

**CRITICAL SUCCESS FACTORS, INSTRUCTORS'
CHARACTERISTICS AND ACCOUNTING
INFORMATION SYSTEM COURSE CONTENT**

NASEEM YUOSIF HANNA LALLO

**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
August 2012**

**CRITICAL SUCCESS FACTORS, INSTRUCTORS' CHARACTERISTICS AND
ACCOUNTING INFORMATION SYSTEM COURSE CONTENT**

By

NASEEM YUOSIF HANNA LALLO

**Thesis Submitted to the
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy**

OTHMAN YEOP ABDULLAH GRADUATE SCHOOL OF BUSINESS
Universiti Utara Malaysia



PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

NASEEM YOUSIF HANNA

calon untuk Ijazah DOCTOR OF PHILOSOPHY (ACCOUNTING)
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

CRITICAL SUCCESS FACTORS, INSTRUCTORS' CHARACTERISTICS AND ACCOUNTING INFORMATION
SYSTEM COURSE CONTENT

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada :

12 April 2012.

That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

12 April 2012.

Pengerusi Viva : Prof. Dr. Mohd Zaini Abd Karim
(Chairman for Viva)

Tandatangan
(Signature)

Pemeriksa Luar : Prof. Dr. Nor'Azam Mastuki
(External Examiner)

Tandatangan
(Signature)

Pemeriksa Dalam : Dr. Zaimah Zainol Ariffin
(Internal Examiner)

Tandatangan
(Signature)

Tarikh: 12 April 2012
(Date)

Nama Pelajar
(Name of Student)

: Naseem Yousif Hanna

Tajuk Tesis
(Title of the Thesis)

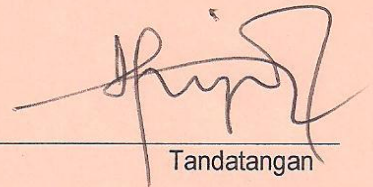
: Critical Success Factors, Instructors' Characteristics and Accounting Information System Course Content

Program Pengajian
(Programme of Study)

: Doctor Of Philosophy (Accounting)

Nama Penyelia/Penyelia-penyelia
(Name of Supervisor/Supervisors)

: Dr. Mohamad Hisyam Selamat



Tandatangan

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or in his absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRACT

Although an Accounting Information System (AIS) course is important to equip accounting students with adequate knowledge and skills, little research has investigated factors that should be considered in developing such course content. This scenario is obvious in Iraq, particularly because the education system deteriorated severely due to the civil war of the last several decades. To look for critical success factors, this study identified employers' needs, professional bodies, learning environment, and International Federation of Accounting Committee (IFAC) recommendations as factors that might influence AIS course content. This study considered instructors' characteristics as a moderating variable that could enhance the relationship between IFAC recommendations and AIS course content. The objectives of the study were the following: (1) to identify the critical success factors influencing AIS course content at Iraqi Higher Education Institutions (HEI), and (2) to investigate the moderating effect of instructors' characteristics on the relationship between IFAC recommendation and AIS course content. To achieve these objectives, 260 questionnaires were sent to accounting lecturers at different Iraqi HEIs of these instruments, 165 were returned, yielding a response rate of about 63.5%, but only 134 were usable. Multiple regression analysis was used to test the relationships between (and among) AIS course content and employers' needs, professional bodies, learning environment, and IFAC recommendations. The findings showed that personal traits, professional bodies, participatory learning and teaching methods and general information and communication technologies (ICT) knowledge had no significant influence on AIS course content whereas other dimensions such as core knowledge and Information Technology (IT) competency had significant influence. Hierarchical multiple regression was applied to investigate the moderating influence. The results show that IT competency and general ICT knowledge were not significant whereas IT control knowledge and general IT knowledge were significant.

Keywords: Accounting Education, Accounting Information System, Course Content, Curriculum Development.

ABSTRAK

Walaupun kursus Sistem Maklumat Perakaunan (SMP) penting bagi melengkapkan pelajar perakaunan dengan pengetahuan dan kemahiran yang mencukupi, tetapi hanya terdapat beberapa penyelidikan yang menyiasat faktor yang perlu dipertimbangkan dalam membangunkan isi kandungan kursus tersebut. Senario sebegini begitu ketara di Iraq, di mana sistem pendidikan telah musnah akibat perang saudara yang berlaku dalam beberapa dekad yang lalu. Bagi mengkaji faktor-faktor kejayaan kritikal tersebut, kajian ini mengenalpasti keperluan majikan, badan profesional, persekitaran pembelajaran dan cadangan Jawatankuasa Persekutuan Perakunaan Antarabangsa (JPPA) sebagai faktor yang boleh mempengaruhi pembangunan kandungan kursus SMP. Kajian ini mengambilkira ciri-ciri tenaga pengajar sebagai pembolehubah penyederhana yang boleh meningkatkan perhubungan di antara cadangan-cadangan JPPA dan kandungan kursus SMP. Objektif kajian ini adalah seperti berikut: (1) untuk mengenalpasti faktor-faktor kejayaan kritikal yang mempengaruhi kandungan kursus SMP di Institusi Pengajian Tinggi (IPT) di Iraq; dan (2) untuk mengkaji kesan penyederhanaan ciri-ciri tenaga pengajar ke atas perhubungan di antara cadangan-cadangan JPPA dan kandungan kursus SMP. Bagi mencapai objektif ini, 260 borang soalselidik telah dihantar kepada pensyarah perakaunan di IPT yang berbeza di Iraq, 165 soalselidik telah dipulangkan, memberikan kadar respon sebanyak 63.46%, tetapi hanya 134 soalselidik yang boleh digunakan. Analisis regresi berganda telah digunakan untuk mengkaji perhubungan di antara (dan di kalangan) kandungan kursus SMP dan keperluan majikan, badan profesional, persekitaran pembelajaran dan cadangan-cadangan JPPA. Dapatan kajian menunjukkan bahawa sifat-sifat peribadi, badan profesional, pembelajaran penyertaan dan kaedah pengajaran dan pengetahuan am Teknologi Maklumat dan Komunikasi (TMK) tidak mempunyai pengaruh yang signifikan terhadap kandungan kursus SMP manakala dimensi yang lain seperti pengetahuan teras dan kemahiran Teknologi Maklumat (TM) mempunyai pengaruh yang signifikan. Regresi berganda hirarki telah digunakan bagi menyiasat pengaruh penyederhanaan. Dapatan kajian menunjukkan bahawa kemahiran TM dan pengetahuan am TMK adalah tidak signifikan, manakala pengetahuan kawalan TM dan pengetahuan am TM adalah signifikan.

Kata kunci: Pendidikan Perakaunan, Sistem Maklumat Perakaunan, Kandungan Kursus, Pembangunan Kurikulum.

ACKNOWLEDGEMENTS

I give glory to **GOD** for making it possible for me to undertake a course in PhD Accounting. In addition, I am indeed indebted to several individuals and organizations for their immense contributions to the successful completion of this programme. First and foremost, my sincere appreciate goes my supervisor, Dr. Mohamad Hisyam Selamat for this guidance, encouragement and cooperation throughout my programme. I also express my gratitude to the entire members of staff of College of Business and management of Universiti Utara Malaysia (UUM) for this opportunity. I am grateful to all the lecturers who made contributions and comments on my proposal especially Prof. Dr. Noor Azizi Ismail and Dr. Zaimah Zainol Ariffin.

I thank the management and staff Othman Yeop Abdullah Graduate School of Business in Universiti Utara Malaysia for their support during the fieldwork of this study. I also thank the management of and staff of the college of Administration and economic in Salahadin University in Erbil. I am indeed grateful to my fiancée Miss Linda Behnam Yousif for her supporting and encouraging me during three years. In addition, my thanks to my friends especially Mr. Ammar, Mr. Jarjees, Abuobaydah, Mustaffa, Daleer, Ibraheem, Zaid, Ayman and all other friends who help me. Finally, I appreciate my family my father, my mother, my brothers and sisters for what they provided to me.

TABLE OF CONTENTS

	Page
TITLE PAGE	i
CERTIFICATION OF THESIS	ii
PERMISSION TO USE	iv
ABSTRACT	v
ABSTRAK vi	
ACKNOWLEDGEMENTS	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xv
LIST OF FIGURES	xviii
LIST OF ABBREVIATION	xix
CHAPTER ONE INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	8
1.3 Research Questions	12
1.4 Research Objectives	12
1.5 Significance of Study	13
1.6 Scope of the Study	15
1.7 Organization of the Thesis	16
CHAPTER TWO LITERATURE REVIEW	18
2.0 Introduction	18
2.1 Accounting Education	18
2.2 Accounting Curriculum	22
2.3 Accounting Information System Course Content	26
2.4 Advantages of Course Content Development	29
2.5 Issues Related to AIS Course Content and the Iraq Experience	32
2.6 The Determinants of AIS Course Content for the Iraqi Higher Educational Institutions	36

