5.0 Summary of findings

From the population of thirteen BTEC HND (Business) students at ITD, only ten of them, three male and seven female subjects, fulfilled the criteria established prior to data collection in the present study. The reliability and validity of data gathered in this study were given due emphasis by employing triangulation in both methods as well as data. Two-phased questionnaires and students' texts yielded quantitative data while interview transcripts and instructor's notes yielded qualitative data, both of which were analysed accordingly.

Results from descriptive statistical analysis of the first questionnaire showed that the majority of the students fell into the age group of 20-21 years old and above. Their highest level of education did not go beyond SPM level or equivalent. In addition, more than half of them also had had minimal working experience of not more than 2 years. As mentioned before, since their highest level of education was only SPM, most of the students had had at least 11 years of ESL learning experience from primary level (6 years) to secondary level (5-6 years) and this was ascertained by students' responses. Because 80% of them had had previous history of tertiary level education, most of the students had been ESL students for more than 11 years. Although they had been learning
English as their second language for quite a number of years, both their PMR and SPM English Language grades were not impressive. While no one had failed English Language at both PMR and SPM levels, only one student managed to score a distinction at PMR level and two students obtained a strong credit at SPM level. The rest were either average (credit) or below average (pass). In addition, no one had ever taken the initiative to attend any additional English Language proficiency course after they had completed their secondary level education. From the students' responses, it was also learnt that all of them knew the basics of using e-mail.

Even at the initial stage when the first questionnaire was distributed, at least half of the subjects favoured the use of e-mail in memo-writing and the use of the Multimedia Laboratory as classroom during memo-writing activities. In addition, more than half of them believed that using electronic memo templates would help them achieve better scores for format and that it would give that business-like appearance to their memos. Nevertheless, as mentioned before, at this stage, doubts and scepticism were still prevalent among a few of them. However, things began to change after e-mail was used in memo-writing. Nearly two-thirds of the subjects admitted that they had improved by not repeating the same kind of unnecessary simple spelling errors that they used to make. In addition, students also admitted that they thought electronic memo-writing to be 'great' and did not find spending at least four hours per
week in the Multimedia Laboratory to be ‘boring’. However, there were still a few who were having little difficulty in adapting to this situation simply because they were not used to electronic memo-writing before.

Although the students’ memo-writing skills seemed to have improved, with regard to the memo format and the number of occurrences of spelling errors produced, a perfect score for all the subjects in these two aspects could not be totally achieved. However, the findings of the present study did indicate that there had been some positive changes taking place as a result of the use of e-mail in memo-writing. In addition, results also showed that both students and the instructor had found that there were more benefits than limitations resulting from the use of e-mail in memo-writing.

5.1 Issues pertaining to the research questions

Having presented the analysis of both types of quantitative and qualitative data, the researcher moved a step further in her attempt to address the four research questions based on combined research traditions. The first two research questions were mainly dealt with quantitatively and involved the application of descriptive and inferential statistics. Therefore, two corresponding null hypotheses were formulated accordingly. On the other hand, the third and fourth research questions were mainly dealt with qualitatively. As such, in the latter, no such hypotheses were formulated (see Table 22, p. 134).
Table 22: Research questions addressed in the present study

<table>
<thead>
<tr>
<th>Research Question 1</th>
<th>Research Question 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the use of e-mail have any effect on the students’ memo-writing skills with regard to the memo format?</td>
<td>Does the use of e-mail have any effect on the students’ interest in learning memo-writing?</td>
</tr>
<tr>
<td><strong>Corresponding null hypothesis</strong></td>
<td></td>
</tr>
<tr>
<td>The use of e-mail does not have any effect on the students’ memo-writing skills with regard to the memo format</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Question 2</th>
<th>Research Question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the use of e-mail have any effect on the students’ memo-writing skills with regard to the number of occurrences of spelling errors?</td>
<td>What are the benefits and limitations of using e-mail in memo-writing?</td>
</tr>
<tr>
<td><strong>Corresponding null hypothesis</strong></td>
<td></td>
</tr>
<tr>
<td>The use of e-mail does not have any effect on the students’ memo-writing skills with regard to the number of occurrences of spelling errors</td>
<td></td>
</tr>
</tbody>
</table>

