1. Introduction

Over these past twenty years, a large number of investigations have been carried out to identify factors influencing second language (L2) learning. Specifically, investigations of the relationship among first language (L1) reading skills, L2 reading skills, and L2 proficiency have been widely conducted (e.g., Bosser, 1991; Carrell, 1991; Hulstijn & Bossers, 1992; Lee and Schallert, 1997), to contribute to the overall growth of L1-L2 relation research.

By contrast, less emphasis has been placed on research concerning the interrelationship among L1 writing skills, L2 writing skills, and L2 proficiency. Since studies of the interrelationship are still in the beginning stages, they lack consensus on research findings. Moreover, the participants’ previous formal instruction in academic L2 writing, a possible additive factor of L2 writing overall quality, has not been controlled yet in most L1 and L2 composition research. Therefore, a real need exists to discover the relationship between L1 and L2 composition skills and proficiency of such unskilled writers without previous academic writing background. The present study investigates the interrelationship among L1 writing skills, L2 writing skills, and L2 proficiency of Japanese EFL college students who have not received any formal academic English writing instruction. Such an examination immediately brings with it a need to describe as clearly as possible how the lively discussion of the relationship has been complicated by the many debates and points of view presented in the literature.

2. Literature Review

A growing interest in the relation among L1 and L2 text quality and L2 proficiency has prompted a number of examinations of the relationships among English as a Second Language (ESL)/English as a Foreign Language (EFL) students in recent years. To date, L2 composition specialists have argued for a possible relationship between L1 and L2 overall text quality, but their findings are mixed. Statistical analyses that empirically confirm a linear association include studies by De Jesus (1984), Cook (1988), Hirose and Sasaki (1994), Sasaki and Hirose (1996), Kamimura (2001). De Jesus’s (1984) correlational analysis of 344 Spanish-speaking college freshmen learning ESL in Puerto Rico reveals that L1 writing proficiency is moderately correlated with L2 writing proficiency. Cook’s (1988) examination of 24 Spanish-speaking students enrolled in advanced ESL composition classes at an American university also finds a moderately significant correlation between their L1 and L2 writing quality scores. The other two series of statistical investigations setting out to investigate further
L1 (Japanese) and L2 (English) writing relationship were initiated by Hirose and Sasaki (1994) in a study of 19 EFL university learners, and Sasaki and Hirose (1996) in a study of 70 EFL university students. The two studies report statistically significant correlations between L1 and L2 composition scores to conclude that Japanese EFL learners produce compositions of similar quality in the two languages. Similarly, Kamimura’s (2001) statistical investigation of 45 Japanese EFL students implies that there is an observable relationship between L1 and L2 composition skills.

In contrast to these quantitative analyses, the studies by Carson, Carrell, Silberstein, Kroll, and Kuehn (1990), Abu-Akel (1997), and Pennington and So (1993) reveal data that does not support the L1-L2 positive significant writing relationship. Carson et al. (1990) report that the L1 (Japanese or Chinese) and L2 (English) writing scores show a weak but significantly positive correlation for 57 Japanese students (r = .23) but not for 48 Chinese students (r = -.019, non-significant). Likewise, in a study conducted by Abu-Akel (1995), L1 (Arabic or Hebrew) and L2 (English) composition scores show a weak positive correlation for 55 Arabic participants (r = .23) but not for 45 Hebrew subjects (r = .02, non-significant). Pennington and So’s (1993) case study demonstrates little correspondence between the L1 (English or Chinese) and L2 (Japanese) writing quality of six university students and fails to find a clear relationship between the two variables. As has been argued, the possible existence of the relation between L1 and L2 writing quality is still a controversial issue.

Another line of research is concerned with the possible relationship between L2 proficiency and L2 essay writing skills, but the reported findings reveal contradictions. On the one hand, L2 knowledge is reported to be one of the explanatory variables playing an important role in the successful development of L2 composition skills. Cumming’s (1989) study examines 23 selected young adult Francophone students in a French (L1)/English (L2) bilingual program in Canada, commenting that “as people gain proficiency in their second language, they become better able to perform in writing, producing more effective texts” (p. 121). His claim has been supported not only by deep statistical investigations of Sasaki and Hirose (1996), but also by several case studies (e.g., Jones & Tetroe, 1987; Pennington & So, 1993). On the other hand, Raimes (1987) reports that learners’ compositional performance does not seem to be influenced by their L2 proficiency (but see Raimes, 1985, for a contradictory finding). Though the possible interrelationship between L2 linguistic proficiency and L2 compositional performance has been argued by L2 writing
specialists, controversy still lingers over the unsolved speculative question of whether the two should be linked.