2.6.1	Employers' Needs	37
2.6.1.1	Core Knowledge	39
2.6.1.2	Business Environment Knowledge	41
2.6.1.3	Personal and Interpersonal Skills	43
2.6.2	Professional Bodies	45
2.6.3	Learning Environment	49
2.6.3.1	Current Technological State	50
2.6.3.2	Learning Approach	52
2.6.3.3	Participatory Learning and Teaching Methods	54
2.6.4	International Federation of Accounting Committee Recommendations	56
2.6.4.1	Information Technology Competency	60
2.6.4.2	Information Technology Control Knowledge	62
2.6.4.3	General Information Technology Knowledge	64
2.6.5	Instructors' Characteristics	66
2.7	Summary	69
CHAPTER THREE METHODOLOGY		70
3.0	Introduction	70
3.1	Research Framework and Related Theories	70
3.1.1	Research Framework	70
3.1.2	Related Theory to the Study	77
3.1.2.1	Bruner's Instructional Theory	77
3.1.2.2	Mezirow's Transformative Learning Theory	82
3.1.2.3	Attribution Theory	83
3.1.2.4	Task-Technology Fit Theory (TTF)	87
3.2	Hypotheses Development	88
3.2.1	Employers' Needs	89
3.2.1.1	Core Knowledge	89
3.2.1.2	Business Environment Knowledge	90
3.2.1.3	Personal and Interpersonal Skills	91
3.2.2	Professional Bodies	91
3.2.3	Learning Environment	92
3.2.3.1	Current Technological State	92
3.2.3.2	Learning Approach	93

3.2.3.3	Participatory Learning and Teaching Method	93
3.2.4	International Federation of Accounting Committee Recommendation	94
3.2.4.1	Information Technology Competency	94
3.2.4.2	Information Technology Control Knowledge	95
3.2.4.3	General Information Technology Knowledge	96
3.2.5	Instructor's Characteristics	96
3.3	Research Design	98
3.3.1	Types of Research Design	99
3.3.2	The Quantitative Design	101
3.3.3	Research Equation	102
3.3.4	Research Sampling	104
3.4	Research Activities	106
3.4.1	Research Instrument Development	106
3.4.2	Data Collection	106
3.4.3	Data Analysis Techniques	107
3.4.3.1	Test for Differences	107
3.4.3.2	Descriptive Statistics	108
3.4.3.3	Factor Analysis	108
3.4.3.4	Correlation Analysis	111
3.4.3.5	Multiple Regressions analysis	112
3.4.3.6	Hierarchal Multiple Regressions Test	113
3.5	Operational Definitions	114
3.5.1	Employers' Needs	114
3.5.1.1	Core Knowledge	114
3.5.1.2	Business Environment knowledge	115
3.5.1.3	Personal Skills and Interpersonal Skills	115
3.5.2	Professional Bodies	115
3.5.3	Learning Environment	115
3.5.3.1	Current Technological State	116
3.5.3.2	Learning Approach	116
3.5.3.3	Participatory Learning and Teaching Method	116
3.5.4	IFAC Recommendation	116
3.5.4.1	Information Technology Competency	117
3.5.4.2	Information Technology Control Knowledge	117

3.5.4.3	General Information Technology Knowledge	117
3.5.5	Instructors' Characteristics	117
3.5.6	Accounting Information System Course Content	118
3.6	Questionnaire Development	118
3.6.1	The Structure of the Questionnaire	118
3.6.2	Employers' Needs	120
3.6.3	Professional Bodies	121
3.6.4	Learning Environment	122
3.6.5	International Federation of Accounting Committee Recommendation	123
3.6.6	Instructors' Characteristics	123
3.6.7	Accounting Information System Course Content	124
3.7	Refinement of the Questionnaire	125
3.7.1	Content Validation	125
3.7.2	Pilot Test	126
3.8	Summary	128
 CHAPTER FOUR ANALYSIS AND FINDINGS		 129
4.0	Introduction	129
4.1	Response Rate	129
4.2	Non-Respondent Bias	131
4.3	Profile of the Respondents	132
4.3.1	Respondents' Specialization	133
4.3.2	Respondents' Academic Rank	134
4.3.3	Respondents' Gender	134
4.3.4	Respondents' Age	135
4.3.5	Respondents' Educational Level	135
4.3.6	Respondents' Period Spent in Teaching AIS Course	136
4.3.7	Respondents' Position	136
4.4	Current State of AIS Course Content in the Iraq HEIs	139
4.5	Goodness of Measures	142
4.5.1	Validity	142
4.5.2	Reliability	143
4.5.3	Construct Validity	143
4.5.3.1	Factor Analysis Test on Employers Needs	144

4.5.3.2	Factor Analysis Test on Professional Bodies	147
4.5.3.3	Factor Analysis Test on Learning Environment	149
4.5.3.4	Factor Analysis Test on IFAC Recommendation	152
4.5.3.5	Factor Analysis Test on Instructors' Characteristics	155
4.5.3.6	Factor Analysis on AIS Course Content	159
4.6	Hypotheses Restatement	165
4.7	Descriptive Statistics of Study Variables	167
4.7.1	Descriptive Statistics for Employers' Needs	167
4.7.2	Descriptive Statistics for Professional Bodies	168
4.7.3	Descriptive Statistics for Learning Environment	169
4.7.4	Descriptive Statistics for IFAC Recommendation	170
4.7.5	Descriptive Statistics for Instructors' Characteristics	172
4.7.6	Descriptive Statistics for AIS Course Content	172
4.8	Correlation Analysis	173
4.9	Multiple Regression Analysis Test	177
4.9.1	Test for Violations of Assumptions	177
4.9.1.1	Normality Test	177
4.9.1.2	Linearity and Homogeneity Test	179
4.9.1.3	Multicollinearity Test	181
4.9.2	Testing the Model Using Multiple Regression	182
4.9.3	Hierarchical Multiple Regression	185
4.10	Summary	188
 CHAPTER FIVE DISCUSSION AND CONCLUSION		 189
5.0	Introduction	189
5.1	Refining Framework	189
5.2	Research Hypotheses Test Results	191
5.3	Research Discussion	192
5.3.1	Employers' Needs	192
5.3.1.1	Core Knowledge	193
5.3.1.2	Business Environment Knowledge	194
5.3.1.3	Personal Traits	194
5.3.1.4	Interpersonal Skills	195
5.3.2	Professional Bodies	196

5.3.3	Learning Environment	197
5.3.3.1	Current Technological State	198
5.3.3.2	Learning Approach	198
5.3.3.3	Participatory Learning and Teaching Methods	199
5.3.4	International Federation of Accounting Committee Recommendation	200
5.3.4.1	Information Technology Competency	200
5.3.4.2	Information Technology Control Knowledge	201
5.3.4.3	General Information Technology Knowledge	202
5.3.4.4	General Information Communication Technology Knowledge	202
5.3.5	Moderating Effect of Instructors' Characteristics	203
5.3.5.1	Information Technology Competency	204
5.3.5.2	Information Technology Control Knowledge	205
5.3.5.3	General Information Technology Knowledge	206
5.3.5.4	General Information Communication Technology Knowledge	206
5.4	Summary	207
5.5	Conclusion	209
5.6	Contributions	210
5.6.1	Theoretical Contribution	210
5.6.2	Methodological Contribution	211
5.6.3	Contribution to Academia	211
5.7	Limitations of the Study	212
5.8	Suggestions for Future Research	213
5.9	Summary	214
	REFERENCES	215

APPENDIX	232
Appendix A-1 Questionnaire Development	234
Appendix A-2 The Final Questionnaire	240
Appendix A-3 Final Questionnaire Design (Arabic)	249
Appendix B -1 The Frequency of the Respondent Information	256
Appendix B-2 The Frequency Test of the Current State of AIS Course Content	257
Appendix B-3 Reliability for Pilot Test	260
Appendix C Factor Analysis Figures	268
Appendix D 273	
Appendix D-1 The First Attempt for Regression Analysis	274
Appendix D-2 The Second Attempt for Regression Analysis Details	278
Appendix D-3 The First Attempt for Hierarchical Multiple Regression	281
Appendix D-4 The Second Attempt for Hierarchical Multiple Regression	285
Appendix D-5 The Second Attempt for Hierarchical Multiple Regression Graph for the Significant Relationship	288
Appendix E-1 A Letter from Universiti Utara Malaysia for Collecting Data purposes	291
Appendix E-2 A Letter from College of Administration and Economic-University of Salahadin for Collecting Data purposes	292
Appendix E-3 A Governmental Document form MHESR in Iraq about Curriculum Development (2009)	293
Appendix E-4 A Governmental Document form MHESR in Iraq about Curriculum Development (2010)	294

LIST OF TABLES

	Page
Tables	
1.1 Dissertation Outline	17
2.1 Approaches to Learning in Terms of Motive and Strategy	52
3.1 Description of Research Variables	71
3.2 Relationship Between Bruner’s Curriculum Theory and the Study	81
3.3 Summary of Research Hypotheses	98
3.4 Characteristics of Quantitative and Qualitative Approach	102
3.5 The Value of Grade for MSA	110
3.6 Guilford’s Rules of Thumb	112
3.7 Summary of the Questionnaire	120
3.8 The Items Related to the Employers’ Needs	121
3.9 The Items Related to the Professional Bodies	122
3.10 The Items Related to the Learning Environment	123
3.11 The Items Related to the International Federation of Accounting Committee Recommendation	123
3.12 The Items Related to the Instructors’ Characteristics	124
3.13 The Questions Related to the AIS course content	124
3.14 Reliability Analysis Results	127
4.1 Response Rate of the Questionnaires	131
4.2 Test of Non-Response Bias Independent Sample T-Test	133
4.3 Respondents Specialization	134
4.4 Respondents’ Academic Rank	134
4.5 Respondents’ Gender	135
4.6 Respondents’ Age	135
4.7 Respondents’ Educational Level	136
4.8 Respondents’ Period spent in Teaching AIS Course Content	136
4.9 Respondents’ Position	137

