#### **Abstract**

ritical thinking has been seen as the foundation of Western university education (Barnett, 1997). Today, educators and industry constantly emphasise the importance of students' and graduates' acquisition of critical thinking. One of the possible ways to facilitate critical thinking in students' learning is group learning. The aim of this qualitative study grounded in Constructivism was to work towards an understanding of critical thinking in the context of group learning. The research objective was to enquire into postgraduate accounting and finance students' perceptions of critical thinking in the context of group learning.

The sample was composed of twenty students who enrolled in the Fundamentals of Financial Management (FFM) module of an MSc course in Accounting and Finance. Students were required to participate in group learning and engage in critical thinking to complete the group assignment. The primary data collection method was in-depth semi-structured interviews and the supportive method was students' individual reflection reports. The study was particularly interested in perceptions and experiences within and between students in this constructivist model of learning.

This study used Interpretative Phenomenological Analysis (IPA) as the guide for data analysis. Student profiles were created in order to understand their perceptions and experiences according to their voices rather than the researcher's. This study adopted two approaches to generate the findings. First, it considered the significant variations in the ways students described and revealed their perceptions and responses in the context of group learning. At this stage, the study identified findings that include students' stance, perceptions, orientations to group learning, motivation and critical responses. Second, using an approach adapted from the 3P constructivist model of learning, the study went on to use matrices to identify potential relationships

between the findings identified in the first stage. This research identified that there were both congruent and incongruent relationships between the findings. In other words, it revealed that group learning provided a complex environment for learning and engagement with critical thinking. Students brought with them particular stances, perceptions, orientations and motivations that appeared to predispose them to engage in particular behaviours within the group. Hence, the congruent and incongruent relationships would make sense only after considering each individual student as a 'person who learns' (Javis, 2006).

This study sought to make three contributions: (1) A contribution to theory, (2) a contribution to the empirical literature; and (3) a contribution to the accounting professional and accounting academic, and to illuminate the teaching and learning pedagogical practices in higher education and accounting education. Limitations of the research were reported and a number of recommendations for future research were also explored.

#### **Dedication and Acknowledgments**

Only by the Grace of God have I been blessed to complete this task.

This is dedicated to my wife and children, who have always been there for me throughout the entire journey of this study. Writing this thesis would not have been possible without their love and understanding. A special feeling of gratitude to my loving parents, who have been supportive in my decision to leave my home and career to pursue this dream.

My deep gratitude is owed to Dr. Ursula Lucas and Dr. Phaik Tan, whose patience, wisdom and guidance have been indispensable in the creation of this thesis. Their constructive criticism and comments have been highly appreciated.

I would like to acknowledge and thank my current HOD, who has been offering her kind support in any possible ways.

I would also like to thank the academic staff and the students at the University of the West of England for supporting me and making it possible for me to write this thesis.

#### **Author's Declaration**

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's Regulations and Code of Practice for Research Degree Programmes and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

	SIGNED:	DATE
--	---------	------

Abstracti
Dedication and Acknowledgmentsiii
Table of Contentsv
List of Tablesxiv
List of Figuresxiv
List of Appendicesxvi
CHAPTER 1: INTRODUCTION AND OVERVIEW OF THESIS
1.1 Overview of Chapter 1
1.2 The background of the study 2
1.2.1 The role of critical thinking in higher education (HE)2
1.2.2 The role of critical thinking in professional accounting education5
1.2.3 The perception of critical thinking in HE and Professional accounting
education12
1.3 Finding research interest and focus13
1.3.1 My background and interest in critical thinking and group learning13
1.4 Constructivism within HE and students' perceptions of critical thinking16
1.4.1 Constructivist view of student learning
1.4.2 Biggs's 3P model (1999)
1.4.3 Students' perceptions as the research focus of the study21
1.5 Conclusion of Chapter 1

# **CHAPTER 2: TOWARDS AN UNDERSTANDING OF CRITICAL**

### **THINKING**

2.1 Overview of Chapter 2	24
2.2 An examination of models of critical thinking	25
2.2.1 Identifying models of critical thinking for further exploration - What	
constitutes critical thinking?	26
2.2.2 Dewey's (1910, 2004) model of reflective thinking	28
2.2.3 Ennis's (1987, 2011) model of skills, dispositions and reflective thinking .2	29
2.2.4 Consensus statement of Delphi Report (1990)	30
2.2.5 Matthew Lipman's (1991, 2003) model of applied thinking: self-correcting	g,
contextually bound.	35
2.2.6 Barnett's (1997) model of Critical Being	36
2.2.7 Paul and Elder's (2008) model of the strong sense and the weak sense of	:
critical thinking	39
2.3 Identifying common emphases of critical thinking	42
2.3.1 Emphasis on cognitive skills	42
2.3.2 Emphasis on the reflective dimension	43
2.3.3.Emphasis on dispositions	44
2.3.4 Emphasis on social context for critical thinking	45
2.3.5 Areas of agreement in critical thinking	45
2.4 Reviewing relevant studies on perceptions of critical thinking	46
2.5 Reviewing other issues relating to critical thinking	49
2.5.1 Epistemological development and critical thinking	49
2.5.2 Introducing the social context of critical thinking: Group learning	52
2.6 Conclusion of Chapter 2	56

