This study investigates the cognitive processes of five Chinese ESL undergraduates from University of Malaya (UM) by using Think-Aloud Protocols (TAPs) as the main research tool. The participants of this study are Band Three achievers in Malaysian University English Test (MUET) and they are required to write formal and informal letters on different assigned time slots. Apart from TAPs, data are also collected through interview and questionnaires from the participants to triangulate the results of study. The data findings obtained have successfully answered the research questions and achieved the objectives of the study, i.e. (i) to identify the thought processes related to writing as the respondents engage in formal and informal letter writing; (ii) to investigate the differences in cognitive processes between formal and informal letter writing (if any); (iii) to find out the factors affecting their cognitive processes during the writing duration for both types of letters. An additional writing category is added to Wang and Wen (2002)’s coding system, which is “Emotional-expressing”. Results of the study also state that there are five major factors contributing to challenges faced by ESL undergraduates, namely, lack of English vocabulary, poor grammar mastery, types of writing task, other language (Malay/Mandarin) interference, and personal preference. Although there is no stark difference found between the cognitive processes in formal and informal letter composing tasks, it is noticed that participants are generally more focused and organised in composing the former. Additionally, Emotion-expressing is found to occur more frequently in the preferred task.

**Keywords:** Think-Aloud Protocols (TAPs), writing
ABSTRAK

Kajian penyelidikan ini mengkaji mengenai proses pemikiran lima orang mahasiswa berkaum Cina dari Universiti Malaya (UM) dengan menggunakan teknik *Think-Aloud Protocols* (TAPs) sebagai alat kajian utama. Kelima-lima peserta ini telah mendapat Band Tiga dalam Malaysian University English Test (MUET) dan mereka dikehendaki untuk menulis surat rasmi and surat tidak rasmi pada masa yang diaturkan. Selain daripada TAPs, data kajian juga dikumpulkan melalui sesi temuduga dengan kelima-lima peserta tersebut. Keputusan kajian penyelidikan ini telah berjaya menjawab soalan-soalan kajian serta mencapai objektif-objetif kajian iaitu, (i) mengenalpastikan proses pemikiran yang berkaitan semasa menuliskan surat rasmi dan surat tidak rasmi; (ii) mengkaji perbezaan proses pemikiran antara penulisan surat rasmi dan surat tidak rasmi; (iii) mengetahui faktor-faktor yang mempengaruhi proses pemikiran peserta semasa penulisan kedua-dua jenis surat. Satu kategori bertulis, iaitu “Penyataan Emosi” telah ditambah ke dalam sistem pengekodan Wang dan Wen (2002). Berdasarkan keputusan kajian, lima faktor-faktor utama yang menyebabkan kesulitan menulis bagi pelajar ESL adalah kekurangan kosa kata English, penguasaan tatabahasa yang lemah, jenis tugasan bertulis, gangguan bahasa lain (Melayu/Mandarin), dan kecenderungan individu. Walaupun tiada perbezaan ketara antara surat rasmi dan surat tidak rasmi, adalah didapati bahawa peserta-peserta kajian adalah lebih berfokus dan bersistematik semasa menulis surat rasmi. Selain itu, Penyataan Emosi berlaku lebih kerap dalam jenis tugasan bertulis yang dicenderungkan.

*Kata Kunci:* Think-Aloud Protocols (TAPs), penulisan
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DEFINITIONS OF TERMS

1. EL – English Language

2. ESL – English as a Second Language. ESL may be defined quite differently in different country. The status as a second language can differ.

3. ESL learners – Learners of English as a Second Language

4. TA – Think-aloud

5. TAPs – Think-Aloud Protocols, a research methodology of eliciting verbal report that provides a detailed amount of participants composing behavior. It allows the description, although not completely, of what writers do as they write (Castro, D. 2003)

6. Cognitive processes – The composing activities including task-examining, idea-generating, idea-organizing, text-generating, emotion-expressing and other similar activities that occur in the respondents minds as they are composing (Wang & Wen, 2002)

7. UM - University of Malaya

8. L1 – first language

9. L2 – second language

10. MUET – Malaysian University English Test

11. TOEFL – Test of English as Foreign Language
12. IELTS – International English Language Testing Service

13. STM – Short Term Memory

14. LTM – Long Term Memory

15. RQ – Research Question