4.10	Summary of the Respondents' Profile Results	138
4.11	Respondents' Views About the Current State of AIS Course Content in the Iraqi HEIs	139
4.12	T-Test Results on the Items that Current Iraqi AIS Course Content is Able to Deliver	142
4.13	KMO, MSA and BTS Value for Employers' Needs	144
4.14	The Results of Extraction Component for Employers' Needs	145
4.15	Loading Factor Using Varimax Rotation for Employers' Needs	146
4.16	Summary of Reliability Test for Final Four Factors for Employers Needs	147
4.17	KMO, MSA and BTS for Professional Bodies	147
4.18	Results of Extraction of Component for Professional Bodies	148
4.19	Results of Component Matrix for Professional Bodies Factor	148
4.20	Summary of Reliability Test for Final Factor for Professional Bodies	149
4.21	KMO, MSA and BTS for Learning Environment	149
4.22	Results of Extraction of Component for Learning Environment	150
4.23	Loading Factor Using Varimax Rotation for Learning Environment	151
4.24	Summary of Reliability Test for Learning Environment Final Factors	152
4.25	KMO, MSA and BTS for IFAC Recommendation	152
4.26	Results of Extraction of IFAC Recommendation Factors	153
4.27	Loading Factor Using Varimax Rotation for IFAC Recommendation	154
4.28	Summary of Reliability Test for IFAC Recommendation Factors	155
4.29	KMO, MSA and BTS for Instructors' Characteristics First Trail	156
4.30	Results of Extraction of Components for Instructors' Characteristics First Trail	156
4.31	Loading Factor Using varimax Rotation for Instructors' Characteristics First Trail	157
4.32	KMO MSA and BTS for Instructors' Characteristics the Second Trial	157
4.33	Results of Extraction of Component for Instructors' Characteristics Second Trial	158

4.34	The Component Matrix for Final Factor for Instructors' Characteristics Second Trail	158
4.35	Summary of Reliability Test for Instructors' Characteristics	159
4.36	KMO MSA and BTS for AIS Course Content	159
4.37	Results of Extraction of Component for AIS Course Content	160
4.38	The Component Matrix for Final Factor for AIS Course Content	160
4.39	Summary of Reliability Test for AIS Course Content	161
4.40	Summarize the Construct Validity (Facto Analysis) and Reliability Results	162
4.41	The Final Factor for Further Analysis	164
4.42	The Restatement for the Hypotheses	166
4.43	Descriptive Statistics for Employers' Needs Items	168
4.44	Descriptive Statistics for Professional Bodies Items	169
4.45	Descriptive Statistics for Learning Environment Items	170
4.46	Descriptive Statistics for IFAC RecommendationItems	171
4.47	Descriptive Statistics for Instructors' Characteristics Items	172
4.48	Descriptive Statistics for AIS Course Content Items	173
4.49	Correlation Between the Study Variables	175
4.50	Summary of the Correlation	176
4.51	The Statistics of Skewness and Kurtosis Ratios for Continuous Variables	178
4.52	Testing for Multicollinearity	182
4.53	Model Summary	184
4.54	The ANOVA (b) Result	184
4.55	The Coefficients (a) Value	185
4.56	The Summary ofHierarchical Regression Results	186
5.1	The Results of Research Hypotheses Test	191

LIST OF FIGURES

Figures		Page
2.1	The AIS As a Hybrid of Accounting and Information System Domains	27
3.1	Theoretical Framework for Iraqi AIS Course Content	76
4.1	The Histogram for Normal Distributed	179
4.2	The Normal P-P Plot	180
4.3	The Scatterpolt	181
5.1	Theoretical Framework for Iraqi Accounting Information System Course Content	190

LIST OF ABBREVIATION

AAA	The American Accounting Association
AACSB	American Association College School of Business
AECC	Accounting Education Change Commission
AICPA	The American Institute of Certified Public Accountants
AIS	Accounting Information System
ANCTM	American National Council of Teachers of Mathematics
COFE	Committee of Financial Experts
CPA	Certified Public Accounting
FASB	Financial Accounting Standards Board
HEIs	Higher Education Institutions
IAAA	Iraqi Accountants and Auditors Association
IAMB	International Advisory and Monitoring Board
IFAC	International Federation of Accounting Committee
IPTVE	International Project on Technical and Vocational Education
IS	Information System
IT	Information Technology
MHESR	Ministry of Higher Education and Scientific Research
MSEB	Mathematical Sciences Education Board
SPSS	Statistical Package for Social Science
TTF	Task-Technology Fit Theory
UN	United Nation
UNESCO	United Nation Educational, Scientific, and Cultural Organization
UNEVCO	United Nations Educational Scientific and Cultural Organization international Project on Technical and Vocational Education

CHAPTER ONE

INTRODUCTION

1.1 Research Background

The main goal of any University is to ensure that competent graduates are produced. In order to fulfill this goal, the courses used to impart knowledge to the students must be effective, current and relevant. Therefore, the transformation process from input through output to change fresh students into experts in their own areas, must be effective. Educational institutions must always endeavor to review and upgrade curriculum so that courses offered are relevant and current. Accounting Information System (AIS) courses are not the exception. In this respect, a global reform in teaching and learning curriculum being undertaken in all areas to face and cope with the daunting 21st century global challenges and technological developments. (Garfield, Dresden, & Boyle, 2003).

In defining AIS, there is a need to define what is meant by a system itself. A system can be defined as a set of two or more interrelated components that interact to achieve a specific goal (Hall, 2008; Hall, 2004). In line with this, AIS can be defined as a set of two or more interrelated components that interact with each other to generate and exploit accounting information in an effective and efficient manner (Gelinias & Dull, 2009; Dull, & Gelinias, 2008; Romney & Steinbart, 2003). Romney and Steinbart (2009) identified people, processes, organization and IT as such inter-related components. The advent of IT enables AIS to generate timely, relevant, reliable, accurate and speedy accounting

The contents of
the thesis is for
internal user
only

REFERENCES

- Abraham, A. (2006). Teaching and learning in accounting education: Students' perceptions of the linkages between teaching Context, approaches to learning and outcomes. *Faculty of Commerce-Papers*, 210.
- Accascina, G., (2006). *Information and communication technology for development in the Arab States*, United Nation Development Programme (UNDP).
- Accounting Education Change Commission (AECC) (1990). AECC urges priority for teaching in higher education. *Issues in Accounting Education*, 6(2), 330-331.
- Al- Sakaa, Z., AL-Hamadany, K. I., & Al-Taaye, N. H. (2007). *Accounting role in decreasing the risk of e-disclosure to the financial report*, Paper presented at the 5th international scientific conference: About investment climate and the work of electronic banking, 4-5 July, Amman. Retrieved from: www.philadelphia.edu.jo/adfin/conf/.
- Al-Arussi, A. S. A. (2008). *Determinants of financial and environmental disclosures on the internet By Malaysian listed companies*. University Utara Malaysia Sintok.
- Al-Baraznjee, A. K., & Kader, L. A. (2007). *The relevance of pre-university curriculum with the knowledge of accounting a comparative study between the middle school curriculum in each of the Kurdistan Region and the United Kingdom*. Paper presented at the International Conference on Higher Education in Iraq, 11-13December. Erbil. Iraq.
- Albrecht, W. S., & Sack, R. J. (2000). *Accounting education: Charting the course through a perilous future*: American Accounting Association Sarasota, FL.
- Al-Busisi, H., & Al-Khafaji, H. (2009). *The quality of university scientific curriculum and techniques used in education to improve the quality of the education process reality and ambition*. Paper presented at the Quality Assurance and Accreditation Our vision for the development of future, Al-Najaf.
- Al-Deek, F. F. F. (2010). *Relationship between information quality and decision effectiveness: A Study in the banking Sector In Jordan*. University Utara malaysia Sintok.
- Al-Ekachee, B. A., & Al-Zubaidi, a. K. A. (2006). *Causes of low academic achievement the university students in Iraq* Paper presented at the student academic stumble who bears the responsibility, 27-30 March, Al-Shariqa. Retrieved from: www.arab-acrao.org/motamarat/motamarat-27-1.
- Al-Fadel, M. (2002). Assessing the role of accounting education in building the professional skills and attitudes developed: Empirical Study to the case of Iraq. *Journal of Al-Turath University College*, 2, 32-50.
- Al-Gahtani, S., Hubona, G., & Jijie, W. (2007). Information technology (IT)in Saudi Arabia: Culture and the acceptance and use of IT. *Information & Management*, 44 (8), 681-691.
- Al-Haialy, W. N. (1996). *Intermediate accounting* (1Ed.). Amman: Dar Haneen Publishing & Distributing.
- Al-Hydaree, A. A. (2011). The reality of higher education in Iraq between the challenges and necessary, retrieved from: <http://www.ahewar.org/debat/show.art.asp?aid=287092>.