5.1.1 The effects of using e-mail in memo-writing

5.1.1.1 The memo format

Although generally students seemed to favour the electronic memos and the Multimedia Laboratory as their classroom, this was hardly any guarantee that their memo-writing skills would improve, without analysing their written work, in both conventional and electronic modes, and comparing their scores in these on-going in-class assessments to that of the end-of-semester Final Assessment. After students’ texts had been analysed, results from descriptive statistical analysis of the students’ text showed that majority of them did better in electronic memo-writing activities, compared to what they did in conventional memo-
writing activities and that all subjects had either maintained the maximum 10.0 score or perfected their scores. In addition, when both conventional memo-writing scores in the on-going in-class assessments were compared to the scores in the conventional memos in the Final Assessment, the scores in the Final Assessment were similar, if not better than the ones obtained in electronic memo-writing assessments (see Figure 17 below).

Figure 17: Students' average scores for memo format

Figure 17 above shows that whilst two subjects (S01 and S04) had maintained the maximum score for the memo format by having the first six features present in and the remaining four features absent from all of their memos, both conventional and electronic, it can also be concluded that the other eight subjects had also scored better during both in-class electronic memo-writing
assessments and Final Assessment, compared to their scores during in-class conventional memo-writing assessments (detailed scores were presented earlier in 4.2.1).

Figure 18: Students' mean scores for memo format

Half of the subjects (S01, S04, S05, S06 and S08) managed to exceed the overall mean score of 8.8. However, the other half were still below the overall mean score. Nevertheless, their mean
scores were merely between 0.1 and 1.6 less than the overall mean score of 8.8 and this was largely due to their low scores in on-going in-class conventional memo-writing assessments, as shown in Figure 18 (p. 136).

In addition, there were four features of the memo format that students seemed to have problems with even after e-mail was used and they were:

(a) the presence of the word "Memo" or equivalent
(b) the presence of the message in proper text organisation
(c) the absence of salutation
(d) the absence of complimentary close

During classroom discussion, students told the instructor that there were times that they became confused and had mistakenly regarded memo-writing as letter-writing, something that they had been so used to. That was most probably the reason why students kept on leaving out the word "Memo" or equivalent and still adding salutation and complimentary close to their memos. As for feature (b) that is, proper text organisation, the students admitted that, even after having gone through examples during lessons, they sometimes forgot to properly divide the content or the message of the memo into three parts namely, the introduction, the body and
the closing. However, this problem was finally resolved when all students managed to overcome it during the Final Assessment.

Nevertheless, two of the subjects (S07 and S09) still had problems with features (c) and (d) which are salutation and complimentary close, during the end-of-semester Final Assessment although all subjects did not have problems with all the other features anymore including the presence of the word “Memo” or equivalent and proper text organisation. Based on the instructor’s observation, one of these two subjects (S09) had once deleted one of the electronic memos sent to the instructor. Therefore, the instructor believed that both S07 and S09 were a little careless again this time and needed more time to really achieve the perfect score of 10.0, as the rest had successfully done in the Final Assessment for the memo format. This matter was not investigated further as it was not a major concern of the present study. The main concern of this study was to find the answers to the research questions posed earlier in Chapter One (see p. 11).

