Analyzing the Use of Punctuation, Capitalization and Spelling Errors: A Case Study of Yemeni University EFL Learners at Sana'a University

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1. Abstract

This paper deals with the analyses of punctuation, capitalization, and spelling errors. This study aims to analyze the error types that occurred in learners’ essays. It also aims to determine the frequency of each type of these norms and show their statistically significant differences based on gender. In this study, errors found were analyzed quantitatively with reference to Na-ngam’s (2005) framework using Excel Software and Statistical Package for the Social Sciences (SPSS).

The analysis results showed that learners made errors in all three types with a total of 967 errors. From the quantitative point of view, the most frequent occurrences were shown in the capitalization, 387 errors (40%), followed by spelling, 292 errors (30%). Finally, the fewest errors were found in punctuation, with 288 errors (30%). Statistically, this study showed that there is no significant difference among these types based on gender. It showed that learners still face difficulty using orthographic types. However, the results of this study are of significant importance because they will help English teachers further plan in what to teach their students or rather improve their teaching methods. It may help them find ways to get their students to avoid committing more errors as possible.

Keywords: Punctuation, Capitalization, Spelling, University learners, EFL Learners
1.1. Introduction

Orthography is a set of conventions for writing a language, including spelling, capitalization, hyphenation, emphasis, word breaks, and punctuation, Rivera (2019). In this regard, Coulmas (2003) defined orthography as “the set of rules for using a script in a particular language.” He referred to some norms of English orthographies like the Roman alphabet, punctuation, hyphenation, capitalization, and so on, as cited in Sipra (2013). Wailly (1754) defined orthographies as “the signs for accents, diaeresis, apostrophe, brackets, capital letters and punctuation marks (comma, period, semicolon, colon, question mark, and exclamation mark.” as cited in Stojanov (2018). However, this research paper is limited to only three norms, namely punctuation, capitalization, and spelling. Yemeni University learners in the third academic year are expected to write their English-written essays correctly without errors in punctuation, capitalization, and spelling because they are at a higher educational level. They will be English teachers after a year of their graduation. They require writing English in reports, essays, projects, etc. This means that they are in need to function English well later at the workplace. They are required to write forming well-formed sentences and applying the mechanic rules related to punctuation, capitalization, and spelling. However, many university learners have difficulties applying these rules, though a student in the third year has been learning English for about eight years, six years in school, and two years in the university. Learners in such a high educational level have to be aware of these orthographic rules. Recognizing punctuation, capitalization, and spelling errors in third university learners’ English written essays made researchers analyze these types to determine how often learners frequently make errors in these norms. Therefore, the data of this study were collected for the aims of identifying, quantifying, and analyzing the use of punctuation, capitalization, and spelling errors that occurred in Yemeni undergraduate learners’ English written essays. It is more specifically, aims at analyzing the use of punctuation, capitalization, and spelling errors that occurred in learners’ final English written exams in advanced writing during the academic year (2017-2018), English Department, Faculty of Education, at Sana’a University.

This study also aims to determine the frequency of each type of these norms found in the data and provide suggestions for learners and teachers to improve the teaching and learning process regarding these error types. It also aims to determine the frequency of each type of these norms and show their statistically significant differences based on gender.

This study is significant in analyzing these three orthographic norms, punctuation capitalization, and spelling because such types of error have been commonly observed in Undergraduate Yemeni students’ final written essays. Therefore, examining the frequencies of these error types and determining their statistically significant differences were needed. The significance of this study lies in analyzing the norms of punctuation, capitalization, and spelling extensively, which have not been done before with the same setting and conditions. Revealing the results of this study will enable teachers to know what their students lack based on the frequency results of each orthographic norm. By analyzing the use of punctuation, capitalization, and spelling errors found in the data, it is hoped that this study helps learners in developing themselves in writing meaningful essays without committing more related errors to punctuation, capitalization, and spelling. Such a study may enable
learners to realize their repeatedly committed errors in these orthographic types. Therefore, they may overcome this challenge.