The next concern is whether improvement of L1 writing skills is effective in helping L2 learners develop their L2 knowledge. Hirose and Sasaki (1994), and Sasaki and Hirose (1996) empirically have investigated the correlational relationship between L1 writing performance and L2 proficiency and found statistically significant correlations between the two factors. However, some previous studies (e.g., Cumming, 1989) do not agree with these Japanese researchers’ results. A possible linear association between L1 composition skills and L2 proficiency is still speculative.

As reviewed so far, a variety of investigations related to the relationship among L1 writing skills, L2 writing skills, and L2 proficiency have contributed to the overall development of L1-L2 writing research. However, the mixed results of the research reveal no clear agreement on the interrelationship among the three variables in L2 writing research; thus, we are in need of continued efforts to conduct investigations that will resolve the dilemma. Furthermore, little attention has been paid to the control of previous formal instruction in academic English writing. Many researchers (e.g., Kamimura, 2000; Kubota, 1998; Mohan & Lo, 1985) imply that writers’ L2 composition instruction or metaknowledge might improve the quality of their text. However, virtually no study controls for such previous instruction or knowledge, a potential variable influencing L2 text quality. Accordingly, the present study is original with regard to the control of the subjects’ L2 composition background because the participants in this study have not received knowledge of formal aspects of English academic writing.

The central purpose of this study is to examine the possible interrelationship among the three variables of L1 writing skills, L2 writing skills, and L2 proficiency of Japanese EFL university students who have not received formal academic English writing instruction. The subsidiary purpose is to examine the effect of different levels of L2 proficiency on the interrelationship. This study will test the following six hypotheses:

1. Japanese EFL university students’ L1 (Japanese) writing skills are correlated with their L2 (English) writing skills in argumentative essays.
2. Japanese EFL university students’ L2 proficiency is correlated with their L2 writing skills.
3. Japanese EFL university students’ L1 writing skills are correlated
with their L2 proficiency.
4. Japanese EFL university students’ L1 writing skills and L2 proficiency are significant predictors of their L2 writing skills.
5. Japanese EFL university students’ L1 writing skills are a more powerful predictor of L2 writing skills than their L2 proficiency.
6. The three pairs of correlations (a. L1 writing skills × L2 writing skills b. L2 proficiency × L2 writing skills c. L1 writing skills × L2 proficiency) increase as the Japanese EFL university students gain higher L2 proficiency.

3. Method
3.1. Participants
A total of 262 undergraduate students who had not acquired knowledge of formal aspects of English academic writing in a Japanese four-year university participated as subjects in the present study. They were non-experienced Japanese EFL writers of academic English essays who had at least six years of English education provided in secondary schools in Japan.

The proficiency level of the 262 subjects ranged from 155 to 805 points as assessed by the TOEIC (Test of English as International Communication) IP (Institutional Program), with an average of 393.17 (SD: 94.52), which was 21.83 points lower than the average score of the TOEIC IP (415.00) administered in Japanese four-year universities in the 2001 school year (see Kokusai Bijinesu Komyunikeishon Kyokai, 2002). The subjects’ English proficiency level varied from low to high, the majority belonging to slightly low intermediate level. Subjects’ ages ranged from 18 to 23 years with an average of 20.02 (SD: 1.14).

3.2. Instruments
The instruments consisted of a standardized English proficiency test and argumentative writing tasks in both L1 and L2. The first variable involved, L2 knowledge, was assessed by a means of widely used test known as the TOEIC. The second and third variables involved, L1 and L2 writing skills, were examined by a means of the Test of Written English (TWE). More specifically, the topic (Educational Testing Service, 1996, p. 54) seen below was utilized as the data-gathering instrument of the L1 and L2 texts to examine the participants’ argumentative compositional proficiency.

Do you agree or disagree with the following statement:
*Teachers should make learning enjoyable and fun for their students.*
Use reasons and specific examples to support your opinion.
3.3. Procedures

Three sessions were conducted in two week-intervals. Figure 1 illustrates the experimental design. The TOEIC was administered in January 2002 at the first session. One week after this TOEIC administration, the second session, which was the first writing tests (in which 137 students composed L1 essays; 125 students did L2 essays), was conducted. The third session was the second writing tests (in which 137 students composed L2 essays; 125 students did L1 essays).

