

# Prihaswati\_2020\_J.\_Phys.\_\_\_Conf.\_Ser.\_1446\_012050

by dodi mulyadi

---

## General metrics

**18,594**

characters

**2,582**

words

**178**

sentences

**10 min 19 sec**

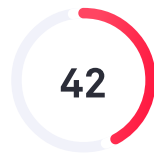
reading  
time

**19 min 51 sec**

speaking  
time

---

## Score



42

## Writing Issues

**251**

Issues left

**154**

Critical

**97**

Advanced

This text scores better than 42%  
of all texts checked by Grammarly

---

## Plagiarism



3  
%

**2**

sources

3% of your text matches 2 sources on the web  
or in archives of academic publications

---

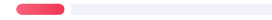
## Writing Issues

25

### Engagement

25

Word choice

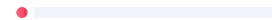


189

### Correctness

3

Misspelled words



135

Improper formatting



1

Incomplete sentences



8

Mixed dialects of english



21

Punctuation in compound/complex sentences



4

Incorrect noun number



3

Comma misuse within clauses



3

Misplaced words or phrases



5

Determiner use (a/an/the/this, etc.)



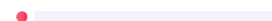
1

Wrong or missing prepositions



2

Pronoun use



1

Faulty subject-verb agreement



2

Confused words



37

### Clarity

34

Passive voice misuse



1

Intricate text



1

Word choice



1

Hard-to-read text



## Unique Words

**21%**

Measures vocabulary diversity by calculating the percentage of words used only once in your document

unique words

---

## Rare Words

**32%**

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

rare words

---

## Word Length

**4.7**

Measures average word length

characters per word

---

## Sentence Length

**14.5**

Measures average sentence length

words per sentence

---

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Applying google classroom based on prospective teacher

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Applying google classroom based on prospective teacher

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Abstract. Teachers and prospective teachers must be technology-educated,  
they<sup>5</sup> are<sup>6</sup> equipped with technology-based that vary in knowledge which<sup>7</sup> will be be

<sup>8</sup>taught to the next industrial revolution 4.0 generation. This study aims to create a technology-educated prospective teacher. Applying Google Classroom, the teacher can distribute the assignments to give grades in one place. The target of the implementation is to increase the level of technological literacy of prospective teachers in teaching. The research is quantitative research with the data collection using a questionnaire in pretest-posttest<sup>9</sup>. The results showed that there is an increase in the ability of prospective teachers after implementing of Google Classroom and prospective<sup>10, 11, 12, 13</sup> teachers respond well to the implementation of Google Classroom on learning.

## 1. Introduction

Currently, the world is entering the era of the industrial revolution 4.0 where<sup>14</sup> the era<sup>15</sup> emphasizes artificial intelligence patterns, big data, robotic<sup>16</sup>, and so on known as the disruptive innovation phenomenon [1]. The role of humans will be replaced by automatic machines<sup>17</sup>. The impact was a shift in jobs that relied on human resources, replaced by 28 million new jobs in the following decade. As a result, 6.6 million people lost their jobs because they did not have the necessary skills [2]. This<sup>18</sup> is a challenge for humans to be able to survive in this era of the industrial revolution. Humans are required to be technology literate, it<sup>19</sup> does not mean they are good at operating devices, but are aware of and understand the importance and benefits of using technology so that technology literacy education becomes a priority agenda<sup>20</sup> to face the challenges of the industrial revolution era 4.0.

Technology literacy education needs to be echoed<sup>21</sup> early on. Indonesian internet user penetration in



2017 increased by 8 per cent from the previous year to 143.26 million [3]. There are 16.68 percent of internet users which is in the age range of 13-18 years while in terms of education, high school level users are 70.54 per cent, junior high school 48.53 per cent and elementary school 25.1 per cent. It shows the high use of the internet in Indonesia. However, the type of service that is accessed by most users is social media. The high use of the internet is not accompanied by the use of targeted technology. From this data, technological literacy education can be used in technology-based learning. Education plays a very important role in increasing the skills and knowledge of technology and media literacy, communicate effectively, think critically, problems solving, and collaborating. A common condition in the world of education is learning that still uses traditional learning methods, such as lectures (conventional), expository, or drill that are often applied before the exam [4]. Technology is part of the process by which a person's environment is deliberately managed to enable students to participate in certain behaviours in special conditions or give responses to certain situations [5].

