is compared between valuer count and r table. Item questionnaire is valid if  $r_{\text{count}} > r_{\text{table}}$  while if  $r_{\text{count}} < r_{\text{table}}$  items is not valid.

After conducting a validity test then continues to conduct a reliability test. The purpose of the reliability test is to view the consistency and accuracy of the items questionnaire. As stated by [Ghozali \(2011\)](#) reliability is a measurement tool to measure variable questionnaires or construct. The questionnaire is reliable if the responses are consistent in periods. In this study reliability test was analyzed using the statistic Cronbach Alpha program in SPSS version 26. Item questionnaire is reliable if ( $\alpha$ ) value  $> 0.60$ .

### 3. RESULT AND DISCUSSION

#### Result

##### Validity Testing Result

After conducting try-out data was analyzed using the statistic program SPSS version 26. Based on the result items questionnaire is valid if  $r_{\text{count}} > 0.312$  while if  $r_{\text{count}} < 0.312$  item is not valid. The value of the r table is 0.312 and was taken from the df (degree of freedom) formula  $(N-2)$  where N is the total respondent. It means that  $40-2 = 38$ . The value of r [table 1](#) used as criteria with df 38 and signification 0.05 or 5% with the two-tail test this study is 0.312. For r count, the value is gotten from the result of the correlation between score items with total score items and done through SPSS program version 26. The result of validity questionnaire analysis for four dimensions is present in [Table 2](#), [Table 3](#), [Table 4](#), and [Table 5](#).

Based on the validity test all item belong to the classroom management dimension is valid. It can see in [Table 2](#), item number 1 until 7 is valid because  $r_{\text{count}} > 0.312$ .

**Table 2. Classroom Management Dimension**

Number Item	R Count	R Table	Criteria
Item1	0.762	0.312	valid
Item 2	0.692	0.312	valid
Item3	0.680	0.312	valid
Item4	0.546	0.312	valid
Item5	0.811	0.312	valid
Item6	0.664	0.312	valid
Item7	0.714	0.312	valid

**Table 3. Flexibility Dimension**

Number Item	R Count	R Table	Criteria
Item8	0.424	0.312	valid
Item9	0.887	0.312	valid
Item10	0.675	0.312	valid
Item11	0.660	0.312	valid
Item12	0.704	0.312	valid
Item13	0.774	0.312	valid
Item14	0.762	0.312	valid

Item number 9,10,11,12,13,14 in flexibility dimension is valid. It can see in the [Table 3](#), all  $r_{\text{count}} > r_{\text{table}}$ .

**Table 4. Safety and Security Dimension**

Number Item	R Count	R Table	Criteria
Item15	0.701	0.312	valid
Item16	0.625	0.312	valid
Item17	0.538	0.312	valid
Item18	0.691	0.312	valid
Item19	0.720	0.312	valid
Item20	0.662	0.312	valid

Items number 15-20 belong to the safety and security dimensions. In [Table 4](#) showed all items are valid because  $r_{\text{count}} > 0.312$  as a criterion of  $r_{\text{table}}$ .

**Table 5. Promote Collaboration**

Number item	R count	R table	Criteria
Item21	0.566	0.312	valid
Item22	0.780	0.312	valid
Item23	0.742	0.312	valid
Item24	0.711	0.312	valid
Item25	0.245	0.312	Invalid
Item26	0.505	0.312	valid
Item27	0.480	0.312	Valid

The last dimension in this study is promoting collaboration. This dimension consists of 7 items however only 6 items can be used as instruments for the next study. One item that is not valid is items number 25. It can see in [Table 5](#) items number 25  $r_{\text{count}} < 0.312$ .

## Reliability Testing Result

From 27 items questionnaire analyzed only 26 items are valid. Its means that only 26 items have been continued to the reliability test. The result of reliability testing for the 4 dimensions is present in Table 6.

**Table 6.** Reliability Testing Result

No.	Variable/Dimension	Cronbach's Alpha	Total Items
1	Classroom Management Dimension	0.817	7
2	Flexibility Dimension	0.807	7
3	Safety and Security Dimension	0.712	6
4	Promote Collaboration	0.734	6

Based on Table 6. It can see from the first dimension that is classroom management, all the item is reliable and consistent because Cronbach's Alpha value is  $> 0.60$ . For second dimension that is the Flexibility dimension has Cronbach's Alpha value of  $0.807 > 0.60$  it means that the variable item is reliable. In the third dimensions safety and security dimension, the variable is reliable because Cronbach's Alpha value  $> 0.60$  is  $0.734$ . The last dimension is promoted collaboration. In table also show this variable dimension has Cronbach's Alpha  $0.734 > 0.60$  and can conclude all items this variable is valid.