### 2.1. Literature review of the study

This research paper is limited to three norms, namely punctuation, capitalization, and spelling. Therefore, the review will unfold the available literature using only these norms where research studies in spelling, capitalization, and punctuation have been analyzed. Banlomchon (2006) showed ten most common errors from a total of twenty-five types of errors, including punctuation, capitalization, and misspelling. Among these common types of errors, punctuation, capitalization, and misspelling were analyzed. Taghavi (2012) carried out a study on error types showing the commonly committed errors that were spelling, word choice, and other error types. In another study conducted by Gustilo & Magno (2012), the frequency of the five most common error types was analyzed. In this study, there were comma errors, the missing comma after an introductory clause or phrase, word choice, verb tense, subject-verb agreement, punctuation, sentence structure, and capitalization. The most common type of error committed was missing commas. The least common types of errors were in punctuation and sentence structure. Lasaten (2014) analyzed the frequency errors, including punctuation and spelling.

In this study, among the first error types were punctuation errors. And among the other fewest errors were spelling errors. In a study also done by Al-Khasawneh, (2014), the most common errors were found at the spelling level. Other lower types of errors were some other errors, including capitalization. In a study conducted by Khumphee (2015), 26 types of errors adapted in Na-Ngam’s (2015) framework were analyzed. In this study, punctuation errors were the most common type found in learners’ English written essays, followed by other types of errors. Hemabati (2016) conducted a study showing fifteen categories of errors where spelling, punctuation, and capitalization were commonly found. Spelling errors were the most common errors made by the learners, followed by punctuation. Other errors were in capitalization and other types of errors.

In a study conducted by Mustafa (2017), one of the most common errors found in learners’ writing was punctuation errors. It was found that when a learner writes a sentence, he/she continues writing without using a full stop which should be put at the end of each sentence. They, Instead of writing a full stop, they write a comma. Other syntactic types of errors were capitalization and other types of errors including, spelling mistakes. Sermsook, Liamnimitr, & Pochakorn (2017) carried out a study including punctuation, spelling, and capitalization. In this study, Punctuation, spelling, and capitalization were among the most frequently committed errors found in learners’ Written English sentences. Accordingly, the most frequently made errors were in the punctuation category.

In punctuation errors, Nurwahyuni (2017) examined punctuation errors that occurred in learners’ writing. This study showed that the most common errors committed by the learners were the omission of commas. In this study, some factors caused errors in punctuation errors such as the omission of some punctuation marks. There were other errors found in this study, including misuse of marks, misunderstanding of the meaning of the text. In punctuation errors, Husada.S, Hidayati, Humaira. (2018) also analyzed errors in
punctuation at the second academic year learners in the academic year 2017 / 2018. It was found in this study that there were two punctuation error types, namely period, comma, omission, and addition. This study revealed that learners still make many punctuation errors. In spelling errors, Al-oudat (2017) examined spelling errors that occurred in learners’ writing where 65 learners’ essays were analyzed using Cook’s classification (1999) of spelling errors. In this study, there were four error types of spelling ordered here, based on their frequency, substitution, insertion, omission, and transposition errors. In another study carried out by Alqhtani (2018) analyzed all three types, punctuation, spelling, and capitalization. In this study, punctuation errors were found the second frequently committed errors, followed by other types of errors, including spelling use of verbs, conjunctions, capitalization. In capitalization errors, a study conducted by Challay & Jones (2019) capitalization errors that occurred among learners in secondary school was analyzed. This study revealed that learners did not understand the rules related to the use of capital letters. Errors found in this study were more in proper nouns, beginning of a sentence, and other errors, including uncapitalization of the first word in the closing of a letter. Huda (2020) analyzed learners’ errors in punctuation errors. This research showed four classifications of learners’ errors in punctuation, namely classifications of omission, misinformation, and addition.