- Al-Hubaity, K. (2003). *Requirements of the labor market from graduates of colleges' administration and trade in the public and private sectors standards, skills, and knowledge*. Paper presented at the Arab Forum for the performance development of management and trade colleges in Arab Universities. 11-13 March. Aleppo - Syria.
- Al-Humaery, J. A. (2006). *The absence of the role of professional associations to raise the level of the accounting profession*. Sadat Academy for Administrative Sciences, Egypt.
- Al-Jaboree, A. H. (2012). *Tasks of higher education in the curriculum development*. Retrieved from: <http://measurement.arabe.pro/t50-topic>.
- Al-Jalily, M. A., & Taha, A. A. D. (2010). The use of international education standards for professional accountants in developing the accounting curriculum for bachelor stage in Iraq: A model of suggested accounting curriculum for Bachelor stage. *Tanmiat Al-Rafidain*, 32(99), 34-46.
- Al-Janabi, S., & Urban, J. E. (2011). *Strategic plan for enhancing higher education computing degree programs in Iraq*. Paper presented at the "Learning Environments and Ecosystems in Engineering Education". Amman- Jordan.
- Alonso D. L., & Blázquez E., F. (2009). Are the functions of teachers in e-Learning and Face-to-Face learning environments really different?. *Educational Technology & Society*, 12 (4), 331–343.
- Al-Rashad, W. (1998). Build the professional skills in accounting education. *The Arab Journal of Accounting* 2(1), 15-32.
- Al-Rawashdeh, A. A. (2011). *Diffusion of XBRL innovation model of adoption and usage*. University Utara Malaysia, Sintok.
- AL-Sakaa, Z. (2002). *The current state of accounting education in Iraq and the development requirements*. Paper presented at the first regional conference of the Accounting and Finance Sciences. 14-15 December. Mosul. Iraq.
- Al-Shawee, M. (2001). Scientific bases on how to improve the level of accounting education. *Journal of Al-Turath University College*, 1, 15-27.
- Al-Smadi, A. A.M. (2011). Perception of strategic human resource management among employees of Jordanian private companies. *Journal of Advanced Social Research*, 1, 100-110.
- Al-Zeebary, T. H. (2007). *Requirements of the reform of higher education in Kurdistan in Iraq*. Paper presented at the International Conference on Higher Education in Iraq, 11-13 December. Erbil. Iraq.
- Al-Zubee, N. F. (2011). *A working paper on the mechanism of development of the educational environment*. Retrieved from. <http://alramtha.net/index.php/artical/17894.html>.
- American Accounting Association (AAA) (1986). Committee on the future structure, content and scope of accounting education (The Bedford Committee) (1986) Future accounting education: preparing for the expanded profession. *Issues in Accounting Education*, 1(1), 168–195.
- Andrews, C. P., & Wynekoop, J. (2004). A framework for comparing IS core curriculum and requirement for accounting majors. *Journal of Information System Education*, 15(4), 437-445.

- Ang, C. L., Davies, M. A., & Finlay, P. N. (2001). An empirical model of IT usage in the Malaysian public sector. *Journal of Strategic Information Systems*, 10(2), 159-174.
- Armitage, H. M., & Boritz, A. J. E. (1986). Integrating computers into the accounting curriculum. *Issues in Accounting Education*, 1(1), 86.
- Armstrong, J. & Overton, T.S. (1977). Estimating non-response bias in mail surveys. *Journal of Marketing Research*, 4, 396-402.
- Arnold, V. & Sutton, S. G. (2007). The impact of enterprise systems on business and audit practice and the implication for university accounting education. *International Journal of Enterprise Information Systems*3(4): 16-28.
- Aron, A. & Aron, E. N. (1999). *Statistics for psychology* (2nd Ed.). Upper Saddle River, NJ: Prentice Hall.
- AY, M. (2011). Conceptual frameworks of university students regarding accounting. *African Journal of Business Management*, 5(5), 1570-1577.
- Baba, H. N. B. (2004). *Corporate social responsiveness and environmental performance of small enterprises: An empirical study*. University Utara Malaysia, Sanitok.
- Baddie, E. (2001). *The practice of social research* (9th Ed.). Belmont, CA: Wadsworth Publishing.
- Bagranoff, N. A., Simkin, M. G., & Norman, C. S. (2009). *Core concepts of accounting information systems* (11 Ed.). Australia: John & Wiley Sons.
- Bakar, N. A. (2007). English language activities in computer-based learning environment: A case study in ESL Malaysian classroom [Electronic Version]. *GEMA Online Journal of Language Studies*, 7, 33-49. Retrieved from: [/www.fpbahasa.ukm.my/linguistics/Gema/Vol7Issue1_Page33_49.pdf](http://www.fpbahasa.ukm.my/linguistics/Gema/Vol7Issue1_Page33_49.pdf).
- Barclay, S., Todd, C. Finlay, I., Grande, G., & Wyatt, P. (2002). Not another questionnaire maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19 (1), 105-111.
- Barkman, A. (1998) The use of live cases in the accounting information systems course. *Journal of Accounting Education*, 16 (3/4), 517-524.
- Barley, S. R., & Orr, J. E. (1997). *Between craft and science: Technical work in U.S. settings*. Ithaca, NY: ILR Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Beijerse, R. P. U. (1999). Questions in knowledge management: Defining and conceptualising a phenomenon. *Journal of Knowledge Management*, 3(2), 94-109.
- Bhaskar, K. N. (1983). Computers and the choice for accounting syllabuses. *Accounting and Business Research*, 13 (50), 83-93.
- Biggs, J. B. (1987). Individual and group differences in study processes. *British Journal of Educational Psychology*, 48, 266-279.
- Blenkin, G. M., Edwards, G., & Kelly, A. V. (1992). *Change and the curriculum*. London: Paul Chapman.

- Bolt-Lee, C. & Foster, S. D. (2003). The core competency framework: a new element in the continuing call for accounting change in the United States. *Accounting Education: an international journal*, 13(1), 33–47.
- Bonk, C. J., & Smith, G. S. (1998). Alternative instructional strategies for creative and critical thinking in accounting curriculum. *Journal of Accounting Education*, 16(2), 261-293.
- Boonmak, S. (2010). *Teaching and learning in accounting information systems for accounting courses*. Paper presented at the 10th Global Conference on Business & Economics. Rome, Italy.
- Boritz, J.E. (1999). *The accounting curriculum and IT*, International Federation of Accountants. Retrieved from: <http://www.ifac.org/StandardsAndGuidance/Education/IEG11-Update.html>.
- Borthick, A.F. & Clark, R. (1987). Research on computing in accounting education: opportunities and impediments. *Issues in Accounting Education*, 2(2), 173–192.
- Borthick, F. (1996). Helping accountants learn to get the information managers want: The role of the accounting information systems course. *Journal of Information Systems*, 10(2), 75-85.
- Bourque, L. B., & Fielder, E. P. (1995). *How to conduct self-administered and mail survey*. London: SAGE Publications, Inc.
- Bromson, G., Kaidonis, M. A., & Poh, P. (1994). Accounting information systems and learning theory: An integrated approach to teaching. *Accounting Education*, 3(2), 101-140.
- Brown, J., James, F., & Balke, T. E. (1983). Accounting curriculum comparison by degree program of schools intending to seek AACSB accreditation. *Issues in Accounting Education*, 1, 50-59.
- Bruner, J. (1960). *The process of education*, Cambridge: Harvard University Press.
- Brynjolfsson, E., & Hitt, L. M. (2000). Beyond computation: information technology, organizational transformation and business performance. *Journal of Economic Perspectives*, 14(4), 23-48.
- Bybee, R. W., Buchwald, C. E., Crissman, S., Heil, D. R., Kuerbis, P. J., Matsumoto, C., & McInerney, J. D. (1990). *Science and technology education for the middle years: Frameworks for curriculum and instruction*. Washington DC: National Center for Improving Science Instruction.
- Calderon, T. G., Cheh, J. J., & Chatham, M. D. (2002). An examination of current state of accounting information systems education. *The Review Of Business Information Systems*, 6(2), 29-41.
- Callaghan, J., Peacock, E., & Savage, A. (2000). Assessment of an accounting information systems curriculum: An analysis of the International Federation of Accountants' International Education Guideline No. 11. *The Review of Accounting Information Systems*, 4(1), 1-12.
- Canon, R. & Newble, D. (2000). *A handbook for teachers in universities and colleges*. London: Kogan Page Ltd.
- Cappel, J. J. (2002). Entry-level IS Job skills: A survey of employers. *The Journal of Computer Information Systems*, 42(2), 76-82.

- Carl, A. (2005). The "voice of the teacher" in curriculum development: A voice crying in the wilderness?. *South African Journal Of Education*, 25(4), 223-228.
- Carr, S., & Mathews, M. R. (2004). Accounting curriculum change and iterative programme development: a case study. *Accounting Education*, 13(1), 91-116.
- Carr, S., Chua, F., & Perera, H. (2006). University accounting curricula: The perceptions of an alumni group. *Accounting Education: An international journal*, 15(4), 359-376.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. Singapore: John Wiley& Sons Ltd.
- Chaker, M. N., & Abdullah, T. A. T. (2011). What accountancy skills are acquired at college?. *International Journal of Business and Social Science*, 2(18), 193-199.
- Chang, C. J., & Hwang, N.-C. R. (2002). Quests on building IT-relevant accounting curricula. *Journal of Contemporary Accounting*, 3(1), 1-20.
- Chang, J., & Hwang, N.C. R. (2003). Accounting education, firm training and information technology: A research note. *Accounting Education*, 12(4), 441-450.
- Chayeb, L., & Best, P. (2005). *The Accounting Information Systems Curriculum: Compliance with IFAC Requirements*. Paper presented at the International Conference on Innovation in Accounting Teaching & Learning, Hobart, eprints.qut.edu.au.
- Cheh, J. J. (2000). Innovator's dilemma and an association for accounting information system educators. *The Review Of Business Information Systems*, 4(4), 77-98.
- Chung, J., & Davis, I. K. (1995). An instructional theory for learner control: Revisited. In M. R. Simonson (Ed.) *Proceedings of the 1995 Annual National Convention of the Association for Educational Communications and Technology*, 72-86. Anaheim, CA: AACE.
- Clark, E., Adams, D., Annice, C. Battye, G., Black, S., Bouvin, P., Brooks, R., Cheetham, A., Favre, J.P., Johnston, S. Klein, D., McCormack, C. Thompson, B. and Mansbridge, L. (1995). *The role of information technology and university teaching: University of Canberra Working Party Report*, University of Canberra, Canberra.
- Coakes, S. J., Steed, L., & Ong, C. (2009). *SPSS: Analysis without anguish: Version 16 for windows*. Australia: John Wiley & Sons Australia, Ltd.
- Coe, M. J. (2006). Integrating IT audit into the AIS course. *The Review Of Business Information System*, 10 (1), 105 -119.
- Cohen, B. H. (2001). *Explaining psychological statistics* (2nd Ed.). New York: Wiley.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression /correlation analysis for the behavioral sciences*, (3rd Ed). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, L., Manion, L., Morrison, K., & Morrison, K. R. B. (2007). *Research methods in education* (6 Ed.). London: Routledge Falmer.
- Colet, N. R., & Durand, N. (2004). Working on the bologna declaration: Promoting integrated curriculum development and fostering conceptual change. *International Journal for Academic Development*, 9(2), 167-181.
- Collier, P. A., Kaye, G. R., Spaul, B. J., & Williams, B. C. (1990). The use of computer in accounting courses: a new perspective-a comment. *Accounting and Business research*, 20 (80), 353-400.