In order to answer the first research question to determine whether the use of e-mail did have some effects on the students’ memo-writing skills with regard to the memo format, the Wilcoxon matched-pairs signed-ranks test was used. Based on the results (see Table 20a and Table 20b, p. 103) yielded from the
computations done with the help of *SPSS for Windows ver. 10.01*,
the calculated sum of the less frequent ranks in each of the
following cases had been:

(1) Between $\text{EMIC}_{av}$ and $\text{CMIC}_{av}$

\[ T = 0 \text{ (based on negative ranks, that is, the sum of less} \]
\[ \text{frequent ranks), which equals to the critical value of } T \text{ for} \]
\[ n=8 \text{ where } \frac{1}{2} \alpha \text{ (two-tailed level of significance)} = 0.01 \]

(2) Between $\text{CMFA}_{\text{FORM}}$ and $\text{CMIC}_{av}$

\[ T = 0 \text{ (based on negative ranks, that is, the sum of less} \]
\[ \text{frequent ranks), which equals to the critical value of } T \text{ for} \]
\[ n=8 \text{ where } \frac{1}{2} \alpha \text{ (two-tailed level of significance)} = 0.01 \]

By comparing the calculated $T$ with the critical value of $T$ (see
*Appendix G: Critical values of $T$ for the Wilcoxon signed-ranks
and matched-pairs signed-ranks tests*), the researcher was able to
conclude that there had been positive change in the students’
memo-writing skills, with regard to the memo format, as a result
of the use of e-mail because in both cases ($\text{EMIC}_{av}$ - $\text{CMIC}_{av}$ and
$\text{CMFA}_{\text{FORM}}$ - $\text{CMIC}_{av}$) the calculated value of $T$ equals to the
critical value of $T$ in the table (for detailed explanation, see p. 52).
In both cases, since there were two ties, which resulted from two
subjects (S01 and S04) having achieved the same maximum score
of 10.0 for memo format in all assessments, therefore the
calculated $T$ is compared with the critical value of $T$ where
$n = 10 - 2 = 8$ and not the critical value of $T$ where $n = 10$ in the table provided in Appendix G. Thus, based on the theory explained earlier in Chapter Two (see pp. 51-52), if the calculated value of $T$ equals to the critical value of $T$ in the table provided in Appendix G, it can be concluded that the value is significant. Hence, the null hypothesis for the first research question (see Table 22, p. 132) is rejected, which eventually presented further evidence that the use of e-mail did have positive effects on students' memo-writing skills with regard to the memo format.

5.1.1.2 Spelling errors

The number of occurrences of spelling errors produced by the students was also carefully analysed. Descriptive statistical analysis of the normalized counts for spelling errors also showed that the number of occurrences of spelling errors in electronic memo-writing assessments became less than what it had been during the conventional memo-writing activities before e-mail was used. In addition, the students' average normalized counts for spelling errors in the Final Assessment (CMFA_{SPE}R) were also better than the ones in conventional memo-writing assessments before the use of e-mail and also slightly better than the ones in electronic memo-writing activities. Consequently, this had yielded similar results as shown in the following figure:
Figure 19 above shows that all subjects had improved tremendously by having less number of occurrences of spelling errors during both in-class electronic memo-writing assessments and Final Assessment, compared to the number of occurrences of spelling errors during in-class conventional memo-writing assessments. As a matter of fact, four subjects (S01, S04, S06 and S08) did not make a single spelling error during the Final Assessment (detailed scores were presented earlier in 4.2.2).
Figure 20: Students' mean scores for average normalized counts for spelling errors
When the students' mean scores were compared to the overall mean score of 2.34, half of the subjects (S01, S04, S05, S06 and S08) managed to obtain the mean score of less than 2.34, as shown in Figure 20 (p. 142). However, the other half were still above the overall mean score. Nevertheless, their mean scores were merely between 0.16 and 0.94 above the overall mean score of 2.34 and this was also largely due to their high normalized counts for spelling errors in on-going in-class conventional memo-writing assessments.