Though many studies have been done recently in many countries focusing on these orthographies, there is no much attention paid statistically analyzing these types, punctuation, capitalization, and spelling and addressing the lack of students’ writing extensively in these types, especially in Yemen. To analyze these types statistically and address the lack of students’ writing extensively, the researcher used third-year university learners’ English written essays in advanced writing for analysis.

3.1. Methodology of the study
The quantitative research method is used to analyze punctuation, capitalization, and spelling errors found in learners’ final English written exams in advanced writing during the academic year (2017-2018) in the English Department, Faculty of Education, at Sana’a University. These orthographic types, punctuation, capitalization, and spelling were analyzed quantitatively based on a framework given by (Na-ngam 2005), where punctuation, capitalization, and spelling were classified. This section is about the research questions, samples, the procedure of Data Collection, the hypothesis of the study, and validity and reliability of the study.

- **Research Questions of the study**
  a) How do often punctuation, capitalization, and spelling errors occur in third university learners' English written essays in the academic year 2017-2018?
  b) What are the types of punctuation and capitalization errors found in the study?
  c) What are the most and the least orthographic types, punctuation, capitalization, and spelling errors found in the study?
  d) Are there statistically significant differences among punctuation, capitalization, and spelling error types based on gender?
• **Samples of the study**

The samples of this study were 50 learners’ English written essays randomly selected from the first semester of third-year Yemeni university level during the academic year (2017-2018), in the English Department, Faculty of Education, at Sana'a University.

The samples have been performed using R-software where the male students were 23, and female students were 136, and their total was 159. Out of 159, 50 samples have been taken that the total of male samples became 10, and female samples were 40 resulting in 50 samples that have been analyzed in this study. All these calculations have been performed using R-software resulting; see figure 1 below shows the distribution of samples.

![Figure 1. The Distribution of Samples](image)

This figure shows the number of samples selected and analyzed based on gender (males and females learners). Selected samples were fifty students' written essays, out of one hundred fifty-nine from both males and females, where ten samples were selected from males and forty samples from females.

• **The procedure of Data Collection**

Learners’ final English written exams in advanced writing were the instrument for collecting data. After such data were collected, the required samples for analysis were randomly selected using R software. Then, the researcher first read the whole samples selected, identified errors related to these orthographic types, punctuation, capitalization, and spelling, classified and quantified them. Finally, the researcher analyzed the data quantitatively to determine the frequency for each orthographic type in this academic year using Excel and SPSS.
• The hypothesis of the study

H₀₁: This study assumes no statistically significant differences among punctuation, capitalization, and spelling error types based on gender.

  a) H₀₁a: this study assumes no statistically significant difference in punctuation, including its subtypes and based on gender.
  b) H₀₁b: this study assumes no statistically significant difference in capitalization, including its subtypes and based on gender.
  c) H₀₁c: this study assumes no statistically significant difference in spelling based on gender.

• Validity and Reliability of the study

Since the data for analysis was the final English written examination in advanced writing, it is reliable and authentic. This type of data leads to increasing the validity of this study because learners, when they write their exams, they do their best to pass and gain high marks. Therefore, such an instrument was used for analysis. Besides this, the researchers consulted many experts about the reliability of these data. Another point leads to increasing the validity and reliability of this study was that these data were analyzed concerning Na-ngam's (2005) framework.

While analyzing the samples selected, the results obtained were validated in many ways as firstly, the researcher quantified the results many times manually, then utilized Excel and finally SPSS. In the manual step, the frequency of errors was written at the end of each script; see learners’ scripts in Appendix A. Also, the obtained results were revised by the co-authors. The second step was utilizing Excel software, where the results were inserted and checked many times. This leads to increasing the reliability of the study where the calculation obtained by Excel was compared with the frequency results written at the end of learners’ scripts. SPSS also was used to show the validity and reliability of the samples selected in this study, see table 1 and figures 1 and 2 below.