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Mathematics Education Department is educating prospective teachers with technological materials. It is shown<sup>76</sup> in several technology-based courses, such as computer programming and so on. However, the application of technology has not been maximized<sup>77</sup> in the learning process. Most of the supporting technology in the learning process only uses power points for presentations, so the computerization skills of prospective teacher students are limited. Another obstacle is that the teacher or lecturer cannot give a lecture due to the limited time, but learning must be carried<sup>78</sup> out. Therefore, prospective teachers need to be equipped<sup>79</sup> with technology variation using technology-based knowledge that will later be taught<sup>80</sup> to the next generation who will face the era of the industrial revolution 4.0.

Google Classroom is a learning platform intended for the<sup>81</sup> educational sphere to facilitate the preparation, distribution, and assessment of paperless<sup>82 83</sup> assignments<sup>84</sup> [6]. The advantage of google<sup>85</sup> classroom is it<sup>86 87</sup> roles as a bridge towards the teacher and lecturer problem who<sup>88</sup> have limited time. One

of them is the teacher can instruct, assign, and discuss with students online at the same time [7]. With the implementation of learning with<sup>89</sup> Google Classroom,<sup>90 91</sup> prospective teachers can improve their<sup>92 93</sup> knowledge and technological capabilities<sup>94 95</sup> which is also increasing the level of technological literacy,

so that the technological literacy of prospective teacher is applied. This study<sup>96 97</sup> aims are to determine the increase of<sup>98</sup> technological<sup>99,100</sup> literacy level of prospective

teachers after the implementation of Google Classroom. Also, <sup>101</sup> determine the response of prospective teachers to the implementation of Google Classroom.

## 2. Methods

This study uses descriptive quantitative methods described in the level and responses of <sup>102</sup> technological literacy of prospective teachers in Google Classroom applying.

Data collection used <sup>103</sup> interview, questionnaires, and <sup>104</sup> observation. <sup>105</sup> To find out the amount of the increase in students' mathematical communication skills, the pretest and posttest data were analyzed to

obtain the data. The calculation of the normalized gain index formula (g) [9], is:

$$g = \frac{\text{questionnaire score after} - \text{questionnaire score before}}{\text{highest score} - \text{questionnaire score before}}$$
 (1)

The interpretation of the gain index <sup>107</sup> according to <sup>108</sup> Hake is as follows:

Gain index (g)

$g > 0,7$

$0,3 < g \leq 0,7$

$g \leq 0,3$

Table 1. Gain index interpretation Criteria High Medium Low

Student responses to the Google Classroom implementation are measured by the questionnaire. <sup>109</sup> The response amount is measured by indicators and score response. <sup>110,111</sup>

## Table 2. Response criteria [10]

Coefficient

Interpretation

81% - 100%

Excellent

61% - 80%

Good

41% - 60%

Fair

21% - 40%

Poor

0 % - 20%

Very Poor

### 3. Results and Discussion

The results of the study used three main stages in quantitative research, those<sup>1</sup> are the description phase, the reduction stage <sup>113</sup> and the selection stage.

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#### 3.1. Description Phase

This stage described the current condition of prospective<sup>114</sup> teachers who are required to be technology-educated during the 4.0 industrial revolution. The majority of teachers are still not familiar with technology-based learning because of the learning process so far, tend to be teacher-centred<sup>115</sup>. The next obstacle when the teacher is unable to attend during the learning schedule, students are given the predetermined-time task. However, the majority of students who have low discipline submit these assignments out of the due date beyond teacher control. It can be minimized<sup>117</sup> if the teacher implements technology-based learning, implementing Google Classroom on learning<sup>118</sup> is one of them.

### 3.2. Reduction Stage

The stage reduces the information obtained at the description stage. The results obtained on the description stage is the need to introduce the technology in learning by the Google Classroom implementation to create the technology-educated prospective teachers that have well technological literacy. The learning is applied<sup>119</sup> to the Mathematics Education students study programs in the Numerical Methods lecture implementing<sup>120</sup> the Google Classroom application. Mathematics Education Study Program students as the research subject, are prospective teachers who are educated and later become professional teacher candidates to meet the demands of the industrial revolution 4.0. The data taken is about their technological literacy and student responses after implementing the Google Classroom application.