Based on the students' responses in the second questionnaire and in the interviews, there were still a few students who were not sure and who admitted that they failed to make necessary corrections for the words that had not been detected nor corrected by the spellchecker. This minority were those few who took some time to get used to the use of spellchecking feature in electronic memos. In addition, there were also a few students who had preferred to use the spellchecking feature manually by performing the spellcheck after they had completed their electronic memo-writing activities whilst most of them had taken the option of automatic spellchecking feature. However, although the latter would be a better option, there was still the problem of different words that have similar sounds or homonyms but have different meaning such as 'stuff' and 'staff', 'leave' and 'live' and 'by' and
'buy'. In addition, there were also the confusion between nouns and verbs such as 'advice' and 'advise', 'complains' as well as other words that were correctly spelt but wrongly used, for instance when words like 'through' and 'lost' were typed instead of 'thorough' and 'lose'. The former was related to the wrong choice of word being used while in the latter, it was the case of the wrong form of verb being used. Hence, the human factor was clearly very much essential in achieving the perfect zero number of occurrences of spelling errors. Other examples of spelling errors included omission of a letter and interference of the first language (L1). Words such as 'announced' and 'environmentalists' were spelt 'anounced' and 'environmetalists' while dokumen and notis were spelt instead of 'document' or 'documents' and 'focus'. In addition, there were also misspellings due to typing errors such as 'detials' for 'details' and 'reguliar' for 'regular'. These two types of errors most probably occurred as a result of uncorrected manual spellcheck instead of auto-spellcheck.

Nevertheless, after e-mail is used in memo-writing, all subjects produced less spelling errors than they did during conventional memo-writing. It was also noticed that students' text lengths also had improved, which meant that they were able to write more than what they used to (see Appendix E: Detailed analysis of spelling
errors for more information on text lengths). This had further improved during the Final Assessment, even when they reverted to writing conventional memos.

In addition, it had been found that students seemed to have the most problems in the following classification of spelling errors:

(a) nouns
(b) main verbs
(c) modifiers (adjectives and adverbs)

The three classification of spelling errors above, which students seemed to have the most problems with, did not come as a surprise at all as this had been the case in the preliminary study (see pp. 8-9). However, as mentioned earlier in 5.1.1.1, the instructor had decided not to further investigate this matter, as it was also not a major concern of the present study. Therefore, the researcher moved on in her attempt to answer the next research question.

In order to answer the second research question to determine whether the use of e-mail did have some kind of effects on the students’ memo-writing skills with regard to spelling errors, the Wilcoxon matched-pairs signed-ranks test was also used. Based on the results (see Table 21a and Table 21b, p. 104) yielded from the computations done with the help of SPSS for Windows ver.
10.01, the calculated sum of the less frequent ranks in each of the following cases had been:

(1) Between EMIC\textsubscript{av} and CMIC\textsubscript{av}

\[ T = 0 \] (based on positive ranks), which is less than the critical value of \( T \) for \( n=10 \) where \( \frac{1}{2} \alpha \) (two-tailed level of significance) = 0.01

(2) Between CMFA\textsubscript{Sper} and CMIC\textsubscript{av}

\[ T = 0 \] (based on positive ranks), which is less than the critical value of \( T \) for \( n=10 \) where \( \frac{1}{2} \alpha \) (two-tailed level of significance) = 0.01

By comparing the calculated \( T \) with the critical value of \( T \) (see Appendix G: Critical values of \( T \) for the Wilcoxon signed-ranks and matched-pairs signed-ranks tests), it can be concluded here that there had been positive change in the students’ memo-writing skills, with regard to the number of occurrences of spelling errors, as a result of the use of e-mail because in both cases (EMIC\textsubscript{av} - CMIC\textsubscript{av} and CMFA\textsubscript{Sper} - CMIC\textsubscript{av}), the calculated value of \( T (T = 0) \) was less than the critical value of \( T (T = 3) \) in the table. In both cases, since there were no ties, therefore the calculated \( T \) is compared with the critical value of \( T \) where \( n = 10 \). Thus, based on the theory explained earlier in Chapter Two (see pp. 51-52), if the calculated value of \( T \) is less than the critical value of \( T \) in the table provided in Appendix G, it can be concluded that the value is
significant. Hence, the null hypothesis for the second research question (see Table 22, p. 134) is rejected, which eventually presented further evidence that the use of e-mail did have positive effects on students’ memo-writing skills with regard to the number of occurrences of spelling errors.