## Discussion

The criteria of validity instrument in this study are comparing between  $r_{\text{count}}$  and  $r_{\text{table}}$ ; if  $r_{\text{count}} > r_{\text{table}}$  the items questionnaire is valid while if  $r_{\text{count}} < r_{\text{table}}$  the items are not valid. Analysis was done through the statistic program SPSS with Pearson Product Moment Technique. Based result 7 items from the classroom management dimension were valid because all items have a valuer recount  $> 0.312$ . Inflexibility dimensions of all items are also valid because there is no item  $< 0.312$ . From the safety and security dimension, six items were analyzed and the result showed all item has a value  $> 0.312$  it means the items was valid. 7 items were analyzed in Promote Collaboration only 1 item is not valid because the  $r_{\text{count}} < 0.312$  is  $0.245$ .

In reliability testing, only 26 items valid was analyzed. The result showed 26 items from four dimensions is reliable and consistent because each dimensions have Cronbach's Alpha value  $> 0.60$ . Dimension Classroom management has value  $0.817 > 0.60$ , Flexibility dimension  $0.807 > 0.60$ , safety and security  $0.712 > 0.60$  and Promote Collaboration  $0.734 > 0.60$ . The result of the validity and reliabilities items questionnaire in this study also line with the study finding conducted by another researcher. Firdaus (2020) conducted a validity and reliability test items questionnaire. Based on the finding, there are 30 items questionnaire was analyzed using correlation product-moment method in the SPSS program with a significant 5%. Was find only 1 item questionnaire was not valid because one item has  $r_{\text{count}} < r_{\text{table}}$  ( $0.169 < 0.185$ ). The result of the reliabilities test showed questionnaire is reliable and has Cronbach Alpha value of  $0.61$  and belongs to the highest category of reliability. Another finding also showed the result of the validity and reliability test questionnaire. The result showed there are 15 items analyzed and all item was valid because the value of  $r_{\text{count}} > 0.2638$  and the value of Cronbach Alpha was  $0.762$  or  $76, 2\%$ . It means that all item was reliable (Baktiyar et al., 2020).

Next, Nainggolan & Manalu (2021) analyzed the questionnaire with criteria validity was comparing between  $r_{\text{count}}$  and  $r_{\text{table}}$  analyzed SPSS Program version 18. The result showed all item was valid and reliable. Furthermore, Niqotaini (2021) conducts a validity and

reliability test. There are 41 indicators was analyzed and only 40 indicator was valid because  $r_{\text{count}} > r_{\text{table}}$ . 1 item was not valid because  $r_{\text{count}} < r_{\text{table}}$ . For the reliabilities analysis result, the variable item was reliable and has a Cronbach alpha value of  $0.68 > 0.600$ . Syakur, Rikhly & Faradisy (2020) also conducted a validity and reliability item questionnaire. There are 13 items from 3 indicators that were analyzing by comparing the  $r_{\text{table}}$  and  $r_{\text{count}}$  and the result showed all items were valid and reliable because the items have Cronbach Alpha  $> 0.6$  which means items were significance. Furthermore, finding showed there are 11 items were analyzed and the result showed all item was valid because all item has  $r_{\text{count}} > r_{\text{table}}$ . And reliability analysis also showed all item was reliable and has a Cronbach Alpha value of 0.70 (Haryanto et al., 2020).

#### 4. CONCLUSION

In determining the validity and reliability questionnaire. The questionnaire was try-out first to 40 respondents that were seventh-grade students of SMP N 4 Tegallalang. The questionnaire consist of 27 items was distributed to the try-out sample. Based on analyzing result only 26 item questionnaire was valid because the items have value more than standard validity and reliability. One item was not valid because the item was not filled significance standard validity and reliability used. For reliability testing result 26 items are reliable because all items from the 4 dimensions have Cronbach's Alpha value  $> 0.60$ . It means data were had a standard significance value appropriated with standard significance used in reliability testing in this study. The result of validity and reliability testing was proved the validity and reliability items questionnaire of this study before used to gain data. There are 26 items that have  $r_{\text{count}} > r_{\text{table}}$  and Cronbach Alpha  $> 0.60$ . It means that 26 items questionnaire was significant and can be used to gain data in the next study. The result of the validity and reliability test in this study were also expected to help and inspire the readers and gives information to researchers who wants to conduct validity and reliability items questionnaire and hopefully this result also beneficial for all viewers.

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