Before the implementation of Google Classroom, observations and interviews<sup>122</sup> were conducted<sup>127</sup> to know the prospective teacher's level of technological literacy. Observation results

indicate that the level of technological literacy of prospective teachers in learning is still low. It <sup>129</sup> is indicated by the lack of student knowledge about technology-based learning. After the interview, it turns out that they only know the direct learning models or learning methods applied directly in the classroom because, in daily lectures, technology-based learning <sup>130</sup> is never introduced.

The implementation of Google Classroom in the Numerical Method lecture <sup>131</sup> is carried out by forming 3 group discussions of 6 people <sup>132</sup> each with different materials for each member. In

Google Classroom application, assignments are given along with the material, which later the <sup>133</sup> task must be uploaded in Google Classroom with a predetermined time limit.

### 2.1. Selection Stage

<sup>134</sup> This stage outlines and analyzes the problem focus in-depth. <sup>135</sup> <sup>136</sup> <sup>137</sup> <sup>138</sup> <sup>139</sup> <sup>140</sup> <sup>141</sup> <sup>142</sup> Assessment on <sup>143</sup> the technological literacy level <sup>144</sup> was taken on the material before and during the use of Google Classroom Application using observation sheets can be seen in Table 3 below.

Table 3. Assessment of the technological literacy level

Statements Before After

1 Being able to use features and applications in technology. 30 62

2 Being able to use and browse websites. 37 65

3 Being able to use technology to support critical thinking, creativity <sup>145</sup> and make an innovation to be applied in education, networking, and recreational goal.

□35 45

4 Being able to use technology in teamwork and individual work. 38 54

5 Always be critical and reflective in responding to the information. 33 68

6 Having the ability to critically judge the technological impact. <sup>146</sup> 37 70

Average 35 60,67

Percentage 43,75% 75,83%

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The results of the observation showed that the percentage of technological literacy was

75.83% with good <sup>147</sup> criteria. While the gain index shows 0.57 with medium criteria. <sup>148</sup> So there is an increase in the level of technological literacy with moderate <sup>149</sup> criteria.

Furthermore, direct observations and interviews were conducted <sup>150 151 152 153 154,155</sup> to <sup>156</sup> complete the data <sup>157 158 159</sup>

obtained from the observation sheets of technology literacy levels. The observations <sup>160</sup> began at the introduction of Google Classroom, from 20 students who took part in the study, 5 <sup>161</sup> students have difficulties in the process joining to become members, so they had to be invited to join. <sup>162 163</sup> At the end of the lesson, students who upload assignments can be monitored <sup>164</sup> in the Google Classroom educator account, Google <sup>165</sup> Classroom shows that from the 20 students as members,

19 <sup>166</sup> students upload assignments, <sup>167</sup> so there is 1 <sup>168</sup> student who does not upload tasks. 12 <sup>169</sup> students uploaded assignments on time, while 7 <sup>170</sup> other students were late to upload. However, from 12 students who uploaded, 1 <sup>171</sup> student uploaded

the <sup>172</sup>blank <sup>173</sup>data, so that in <sup>174</sup>total there were <sup>175</sup>2 <sup>176</sup>students did not upload assignments.

Table 4. Results of student response questionnaire by using google classroom learning indicator

Indicator Score

1

65

2

54

3

52



4

5

6

7

44

41

45

46

8

9

10

Total

Percentage

44

50

70

511

63,875%

The next stage is giving the questionnaire to students. The results of the questionnaire<sup>177</sup> are shown<sup>178</sup> in table 4 below. Table 4 shows the results of the responses of prospective teachers in learning Google Classroom with a

percentage of 63.875 <sup>179</sup> which means good. So, a prospective teacher gives a good <sup>181</sup> response to learn using Google Classroom application.

The current condition of learning is not technology-based yet because the lecturer with technological literacy level is low. In contradiction with Tempo magazine statement [11], the

evolution of Industry 4.0 <sup>182</sup> requires teachers to take advantage of the rapid <sup>183 184 185</sup> information <sup>186 187 188 189</sup> <sup>190</sup>

technology advancement to improve the teaching and learning quality and prepare the high- grade human resources. The implementation of technology-based learning is needed by teacher candidates to increase their learning knowledge to meet the demands of the industrial revolution

4.0. One of the technology-based learning tools is Google Classroom <sup>191 192</sup> <sup>193</sup> <sup>194</sup> <sup>195 196</sup> application. <sup>197</sup> Google

Classroom <sup>198</sup> is an application specifically for online learning media to make it easier for teachers to create, share <sup>199</sup> and classify each assignment without the use of paper [12].