5.1.1.3 Students’ interest in learning memo-writing

Having addressed the two earlier research questions mainly quantitatively, the researcher eventually faced the task of addressing the third research question to determine whether students’ interest in learning had changed favourably as a result of the use of e-mail in memo-writing. However, this time, this research question was mainly addressed qualitatively. This was made possible by triangulation of both data and methods.

First and foremost, in the second questionnaire, 80% (8) of the subjects disagreed that using e-mail in memo-writing was ‘nothing great’ whilst another 20% (2) were not sure about it. In addition, all ten subjects had disagreed that spending at least four hours per week in the Multimedia Laboratory was ‘boring’ to them.

During the interviews, subjects also admitted that they became more interested in learning memo-writing as their awareness of the importance of learning effective memo-writing had increased, as
highlighted by S06 and S09 during the interview session (see pp. 103-104):

"... saya sendiri rasa semakin seronok nak belajar ... baru saya sedar belajar menulis memo yang baik ini penting untuk dunia business...."

Translation:
"... I personally find learning to be fun ... now I've come to realize that learning how to write effective memos is important in the world of business...."

(S06)

"...Seriously, saya rasa belajar menulis memo ini sangat penting bagi seorang student business ...."

Translation:
"...Seriously speaking, I think learning memo-writing is very important for a student taking a business course ...."

(S09)

The change in students' interest in learning memo-writing had also been observed by the instructor and details comparing the students' interest and their attitudes towards learning memo-writing before and after the use of e-mail were evident from the instructor's notes. Initially, before the electronic memo-writing activities took place, the researcher had noted that the students' focus in learning and their self-confidence seemed to be lacking. However, things started to change as students began using e-mail in memo-writing in the Multimedia Laboratory (see pp. 106-108 and pp. 114-115 for details). It is necessary to mention here that this was not the first time these students use the Multimedia
Laboratory as their classroom because they had been using it during their FCS 1103 and FSS 1103 lessons (see p. 6 for details on unit listings). Nevertheless, it was indeed the first time that the laboratory was being used for their language learning lessons, which convinced the instructor that the change in students' interest and attitudes did not result from the use of the Multimedia Laboratory as their classroom but rather largely due to the electronic memo-writing activities that were taking place.

Therefore, based on the information gathered from different instruments and analysed from both the students' as well as the instructor's perspectives, it can be concluded that there had been a positive change in the students' interest in learning memo-writing as a result of the use of e-mail.

5.1.2 The benefits and limitations of using e-mail in memo-writing

Finally, the fourth research question will be addressed when the researcher attempts to explore the benefits and limitations of using e-mail in memo-writing. After going through data from both instruments, results showed that both the students and the instructor had agreed that the use of e-mail had more benefits or advantages than limitations or disadvantages. Firstly, the benefits of using e-mail in memo-writing rest on the conclusion that electronic memo-writing is:
(a) time-saving because it could reach the recipient within seconds and can be sent to more than one recipient without having to do it again

(b) cost-effective because certain information that does not need printing can be sent via e-mail thus saving cost on ink and paper

(c) space-saving because certain documents could be kept in soft copy and only be printed if the need arises

(d) convenient to use because everything is just one click away

(e) a mode of communication that could enhance students' memo-writing skills, with regard to the memo format and number of occurrences of spelling errors, because there had been significant improvement in the students' scores for memo format and spelling errors

(f) a mode of communication that could enhance students' interest in learning memo-writing because there had been positive changes in the students' interest observed by the researcher and admitted by the students themselves

(g) a mode of communication that could enhance the students' self-confidence in communicative abilities as perceived by the students

(h) a mode of communication that could encourage sense of responsibility among students by means of self- and peer-corrections as observed by the researcher during classroom activities and informed by the students during interview
(i) a mode of communication that could become more learner-centred and less teacher-centred because the instructor’s role in the Multimedia Laboratory during memo-writing activities had been facilitating the learning process.