The use of the same prompt and the counterbalance of a possible order effect of L1/L2 writing were consistent with recent studies of the relationship between L1 and L2 text quality (Hirose & Sasaki, 1994; Sasaki & Hirose, 1996; Kubota, 1998). Two writing tasks with the same prompt in Japanese and English were given to the participants. The same prompt was used to reduce not only the variability of the raters’ evaluation (Kobayashi & Rinnert, 1996) but also the writers’ performance from topic to topic, as pointed out in several studies (e.g., Friedlander, 1990; Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey, 1981; Reid, 1990). Also, to neutralize a possible order effect of L1 and L2 writing tasks, 137 participants composed essays in Japanese, and the remaining 125 did so in English in the second session. After a one-week interval, the participants who had written in Japanese first wrote in English next (L1 → L2); those who had written in English in the second session wrote in Japanese on the same topic in the third session (L2 → L1). The participants were not informed that they would be writing on the same topic in both languages.

Following the TWE procedure for administration, the use of dictionaries was not permitted. The same time limit (30 minutes) was set for both L1 and L2 sessions.

3.4. Evaluation of Essays

The evaluation of L1 and L2 essays was consistent with the TWE evaluation procedure. Experienced and trained raters scored all the essays holistically. The score for each essay was the average of the two independent ratings. In the case of a discrepancy of more than 2 points for both Japanese and English essays, the score was derived by the adjudication of the score by a third rater.

L1 compositions were rated by two primary evaluators according to a Japanese evaluation scale descriptor used in the study of Carson et al. (1990), consisting of six criteria with a possible range of 6 to 1 (see Appendix A). The selected raters were instructors at a four-year university specializing in Japanese literature.

The selected raters of L2 compositions assigned scores based on the
**Figure 1: Experimental Design**

<table>
<thead>
<tr>
<th>First session</th>
<th>TOEIC administration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One week break</td>
</tr>
<tr>
<td>Second session</td>
<td>137 participants composed L1 essays; 125 did L2 essays</td>
</tr>
<tr>
<td></td>
<td>One week break</td>
</tr>
<tr>
<td>Third session</td>
<td>137 participants composed L2 essays; 125 did L1 essays</td>
</tr>
</tbody>
</table>

TWE scoring guidelines (see Appendix B) and the sample essays presented for each TWE score point (see Educational Testing Service, 1996). The TWE rating scale ranges from 6 to 1. The raters were Japanese EFL instructors specialized in academic English writing who held Ph.D. degrees in TESOL.

**4. Results**

**4.1. Descriptive Statistics and Reliability**

Table 1 presents descriptive statistics for the three primary variables of L1 composition, L2 composition, and L2 proficiency (TOEIC) scores, as well as the mean scores of the number of L1 characters and L2 words per essay. The mean score of the L1 composition was 2.00; that of the L2 composition was 1.70. The two means are considered low. Moreover, the mean score of the L2 proficiency was 393.17.

Two measures of interrater reliability for the two primary raters, which are the Pearson product-moment correlation and the coefficient alpha (Cronbach’s alpha), are reported in Table 2, along with rater means and standard deviations. The Pearson correlation provides the overall agreement of the two primary raters; on the other hand, the coefficient alpha gives us a useful index of the degree of internal consistency for the final scores based on two raters per essay. The interrater reliabilities measured by the Pearson correlation and coefficient alpha for Japanese essays were .71 and .83; those for English essays were .82 and .90, which are all considered acceptable.

**4.2. Correlation and Regression Analysis**

In order to test Hypotheses One, Two, and Three, the Pearson product-moment correlation was used. In order to test Hypotheses
Table 1: Descriptive Statistics (N=262)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total Possible</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 Writing</td>
<td>6.00</td>
<td>2.00</td>
<td>.76</td>
</tr>
<tr>
<td>L2 Writing</td>
<td>6.00</td>
<td>1.70</td>
<td>.70</td>
</tr>
<tr>
<td>L2 Proficiency (TOEIC)</td>
<td>990.00</td>
<td>393.17</td>
<td>94.52</td>
</tr>
<tr>
<td>Number of L1 Characters</td>
<td></td>
<td>565.52</td>
<td>157.53</td>
</tr>
<tr>
<td>Number of L2 Words</td>
<td></td>
<td>86.93</td>
<td>40.91</td>
</tr>
</tbody>
</table>