Data is collected <sup>200</sup> through observation, interview, and questionnaire filling. The results of the

assessment on the level of technological literacy before implementation showed that the level of technological literacy of students was quite good <sup>201 202</sup> <sup>203</sup> <sup>204</sup> <sup>205</sup> <sup>206,207</sup> whereas after using Google Classroom <sup>208</sup> <sup>209,210</sup> <sup>211</sup>

application, the level of technological literacy became good with a modest increase. That is

because, before implementation, the students as a prospective teacher did not know technology- based <sup>212</sup> learning yet. Students that did not master the features and technology applications, especially in learning, <sup>213</sup> would not be able to use technology for educational purposes and to have

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critical thinking in facing the technological impact.<sup>214</sup> After implementing Google<sup>215</sup> Classroom, students learn about online-based learning, knowing how to use and utilize it in education, using at least 1<sup>216</sup> application. As a result, they have the expertise to use and utilize<sup>217</sup> technology to support thinking and being critical and even can critically evaluate the impact of technology. To provide  
technology-based education,<sup>218</sup> teachers must have a positive attitude towards technology, be able to manage the use of technology in the classroom,<sup>219 220 221 222 223 224 225 226 227 228 229</sup> be able  
to assess the use of technology,<sup>230 231 232 233 234</sup> and have technical abilities in using technology [13].

Prospective teacher responses to the implementation of learning with Google Classroom are in the level of good<sup>235</sup> criteria. It means the Google Classroom application can be used in mathematics, especially in giving assignments.<sup>236 237 238</sup> But  
from the interview results,<sup>239 240 241 242</sup> Google Classroom has several weaknesses, including the need for a strong<sup>243</sup> internet connection to be able to chat with lecturers so that when the internet network is broken<sup>244</sup> down, students have difficulty to ask questions about the material. Google Classroom also has advantages, those<sup>245</sup> are easy to use, save time, cloud-based, flexible, and free that can be a consideration to apply in the learning process [14].

#### 4. Conclusions

Based on the results of the study and discussion, these are some conclusions:

The prospective teachers' ability increased after implementing the Google Classroom gain index is

0.57, which means the increasing level of technological literacy is in medium criteria. Prospective teachers respond well to the implementation of Google Classroom on learning.

Based on the research conducted, the suggestions that can <sup>246</sup> be given are as follows: For the teachers, the use of Google Classroom learning application <sup>247</sup> can be implemented <sup>248</sup> in learning especially <sup>249</sup> for providing assignments. For schools, a <sup>250</sup> strong internet connection <sup>251</sup> is needed to

facilitate the use of Google Classroom in the class.

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1.	<del>et al</del> → <b>et al.</b>	Comma Misuse within Clauses	Correctness
2.	<i>was downloaded</i>	Passive Voice Misuse	Clarity
3.	<del>ICoVEMAT</del> → <b>Coleman</b>	Misspelled Words	Correctness
4.	<del>Mathematic</del> → <b>Mathematics</b>	Confused Words	Correctness
5.	<del>, they</del> → <b>; they</b>	Punctuation in Compound/Complex Sentences	Correctness
6.	<i>are equipped</i>	Passive Voice Misuse	Clarity
7.	<b>, which</b>	Punctuation in Compound/Complex Sentences	Correctness
8.	<i>be taught</i>	Passive Voice Misuse	Clarity
9.	<b>the pretest-posttest</b>	Determiner Use (a/an/the/this, etc.)	Correctness
10.	<del>of</del>	Wrong or Missing Prepositions	Correctness
11.	<del>Classroom and</del> → <b>Classroom and</b>	Improper Formatting	Correctness
12.	<b>, and</b>	Punctuation in Compound/Complex Sentences	Correctness
13.	<b>and prospective</b>	Improper Formatting	Correctness
14.	<b>, where</b>	Punctuation in Compound/Complex Sentences	Correctness
15.	<del>era</del> → <b>age, period</b>	Word Choice	Engagement
16.	<del>robotic</del> → <b>robotics</b>	Confused Words	Correctness
17.	<b>Automatic machines will replace the role of humans</b>	Passive Voice Misuse	Clarity
18.	<i>This</i>	Intricate Text	Clarity