Secondly, using e-mail in memo-writing also has its limitations which:

(a) could cause occasional delay of messages because of network congestion, overload of data in the hard disk and outdated processors

(b) could be problematic if important memos were accidentally deleted as what happened to two of the students

(c) could make it unreliable during service breakdown because it is ISP-dependent

(d) could make copying possible thus resulting in the e-memo not being the original work of the sender if students were not being honest and the instructor had not reminded the students

(e) would not make it a better alternative to conventional memo-writing if quality technical support was not available during lessons as what happened at the initial stage of electronic memo-writing activities

(f) would not make it a better alternative if computing facilities were not constantly upgraded and properly serviced as had been complained by some of the students during interview session.
It had indeed been acknowledged by the students that using e-mail in memo-writing saved time, paper and ink. It was also a convenient way of sending and receiving information, which could be done just by clicking the mouse. In addition, duplications or photocopies of the same memos would not be necessary because the same electronic memos could be sent or forwarded to more than one recipient at a time. Students had also thought that electronic memos were better and more effective than the conventional memos. They had also admitted that they were confident that their electronic memos would be better in terms of having acceptable standard format. The fact that they knew that they could always look for sample memos or download them from the internet as well as communicate via e-mail with peers and the instructor had also enhanced their interest and encouraged a sense of responsibility by means of self- and peer-corrections. This would eventually lead to an increase in student-authority, which could make language learning more learner-centred.

From the instructor’s point of view, it had been observed that exercises and assessments could be completed within the shortest period of time, without lengthy delays due to late submission. This was so because students knew that they could only spend four hours per week for their language learning lessons in the Multimedia Laboratory that had access to the Internet. Late submissions would not be accepted by the instructor and there was no way to get away with it because all electronic memos
would display the date and time accurately. In addition, less space was needed for filing purposes as only the assessments which accounted for official marks were printed and stored in hard copies. Other minor assessments and normal daily exercises which did not account for official marks to be recorded in students’ folders were kept in soft copies only. In addition, it was also convenient for the instructor to provide feedback to the students, with regard to their electronic memo-writing assessments. The instructor had the option to give general comments to all or more than one student if the comments were applicable to more than one student. On the contrary, the instructor also had the option of sending specific comments to specific student(s) only.

From the instructor’s observation, it seemed that students’ interest and attitudes had improved a great deal. The instructor no longer had to wait for students to come into the classroom. The students had maintained full attendance throughout the whole electronic memo-writing sessions. Not only that they were either early or on time, the students were also not too eager to leave their classroom, something that was quite prevalent during conventional memo-writing sessions before the use of e-mail.

After having marked students’ conventional and electronic memos, students’ scores for both the memo format and spelling errors had also indicated that the use of e-mail had some positive effects on the students’ memo-writing skills. It was also observed that while they made less
spelling errors and improved on the memo format, their text lengths had also increased. This led to the instructor to believe that it was a mode of communication that could also boost the students’ self-confidence by enhancing their communicative abilities.

On the other hand, the findings of this study had also suggested that using e-mail in memo-writing also had some limitations. Firstly, there had been occasional delay of messages. This had occurred mainly due to network congestion, overload of data in the hard disk and the use of outdated processors. Network congestion was something that could have been solved by installing more computer hubs to allow better flow of internet access. Nevertheless, it was something that would incur more expenses, which the college authority was not willing to compromise due to the small number of BTEC HND (Business) students. Another reason for network congestion could be due to the lack of quality service provided by the college’s current Internet Service Provider (ISP), of which numerous complaints had been lodged to the ISP concerned. At the time this study was conducted, the college authority was still carrying out a thorough investigation and was also planning to change the ISP if necessary.

Overload of data in the hard disk storage and the use of outdated processors were also something that needed immediate attention. Whilst it was understood that students were not allowed to save their data on the
hard disk, it was also the duty of the laboratory assistants and technicians concerned to perform daily checks on the matter. The use of outdated processors was also deemed impractical for not only the BTEC HND (Business) students also for the existing UTM Diploma students. Outdated processors might be appropriate for typical word processing and simple spreadsheet but certainly not suitable for online activities.

