

論文名稱：探討台灣大學生以自由討論與辯論之二種線上討論形式的互動模式與認知呈現

校所組別：交通大學英語教學所

畢業時間：九十六學年度第二學期

指導教授：張靜芬教授

研究生：許祐熏

## 中文摘要

隨著電腦中介溝通（computer-mediated communication）的日益普及，整合電腦中介溝通於第二外語教育中也越見重視。研究者開始致力於探討電腦中介溝通的潛力，用於提高學生文化意識、促進語言技能、提升合作學習以及促進思考能力。研究發現，電腦中介溝通似乎可以提升學習者的思考能力。在第一語言學習的情境下，Garrison, Anderson, and Archer (2001)提出認知呈現（cognitive presence）來評量電腦中介溝通討論中的批判性思考能力，並建立了實際探索模組（Practical Inquiry Model）。然而，鮮少研究應用此模組來檢驗第二外語學習環境中的學生思考能力。

藉由非同步的線上論壇，本研究致力於探討大學生在二種不同的線上討論型式—自由討論與辯論中的互動模式（interaction patterns）和認知呈現，以及互動模式和認知呈現間的關係。本研究背景為選修的英文寫作課程，將線上討論整合為課程討論的方式之一。參與者為三十位大學生，大多來自於理工背景。研究資料收自於一份背景問卷及線上討論紀錄。根據Henri (1991)所提供的互動行為模組（Interactive Behavior Model）以及Garrison, Anderson, & Archer (2001)所建立的實際探索模組，研究者進行資料分析。

研究結果顯示，線上自由討論與線上辯論中的互動模式似乎相異。此外，此二種線上討論型式中的認知呈現並無明顯不同。此結果可能歸因於認知呈現受多重因素影響，包含缺乏訓練課程、教師參與程度、以及討論引導者的參與狀況。最後，研究者發現無互動性和有互動性的討論會引導出不同階段的認知呈現。

## **ABSTRACT**

With the increasing popularity of computer-mediated communication, the integration of CMC in L2 education has drawn much attention. Researchers have examined the potentials of CMC for enhancing cultural awareness, for fostering language skills, for promoting collaborative learning, and for fostering thinking ability. They found that CMC may promote students' critical thinking skills. In the L1 context, Garrison, Anderson, and Archer (2001) proposed "cognitive presence" to assess critical thinking in CMC-based discussions and developed the Practical Inquiry Model. However, little studies have adopted the Practical Inquiry Model to assess critical thinking in a L2 context.

The present study aimed to investigate EFL undergraduate students' interaction patterns and cognitive presence in two types of online discussion— free discussion and debate via an asynchronous discussion forum. The relationship between interaction patterns and cognitive presence was further examined. The study was undertaken in an elective English writing course where online discussion was integrated as an alternative for class discussion. The participants in the study were thirty undergraduate students, mostly from science and technology fields. Data were collected from a background questionnaire and the online discussion logs. Online logs were then analyzed based on Henri's (1991) Interactive Behavior Model and Garrison, Anderson, & Archer's (2001) Practical Inquiry Model.

The results indicated that interaction patterns in both discussion types seemed to be different. Additionally, the students did not tend to perform different phases of cognitive presence in free discussion and debate. It may be attributed to multiple factors including the lack of training sessions, teacher involvement and active engagement of the mediators. Finally, independent message and interactive messages may lead to different phases of cognitive presence.

## ACKNOWLEDGEMENTS

Unbelievable! The “book” was completed eventually. Throughout the process, I have enormously benefited from advice and support of many kinds.

My first and greatest debt is to my advisor, Ching-Fen Chang, who has been incredibly patient in reading my writing work word by word. Also, she performs miracles in enhancing the quality of my thesis by pinpointing my writing problems (i.e. logic problem, transitional problem, redundant, reorganize). In addition to academic advice, she even offers me guidance in love and marriage management. I really appreciate the pleasant meetings she has shared with me.

Second, I feel an immense gratitude to my committee members Lu-Chun Lin and Po-Sen Liao. Thanks to their valuable insights and comments, my thesis becomes more complete.