<table>
<thead>
<tr>
<th>Table1: Reliability of the samples of the study.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Valid</td>
</tr>
<tr>
<td>Males</td>
</tr>
<tr>
<td>Females</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

This table shows the number of samples selected and analyzed based on gender (males and females learners where there were fifty students' written essays selected for analysis. Ten samples were selected from males indicating 20%, and forty samples were selected from females indicating 80%.
4.1. The Results of Data Analysis and Discussion

The orthographic types, punctuation, capitalization, and spelling were analyzed based on their frequency, percentage, and other statistic results. Therefore, these types found in the data, including their sub-types, are the subtitles of this section.

1- Analysis of punctuation, capitalization, and spelling errors

Here, errors found in learners’ essays using punctuation, capitalization, and spelling are statistically analyzed and discussed; see Figure 4 and Tables 4a and b below.

Figure 4. Learners’ frequency of punctuation, capitalization, and spelling errors

This figure shows the total frequency and percentage of punctuation, capitalization, and spelling found in the third university learners’ English written essays. There were (967) errors where capitalization errors were the most frequent type, 387 errors (40%), followed by spelling with 292 errors (30%). Finally, the least frequent errors were in punctuation, with 288 errors (30%).

Statistically, the hypothesis formulated in this study assumes that there are no statistically significant differences among punctuation, capitalization, and spelling error types based on gender. Therefore, these types of errors found in learners’ essays are statistically analyzed based on gender using the Independent Samples Test; see Tables 2 and 3 below.

Table 2: Statistical analysis of punctuation, capitalization, and spelling errors

<table>
<thead>
<tr>
<th>Orthographies</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>10</td>
<td>2.8236</td>
<td>1.09281</td>
<td>0.34558</td>
<td>-182</td>
<td>.857</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>2.916</td>
<td>2.35232</td>
<td>0.37193</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows the results of the whole errors statistically based on gender. In these types, the mean score of males is 2.8236, and the standard deviation is 1.09281. Meanwhile, the mean score of females is 2.9160, and the standard deviation is 2.35232. The t-test results show -182 with a P-value of 857 greater than 0.05.
statistic results based on gender show no statistically significant difference because the P-value is greater than 0.05; therefore, the hypothesis (H₀₁) assuming no statistically significant differences among punctuation, capitalization, and spelling error types based on gender is accepted.

As mentioned above, there are three orthographic types analyzed in the data; therefore, let us check their statistically significant differences based on gender, see table 3 below.

**Table 3: Statistical significant differences of punctuation, capitalization, and spelling errors based on gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Punctuation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>0.920</td>
<td>0.52831</td>
<td>0.16707</td>
<td>0.019</td>
<td>0.985</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>0.917</td>
<td>0.64736</td>
<td>0.10236</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capitalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>2.05</td>
<td>1.1949</td>
<td>0.37786</td>
<td>0.263</td>
<td>0.793</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>1.906</td>
<td>1.61393</td>
<td>0.25518</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spelling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>5.5</td>
<td>2.41523</td>
<td>0.76376</td>
<td>-0.345</td>
<td>0.732</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>5.925</td>
<td>6.09913</td>
<td>0.96436</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows the results of each error type statistically based on gender. In punctuation type, the mean score of males is .920, and the standard deviation is .528. Meanwhile, the mean score of females is 9.167, and the standard deviation is 6.47. The t-test results show -019 with a P-value .985 greater than 0.05. In capitalization type, the mean score of males is 2.050, and the standard deviation is 1.194. Meanwhile, the mean score of females is 1.906, and the standard deviation is 3.77. The t-test results show 263 with a P-value .793 greater than 0.05. In spelling type, the mean score of males is 5.50, and the standard deviation is 2.41. Meanwhile, the mean score of females is 5.92, and the standard deviation is 6.099. The t-test results show -345 with a P-value .732 greater than 0.05.

All these types show no statistically significant differences because the P-value is greater than 0.05; therefore, (H₀₁ a, b, and c) are accepted.