In addition, it could also be problematic if one had accidentally deleted a message that was important as what had happened to one of the subjects in this study. Fortunately, the instructor had properly kept all of students' electronic memos in separate folders and therefore was able to forward the deleted copy back to the original sender. In actual business communication, it could be disastrous if the sender had deleted an important electronic memo and at the same time, the recipient did not keep a copy of it.

Another limitation of using electronic memo is that it could expose students to copying the works of others and after they had been modified, the original sender could no longer be identified. In an academic setting, this would result in plagiarism while in the business world it could possibly result in unauthorised dissemination of company information. Electronic memo-writing also would not be a better alternative to conventional memo-writing if quality technical support was lacking during lessons nor would it be a more appropriate alternative if computing
facilities were not constantly upgraded and proper maintenance of those facilities were not closely monitored.

The present study had yielded similar results to other studies conducted by other researchers (Frizler, 1995; Belisle, 1996; Gonzalez-Bueno, 1998). Frizler (1995) presented numerous benefits and limitations from her virtual study. However, only those which were related to the use of e-mail are listed here as follows:

(a) **Benefits**

(i) increase in student control of and contribution towards communication

(ii) elimination of temporal and spatial constraints

(iii) transfer of authority from teacher to student

(iv) ability of conveniently reaching out to more than one student simultaneously

(v) minimal use of paper

(vi) quickness of responses from both teacher and students

(b) **Limitations**

(i) interaction being *asynchronous* (not conducted in real time, see p. 14 for detailed definition)

(ii) delay in distribution of messages

(iii) vast amount of information that could be too overwhelming for students to handle
Meanwhile, from his exploratory study, Belisle (1996) stated that based on the findings of his study, students’ communicative abilities had improved and they had also become more active participants in teacher-student relationship as well as among peers as a result of the use of e-mail. In addition, Gonzalez-Bueno (1998) also found that his students had demonstrated a greater amount of language being used and that there were increased student-initiated interactions.

5.2 Conclusions

The present study had been conducted with the aim of finding out whether the use of e-mail in memo-writing as the “different mode of production” (Halliday, 1990: p. 93) had any effect on students’ memo-writing skills, with regard to the memo format and the number of occurrences of spelling errors produced. These two aspects were given due emphasis because a preliminary study conducted by the researcher and fellow colleagues had identified these two aspects as the two most common reasons why students lost marks easily in business correspondence, particularly that of memo-writing. Other aspects such as grammar, use of cohesive devices, style and tone were not included in this study. The aim of this study was therefore limited to whether the use of e-mail had any effects on the students’ memo-writing skills, with regard to the memo format and the number of occurrences of spelling errors. It had not attempted to describe the features in the memo format and the
classification of spelling errors made by the students in great length. Based on the findings, it was concluded that the use of e-mail did have some positive effects on the students' memo-writing skills, with regard to the memo format and the number of occurrences of spelling errors. This was clearly evident from the results yielded from both descriptive and inferential statistical analyses done with the help of *SPSS for Windows ver 10.01*.

In addition, the study also sought to find out whether the use of e-mail had any effects on the students' interest in learning memo-writing and attempted to explore the benefits and limitations of using e-mail in memo-writing. As interest and perception are of qualitative nature and were difficult to measure in this study, the researcher had collected and analysed data by means of triangulation in order to ensure that the information gathered came from both the perspectives of the instructor as the researcher, as well as the students, as subjects who participated in the study. After careful and thorough analysis of data from all related instruments, results indicated that there had been a positive change in the students' interest towards learning memo-writing as a result of the use of e-mail. In addition, it was concluded that both students and the instructor had agreed that despite having its own limitations, the use of e-mail in memo-writing had indeed brought more benefits to both students as well as the instructor.
5.3 Recommendations

After having presented the findings and conclusions drawn from the present study, the researcher would like to make the following recommendations to fellow instructors and policy-makers involved in curriculum design and implementation of ESP courses.