19.	<del>,it</del> → ; it, , and it, . It	Punctuation in Compound/Complex Sentences	Correctness
20.	<del>agenda</del> → list, plan	Word Choice	Clarity
21.	<i>be echoed</i>	Passive Voice Misuse	Clarity
22.	<del>per cent</del> → percent	Mixed Dialects of English	Correctness
23.	<del>are</del> → is	Faulty Subject-Verb Agreement	Correctness
24.	<del>, which</del>	Punctuation in Compound/Complex Sentences	Correctness
25.	<del>per cent</del> → percent	Mixed Dialects of English	Correctness
26.	<del>per cent</del> → percent	Mixed Dialects of English	Correctness
27.	<del>per cent</del> → percent	Mixed Dialects of English	Correctness
28.	<del>high</del> → great	Word Choice	Engagement
29.	<del>users is</del> → users is	Improper Formatting	Correctness
30.	<del>is social</del> → is social	Improper Formatting	Correctness
31.	<del>social media</del> → social media	Improper Formatting	Correctness
32.	<del>The high</del> → The high	Improper Formatting	Correctness
33.	<del>high</del> → great	Word Choice	Engagement
34.	<del>high use</del> → high use	Improper Formatting	Correctness
35.	<del>use</del> → consumption	Word Choice	Engagement
36.	<del>use of</del> → use of	Improper Formatting	Correctness
37.	<del>of the</del> → of the	Improper Formatting	Correctness
38.	<del>the internet</del> → the internet	Improper Formatting	Correctness

39.	<del>internet is</del> → internet is	Improper Formatting	Correctness
40.	<del>is not</del> → is not	Improper Formatting	Correctness
41.	not accompanied	Improper Formatting	Correctness
42.	<del>accompanied by</del> → accompanied by	Improper Formatting	Correctness
43.	<del>by the</del> → by the	Improper Formatting	Correctness
44.	<del>the use</del> → the use	Improper Formatting	Correctness
45.	<del>use of</del> → use of	Improper Formatting	Correctness
46.	<del>of targeted</del> → of targeted	Improper Formatting	Correctness
47.	The use of targeted technology does not accompany the high use of the internet	Passive Voice Misuse	Clarity
48.	<i>be used</i>	Passive Voice Misuse	Clarity
49.	<del>a very important</del> → a vital, a significant, a critical, a crucial	Word Choice	Engagement
50.	<del>media literacy</del> → media literacy	Improper Formatting	Correctness
51.	communicate effectively	Improper Formatting	Correctness
52.	think critically	Improper Formatting	Correctness
53.	problems solving	Improper Formatting	Correctness
54.	and collaborating	Improper Formatting	Correctness
55.	common condition	Improper Formatting	Correctness
56.	<del>condition in</del> → condition in	Improper Formatting	Correctness
57.	<del>in the</del> → in the	Improper Formatting	Correctness

58.	<del>the world</del> → the world	Improper Formatting	Correctness
59.	<del>world of</del> → world of	Improper Formatting	Correctness
60.	<del>of education</del> → of education	Improper Formatting	Correctness
61.	<del>education is</del> → education is	Improper Formatting	Correctness
62.	<del>is learning</del> → is learning	Improper Formatting	Correctness
63.	<del>learning that</del> → learning that	Improper Formatting	Correctness
64.	<del>that still</del> → that still	Improper Formatting	Correctness
65.	<del>still uses</del> → still uses	Improper Formatting	Correctness
66.	uses traditional	Improper Formatting	Correctness
67.	drill,	Punctuation in Compound/Complex Sentences	Correctness
68.	<i>are often applied</i>	Passive Voice Misuse	Clarity
69.	<i>is deliberately managed</i>	Passive Voice Misuse	Clarity
70.	<del>behaviours</del> → behaviors	Mixed Dialects of English	Correctness
71.	<del>special</del> → particular	Word Choice	Engagement
72.	<i>be used</i>	Passive Voice Misuse	Clarity
73.	<del>licence</del> → license	Mixed Dialects of English	Correctness
74.	, and	Comma Misuse within Clauses	Correctness
75.	<del>licence</del> → license	Mixed Dialects of English	Correctness
76.	<i>is shown</i>	Passive Voice Misuse	Clarity
77.	<i>been maximized</i>	Passive Voice Misuse	Clarity