- Committee of Financial Expert (COFE). (2009). *Report from COFE to IAM at its meeting in Amman, Jordan*. Amman: Committee of Financial Expert. Retrieved from: <http://www.iamb.info/>.
- Considine, B., Parkes, A., Olesen, K., Speer, D., & Lee, M. (2010). *Accounting information system: understanding business process* (3 Ed.). Milton: Johan Wiley & Sons Australia, Ltd.
- Cooper, B. (2002). Accountant of the future. *Accounting and Business*, 35 -37.
- Cortina, J. M. (1993). Interaction, nonlinearity, and multicollinearity: implications for multiple regression. *Journal of Management*, 19(4), 915-922.
- Cougar, J.D., Davis, G.B., Dologite, D.G., Feinstein, D.L., Gorgone, J.T., Jenkins, A.M., Kasper, G.M., Little, J.C., Longenecker, Jr., H.E. & Valacich, J.S. (1995). IS '95: Guideline for undergraduate IS curriculum. *MIS Quarterly*, 19(3), 341-359.
- Cranton, P. & King, K.P. (2003). Transformative learning as a professional development goal. *New Directions for Adult and Continuing Education*, 98, 31-37.
- Cranton, P. (1996). *Professional development as transformative learning: New perspectives for teachers of adults*. San Francisco, CA: Jossey-Bass Inc.
- Creswell, J. W. (2008). *Educational research planning, conducting, and evaluating quantitative and qualitative research* (3 Ed.). USA: Pearson Education International.
- Daggett, P. D., & Liu, W. Y. (1997). Prepared to perform? Employers rate work force readiness of new grads. *Journal of Career Planning & Employment*, 57(3), 52-56.
- Dahawy, K., Merino, B. D., & Conover, T. L. (2002). The conflict between IAS disclosure requirement and the secretive culture in Egypt. *Advances in International Accounting*, 15(1), 203-228.
- Dahawy, K., Tooma, E., & Kamel, S. (2005). The use of IT in teaching accounting in Egypt the case of BeckerConviser. *Communications of the IIMA*, 5(3), 25-34.
- Dalal, N. P. (1994). Higher-order thinking in MIS. *Journal of computer information systems*, 34(4), 26-30.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 3(3), 319-340.
- Davis, J. R., & Leitch, R. A. (1988). Accounting information systems courses and curricula: new perspectives. *Journal of Information Systems*, 2(2), 153-166.
- De Santisteban, AV. (2005). Sanctions, war, occupation and the De-development of education in Iraq. *International Review of Education*, 51, 59-71.
- Deppe, L. A., Sonderegger, E. O., Stice, J. D., Clark, D. C., & Streuling, G. F. (1991). Emerging competencies for the practice of accountancy. *Journal of Accounting Education* 9(2), 257-290.
- DeVaus, D. A. (1986). *Surveys in social research* (4 Ed.). London: UCL Press Ltd.
- Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. New York: John Wiley & Sons.
- Dillon, T. W., & Kruck, a. S. E. (2008). Identifying employer needs from accounting information systems programs. *Journal of Information systems Education*, 19(4), 403 - 409.
- Doll, R. C. (1989), *Curriculum improvement: Decision making and process*. Boston: Allyn and Bacon.

- Donor Committee for Enterprise Development (DCED) (2008), *Supporting Business Environment Reforms: Practical Guidance for Development Agencies* (8^{Ed}). Retrieved from :<http://www.enterprise-development.org/resources/items.asp?cat=Guidelines>.
- Dull, R. B., & Gelinas, J.U. J. (2008). *Accounting information systems*, (7Ed) . Mason, OH: Thomson South-Western.
- Dundar, H. D., & Lewisb, D. R. (1999). Equity, quality, and efficiency: Effects of reform in Turkish higher education. *Higher Education Policy*, 12, 343 - 366.
- Elameer, A. S. F., & Idrus, R. M. (2010). The readiness for an e- learning system in the university of Mustansiriyah (UoMust) Baghdad-Iraq. *Malaysian Journal of Educational Technology*, 10(2), 31-41.
- Elliott, R. K. (1992), the Third wave breaks on the shores of accounting. *Accounting Horizons*, 6(2), 61-85.
- Emery, J., Crump, C., & Bors, P. (2003). Reliability and validity of two instruments designed to assess the walking and bicycling suitability of sidewalks and roads. *American Journal of Health Promotion*, 18(1), 38-46.
- Fatemi, A. H., Pishghadam, R., & Asghari, A. (2012). Attribution Theory and Personality Traits among EFL Learners. *International Journal of Linguistics*, 4(2), 229-243.
- Fayol H. (1949). *General and industrial management*. New York: Pitman Publishing.
- Field, S., & Hoffman, A. (1994). Development of model for self-determination. *Career Development for Exceptional Individuals*, 17(2), 159-169.
- Feshbach, S., Weiner, B., & Bohart, A. (1996). *Personality* (4th ed). Lexington, Massachusetts: D. C. Heath and Company.
- Finch, C. R., & Crunkilton, J. R. (1999). *Curriculum development in vocational and technical education*. Boston: Allyn and Bacon.
- Fordham, D. R. (2005), New roles for AIS courses: A surprising finding from a case study. *Journal Of Information systems*, 19(1), 113-129.
- Frederickson, J. R., & Pratt, J. (1995). A model of the accounting education process. *Issues in Accounting education*, 10(2), 229-246.
- Friedman, J. N., Goldman, R. D., Srivastava, R., & Parkin, P. C. (2004). Development of a clinical dehydration scale for use in children between 1 and 36 months of age. *The Journal of Pediatrics*, 145(2), 201-207.
- Fuchs, M., Höpken, W., Mirski, P., Lembacher, A. & Ainedter, B. (2007). E-tourism curriculum development a destination management organization perspective. *Information and Communication Technologies in Tourism*, 13, 523-535.
- Galbraith, J. K. (2007). *The new industrial state*. New Jersey: Princeton University Press.
- Garfield, R., Dresden, E., & Boyle, A. J. S. (2003). Health care in Iraq. *Nearing Outlook*, 51(4), 171-177.
- Gay, L. R. & Diehl, P.L. (1992). *Research methods for business and management*. New Jersey: Prentice Hall international, Inc.
- Gelinas, U. J., & Dull, R. B. (2009). *Accounting information system*. 8th . Canada: Nelson Education, Ltd.
- Gibbons, C., Dempster, M., & Moutray, M. (2009). Index of sources of stress in nursing students: a confirmatory factor analysis. *Journal of Advanced Nursing*, 65(5), 1095-1102.

- Gogan, J., Smith-David, J., Eining, M., Fedorowicz, J., & Porter, L. (1999). *Rebirth of accounting information systems curricula*. Paper presented at the Americas Conference on Information Systems (AMCIS), USA.
- Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19 (2), 213-236.
- Gorsuch, R. L. (1983). *Factor analysis* (2nd Ed.). Hillsdale, NJ: Erlbaum.
- Grant, P. (2007). *Popularity versus leadership: the impossible challenge for Australian universities*. Paper presented at the 18th Australasian Conference on Information Systems, 5–8 December, Toowoomba.
- Gravetter, F. J., & Wallnau, L. B. (2009). *Statistics for the behavioral sciences* (8 Ed.). Belmont, USA: Wadsworth: Cengage learning.
- Groomer, S. M., & Murthy, a. U. S. (1996). An empirical analysis of the accounting information systems course. *Journal Of Information Systems*, 10(2), 103-127.
- Grossman, G. M., Onkol, P. E., & Sands, M. (2007). Curriculum reform in Turkish teacher education: Attitudes of teacher educators towards change in an EU candidate nation. *International Journal of Education Development*, 27(2), 138 - 150.
- Guba, E. & Lincoln, Y. (1994). *Competing paradigms in qualitative research*. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research*(105-117). Thousand Oaks: Sage.
- Guilford, J. P., & Christensen, P. R. (1973). The one-way relation between Creative Potential and IQ. *Journal of Creative Behavior*, 7(4), 247-252.
- Gulf Cooperation Council Accounting & Auditing organization. (2003). General rules for continuing professional education. August 2003. Retrieved from: <http://www.gccao.org/edr.html>.
- Haghighi, A. M., Vakil, R., & Wetiba, J. K. (2006). Reverse-traditional/hands-on: An alternative method of teaching statistics. *Applications and Applied Mathematics (AAM): An International Journal*, 1(1), 62-82.
- Hair, J. F. Black, W. C., Babin, B. J., & Anderson, R. E (2010). *Multivariate data analysis*, (7Ed). Englewood Cliffs, New Jersey: Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2006). *Multivariate data analysis* (6 Ed.). New Jersey: Pearson Prentice.
- Hair, J. F., Money, A., Page, M., & Samouel, P. (2007). *Research methods for business*. New York: John Wiley & Sons, Ltd.
- Hall, J. A. (2004). *Accounting information system* (4 Ed.). USA: Thomson.
- Hall, J. A. (2008). *Accounting information systems* (6th Ed.). Mason, OH: South-Western.
- Harb, I. (2008). *Higher education and the future of Iraq*. Washington: United States Institute of Peace. Retrieved from: <http://dspace.cigilibrary.org/jspui /handle/123456789/15128>.
- Harris, M. (1989). *Fashion me a People: Curriculum in the Church*. Louisville: Westminster Johan Knox Press.
- Harrison, D. (1994). *Designing, writing and implementing courses for an IT-integrated professional accounting program in accounting education for the 21st century: The global challenges*. International accounting section, American Accounting Association. USA.