Table 2: Essay Rater Means, Standard Deviations, Pearson Product-moment Correlation and, Coefficient Alphas (N=262)

<table>
<thead>
<tr>
<th>Rater</th>
<th>Pearson</th>
<th>Coefficient Alphas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1 Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.98</td>
<td>.71</td>
</tr>
<tr>
<td>SD</td>
<td>.83</td>
<td>.81</td>
</tr>
<tr>
<td>L2 Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.65</td>
<td>.82</td>
</tr>
<tr>
<td>SD</td>
<td>.69</td>
<td>.78</td>
</tr>
</tbody>
</table>

Four and Five, a multiple regression analysis was used. Correlational data were analyzed, and special attention was paid to two different proficiency groups in order to test Hypothesis Six. As a preliminary step, the researcher performed a correlational analysis among the three criteria measures, the Japanese composition, the English composition, and the TOEIC scores, using a Pearson product-moment correlation procedure. As shown in Table 3, weak to moderate positive correlations are reported. At the .01 level, the correlations of .477 and .389 are significant between Japanese writing and English writing scores, and between the TOEIC and English writing scores. Moreover, a weak but significant correlation (r = .233) at the .01 level between the L1 writing and the TOEIC scores is exhibited in this study.

Second, to investigate further the relationship among the scores of Japanese composition, English composition, and L2 proficiency, the data were subjected to a multiple regression analysis. The researcher regressed the dependent variable of the L2 writing scores against the two independent variables of the L1 writing and the TOEIC scores (L1W • TOEIC × L2W), $F(2, 259) = 57.902$, as indicated in Table 4.
Table 3: Correlation Matrix for Three Variables (N=262)

<table>
<thead>
<tr>
<th></th>
<th>L1 Writing</th>
<th>L2 Writing</th>
<th>TOEIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 Writing</td>
<td>1.00</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>L2 Writing</td>
<td>.477**</td>
<td>1.00</td>
<td>-----</td>
</tr>
<tr>
<td>TOEIC</td>
<td>.233**</td>
<td>.389**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

(*** \(p < .01\))

Table 4: Multiple Regression Analysis (N=262)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>Mean sq.</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>39.604</td>
<td>2</td>
<td>19.802</td>
<td>57.902</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>88.576</td>
<td>259</td>
<td>.342</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>128.179</td>
<td>261</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictor</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1Writing</td>
<td>.378</td>
<td>.000</td>
</tr>
<tr>
<td>TOEIC</td>
<td>.002175</td>
<td>.000</td>
</tr>
</tbody>
</table>

The statistical results show that the adjusted coefficient of determination (adj. \(R^2\)) is .304; that is, the two independent variables of the L1 writing and L2 proficiency scores together explain 30.4% of the total variance of the L2 writing scores. This provides immediate evidence that both predictor variables (L1 writing and L2 proficiency) play a moderate role in L2 writing, as we would expect from the Pearson correlation analysis reported earlier in Table 3. Furthermore, the degree to which L1 writing and L2 knowledge contributes to L2 writing can be seen by observing the predictors’ t-score, which indicates the relative importance of each predictor separately. The t-score for the Japanese composition (7.693) is higher than that for the TOEIC (5.522). In other words, the importance of L1 writing for L2 writing outweighs that of L2 proficiency.

Lastly, correlational data were analyzed, and special attention was paid to the two different proficiency levels in order to provide statistical insight into the effect of the different linguistic proficiency on each correlation. Based on the TOEIC results, the 262 students’
Table 5: Descriptive Statistics of High and Low Achieving Groups

<table>
<thead>
<tr>
<th>Measure</th>
<th>High Achieving Group (N=101)</th>
<th>Low Achieving Group (N=102)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>L1 Writing</td>
<td>2.15</td>
<td>.85</td>
</tr>
<tr>
<td>L2 Writing</td>
<td>1.94</td>
<td>.75</td>
</tr>
<tr>
<td>L2 Proficiency (TOEIC)</td>
<td>487.52</td>
<td>67.33</td>
</tr>
<tr>
<td>Number of L1 Characters</td>
<td>581.53</td>
<td>163.79</td>
</tr>
<tr>
<td>Number of L2 Words</td>
<td>99.08</td>
<td>42.10</td>
</tr>
</tbody>
</table>

(*p<.05) (** p<.01)