<b>CHAPTER 3: SOCIAL CONTEXT CONDITIONS FOR CRITICAL THINKING</b>
3.1 Overview of Chapter 358
3.2 Justifying Group learning as a social contextual condition for critical
thinking59
3.2.1 Defining group learning for the study59
3.2.2 Studies on the relationship between group learning and critical thinking 60
3.2.3 Linking cooperative learning with group learning62
3.3 Identifying theoretical reference for group learning – cooperative learning
63
3.3.1 Cooperative learning and Social Interdependence Theory (SIT)64
3.4 Identifying key factors that promote critical thinking in the context of
group learning75
3.4.1 Promotive Interaction
3.4.2 Constructive Controversy77
3.4.3 Motivation79
3.4.4 Case study83
3.5 Reviewing relevant studies on perceptions of group learning and
cooperative learning86
3.5.1 Studies on perceptions of group learning and cooperative learning86
3.6 Mapping research issues for the Research Methodology91
3.6.1 Identify research gaps for the study91
3.6.2 Developing the research design and approach94
3.6.3 Formulating the research objective for the study95

## **CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN OF STUDY**

4.1 Overview of chapter 4	99
4.2 Justifying the choice of a constructivism paradigm	101
4.2.1 Considering research philosophical issues and rationales for the	choice of
methodology and methods	101
4.3 The context of the research	105
4.3.1 The importance of context	105
4.3.2 The Institutional context: The University and the Faculty	106
4.3.3 The MSc Finance, MSc Financial Management programmes	107
4.3.4 The Fundamentals of Financial Management (FFM) module	108
4.3.5 Participant sample: FFM students	111
4.3.6 My role in the research context	114
4.4 The research design and approach	114
4.4.1 Overview of the research design and approach	114
4.4.2 Stage 1: Developing the pilot interview protocol	116
a. Developing the pilot interview	116
b. Selection of pilot interviewees	116
c. The pilot interviews	117
d. Review and reflection	118
e. Lessons learnt	118
f. Appropriateness of methods: Semi-structured interview	119
4.4.3 Stage 2: Fundamentals of Financial Management (FFM) as conte	kt120
a. The rationale for using a case study and IRR in FFM	122
b. The developments of case study and IRR for FFM	125
c. Potential areas to encourage students to engage in critical thin	king in
Global Ltd case	126
d. The production of an assignment brief and IRR guide for studer	nts128
4.4.4 Stage 3: Sample, gaining access and ethical issues	131

b. Collecting data from IRR
4.5 Process of Data Analysis
4.5.1 Interpretative Phenomenological Analysis (IPA) as the guide for data analysis
analysis
4.5.2 First stage of data analysis: sensitisation of data and generating initial themes
themes
4.5.3 nViVo Coding141
4.5.4 Second stage of data analysis: clustering initial themes and main themes
formation
4.5.5 Final stage of data analysis: bracketing and student profiles142
4.5.6 Analysing data in Individual Reflective Report (IRR)144
4.5.7 Cross case analysis
4.5.8 Identification of students' personal stance and contextual responses146
4.6 Quality of this study148
4.7 Summary and Conclusion151
4.7 Summary and Conclusion151
4.7 Summary and Conclusion
CHAPTER 5: ANALYSING DATA NAD REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND
CHAPTER 5: ANALYSING DATA NAD REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND MOTIVATION IN THE CONTEXT OF GROUP LEARNING
CHAPTER 5: ANALYSING DATA NAD REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND MOTIVATION IN THE CONTEXT OF GROUP LEARNING  5.1 Organisation and overview of findings and discussion chapters
CHAPTER 5: ANALYSING DATA NAD REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND MOTIVATION IN THE CONTEXT OF GROUP LEARNING  5.1 Organisation and overview of findings and discussion chapters
CHAPTER 5: ANALYSING DATA NAD REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND MOTIVATION IN THE CONTEXT OF GROUP LEARNING  5.1 Organisation and overview of findings and discussion chapters