5.3.1 The incorporation of the use of e-mail into the syllabus of Malaysian Business English at tertiary level

Having conducted a relatively small-scale case study that yielded positive effects of using e-mail in memo-writing in Business English has prompted the researcher to suggest that fellow instructors at Malaysian tertiary-level educational institutions incorporate the use of e-mail into the syllabus of Business English taught at public and private local institutions. This is because the researcher believes that current basic computing and online facilities available at both public and private local institutions are of similar, if not better than those available at ITD when the study was conducted. However, certain adaptations might be necessary. In addition, it is also recommended that its use is expanded beyond memo-writing, which should include other forms of internal and external business correspondence. This is because business communication is not limited to memo-writing only.
5.3.2 The encouragement of more locally-based ESP studies that focus on tertiary-level Business English students in the east coast region

During the course of the study undertaken, the researcher had faced numerous challenges mainly because there was a lack of locally-based research that focussed on Business English particularly studies that concentrated on locally-run UK-based tertiary-level education in the east coast region of Peninsular Malaysia where English is scarcely used. Instead, most of the studies which have been documented were largely conducted on employees in multinational companies. Therefore, ESP practitioners should be encouraged to conduct locally-based studies particularly the ones that focus on Malaysian Business English students in the east coast region of Peninsular Malaysia who hardly use the English Language in their daily activities, not employees in multinational companies in the west coast region who most probably use English in their daily life both at work and at home.

5.3.3 The formal integration of e-mail and other forms of CMC into the BTEC HND (Business) curriculum

Although the present study was limited to the use of e-mail in memo-writing in a specially-developed in-house Intensive Business English course for BTEC HND (Business) students at ITD on a trial basis, the use of e-mail and other forms of CMC, should be recommended to be formally integrated into the curriculum of BTEC, HND (Business) programme. This formal integration should initially be limited within the
college itself. However, due to the progressive nature of the BTEC HND programmes and their awarding body, Edexcel Foundation, a formal proposal could be made to further recommend that the integration involves other Edexcel local centres as well. However, before such proposal is to be submitted and such move is to be recommended, more extensive research needs to be conducted by concerned authorities.

5.4 Implications for further research

No study is without flaws and limitations. Even though the researcher had carefully planned and carried out this research which had combined both quantitative and qualitative methods, there were still some aspects of the present study which warrant further research in order to address some if not all the flaws and limitations.

Firstly, because of time and financial constraints, the researcher was not able to conduct this study collaboratively with other co-researchers. The involvement of co-researchers was deemed necessary because it could further increase the reliability and validity of the findings of this study by reducing the element of researcher bias since the researcher was also the instructor. Therefore, the researcher strongly believes that further research involving co-researchers would be very much worthy of consideration.
Secondly, the size of the sample in the study was undeniably small. Therefore, the researcher had to employ research methods and statistical analyses that were most appropriate based on the small sample size. In addition, the usual parametric methods could not be applied not only due to the size of the sample but also because of the level of measurement involved in data collection and transformation of the nature of data that had taken place during data analysis. Consequently, the less stringent nonparametric methods were applied. Hence, the researcher is of the opinion that further research that involves adequate sample size and does not violate the usual assumptions held in the application of the more powerful parametric methods be conducted in order to further justify the findings of the present study.

Finally, resources to specific case studies on qualitative research methodology had been limited (Merriam, 1998; Bong, 2002) that could clearly guide researchers in language learning on how to properly collect, code, sort and analyse qualitative data as well as how to interpret results using qualitative data analysis softwares. This was a major obstacle which had prevented the researcher from conducting a purely qualitative study. Although the researcher believes that combining both quantitative and qualitative methods was the most appropriate approach in this case study, the researcher is also well aware that the manual approach in qualitative data analysis taken was not the most advanced approach in qualitative research methodology. Thus, the researcher strongly insists
that further research is conducted in the field of computerised qualitative data analysis which could eventually result in the synthesis of locally-programmed qualitative data analysis softwares as reliable as current state-of-the-art softwares like QSR Nud*ist and NVivo without having to depend on foreign expertise.