- Harvey, L., Mason, S., & Ward, R. (1995). *The role of professional bodies in higher education quality monitoring*. Birmingham, Quality in Higher Education Project.
- Harwood, E.M. (1999). Student perceptions of the effects of classroom assessment techniques (CATs). *Journal of Accounting Education*, 17 (4), 51-70.
- Havelka, D., & Merhout, J. W. (2009). Toward a theory of information technology professional competence. *The Journal of Computer Information Systems*, 50(2), 106-116.
- Heagy, C. D., & McMickle, P. L. (1988). An empirical investigation of the accounting systems course: Academic practice versus practitioner needs. *Issues in Accounting Education*, 3(1), 96-107.
- Healy, M.J.R. (1984). The use of R^2 as a measure of goodness of fit. *Journal of the royal statistical society, Series A (General)*, 147(4), 608-609.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Hlavac, J. (2011). Sociolinguistic profiles of users and providers of lay and professional interpreting services: The experiences of a recently arrived Iraqi language community in Melbourne. *The International Journal for Translation & Interpreting*, 3(2), 1-32.
- Hoffman, A., & Field, S. (1995). Promoting self-determination through effective curriculum development, international in school and clinic. *Journal of Special Education*, 37(1), 174-183.
- Hugh, C. (1995). *Introduction to research methods and statistics in psychology* (2 Ed.), London: Hodder & Stoughton Educational.
- Hutchinson, P.D., White, C.G. and Daigle, R.J. (2004). Advances in Accounting Information Systems and International Journal of Accounting Information Systems: First Ten Volumes (1992-2003). *International Journal of Accounting Information Systems*, 5, 341-365.
- Ingram, R. W. (1988). *Computer integration into the accounting curriculum: Case studies*. Coopers & Lybrand Foundation, American Accounting Association. Accounting Education Series, Vol. No. 8.
- International Accounting Education Standards Board (IAESB)) (2010). *Handbook of international education pronouncements*. Retrieved from: www.ifac.org (accessed on 27 January 2011).
- International Federation of Accountants (1998). *Competence-Based approaches to the professional preparation of accountants*. New York: IFAC.
- International Federation of Accountants, Education Committee (IFAC Education Committee). (2003a). *International Education Guideline 11: Information Technology for Professional Accountants*. New York, IFAC.
- International Federation of Accountants, Education Committee (IFAC Education Committee). (2003b). *International Education Paper IEP 2: towards competent Professional Accountants*. New York: IFAC.
- International Federation of Accountants, Education Committee (IFAC) (2006). *Proposed international education practice statement 2.1: Information technology for professional accountants*, International Accounting Education Standards Board.
- International Federation of Accountants. (2006). Updated guidance for professional accountants on IT. *Accountancy Ireland*, 38(5), 20.

- Iraq Higher Education Organizing Committee. (2007). *International Conference for Higher Education in Iraq- final report*. Erbil: Higher Education Commission of Iraq-London.
- Ismail, N. A. (2004). *AIS Alignment in Small and Medium Sized Firms*. Loughborough University. UK.
- Ismail, N. A. (2009). Accounting information system: Education and research agenda. *Malaysian Accounting Review*, 8(1), 63-80.
- Ismail, N. A. (Ed.). (2006). *Accounting Information Systems: Teaching and Research Agenda, CeRIA Accounting Seminar, The Survival of Accounting Profession: Research Agenda, UiTM Dungun*. Terengganu-Malaysia.
- Ismail, N. A., & Salim, a. B. (2005). Perceptions of accounting academicians toward the issue of Information technology integration into the accounting curriculum. *Jurnal penyelidikan Pendidikan*, 7, 75-88.
- Jackling, B., Cooper, B. J., Leung, P., & Dellaportas, S. (2007). Professional accounting bodies' perceptions of ethical issues causes of ethical failure and ethics education. *Managerial Auditing Journal*, 22(9), 928-944.
- Jain, T. R., Trehan, M., & Trehan, R. (2006). *Business environment*. Delhi: Prince Print Process.
- Janicki, T. N., Lenox, T., Logan, R., & Woratschek, a. C. (2008). Information system technology employer needs survey: Analysis by curriculum topic. *Information Systems Education Journal*, 6(18), 1-15.
- Jarnagin, B. D. (2006). Incorporating financial accounting research into the accounting curriculum. *Journal of College Teaching & Learning*, 3(10), 39-52.
- Johanson, R. A., and Wichern, D. W. (2007). *Applied multivariate statistical analysis* (6th Ed.). NJ: Pearson Education International.
- Johns, A. (1995). Competency standards for professional accountants in Australia and New Zealand. *Accounting Education: an international journal*, 4(1), 37-42.
- Johns, A. (2002). *Higher education at the crossroads*. Australia: Higher education Crossroads.
- Kaiesr, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39 (1), 31-36.
- Kallos, D. (2003). *Teachers and teacher education in Sweden: recent developments* Paper presented at the International Meeting "La formazione iniziale degli insegnanti in Europa, Bologna, Italy.
- Kämäräinen, P., & Streumer, J. (1998). Curriculum development, new learning environments and transfer of innovations in Europe. *CEDEFOP Vocational Education and Training—the European research field. Background Report, 2*.
- Kavanagh, M. H., & Drennan, A. L. (2008). What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations. *Accounting and Finance*, 48, 279 -300.
- Kashash, H., & Al-Mosawee, A. (2009). *The performance of university students and its impact in determining the efficiency of institutions of higher education*. Paper presented at the first conference for Quality Assurance and Accreditation at the University of Kufa, Kufa- Iraq.
- Kaye, G. R. (1985). Teaching strategies in computers and accounting. *British Accounting Review*, 17(1), 22-36.

- Keefe, J. W. (1979). Learning style: An overview. NASSP's *student learning styles: Diagnosing and proscribing programs* (1-17). Reston, VA. National Association of Secondary School Principals.
- Kennan M.A., Willard P., D.C., K., & Wilson, C. S. (2008). IS knowledge and skills sought by employers: A content analysis of Australian IS early career online Job advertisements. *The Australian Journal of Information System (AJIS)*, 15(2), 1-21.
- Kerr, A. W., Hall, H. K., & Kozub, S. A. (2003). *Doing Statistics with SPSS*. Thousand Oaks, CA: Sage Publishing Ltd.
- Khoroshilov, A. (2010). *UNESCO Teacher Development Policies and Programmes Including ICT*. Paper presented at the ICT in Teacher Education: Policy, Open Educational Resources and Partnership, St. Petersburg, Russian Federation.
- Kimble Ed.D, C. (May, 1999). *The impact of technology on learning: Making sense of the research*. Retrieved from Policy Brief. Aurora, CO: Mid-continent Regional Educational Laboratory Online. Retrieved from: www.mcrel.org/pdf/15983PIPBImpactTechnology.pdf.
- Kliebard, H. M. (1989). Problems of definition in curriculum. *Journal of Curriculum and Supervision*, 5(1), 1-5.
- Kline, P. (1979). *Psychometrics and psychology*. London: Academic Press.
- Kolb, D. A., Rubin, I. M. and McIntyre, J. M. (1974) *Learning and problem solving: On the management and the learning process*, in H. A. Simon (Ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Kosugi, R, Hamanaka, Y, Hori, Y & Nakajima, Y (2007). *University student and their employment- consideration from the viewpoint of supporting the transition to work and human resource development- summary*. HLPT research report. NO. 78 1-12. Retrieved from <http://www.jil.go.jp/english/reports/documents/jilpt-research/no78.pdf>.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kumar, R. (1996). *Research methodology: A step-by-step guide for beginners*, London: Sage Publications Ltd.
- Laufer, D., & Watkins, L.(1990). The effect of experiential accounting work experience on student performance in intermediate accounting courses. *Developments in Business Simulation & Experiential Exercises*, 17, 105-108.
- Lawrence, G. D. (1969). Bruner: Instructional theory or curriculum theory?. *Theory into Practice*, 8(1), 18.
- Lee, D. M. S., Trauth, E. M., & Farwell, D. (1995). Critical skills and knowledge requirements of IS professionals: A joint academic/industry investigation. *MIS Quarterly*, 19(3), 313-340.
- Lee, S., & Fang, X. (2008). Perception gaps about skills requirement for enter-level IS professionals between recruiters and students: An exploratory study. *Information Resources Management Journal*, 21(3), 39-62.
- Lee, S., Koh, S., Yen., D. C., & Tang, H. (2002). Perception gaps between IS academics and IS practitioners: An exploratory study. *Information and Management*, 40, 51-61.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (8th Ed). Upper SaddleRiver, NJ: Prentice Hall.