78.	<i>be carried</i>	Passive Voice Misuse	Clarity
79.	<i>be equipped</i>	Passive Voice Misuse	Clarity
80.	<i>be taught</i>	Passive Voice Misuse	Clarity
81.	<del>for the</del> → for the	Improper Formatting	Correctness
82.	<del>and assessment</del> → and assessment	Improper Formatting	Correctness
83.	<del>assessment of</del> → assessment of	Improper Formatting	Correctness
84.	<del>of paperless</del> → of paperless	Improper Formatting	Correctness
85.	paperless assignments	Improper Formatting	Correctness
86.	<del>The advantage</del> → The advantage	Improper Formatting	Correctness
87.	<del>advantage of</del> → advantage of	Improper Formatting	Correctness
88.	<del>of google</del> → of google	Improper Formatting	Correctness
89.	<del>it</del> → its	Pronoun Use	Correctness
90.	the implementation	Improper Formatting	Correctness
91.	implementation of	Improper Formatting	Correctness
92.	<del>of learning</del> → of learning	Improper Formatting	Correctness
93.	<del>learning with</del> → learning with	Improper Formatting	Correctness
94.	prospective teachers	Improper Formatting	Correctness
95.	<del>teachers can</del> → teachers can	Improper Formatting	Correctness
96.	<del>can improve</del> → can improve	Improper Formatting	Correctness
97.	<del>improve their</del> → improve their	Improper Formatting	Correctness
98.	<del>This study</del> → These study	Determiner Use (a/an/the/this, etc.)	Correctness

99.	<del>technological</del> → technical	Word Choice	Engagement
100.	the technological	Determiner Use (a/an/the/this, etc.)	Correctness
101.	<del>determine</del> → learn	Word Choice	Engagement
102.	the technological	Determiner Use (a/an/the/this, etc.)	Correctness
103.	<del>interview</del> → interviews	Incorrect Noun Number	Correctness
104.	<del>observation</del> → observations	Incorrect Noun Number	Correctness
105.	<i>To find out the amount of the increase in students' mathematical communication skills</i>	Misplaced Words or Phrases	Correctness
106.	<del>beforehighest</del> → before highest	Misspelled Words	Correctness
107.	, according	Punctuation in Compound/Complex Sentences	Correctness
108.	Hake,	Punctuation in Compound/Complex Sentences	Correctness
109.	The questionnaire measures student responses to the Google Classroom implementation	Passive Voice Misuse	Clarity
110.	Indicators and score response measure the response amount	Passive Voice Misuse	Clarity
111.	<del>response</del> → responses	Incorrect Noun Number	Correctness
112.	<del>, those</del> → ; those, , and those, . Those	Punctuation in Compound/Complex Sentences	Correctness
113.	, and	Comma Misuse within Clauses	Correctness
114.	<del>condition of</del> → condition of	Improper Formatting	Correctness

115.	<del>of prospective</del> → of prospective	Improper Formatting	Correctness
116.	teacher-centered	Mixed Dialects of English	Correctness
117.	be minimized	Passive Voice Misuse	Clarity
118.	<del>learning</del> → education	Word Choice	Engagement
119.	<del>learning</del> → knowledge, scholarship	Word Choice	Engagement
120.	is applied	Passive Voice Misuse	Clarity
121.	, implementing	Punctuation in Compound/Complex Sentences	Correctness
122.	<del>Before the</del> → Before the	Improper Formatting	Correctness
123.	the implementation	Improper Formatting	Correctness
124.	implementation of	Improper Formatting	Correctness
125.	observations and	Improper Formatting	Correctness
126.	<del>and interviews</del> → and interviews	Improper Formatting	Correctness
127.	interviews were	Improper Formatting	Correctness
128.	were conducted	Passive Voice Misuse	Clarity
129.	is indicated	Passive Voice Misuse	Clarity
130.	is never introduced	Passive Voice Misuse	Clarity
131.	is carried	Passive Voice Misuse	Clarity
132.	, each	Punctuation in Compound/Complex Sentences	Correctness
133.	be uploaded	Passive Voice Misuse	Clarity
134.	<del>This stage</del> → This stage	Improper Formatting	Correctness