Learners’ errors found the sub-types of punctuation, capitalization, and spelling are quantitatively analyzed based on their frequency first and then statistically significant differences; see the figures and tables

**A. Analysis of punctuation Errors**

Here, errors found in learners’ essays related to punctuation, including its subtypes, are analyzed. Punctuation errors found in the data were two main categories, comma and period; see figure 5 below.
This figure shows the total frequency of punctuation errors found in learners' English written essays. There were 288 errors where comma errors were the most frequent type, 237 errors (82%), followed by period errors with 51 errors (18%). As mentioned earlier, punctuation errors occupied the fewest high of frequency among other orthographic types.

In punctuation errors, there are two main types found in the data, comma and period, with their sub-types which quantitatively can be recognized in Figures 6 and 7.

Figure 6. Learners' frequency of comma errors

This figure shows the total frequency of comma errors found in learners' English written essay where errors in the omission of comma occupied the highest frequent type 217 errors (91.56%), followed by the other two sub-types, unnecessary insertion of comma 18 errors (7.59%) and misuse of other punctuation marks for comma 2 errors (0.84%).
This figure shows the total frequency of period errors found in learners' English written essay where errors in the omission of period sub-type occupied the highest frequent type 24 errors (47%), followed by misuse of comma for the period at the end of a sentence 16 errors (31%). The other two subtypes are unnecessary insertion of period 7 errors (14%) and misuse of punctuation markers for period 4 errors (8%).

Statistically, learners’ errors found in punctuation are analyzed based on gender using the Independent Samples Test, see Table 4 below.

**Table 4: Statistical significant differences of punctuation subtypes based on gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comma</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>1.6667</td>
<td>1.05409</td>
<td>0.33333</td>
<td>0.275</td>
<td>0.785</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>1.5583</td>
<td>1.12821</td>
<td>0.17839</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>0.175</td>
<td>0.20582</td>
<td>0.06509</td>
<td>-0.819</td>
<td>0.417</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>0.275</td>
<td>0.37038</td>
<td>0.05856</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Punctuation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>0.9208</td>
<td>0.52831</td>
<td>0.16707</td>
<td>0.019</td>
<td>0.985</td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>0.9167</td>
<td>0.64736</td>
<td>0.10236</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows the results of sub-punctuation types, comma, and period errors statistically based on gender. In comma error type, the mean score of males is 1.66, and the standard deviation is 1.05. Meanwhile, the mean score of females is 1.55, and the standard deviation is 1.12. The t-test results show .275 with a P-value .785 greater than 0.05. In period type, the mean score of males is 1.75, and the standard deviation is .205. In punctuation, this test shows no significant differences between genders.
Meanwhile, the mean score of females is 2.75, and the standard deviation is 3.70. The t-test results show -819 with a P-value .417 greater than 0.05.

All these types show no statistically significant differences because the P-value is greater than 0.05. Therefore, the hypothesis (H₀₁a) assuming no statistically significant difference in punctuation, including its subtypes and based on gender is accepted.

### B. Analysis of Capitalization Errors

Here, errors found in learners’ essays related to capitalization, including its subtypes, are statistically analyzed. Capitalization errors found in the data were four main categories; see Figure 8 below.

**Figure 8. Learners' frequency of capitalization errors**

This figure shows the total frequency of capitalization errors found in learners' English written essays. There were 87 errors where the random capitalization sub-type occupied the highest frequent type, 288 errors (74%), followed by uncapitalization for the beginning of a sentence 84 error (22%).

Capitalization after phrases and clauses was the third-highest of frequency 11 error (3%). The fewest high frequency of error was in the uncapitalization of abbreviation sub-type where there were 4 errors (1%). As mentioned earlier, capitalization errors occupied the highest frequency among other orthographic types.