- Lightfoot, J. M. (1999). Fads verses fundamentals: The dilemma for information system curriculum design. *Journal of Education for Business*, 75(1), 43-50.
- Lin, S.Y & Sneed, J. (2005). University foodservice managers' and employees' perceptions of food safety training and managers' comparison of student and full-time employee's food safety practices. *Journal of Food Service Management and Education Archives*, 1, 1-14
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong S. (1999). Sample size in factor analysis. *Psychological Methods*, 4, 84-99.
- Macdonald, J. B. (1965). *Educational models for instruction-introduction*. In J. B. Macdonald & R.R. Robert (Eds), *Theories of instruction* (p. 6). Washington D.C.: Association for Supervision and Curriculum Development.
- Mamidi. M.R. & S., Ravishankar (1989) *Curriculum development and educational Technology*. New Delhi: Sterling Publishers Private Ltd.
- Manochehr, N. N. (2006). The Influence of learning styles on learners in e-Learning environments: an empirical study. *Computers In Higher Education Economics Review*, 18, 10-14.
- Marzano, R. (2003). *What works in schools: Translating research into action*. United States of America: Library of Congress Cataloging.
- Mathematical Sciences Education Board (MSEB). (2004). *On evaluating curricular effectiveness: Judging the quality of K-12 mathematics evaluations*. Washington DC: The National Academies Press.
- Matteson, M.T., Ivancevich, J.M. & Smith, S.V. (1984). Relation of type a behaviour to performance and satisfaction among sales personnel. *Journal of Vocational Behaviour*, 25, 203-214.
- McKelvie, S. J. (1978). Graphic rating scale-How many categories?. *British Journal of Psychology*, 69, 185-202.
- McMickle, P. L. (1989). Accounting systems: Past, present and future, *The Accounting Systems Journal*, 1(1), 1-3.
- McMurtrey, M. E., Downey, J. P., Zeltmann, S. M., & Friedman, W. H. (2008). Critical skill sets of entry-level IT professionals: An empirical examination of perceptions from field personnel. *Journal of Information Technology Education*, 7, 101-12.
- McNaught, C. (2002). Adopting technology should mean adapting it to meet learning needs. *On the horizon*, 10(4), 14-18.
- Meer, G. V., & Adams, A. M. (1996). Accounting information system curriculum: An Empirical analysis of the views of New Zealand-based accounting academic and practitioner. *Accounting Education*, 5(4), 283-295.
- Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco: Jossey-Bass.
- Mgaya, K. V., & Kitindi, E. G. (2009). Essential skills needed by accounting graduates in a developing country: The views of practicing accountants and accounting educators in Botswana. *International Journal of Accounting, Auditing and Performance Evaluation*, 5(3), 329-351.
- Miles, J., & Shevlin, M. (2001). *Applying regression and correlation* (1 Ed.), USA: Sage Publications Ltd.
- Milus, S. (2004). The Institutions need for comprehensive auditing strategies. *Information Systems Control Journal*, 6, 1-6.

- Ministry of Higher Education and Scientific Research. (2009). *Curriculum development*. Ministry of Higher Education and Scientific Research. (2010). *Curriculum*.
- Mock, T. J., Pincus, K. V., & Ander, J. M. (1991). A system approach to accounting curriculum development. *Issues in Accounting Education*, 6, 178-192.
- Mohammad, M. I. (2007). *Curricula in the Iraqi universities between theory and practice*. Paper presented at the International Conference on Higher Education in Iraq, 11 – 13 December. Erbil.Iraq.
- Moore, G. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, 2(3), 192-222.
- Mounce, P. H., Mauldin, D. S., & and Braun, R. L. (2004). The importance of relevant practical experience among accounting faculty: An empirical analysis of students' perceptions. *Issues in Accounting Education*, 19(4), 399-411.
- National Agency for Higher Education Sweden. (2003), *Higher Education in Iraq*. Swedish. Retrieved from: [http://www.hsv.se/download /18.539a949110f3d5914ec8000777777/isbn](http://www.hsv.se/download/18.539a949110f3d5914ec8000777777/isbn).
- National Council of Teachers of Mathematics. (2006). *Curriculum focal points for Prekindergarten through grade 8 Mathematics*. United States of America: Library of Congress Cataloging.
- National Institute of Standard and Technology. (2010). *NIST/SEMATECH e-handbook of statistical methods*. Retrieved from www.itl.nist.gov/div898/handbook.
- Navaneedhan, C. G. (2011). Reflective teaching pedagogy as innovative approach in teacher education through open and distance learning. *Journal of Media and Communication Studies*, 3(12), 331-335.
- Nelson, R. R. (1991). Educational needs as perceived by IS and end-user personal: A survey of knowledge and skills requirements. *MIS Quarterly*, 15(4), 503-525.
- Neo, M. (2005). Engaging students in group-based co-operative learning-a Malaysia perspective. *Education Technology & Society*, 8(4), 220-232.
- Noll, C. L., & Wilkins, M. (2002). Critical skills professionals: A model for curriculum development. *Journal of Information Technology Education*, 1(3), 143-154.
- Norris, G. (2004). *Informing curriculum development through research*. Paper presented at the 4th Asia Pacific Interdisciplinary Research in Accounting Conference, Singapore.
- Nunnally. J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- O'Donovan, B. C. (1996). A framework for integrating the understanding of information systems into the accounting curriculum. *Accounting Education*, 5(1), 1-15.
- Ojanen, S. (1993). *A process in which personal pedagogical knowledge is created through the teacher education experience*. Paper presented at the International Conference in Teacher Education, Tel-Aviv, Israel.
- Olakunke, A. O. (2003). *Research methods in social sciences*. (2 Ed.). Norway: E-Book press.
- Oliver, P.F.(1982). *Developing the curriculum*. Boston: Little Brown.
- Othman, A. M. (2009). *Principles of audit and control*. Saida: Aldar Alnmothyg.

- Paas, L. & Creech, H. (2008). *How ICTs can support education for sustainable current uses and trends*. Paper prepared with the support of the Province of Manitoba and Presented to Manitoba Education, Citizenship and Youth. Winnipeg, Manitoba, Canada.
- Pallant, J. (2001). *A step by guide to data analysis using SPSS*. Philadelphia, USA: Open University Press, McGraw-Hill Education.
- Pallant, J. (2007). *SPSS survival manual*. (3Ed) . Glasgow, Britain: Bell & Bain Ltd.
- Pathak, J. (2004). Information Technology Auditing and Cybercommerce: A risk perspective. *Information Systems Control Journal*, 6, 21-26.
- Petrocelli, J. V. (April 2003). Hierarchical multiple regression in counseling research: Common problems and possible remedies. *Measurement and Evaluation in Counseling and Development*, 36, 9-22.
- Phillips, J.A. (2001). *Technology in teaching and learning: Changing theoretical perspectives influencing research methods*. Proceedings of the International Conference on Qualitative Research. 25-26 October, 34-40. University of Malaya. Kuala Lumpur.
- Pihlajamäki, J., Gylling, H., Miettinen, T. A., & Laakso, M. (2004). Insulin resistance is associated with increased cholesterol synthesis and decreased cholesterol absorption in normoglycemic men. *Journal of Lipid Research*, 45, 507-512.
- Potter, B. & Johnston, C. (2006). The effect of interactive on-line learning systems on student learning outcomes in accounting, *Journal of Accounting Education*, 24, 16-34.
- Previts, G. J. (1991). Accounting education: the next horizon. *Journal of Accountancy*, 172(4), 35 - 36.
- Ramadan, A. M. (2011). The importance of curriculum in Iraq and Kurdistan Regin. *Sout Alkhar*. Retrieved from: <http://www.sotakhr.com/2006/index.php?id=13211#>.
- Roger, E. (2003). *Diffusion of innovations* (5 Ed.). New York: Free Press.
- Romney, M. B., & Steinbart, P. J. (2009). *Accounting Information Systems* (11th). Upper Saddle River, NJ: Pearson Prentice Hall.
- Romney, M. B., & Steinbart, P. J. (2003). *Accounting Information Systems* (9 Ed.). Prentice Hall, New Jersey: business publishing.
- Ruebling, C. E., Clarke, N. A., Kayona, F. A., & Stow, S. B. (2007). *Redesigning schools for success: implementing small learning communities and teacher collaboration*. Arizona: The Center for School Redesign.
- Rush, D. E., Lawter, W. L., Thomason, J. T., & Atkisson, L. (1976). Essential components for effective curriculum development. *Peabody Journal of Education*, 53(4), 296 - 298.
- Saloojee, R. (2004), *Effects of engagement in reform-based practice on a college instructor's conceptions of mathematics*. Paper presented at the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Toronto: OISE/UT.
- Saville, H. (2007). International education standards for professional accountants (IESs). *Accounting Education: An international journal*, 16(1), 107-113.
- Scandura, J. M. (1996). Role of instructional theory in authoring effective and efficient technologies. *Computers in Human behavior*, 12(2), 313-328.
- Sciulli, N., & Sims, a. R. (2008). Public sector accounting education in Australian universities. *Asian Review of Accounting*, 16(3), 246-262.

