UNIVERSITI PUTRA MALAYSIA

DEVELOPING CRITICAL THINKING SKILLS IN THE ARGUMENTATIVE WRITING OF TERTIARY LEVEL STUDENTS IN A BLENDED LEARNING ENVIRONMENT

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By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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Supervisory Chairperson: Assoc. Prof. Tan Bee Hoon, PhD

Faculty: Faculty of Modern Languages and Communication

Argumentative writing has been recognized as an essential skill expected of tertiary level students. However, many students do not display critical thinking in their language skills such as argumentative writing, and most instructors have yet to fully consider the major role of critical thinking in students' writing. This study aimed to develop critical thinking skills in the argumentative writing of tertiary level students in a blended learning environment.

The study employs a mixed-method research design to integrate quantitative and qualitative data collection and analysis. Participants were an intact class of tertiary level students enrolled in an obligatory course. In the quantitative data collection and analysis, a quasi-experiment was conducted to investigate the effects of critical thinking skill training and field-dependency on the students' extent of critical thinking shown in

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argumentative writing on the blog and their perception of the course blog before and after the training. The Group Embedded Figure Test was used to identify and categorize the students into field-dependent or field-independent. The Cornell Critical Thinking Test Level X and the Course Blog Perception Questionnaire were used to assess students' critical thinking ability and perception of the course blog respectively. Results showed that field dependency did not have a significant effect on students' criticalness on their blogging; however, field independent students seemed to take more thought in asking critical questions. Moreover, the critical thinking skill training had a significant positive effect on students' perception of the course blog. Besides, both field dependent and field independent students perceived that using the course blog was effective in improving their writing skill. In the qualitative data collection and analysis, a text analysis approach was employed. Students' blog posts and comments were collected and analyzed by applying two critical thinking assessment models: Newman, Webb, and Cochrane's (1996) critical thinking model, and Paul and Elder's (2007) Universal Intellectual Standard model. The results revealed that the critical thinking skill training did cause the significant increase in students' critical thinking ability in their blogging that might have led to their improved argumentative writing skill. The triangulation of the quantitative and qualitative analyses further supported the conclusion that critical thinking skills can be trained and the training can make a significant improvement on students' critical thinking ability.

The study suggests a new method of training critical thinking skills in a blended learning environment to improve students' argumentative writing. Critical thinking training applied in this study can be considered effective and educators may adopt it to promote

critical thinking among students. If students learn the skill and language of critical thinking, they can apply it not only in their argumentative writing, but also into every subject they take and every discussion they engage in.

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Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PEMBINAAN KEMAHIRAN BERFIKIR SECARA KRITIS DALAM PENULISAN ARGUMENTATIF DI KALANGAN PELAJAR UNIVERSITI DALAM SEKITARAN PEMBELAJARAN BERPADU

Oleh

ZAHRA SHAHSAVAR

Jun 2012

Pengerusi Penyeliaan: Prof Madya Tan Bee Hoon, PhD

Fakulti: Fakulti Bahasa Moden dan Komunikasi

Penulisan argumentatif telah diiktiraf sebagai kemahiran penting yang diharapkan daripada pelajar-pelajar pengajian tinggi. Walau bagaimanapun, sebilangan besar pelajar tidak memaparkan pemikiran kritis di dalam kemahiran bahasa mereka seperti di dalam penulisan argumentatif, dan kebanyakan pengajar masih belum mempertimbangkan sepenuhnya peranan utama pemikiran kritis di dalam penulisan mereka. Kajian ini bertujuan untuk mengkaji pembinaan kemahiran berfikir secara kritis dalam penulisan argumentatif di kalangan pelajar universiti dalam sekitaran pembelajaran berpadu.

Kajian ini menggunakan reka bentuk kuasi-eksperimen dengan menggabungkan kutipan data dan analisis data secara kuantitatif dan kualitatif. Peserta merupakan pelajar kelas utuh dari pengajian tinggi yang mendaftar di dalam kursus wajib. Di dalam kutipan data

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dan analisis data secara kuantitatif, reka bentuk kuasi eksperimen telah dijalankan untuk menyiasat kesan kesan latihan kemahiran pemikiran kritis terhadap penulisan argumentatif pelajar pengajian tinggi di dalam blog mereka dan persepsi mereka terhadap aktiviti blog kursus sebelum dan selepas mereka menerima latihan dalam kemahiran pemikiran kritis. Ujian Kumpulan Rajah Tersirat digunakan untuk mengenalpasti dan menklasifikasi pelajar-pelajar ke dalam kumpulan pelajar-pelajar bidang bergantung dan bidang bebas. Level X Ujian Pemikiran Kritis Cornell dan Soal Selidik Persepsi Blog Kursus digunakan untuk menilai kemampuan pemikiran kritis para pelajar dan persepsi mengenai blog kursus masing-masing. Dapatan kajian menunjukkan yang pelajar dari bidang bergantung tidak memberi kesan yang signifikan ke atas kritikaliti mereka di dalam penulisan blog; walau bagaimanapun, pelajar-pelajar bidang bebas seolah-olah menganbil masa yg lebih untuk bertanya soalan kritis. Tambahan lagi, latihan kemahiran pemikiran kritis mempunyai kesan positif yang signifikan ke atas persepsi mereka terhadap blog kursus. Selain itu, pelajar-pelajar dari pergantungan bidang dan pelajar-pelajar bidang bebas melihat penggunaan blog kursus adalah lebih berkesan untuk meningkatkan lagi kemahiran menulis mereka. Di dalam kutipan dan analisis data secara kualitatif, pendekatan analisis wacana digunakan. Catatan blog dan komen pelajar dikutip dan dianalisis dengan menggunakan model dua teks analisis: model pemikiran kritis dari Newman, Webb, dan Cochrane (1996) dan model standard intelek sejagat dari Paul dan Edler (2007). Dapatan kajian menunjukkan latihan pemikiran kritis menyebabkan peningkatan yang ketara dalam keupayaan pemikiran kritis pelajar di dalam blog mereka yang membolehkan mereka memperbaiki kemahiran penulisan argumentatif mereka.Trangulasi analisis kuantitatif dan kualitatif telah menyokong kesimpulan kajian ini di mana kemahiran berfikir secara kritis boleh dilatih

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dan latihan itu boleh memberi kesan yang ketara untuk meningkatkan lagi kemahiran pelajar untuk berfikiran kritis.

Kajian ini mencadangkan kaedah baru dalam melatih kemahiran pemikiran kritis pelajar dalam persekitaran “blended learning” untuk mempertingkatkan penulisan argumentatif pelajar. Kesan positif latihan pemikiran kritis ke atas penulisan argumentatif pelajar boleh dianggap sebagai efektif dan para pendidik boleh menerima pakai latihan ini untuk menggalakan lagi pemikiran kritis di kalangan pelajar. Jika pelajar mempelajari bahasa pemikiran kritis, mereka boleh mengaplikasinya bukan sahaja untuk menulis hujah-hujah, tetapi juga di dalam setiap mata pelajaran yang diambil dan juga di dalam setiap perbincangan mereka.

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I certify that an Examination Committee has met on 11 June 2012 to conduct the final examination of Zahra Shahsavar on her Doctor of Philosophy thesis entitled "Developing Critical Thinking Skills in the Argumentative Writing of Tertiary Level Students in a Blended Learning Environment" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the Doctor of Philosophy.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institutions.

ZAHRA SHAHSAVAR

Date: 11 June 2012

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