4.4.5 Stage 4: Collecting data: semi-structured interviews and IRR......133

a. Open mindedness	157
b. Closed-mindedness	159
c. Avoidance	159
5.4 Students' perception of critical thinking	.161
5.4.1 Findings: CT1 - Critical thinking as to develop a deeper understanding .	.162
a. Not accepting matters as given but analyse and evaluate further	162
b. Able to see from many 'parts', 'angles', 'sides' and beyond	163
c. Able to evaluate others' feedbacks	164
d. Able to explain one's ideas	164
e. Engaging in critical reflection	165
f. Able to make sense by questioning self and others	165
5.4.2 Findings: CT2 - Critical thinking as to provide an outcome	.166
a. Deriving a better answer	166
b. Improving on things	167
c. Solving problems	167
d. Able to apply critical thinking	168
5.4.3 Findings: CT3: Critical thinking as a mechanistic process	.168
a. Weighing the options	169
5.5 Students' perceptions of Group learning	.170
5.5.1 Identifying members are key in group learning	.170
5.5.2 Findings: GL1: Group learning provides an opportunity for CT through	
members' interaction	.173
a. Members who share different ideas, experiences and viewpoints	173
b. Members were the push-factor to learn	176
c. Members should be positive contributors and active participants	177
d. Members should be accountable to the group	179
5.5.3 Findings: GL2: Group Learning provides an opportunity for students to	
share the task	.179

a. GL reduces workload, efficient and saves time	180
b. GL allows the division of work	180
5.6 Students' orientations to Group Learning	182
5.6.1 Orientation OR1: Prefer group learning and working with others	183
a. Students acknowledge limitations of working alone	184
b. Students could learn from one another	186
c. Students could share the task/ work	187
5.6.2 Orientation OR2: Working alone or individually	189
a. Students felt they lost control over their ways of learning	189
b. Students disliked about free-rider and group learning was t	ime
consuming	190
c. Students felt there was a mismatch between time, effort and	l marks
	191
5.7 Students' motivation in group learning	193
5.7.1 Motivation as to get better grades and better results (M1)	194
5.7.2 Motivation as wanting to learn (M2)	195
5.8 Summary of Chapter 5	197
<b>CHAPTER 6: ANALYSIS AND REPORTING FINDINGS</b>	-
CHAPTER 6: ANALYSIS AND REPORTING FINDINGS  CRITICAL RESPONSES	-
CRITICAL RESPONSES	198
CRITICAL RESPONSES 6.1 Students' critical responses in critical thinking	1 <b>98</b> 198
CRITICAL RESPONSES  6.1 Students' critical responses in critical thinking	198 198 a view 199
CRITICAL RESPONSES  6.1 Students' critical responses in critical thinking	198 198 a view 199
CRITICAL RESPONSES  6.1 Students' critical responses in critical thinking	198198 o a view199200
CRITICAL RESPONSES  6.1 Students' critical responses in critical thinking	198198 o a view199200
CRITICAL RESPONSES  6.1 Students' critical responses in critical thinking	198198 a view199200201 view202

c. Ask for reasons and convincing comments	203
d. Ask for a better argument	204
6.1.4 Findings: CR3 – To understand before coming to a view	204
a. Listen and understand	205
b. Listen and reflect – try not to give reflex responses	205
c. Seek more information	206
d. Review one's own and others' perspectives	206
6.2 Critical responses and the views on the 'correctness of answers'	210
6.2.1 Variations in students' meanings of "the correctness of answers"	210
a. Relative right answer	210
b. Absolute right answer	212
c. Optimal answer for group	212
6.3 Summary of Chapter 6	214
CHAPTER 7: ANALYSING AND REPORTING THE RELATIONS	
AMONG THE FINDINGS	SHIPS
AMONG THE FINDINGS	
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215
	2 <b>15</b>
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215 217
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215217224 atrix 1
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215217224 atrix 1225
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215217224 atrix 1225 n the
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215217224 atrix 1225 an the
7.1 Attempting to draw links among the findings	215217224 atrix 1225 in the227
AMONG THE FINDINGS  7.1 Attempting to draw links among the findings	215217224 atrix 1225 in the227231
7.1 Attempting to draw links among the findings 7.1.1 Congruent and incongruent relationship explained 7.2 Identifying potential relationships from matrices 7.2.1 Drawing the links between identified findings of the study - Ma (Figure 7.7) 7.2.2 Identifying the congruent (or incongruent) relationships within findings 7.2.3 The need for further analysis of the identified relationships 7.3 Further analysis of the relationships with student profiles	215217224 atrix 1225 an the231232
7.1 Attempting to draw links among the findings	215217224 atrix 1225 in the231232232