- Sekaran, U. (2000). *Research methods for business: A skill-building approach*. USA: John Willey Sons, Inc.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business* (5 Ed.). UK, Haddington, East Lothian: John Wile & Sons Ltd.
- Senik, R., & Broad, M. (2008). Perceived factors influencing information technology (IT) skills development in undergraduate accounting programme. *International Journal of Economics and Management*, 2(2), 307-322.
- Senik, R., & Broad, M. (2011). Information technology skills development for accounting graduates: Intervening conditions. *International Education Studies*, 4(2), 105-110.
- Shanks, A. (2006). *A critical policy analysis of the crossroads Review: Implications for higher education in regional Western Australia*. Murdoch University, Australia.
- Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). Identification and analysis of moderator variables. *Journal of Marketing Research*, 18(3), 291-300.
- S-ims-ek, H., & Yildirim, A. (2001). *The reform of pre-service teacher education in Turkey in: Sultana, R. (Ed.), Challenge and Change in the Euro-Mediterranean Region: Case Studies in Educational Innovation*. New York: Peter Lang Inc.
- Sin, S., & Reid, A. (2005). *Developing generic skills in accounting: Resourcing and reflecting on trans-disciplinary research and insights*. Paper presented at the Australian Association for Research Education Annual Conference, Sydney, NSW, 27 November.
- Speed, R. (1994). Regression type techniques and small samples: A guide to good practice. *Journal of Marketing Management*, 10, 89-104.
- Sproull, N. L. (1995). *Handbook of research methods: A guide for practitioners and students in the social sciences*. USA: The Scarecrow Press, Inc.
- Stevens, R. G. (1956). A motivation programme to increase the effectiveness of accounting courses. *The Accounting Review*, 31(4), 666_671.
- Stewart, K. L., & Felicetti, L. A. (1992). Learning styles of marketing majors. *Educational Research Quarterly*, 15(2), 15-23.
- Stone, D. N. (2002). Researching the revolution: Prospects and possible for the Journal of information systems. *Journal of Information Systems*, 16 (1), 1-6.
- Straub, D., Boudreau, M., & Gefen, D. (2004). Validation guidelines for isopositivist research. *Communications of the Association for Information System*, 13(24), 380-427.
- Strong, J. M., Portz, K., & Busta, B. (2006). A first look at the accounting information system emphasis at one university: An exploratory analysis. *The Review of Business Information Systems*, 10(2), 29-39.
- Sudman, S., & Bradburn, N. M. (1982). *Asking questions: A practical guide to questionnaire design* (1st Ed.). London: Jossey-Bass Publishers.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate analysis* (5th Ed.). Bosten: Allyn and Bacon.
- Taha, A. (2007). *Development of curriculum for the accounting department of the college of administration and economics at the University of Mousl, according to*

- international standards of education for professional accountants*. University of Mosul, Mousl, Iraq.
- Taha, A. A. D. (2009). *The role of targeted development of accounting education in deepening the connection between academics and professionals*. Paper presented at the conference of the Role of self-potentials in promotes the comprehensive development. 19-20 November, Tikrit, Iraq.
- Tang, H-L., Lee, S., & Koh, S. (2000). Educational gaps as perceived by IS educators: A survey of knowledge and skill requirements. *Journal of Computer Information Systems*, 41 (2), 76-84.
- Tanner, D., & Tanner, L. (1980). *Curriculum development: Into Practice* (2 Ed.). New York: Macmillan.
- Taylor, P. (2004). *How participatory can processes of curriculum development impact on the quality of teaching and learning in developing countries?*. Paper commissioned for the EFA Global Monitoring Report 2005, The Quality Imperative.
- Tella, A., & Adu, A. E. O. (2009). Information communication technology (ICT) and curriculum development: The challenges for education for sustainable development. *Indian Journal of Science and Technology*, 2(3), 55-59.
- The Association to Advance Collegiate Schools of Business (AACSB). (2009). *Eligibility procedures and standards for accounting accreditation*. South Harbour Island: The Association to Advance Collegiate Schools of Business.
- The Government of the Republic of Iraq. (1999). *The economic sanctions imposed on Iraq*. Retrieved from: www.unhchr.ch/Huridocda/Huridoca.nsf/.
- Theuri, P. M., & Gunn, A. R. (1998). Accounting information systems course structure and employer systems skills expectations. *Journal of Accounting Education*, 16(1), 101-121.
- Toffler, A. (1980). *The third wave*. Toronto, CN: Bantam Books.
- Trauth, E. M., Farwell, D., & Lee, D. M. S. (1993). The IS expectation gap: Industry expectation versus academic preparation. *MIS Quarterly*, 17(3), 293 - 307.
- Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.
- United Nations (UN). (1990). *Resolution 661 (1990)*. Retrieved from: www.un.org.
- United Nations (UN). (2003). *Information and communication technology development indices*. Paper presented at the United Nations Conference on Trade and development New York and Geneva.
- United Nations Educational Scientific and Cultural Organization (UNESCO). (2005). *Round table on the revitalization of higher education in Iraq- conclusions and proposal for action*. Paris. Available at, portal.unesco.org/education/en/files/.
- United Nations Educational Scientific and Cultural Organization (UNESCO). (2011). *UNESCO country programming document for the republic of Iraq*: UNESCO.Geneva.Available at: [http://unesdoc.unesco.org/images/0021/002136/213680E .pdf](http://unesdoc.unesco.org/images/0021/002136/213680E.pdf).
- United Nations Educational Scientific and Cultural Organization International Project on Technical and vocational education (UNEVOC). (1993). *Curriculum development in technical and vocational education, international Workshop*. Turin, Italy: the ILO International Training Centre.

- United Nations Educational Scientific and Cultural Organization International Project on technical and vocational education (UNEVOC). (1994), *Regional Training Seminar on Technical and Vocational Education Curriculum Development in the Arab States Amman*: UNESCO Regional Office for Education in the Arab States (UNEDBAS).
- United Nations Office of the High Commissioner for Human Rights. (September 2000). *The Human Rights Impact of Economic Sanctions on Iraq*. Background paper, prepared by the Office of the High Commissioner for Human Rights for the meeting of the Executive Committee on Humanitarian Affairs. Geneva. Available at: http://www.humanitarianinfo.org/sanctions/handbook/docs_handbook/HR_im_es_iraq.pdf.
- Vatanasakdakul, S. & C. Aouny (2009). *I don't like IT: exploring challenges in Accounting Information Systems Education*. Americas Conference on Information Systems (AMCIS), USA, AIS Electronic Library (AISeL).
- Vatanasakdakul, S., & Aoun, C. (2011). Why don't accounting students like AIS?. *International Journal of Educational Management*, 25(4), 328-342.
- Vermetten, Y. J., Lodewijks, H. G., & Vermunt, J. D. (1999). Consistency and variability of learning strategies in different university courses. *Higher Education*, 37, 1-21.
- Vermunt, J. D. (1996). Metacognitive, cognitive and affective aspects of learning styles and strategies: A phenomenographic analysis. *Higher Education*, 31, 25-50.
- Vermunt, J. D. (1998). The regulation of constructive learning processes. *British Journal of Educational Psychology*, 68, 149-171.
- Wampold, B. & Freund, R. D. (1987). Use of multiple regression in counseling psychology research: A flexible data- analysis strategy. *Journal of Counseling Psychology*, 34, 372-382.
- Wasley, R. S. (1963). A revitalized accounting curriculum. *The Accounting Review*, 38(1), 151-153.
- Weiner, B. (1986). *An Attributional Theory of Motivation and Emotion*. New York: Springer-Verlag.
- Weiner, B. (2000). Intrapersonal and interpersonal theories of motivation from an attributional perspective. *Educational Psychology Review*, 12(1), 1-14.
- Weiss, M. (1987), Transformers, *CIO I*(1), 34- 41.
- Wessels, P.L. (2005). Critical information and communication technology (ICT) skills for professional accountants. *Meditari Accountancy Research*, 13(1), 87-103.
- Westrup, J. (2010). Participative and transformative postgraduate learning and teaching. *New Community Quarterly*, 7(4), 31-32.
- Whitefield, D. & Kloot, A. L. (2006). Personal and interpersonal skills. *Asian Review of Accounting*, 14(1/2), 101-121.
- Wierstra, R. F. A., Kanselaar, G., Linden, J. V. D., Lodewijks, H. G. L. C., & Vermunt, J. D. (2003). The impact of the university context on European students' learning approaches and learning environment preferences. *Higher education*, 45, 503-523.
- Willits, S. D. (2010). Will more liberal arts courses fix the accounting curriculum? *Journal of Accounting Education*, 28(1), 13-25.
- Windeknecht, K., Kehoe, J., & Tennent, B. (2005). *Flexible teaching and learning in accounting: innovate, investigate and improve*. Paper presented at the

- International Conference on Innovation in Accounting Teaching and Learning, Hobart, Tasmania.
- Wn, F. H. (1983). Teaching accounting information systems: A synthesis. *Issues in Accounting Education, 1*, 132-145.
- Womble, M. N. (1994). Graduates assess needed skills and knowledge for an information systems program in small colleges. *Journal of Information Systems Education, 6*(1), 12-17.
- Wyhe, G. V. (1994). *Straggle for status a history of accounting education*. New York: Garland Publication Inc.
- Yaffe, J. (1989). MIS education: A 20th century disaster. *Journal of Systems Management, 40*(4), 10-13.
- Young, D., & Lee, S. (summer, 1996). The relative importance of technical and interpersonal skills for new information systems personnel. *Journal of Computer Information Systems, 36*(4), 66-71.
- Zaid, K. A. (1996). *A framework to evaluate accounting education*. Paper presented at the 7th Symposium in the development of accounting education. 4-5 December Al-Riyadh, Kingdom of Saudi Arabia. Retrieved from: www.ksu.edu.sa/sites/KSUArabic/Students/FemaleStds/OleshahCenter/CollegesAndDeps/AdminScienceCollege/DeptCollege/acc/acc-seminar/Pages/seminar7.
- Zikmund, W. G. (2000). *Exploring marketing research and business research methods*. USA: Cengage Learning.
- Zikmund, W. G. (2003). *Business research methods* (7 Ed.). USA: Thomson South-Western Inc.
- Zikmund, W. G., Badin, B. J., Carr, J. C., & Griffin, M. (2010), *Business research methods* (8 Ed.). USA: Thomson South-Western Inc.

APPENDIX