Table 6: High and Low Achieving Groups of the Pearson Product-moment Correlation

<table>
<thead>
<tr>
<th>Measure</th>
<th>High Achieving Group</th>
<th>Low Achieving Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig.</td>
<td>Sig.</td>
</tr>
<tr>
<td>a. L1 Writing × L2 Writing</td>
<td>.564**</td>
<td>.344**</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>b. TOEIC × L2 Writing</td>
<td>.372**</td>
<td>-.011</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
<td>.910</td>
</tr>
<tr>
<td>c. L1 Writing × TOEIC</td>
<td>.336**</td>
<td>.174</td>
</tr>
<tr>
<td>Sig.</td>
<td>.001</td>
<td>.081</td>
</tr>
</tbody>
</table>

(** p<.01)
scores were divided into the top 100 (high achieving group) and the bottom 100 rankings (low achieving group). The mid performing group was used as a statistical buffer divider. Table 5 shows that the high achieving group records a mean score of 487.52 on the TOEIC while the low achieving group produces a mean score of 305.39. Also, t-tests were administered to examine there were any statistically significant differences between the two groups. The t-test results show that the high achieving group significantly obtains better scores not only in L1 compositions \((t = 2.451, df = 201, p<.05)\) but also in L2 compositions \((t = 4.953, df = 201, p<.01)\), gains higher scores on the TOEIC \((t = 23.160, df = 201, p<.01)\), and produces longer L2 compositions \((t = 4.784, df = 201, p<.01)\) than does the low achieving group.

Next, three pairs of correlations (a. L1 writing × L2 writing  b. TOEIC × L2 writing  c. L1 writing × TOEIC) in each of the two proficiency groups were performed in Table 6, as illustrated in Figure 2. It is worth noting that only the L1-L2 writing relationship in the high and low achieving groups remains statistically significant regardless of the levels of L2 knowledge, though the correlation in the high achieving group is still higher than that in the low achieving group. The two correlations between the TOEIC and L2 writing, and L1 writing and the
TOEIC in the low achieving group are considerably low, whereas they are statistically significant in the high achieving group. In short, the correlations tend to increase and become statistically significant after the participants gain higher English proficiency.

5. Discussion

For the present investigation, the six hypotheses about the interrelationship among L1 writing skills, L2 writing skills, and L2 proficiency were tested with the participants who did not have formal academic writing education, and the hypotheses were confirmed with the aid of various statistical analyses. The first hypothesis, the participants’ L1 writing skills are associated with their L2 writing skills, was confirmed in the present study. The result is consistent with the findings of various comparative analyses of composition skills in L1 and L2 (e.g., Cook, 1988; Cumming, 1989; De Jesus, 1984; Hirose & Sasaki, 1994; Kamimura, 2001; Sasaki & Hirose, 1996) and suggests that the students’ argumentative essays in L1 and L2 tend to be similar in quality. In other words, the better quality of students’ L1 writing brings about better performance in L2 writing.

The second objective of this study involves the relationship between English proficiency and text quality. The data emerging from this investigation implies that L2 linguistic proficiency facilitates the overall quality of L2 writing products. Similar findings are obtained from relevant studies investigating the relationship between L2 proficiency and L2 writing skills (e.g., Cumming, 1989; Jones & Tetroe, 1987; Pennington & So, 1993).

The third concern is a possible linear association between Japanese writing skills and English proficiency. The weak but significant correlation (r = .233) adds more support to the third hypothesis that L1 writing skills are correlated with L2 proficiency. This finding is consistent with the results of several studies, such as Hirose and Sasaki (1994), and Sasaki and Hirose (1996). Although the link between L1 essay writing skills and L2 proficiency is still only speculative because of the relatively low correlation, L1 writing proficiency seems to be related to L2 proficiency.