135.	<del>stage outlines</del> → stage outlines	Improper Formatting	Correctness
136.	<del>outlines and</del> → outlines and	Improper Formatting	Correctness
137.	<del>and analyzes</del> → and analyzes	Improper Formatting	Correctness
138.	<del>analyzes the</del> → analyzes the	Improper Formatting	Correctness
139.	<del>the problem</del> → the problem	Improper Formatting	Correctness
140.	<del>problem focus</del> → problem focus	Improper Formatting	Correctness
141.	<del>focus in-depth</del> → focus in-depth	Improper Formatting	Correctness
142.	<del>Assessment on</del> → Assessment on	Improper Formatting	Correctness
143.	<del>on the</del> → on the	Improper Formatting	Correctness
144.	<i>was taken</i>	Passive Voice Misuse	Clarity
145.	, and	Punctuation in Compound/Complex Sentences	Correctness
146.	to judge the technological impact critically	Misplaced Words or Phrases	Correctness
147.	<del>good</del> → suitable, proper, right	Word Choice	Engagement
148.	<del>criteria</del> → standards, rules, principles, measures	Word Choice	Engagement
149.	<del>criteria</del> → tests, standards, rules, principles	Word Choice	Engagement
150.	direct observations	Improper Formatting	Correctness
151.	observations and	Improper Formatting	Correctness
152.	<del>and interviews</del> → and interviews	Improper Formatting	Correctness
153.	interviews were	Improper Formatting	Correctness

154.	<del>were conducted</del> → were conducted	Improper Formatting	Correctness
155.	<i>were conducted</i>	Passive Voice Misuse	Clarity
156.	<del>conducted to</del> → conducted to	Improper Formatting	Correctness
157.	<del>to complete</del> → to complete	Improper Formatting	Correctness
158.	<del>complete the</del> → complete the	Improper Formatting	Correctness
159.	<del>the data</del> → the data	Improper Formatting	Correctness
160.	<del>observations</del> → comments, views, inspections	Word Choice	Engagement
161.	<del>5</del> → five	Improper Formatting	Correctness
162.	<i>be invited</i>	Passive Voice Misuse	Clarity
163.	<del>join</del> → participate	Word Choice	Engagement
164.	<i>be monitored</i>	Passive Voice Misuse	Clarity
165.	<del>, Google</del> → ; Google, , and Google, . Google	Punctuation in Compound/Complex Sentences	Correctness
166.	<del>19</del> → Nineteen	Improper Formatting	Correctness
167.	<del>assignments</del> → jobs	Word Choice	Engagement
168.	<del>1</del> → one	Improper Formatting	Correctness
169.	<del>12</del> → Twelve	Improper Formatting	Correctness
170.	<del>7</del> → seven	Improper Formatting	Correctness
171.	<del>1</del> → one	Improper Formatting	Correctness
172.	<del>blank</del> → new	Word Choice	Engagement
173.	<del>data,</del>	Punctuation in Compound/Complex Sentences	Correctness



174.	total,	Punctuation in Compound/Complex Sentences	Correctness
175.	<del>2</del> → two	Improper Formatting	Correctness
176.	who did	Pronoun Use	Correctness
177.	<del>questionnaire</del> → survey, poll	Word Choice	Engagement
178.	are shown	Passive Voice Misuse	Clarity
179.	, which	Punctuation in Compound/Complex Sentences	Correctness
180.	<del>a good</del> → an excellent	Word Choice	Engagement
181.	<del>response</del> → reaction	Word Choice	Engagement
182.	<del>evolution of</del> → evolution of	Improper Formatting	Correctness
183.	requires teachers	Improper Formatting	Correctness
184.	<del>teachers to</del> → teachers to	Improper Formatting	Correctness
185.	<del>to take</del> → to take	Improper Formatting	Correctness
186.	<del>take advantage</del> → take advantage	Improper Formatting	Correctness
187.	<del>advantage of</del> → advantage of	Improper Formatting	Correctness
188.	<del>of the</del> → of the	Improper Formatting	Correctness
189.	<del>the rapid</del> → the rapid	Improper Formatting	Correctness
190.	rapid information	Improper Formatting	Correctness
191.	<del>One of</del> → One of	Improper Formatting	Correctness
192.	<del>of the</del> → of the	Improper Formatting	Correctness
193.	the technology-based	Improper Formatting	Correctness