7.3.5 Student profile – S14	244
7.3.6 Student profile – S22	249
7.3.7 Student profile – S10	252
7.3.8 Student profile – S20	256
7.4 Findings: Congruent and incongruent relationships reside with the	
learners' perceptions and the complexity of learning context	260
7.5 Summary of Chapter 7	263
CHAPTER 8: DISCUSSION OF FINDINGS AND CONCLUSION	IS
8.1 Overview of Chapter 8	265
8.2 Discussion of Findings	266
8.2.1 Students' perceptions of critical thinking	266
8.2.2 Perceptions of group learning and orientations to group learning	g270
8.2.3 Motivation	273
8.2.4 Students' stances on conflict and critical responses	275
8.2.5 The congruent and incongruent relationships within student lea	rning
and student profiles	277
8.2.6 Summary of findings and conclusion	278
8.3 The contributions of the thesis	279
8.3.1 Contribution to theory	279
80	
8.3.2 Contribution to empirical literature	280
8.3.3 Contribution to the accounting professional and accounting acac	lemics
	281
8.4 Implications and recommendations for pedagogy	282
8.5 The limitations of the present study	286
8.6 Implications and recommendations for future research	288
8.7 Concluding Thoughts	
List of References	292

### **List of Tables**

Table 2.1	Paul's (2011) Critical Thinking Waves and identifying possible
	related key critical thinking theorists27
Table 2.2	Delphi Report: Consensus list of critical thinking cognitive skills and sub-skills (Facione 1990, p.6)33
Table 2.3	Emphases identified in the review of the models of critical thinking
Table 2.4	Constructivist and Social Constructivist Learning Theories (amended from McGregor, 2007, table 3.1, pp. 48-49)53
Table 3.1	Constructive Controversy, Debate, Concurrence Seeking and Individualistic Processes (Johnson and Johnson 2009, p.39)70
Table 4.1	Overview of sample demography according to gender132
Table 5.1	Sample: Demography154
Table 5.2	Students' stance to conflict161
Table 5.3	Students' perceptions of critical thinking (CT)162
Table 5.4	Students' perceptions of group learning (GL)173
Table 5.5	Students' orientations to group learning (GL)183
Table 5.6	Students' motivation193
Table 6.1	Students' critical responses
	List of Figures
Figure 1.1	The 3P model of teaching and learning (Biggs 1999, p.18)18
Figure 2.1	Barnett's (1997) Model: Levels, domains and forms of critical being (p.103)37
Figure 2.2	Paul and Elder's (2008) Critical thinking Model (p.19)39

Figure 3.1	A General Theoretical Framework of Cooperative Learning
Figure 3.2	(adapted from Johnson <i>et al,</i> 1989, p.3:6)
Figure 3.3	Simplified version of the process of Constructive controversy  (Johnson, 1981)78
Figure 3.4	Strategies for developing critical thinking using cases (adapted from Kimmel 1995, table 3, pp.306-307)84
Figure 3.5	Analytical Framework of the study96
Figure 4.1	An overview of the philosophical issues of this research study: paradigm, methodology an instruments104
Figure 4.2	Development and operationalization stages of the study115
Figure 4.3	Stages of Data Analysis138
Figure 4.4	Analytical Framework of the study148
Figure 5.1	Summary of findings of Chapter 5197
Figure 6.1	Summary of findings of Chapter 6214
Figure 7.1	Summary of findings of the study215
Figure 7.2	Analytical Framework, the relationship216
Figure 7.3	Congruent relationship for students with perception CT1219
Figure 7.4	Congruent relationship for students with perception CT2220
Figure 7.5	Congruent relationship for students with perception CT3221
Figure 7.6	Summary of congruent relationships of the study222
Figure 7.7	Matrix 1: Identify the links using perceptions of critical thinking
	as an analytical basis225
Figure 7.8	Summary of the identified links between the findings of the study
	227
Figure 7.9	Identifying congruent relationships for the Perception of CT1. 228
Figure 7.10	Identifying congruent relationships for the Perception of CT2. 229
Figure 7.11	Identifying congruent relationships for the Perception of CT3 .230

Figure 7.12	Matrix 2: Identifying outliers	235
Figure 7.13	Matrix 3: Identifying the relationships using student profile	.239

## **List of Appendices**

Appendix 1	Fundamentals of Financial Management (FFM) Module Specification
Appendix 2	Interview Questions and Prompts for Pilot interview
Appendix 3	General tips for interview
Appendix 4	Consent Form (Simple version for pilot interview)
Appendix 5	Interview protocol and questions for the main Study
Appendix 6	FFM Assignment Brief
Appendix 7	Individual Reflective Report Guide
Appendix 8	Consent Form for the main Study