Next, the multiple regression analysis employed in this study provides two important findings, which confirm the fourth and fifth hypotheses. First, the students’ L2 composition scores significantly account for 30.4 % of the effect of the interaction of L1 writing composition and the TOEIC scores. Thus, it is reasonable to assume that the participants’ L1 writing skills and their general L2 knowledge both contribute significantly to the development of their L2 writing
quality. Second, the t-scores indicate that the importance of L1 writing for L2 writing outweighs that of L2 proficiency, which implies that L1 writing skills has more of an impact on L2 writing skills than L2 proficiency. What is surprising is that it supports the result of Hirose and Sasaki (1994) but runs contrary to the finding reported by Sasaki and Hirose (1996). In other words, L1 writing skills are a stronger predictor than L2 proficiency in the former study, while the reverse is true in the latter investigation. The different results of the two series of studies in 1994 and 1996 may be attributed to a method to measure Japanese writing performance. Most notably, the three methods to measure Japanese writing performance, English writing performance, and English proficiency in the two previous investigations differ from those in this present study. These methodological differences should be kept in mind as possible sources of influence on the analysis relating L1 and L2 writing skills and L2 knowledge. Due to these methodological discrepancies, the results should be treated with caution, but evidence that L2 writing skills would be a more powerful predictor of L1 writing skills than L2 proficiency is present in the data exhibited by the particular sample of 262 students in this study.

Finally, in order to test the sixth hypothesis, three pairs of correlations were performed in each of the two proficiency groups as a preliminary attempt to gain insight into the effect of the different linguistic knowledge on each correlation. As revealed by Table 6, as L2 proficiency increases, the three pairs of correlations increase. It should be pointed that two significant correlations between L1 and L2 writing scores (r = .564 and r = .344), despite the two levels of L2 proficiency, suggest that the subjects in the two groups may already surpass a possible existence of so-called "language competence ceiling" or "threshold level" in L2 writing, below which L2 proficiency blocks the transfer of L1 writing skills to L2 writing (cf. the language competence ceiling or threshold level in L2 reading, e.g., Bossers, 1991; Clarke, 1979; Shokrpour & Gibbons, 2000).

What is most interesting is that the second and third hypotheses are confirmed in the high achieving group while they are not in the low achieving group. For the high achieving group (the mean score of the TOEIC = 487.52), L2 proficiency is significantly correlated with L2 writing performance (r = .372), so the second hypothesis is confirmed. This result is supported by some earlier relevant studies, such as Cumming (1989), Pennington & So (1993), and Sasaki & Hirose (1996). However, for the low achieving group (the mean score of the TOEIC = 305.39), there is an indiscernible relationship between the two factors (r = .174), and the second hypothesis is disconfirmed. This finding
renders support to Raimes (1987). In other words, Japanese EFL writers seem to benefit extensively from relatively advanced L2 knowledge, while other writers with deficient L2 knowledge do not demonstrate as much success (Ferris, 1994).

Similarly, with regard to the third hypothesis, the outcomes are unequivocal. The result of the significant correlation ($r = .336$) between Japanese writing skills and English proficiency in the high achieving group adds more support to the contention that L1 writing skills are dependent on high L2 proficiency (Hirose & Sasaki, 1994; Sasaki & Hirose, 1996). On the other hand, the assertion is not true for the low achieving group because of a negligible relationship between L1 writing skills and L2 proficiency ($r = -.011$), which agrees with the result of Cumming (1989).

Importantly, the findings from the two groups may allow us to resolve the previous contradictions of the L2 proficiency-L2 writing skills and the L1 writing skills-L2 proficiency relationship, for it could be assumed that the different findings of the earlier studies may stem from differences among their subject groups in absolute level of L2 proficiency. Yet, it is difficult to make this assertion based on this single study; therefore, further research investigating the effects of several L2 proficiency levels on the two relationships is called for in order to fill in the contradictory gaps and corroborate this speculative contention. The effects of the two levels of L2 proficiency on the three pairs of correlations in this study are still preliminary but significant findings.

6. Conclusions and Pedagogical Implications

The results of the data analysis uncovered the following three tendencies:
(a) There is an observable interrelationship among L1 writing skills, L2 writing skills, and L2 proficiency;
(b) L1 writing skills and L2 knowledge contribute significantly to L2 writing skills, and L1 writing skills are a more powerful predictor of L2 writing skills than L2 knowledge; and
(c) The three correlations between L1 and L2 writing skills, L2 knowledge and L2 writing skills, and L1 writing skills and L2 knowledge increase after participants gain high L2 knowledge.

Any teaching implication based on these preliminary findings ought to be treated with caution; nevertheless, the findings of the present research offer EFL writing practitioners general implications for writing classroom. L2 writing instructors should be aware of the importance of L1 composition skills and L2 knowledge for the
development of L2 composition skills of even unskilled EFL writers who do not receive formal academic writing instruction in school. However, the extent to which L1 composition skills and L2 proficiency might be exploited or used in L2 composition pedagogy may be limited to relatively advanced levels of L2 proficiency.