Statistically, learners’ errors found in capitalization are analyzed based on gender using the Independent Samples Test, see Table 5 below.
Table 5: Statistical significant differences of capitalization subtypes based on gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncapitalization for the beginning of a sentence</td>
<td>Males</td>
<td>10</td>
<td>1.4</td>
<td>1.43</td>
<td>0.452</td>
<td>-0.584</td>
<td>0.562</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>1.75</td>
<td>1.75</td>
<td>0.277</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalization after phrases and clauses</td>
<td>Males</td>
<td>10</td>
<td>0.6</td>
<td>1.075</td>
<td>0.34</td>
<td>1.381</td>
<td>0.199</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>0.13</td>
<td>0.335</td>
<td>0.053</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random capitalization</td>
<td>Males</td>
<td>10</td>
<td>6</td>
<td>5.033</td>
<td>1.592</td>
<td>0.153</td>
<td>0.879</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>5.7</td>
<td>5.658</td>
<td>0.895</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncapitalization of abbreviation</td>
<td>Males</td>
<td>10</td>
<td>0.2</td>
<td>0.422</td>
<td>0.133</td>
<td>1.571</td>
<td>0.123</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>0.05</td>
<td>0.221</td>
<td>0.035</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalization</td>
<td>Males</td>
<td>10</td>
<td>2.05</td>
<td>1.1949</td>
<td>0.37786</td>
<td>0.263</td>
<td>0.793</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>40</td>
<td>1.9063</td>
<td>1.61393</td>
<td>0.25518</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows the results of sub-capitalization types statistically based on gender. In uncapitalization for the beginning of a sentence, the mean score of males is 1.40, and the standard deviation is 1.43. Meanwhile, the mean score of females is 1.75, and the standard deviation is 1.75. The t-test results show -0.584 with a P-value .562 greater than 0.05. In capitalization after phrases and clauses type, the mean score of males is .60, and the standard deviation is 1.07.

Meanwhile, the mean score of females is .13, and the standard deviation is .335. The t-test results show 1.381 with a P-value .199 greater than 0.05. In random capitalization type, the mean score of males is 6.00, and the standard deviation is 5.033.

Meanwhile, the mean score of females is 5.70, and the standard deviation is 5.65. The t-test results show .153 with a P-value .879 greater than 0.05. In uncapitalization of abbreviation type, the mean score of males is .20, and the standard deviation is .422. Meanwhile, the mean score of females is .05, and the standard deviation is .221. The t-test results show 1.571 with a P-value .123 greater than 0.05.

All these types show no statistically significant differences because the P-value is greater than 0.05. Therefore, the hypothesis (H01b) assuming no statistically significant difference in capitalization, including its subtypes and based on gender is accepted.
C. Analysis of Spelling Errors

Here, errors found in learners’ essays related to spelling are statistically analyzed. In this regard, see Figure 4 above.

As it was shown in Figure 4 above, the total of errors found in learners' English written essays was 292 errors, 30%. This type of error occupied the second-highest frequency among the other two orthographic types.

Statistically, learners’ errors found in spelling are analyzed based on gender using the Independent Samples Test, see table 2 above where the mean score of males is 5.50, and the standard deviation is 2.41. Meanwhile, the mean score of females is 5.92, and the standard deviation is 6.099. The t-test results show a t-value of 3.45 with a P-value of .012 greater than 0.05. This type shows no statistically significant differences because the P-value is greater than 0.05; therefore, the hypothesis (H01c) assuming no statistically significant difference in spelling based on gender is accepted.

5.1. Discussion of Data Analysis

In this section, the orthographic types, punctuation, capitalization, and spelling, including their subtypes, are discussed based on their frequency, percentage, and other statistical results.

In this study, the researchers analyzed errors in three orthographic types, punctuation, capitalization, and spelling, in students’ English written essays with reference to Na-ngam's (2005) framework. They were analyzed based firstly on their frequency and then on their statistical significance difference based on gender.

In terms of frequency, in the findings shown in Figure 4 above, the students made errors in all three orthographic types, punctuation, capitalization, and spelling. The total errors found in this study were (967) errors see Figure 4 above. Errors found in these types vary from one orthographic type to another based on their frequency. Capitalization errors were the most frequent type, followed by spelling and punctuation, see also figure4.