Third, I owe hearty thanks to my classmate Hsin-Yun Wang, who helps me analyze the data according to the horrible coding scheme. In particular, I wish to thank the participants. Their participation accomplished my graduation.

At every stage of the thesis, my parents, my sister and her only son accompany me as everyday entertainment. They alleviate my pressure in completing the thesis, as well as being a good-for-nothing at home. I love them so much.

Finally, I would like to hug my best friends, Wan-Fang Huang, Hsin-Mei Yeh, and Hui-Yun Lo for their love and support. They are always by my side, listening to my every word. You all are my best friends forever!

## TABLE OF CONTENTS

中文摘要.....	i
ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
CHAPTER ONE INTRODUCTION.....	1
CHAPTER TWO LITERATURE REVIEW.....	5
CALL Overview.....	5
Nature of CMC.....	7
Linguistic Features of CMC.....	8
Interactional Features of CMC.....	9
Studies of CMC in L2 Education.....	11
CMC for Enhancing Cultural Awareness.....	12
CMC for Fostering Language Skills.....	13
CMC for Promoting Collaborative Language Learning.....	16
Comparison of CMC and Face-to-face Learning Modes.....	17
Critical Thinking in L2 Education.....	20
Definition of Critical Thinking.....	20
Debates over the Inclusion of Critical Thinking in L2 Curricula.....	22
Opponents of the Inclusion of Critical Thinking in L2 Curricula.....	22
Advocates of the Inclusion of Critical Thinking in L2 Curricula.....	23
Critical Thinking in L2 Classroom-based Mode.....	25
Critical Thinking in L2 Settings via CMC Mode.....	26
CHAPTER THREE METHOD.....	30
Study Setting.....	30
Participants.....	30
Online System.....	31
Study Design.....	32
Pilot Study.....	33
Main Study.....	34
Data Collection and Data Analysis.....	35
Analysis of Interaction Patterns.....	35
Analysis of Cognitive Presence.....	37
Analysis of the Relationship between Interaction Patterns and Cognitive Presence.....	40

CHPATER FOUR RESULTS .....	41
Research Question 1: What differences of interaction patterns can be found in EFL college students’ online discourse through two types of online discussion — free discussion and debate?.....	41
Research Question 2: Do EFL college students perform different phases of cognitive presence in online discourse through two types of online discussion— free discussion and debate?.....	46
Research Question 3: Are EFL college students’ interaction patterns related to their cognitive presence in online discussions? .....	47
CHAPTER FIVE DISCUSSION AND CONCLUSION.....	53
Discussion .....	53
Discussion types may lead to different interaction patterns .....	53
Multiple factors may affect cognitive presence .....	55
Interaction patterns may be related to cognitive presence .....	56
Limitations of the Study.....	58
Conclusion .....	59
Pedagogical Implications .....	60
Suggestions for Future Research .....	61
REFERENCES .....	63
APPENDICES .....	70
Appendix A Consent Form.....	70
Appendix B Background Questionnaire .....	71
Appendix C Predetermined Types of Discussion, Topics and Guidelines.....	72

## LIST OF TABLES

Table 2.1 Corresponding Shifts Between the Language Theoretical Development and CALL Paradigm .....	6
Table 2.2 Advantages of CMC Mode over Face-to-face Mode .....	19
Table 2.3 Key Issues of Inclusion of Critical Thinking in L2 Curricula .....	24
Table 3.1 Predetermined Types of Discussion and Topics .....	34
Table 3.2 Practical Inquiry Model .....	37
Table 4.1 Percentages of Interaction Patterns in the Two Online Discussion Types ...	41
Table 4.2 Percentages of Cognitive Presence in Two Online Discussion Types .....	46
Table 4.3 Percentages of Cognitive Presence in Interaction Patterns .....	48

## LIST OF FIGURES

Figure 3.1 The Discussion Forum of E3 .....	32
Figure 4.1 Communicograms of Online Free Discussion and Debate (1st Topic: English Learning).....	42
Figure 4.2 Communicograms of Online Free Discussion and Debate (2nd Topic: Truman Show).....	44
Figure 4.3 Communicograms of Online Free Discussion and Debate (3rd Topic: Dreams and Ccareer Goals) .....	45