194.	technology-based learning	Improper Formatting	Correctness
195.	<del>learning tools</del> → learning tools	Improper Formatting	Correctness
196.	<del>tools is</del> → tools is	Improper Formatting	Correctness
197.	Classroom application	Improper Formatting	Correctness
198.	The classroom	Determiner Use (a/an/the/this, etc.)	Correctness
199.	, and	Punctuation in Compound/Complex Sentences	Correctness
200.	is collected	Passive Voice Misuse	Clarity
201.	technological literacy	Improper Formatting	Correctness
202.	<del>literacy of</del> → literacy of	Improper Formatting	Correctness
203.	<del>of students</del> → of students	Improper Formatting	Correctness
204.	<del>students was</del> → students was	Improper Formatting	Correctness
205.	<del>was quite</del> → was quite	Improper Formatting	Correctness
206.	<del>quite good</del> → quite good	Improper Formatting	Correctness
207.	good,	Punctuation in Compound/Complex Sentences	Correctness
208.	<del>good whereas</del> → good whereas	Improper Formatting	Correctness
209.	<del>whereas after</del> → whereas after	Improper Formatting	Correctness
210.	. In contrast, after	Hard-to-read text	Clarity
211.	<del>after using</del> → after using	Improper Formatting	Correctness
212.	technology-based	Misspelled Words	Correctness

213.	<del>learning</del> → education	Word Choice	Engagement
214.	<del>critical</del> → Critical	Improper Formatting	Correctness
215.	<i>critical thinking in facing the technological impact.</i>	Incomplete Sentences	Correctness
216.	<del>4</del> → one	Improper Formatting	Correctness
217.	<del>utilize</del> → use	Word Choice	Engagement
218.	<i>To provide technology-based education</i>	Misplaced Words or Phrases	Correctness
219.	<del>be able</del> → be able	Improper Formatting	Correctness
220.	<del>able to</del> → able to	Improper Formatting	Correctness
221.	<del>to manage</del> → to manage	Improper Formatting	Correctness
222.	<del>manage the</del> → manage the	Improper Formatting	Correctness
223.	<del>the use</del> → the use	Improper Formatting	Correctness
224.	<del>use of</del> → use of	Improper Formatting	Correctness
225.	<del>of technology</del> → of technology	Improper Formatting	Correctness
226.	<del>technology in</del> → technology in	Improper Formatting	Correctness
227.	<del>in the</del> → in the	Improper Formatting	Correctness
228.	<del>the classroom</del> → the classroom	Improper Formatting	Correctness
229.	<del>be able</del> → be able	Improper Formatting	Correctness
230.	<del>able to</del> → able to	Improper Formatting	Correctness
231.	<del>to assess</del> → to assess	Improper Formatting	Correctness
232.	<del>assess the</del> → assess the	Improper Formatting	Correctness

233.	<del>the use</del> → the use	Improper Formatting	Correctness
234.	<del>use of</del> → use of	Improper Formatting	Correctness
235.	<del>good</del> → ethical, functional, suitable, useful	Word Choice	Engagement
236.	<del>especially in</del> → especially in	Improper Formatting	Correctness
237.	<del>in giving</del> → in giving	Improper Formatting	Correctness
238.	<del>giving assignments</del>	Improper Formatting	Correctness
239.	<del>But from</del> → But from	Improper Formatting	Correctness
240.	<del>from the</del> → from the	Improper Formatting	Correctness
241.	<del>the interview</del> → the interview	Improper Formatting	Correctness
242.	<del>interview results</del>	Improper Formatting	Correctness
243.	<del>a strong</del> → a secure, a reliable, an active, a stable	Word Choice	Engagement
244.	<i>is broken</i>	Passive Voice Misuse	Clarity
245.	<del>, those</del> → ; those, . Those	Punctuation in Compound/Complex Sentences	Correctness
246.	<i>be given</i>	Passive Voice Misuse	Clarity
247.	<del>application</del> → applications	Incorrect Noun Number	Correctness
248.	<i>be implemented</i>	Passive Voice Misuse	Clarity
249.	<del>, especially</del>	Punctuation in Compound/Complex Sentences	Correctness
250.	<del>a strong</del> → a secure, a reliable, a stable, an active	Word Choice	Engagement
251.	<i>is needed</i>	Passive Voice Misuse	Clarity

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