In this study, there were further details provided related to each orthographic type. Therefore these three orthographic types, punctuation, capitalization, and spelling, occurred in students’ English written essays could be discussed below.

In punctuation, there were two sub-categories of the comma, which occupied the highest frequency of errors, followed by period errors, see figure5. Among these subtypes, there were sub-sub-types in comma and period errors wherein comma errors, learners made three comma errors in the omission, unnecessary insertion and misuse of other punctuation marks for the comma. In these sub-sub types of comma punctuation errors, the omission of comma sub-type occupied the highest frequent type, see figure6. In period punctuation errors, learners made four-period errors in the omission of period sub-type that occupied the highest frequent type followed by other three-period punctuation errors, misuse of comma for the period at the end of a sentence, unnecessary insertion of the period, and misuse of punctuation markers for the period, see figure7.
In capitalization, there were four sub-categories, random capitalization, uncapitalization for the beginning of a sentence, capitalization after phrases and clauses, and uncapitalization of abbreviation. Among these subtypes, in random capitalization errors occupied the highest frequent type, followed by other sub-types see figure 8.

In spelling error, all errors relating to spelling were analyzed under the spelling error category that occupied the second-highest frequency among the other two orthographic types; see figure 4.

In terms of statistically significant differences, in the findings shown in tables 2 and 3 above, there are no statistically significant differences among punctuation, capitalization, and spelling based on gender. This statistic result was found in all categories, including even their sub-types, where the P-value was found greater than 0.05. See tables 5 and 6. Therefore, all the hypotheses formulated in this study were accepted.

6.1. Findings

- It was found that learners made errors in all three types, punctuation, capitalization, and spelling.
- This study showed that capitalization errors were the most frequent type, followed by spelling. The least type of frequency that occurred in the data was in punctuation.
- This study showed no statistically significant differences among punctuation, capitalization, and spelling based on gender.
- Based on the frequency of errors found in the data, students still have difficulty using orthographic types, capitalization, spelling, and punctuation. There might be less knowledge in using punctuation, capitalization, and spelling.

7.1. Suggestions

Based on the findings of this study, the researchers would like to provide students and teachers or those who are interested with some recommendations related to using punctuation, capitalization, and spelling.

Students should include most of the punctuation, capitalization rules and be aware of spelling. In organizing their written texts, they have to use such types appropriately in their writing unless their writings will be incomprehensible.

Teachers should pay attention and explain all the rules of punctuation, capitalization. Teachers can do that always by making their students aware of using such rules in every single written essay while teaching either in classrooms or in given assignments. It was found that learners do commit errors in one type of punctuation errors as in using of comma indicating that they were not exposed to other types of punctuation. Therefore, teachers need to raise the students’ awareness to pay attention to use other types of punctuation.

Teachers also should give students extensive assignments, as learners should write more essays focusing on using punctuation, capitalization, and spelling while correcting and scoring learners' English written essays or exams. In this regard, teachers should motivate and encourage their students by giving good grades or grace marks for using different types of punctuation in their writings. If there is time, teachers should plan to arrange
a time to provide more lessons for teaching punctuation, capitalization in additional sessions. These will raise learners, awareness in using them while writing.

8.1. Conclusion

This study showed that learners made errors in all three types, punctuation, capitalization, and spelling. Capitalization errors were the most frequent type, 387 errors (40%), followed by spelling, 292 errors (30%). Finally, the fewest errors were found in punctuation, with 288 errors (30%). This study showed no statistically significant difference among these types based on gender. This study found that learners did not employ most of the punctuation and capitalization rules in their writings, indicating that learners still face difficulty using orthographic types, capitalization, spelling, and punctuation. This study has shown that Yemeni third-year EFL Learners still have problems using most of these types. However, with guidance, exposure, reading, and practice, students can better understand punctuation, capitalization, and spelling in their English written essays. Therefore, many efforts should be paid from teachers to help the students to achieve the desired level of proficiency in using punctuation, capitalization, and spelling.

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