Additional studies investigating the interrelationship among L1 academic writing skills, L2 academic writing skills, and L2 proficiency are strongly suggested to further explore the nature of the relationship among them. First, the replication of the study with other unskilled EFL college students is recommended to see if results are similar to those in this study and further enhanced by comparing L1 and L2 writing texts with several different levels of L2 proficiency. Future studies would help unravel the effect of different L2 proficiency on the interrelationship and ascertain the existence of a possible "threshold level" of L2 proficiency for L1 writing skills to transfer to L2. Second, the replication of the study using different essay topics is necessary to reach any generalization, as it would uncover the effect of different topics on the nature of the interrelationship. These suggested replications would enable us to discover a more effective use of students' L1 writing skills and L2 proficiency as a rich source for instruction in an EFL composition context and contribute to the overall growth of L2 composition research.

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Notes
1. In this study, knowledge of formal aspects of English academic writing refers to form-oriented knowledge of composing. Specifically, the researcher chose the following nine fundamental paragraph and essay elements of English composition: topic sentence, thesis statement, supporting sentence, concluding sentence, coherence, unity,
introductory paragraph, body paragraph, and concluding paragraph. Students who had learned any one of these concepts above before the time of the investigation were excluded from the present research in order to avoid the unexpected effect on L2 text quality caused by the potential variable.

2. A holistic rating scale is generally recognized as less methodologically rigorous than an analytic rating scale, which is based on sufficiently distinct and detailed evaluation component scales. Thus, the present study was not without limitations in regard to potential methodological effects of raters on participants’ writing performance.

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**Appendix A: Evaluation Scale Descriptors: Japanese Essay**

**6**
- The argument presented is very clear.
- The sequencing of words and sentences is consistent and smooth.
- The topic is addressed well.
- The overall presentation is well organized.
- The vocabulary is abundant.

**5**
- The argument is clear.
- The persuasion is a little weaker than the level 6.
- The fluency of the language is good.
- The vocabulary used is not as elaborate as that in the papers of the level 6.

**4**
- The overall control of the language is more than the average, but not completely satisfactory.
- The argument mostly follows the topic.
- The variety and type of sentence construction used need more consideration.

**3**
- The argumentation, sequencing of the sentences, expression and vocabulary are acceptable.
- The level is average.

**2**
- The logical development is missing.
- The argument is not clear.
- Some papers are too casual for an essay.
- The vocabulary used in papers is limited.
- The overall length of the papers is too short to develop the argument.
The topic is not addressed well.
The statements are off the point.
Some of the students misunderstand the question.
The papers lack the clear arguments about the topic.

Appendix B: Evaluation Scale Descriptors: English Essay

6 Demonstrates clear competence in writing on both the rhetorical and syntactic levels, though it may have occasional errors.
A paper in this category
- effectively addresses the writing task
- is well organized and well developed
- used clearly appropriate details to support a thesis or illustrate ideas
- displays consistent facility in the use of language
- demonstrates syntactic variety and appropriate word choice

5 Demonstrates competence in writing on both the rhetorical and syntactic levels, though it will probably have occasional errors.
A paper in this category
- may address some parts of the task more effectively than others
- is generally well organized and developed
- uses details to support a thesis or illustrate an idea
- displays facility in the use of language
- demonstrates some syntactic variety and range of vocabulary

4 Demonstrates minimal competence in writing on both the rhetorical and syntactic levels.
A paper in this category
- addresses the writing topic adequately but may slight parts of the task
- is adequately organized and developed
- uses some details to support a thesis or illustrate an idea
- demonstrates adequate but possibly inconsistent facility with syntax and usage
- may contain some errors that occasionally obscure meaning

3 Demonstrates some developing competence in writing, but it remains flawed on either the rhetorical or syntactic level, or both.
A paper in this category may reveal one or more of the following weaknesses:
- inadequate organization or development
- inappropriate or insufficient details to support or illustrate
generalizations
-a noticeably inappropriate choice of words or word forms
-an accumulation of errors in sentence structure and/or usage

**2 Suggest incompetence in writing.**
A paper in this category is seriously flawed by one or more of the following weaknesses:
- serious disorganization or underdevelopment
- little or no detail, or irrelevant specifics
- serious and frequent errors in sentence structure or usage
- serious problems with focus

**1 Demonstrates incompetence in writing.**
A paper in this category
- may be incoherent
- may be undeveloped
- may contain severe and persistent writing errors