

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



UUM
Universiti Utara Malaysia

**THE MEDIATING EFFECT OF SCHOOL BASED
MANAGEMENT ON CLIMATE, BUREAUCRACY AND
EFFECTIVENESS IN NIGERIA SECONDARY SCHOOLS**



HABIBAT ABUBAKAR YUSUF

UUM
Universiti Utara Malaysia

**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA**

2018



Awang Had Salleh
Graduate School
of Arts And Sciences

Universiti Utara Malaysia

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

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

HABIBAT ABUBAKAR YUSUF

calon untuk Ijazah
(candidate for the degree of)

PhD

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

"THE MEDIATING EFFECT OF SCHOOL BASED MANAGEMENT ON CLIMATE, BUREAUCRACY AND EFFECTIVENESS IN NIGERIA SECONDARY SCHOOLS"

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 Mac 2018.**

*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: **March 12, 2018.***

Pengerusi Viva:
(Chairman for VIVA)

Prof. Dr. Rosna Awang Hashim

Tandatangan
(Signature)

Pemeriksa Luar:
(External Examiner)

Prof. Dr. Chan Yuen Fook

Tandatangan
(Signature)

Pemeriksa Dalam:
(Internal Examiner)

Assoc. Prof. Dr. Mohd Hasani Dali

Tandatangan
(Signature)

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

Dr. Ismail Hussein Amzat

Tandatangan
(Signature)

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

Dr. Khaliza Saidin

Tandatangan
(Signature)

Tarikh:

(Date) **March 12, 2018**

Permission to Use

In presenting this thesis in fulfilment 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 supervisors or in their absence, by the Dean of Awang Had Salleh Graduate School of Arts and Science. 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 Universiti Utara Malaysia (UUM) in any scholarly use which may be made of any material from my thesis.

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



Dean of Awang Had Salleh Graduate School of Arts and Sciences

UUM College of Arts and Sciences

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

Abstrak

Keberkesanan sekolah adalah merupakan suatu isu global dalam kalangan pihak berkepentingan di bidang pendidikan terutamanya di negara-negara membangun yang menghadapi kesukaran untuk menyampaikan pendidikan yang berkualiti dengan meluas. Walau bagaimanapun, faktor dalaman dan luaran serta kerumitan pentadbir di sekolah membuat keputusan tidak dapat diramalkan, justeru itu birokrasi adalah cara yang berkesan dan sistematik yang boleh digunakan untuk mengkaji struktur organisasi dan tingkah laku manusia secara langsung. Kajian ini menyelidik kesan iklim sekolah dan birokrasi ke atas keberkesanan dengan pengantaraan hubungan melalui pengurusan berasaskan sekolah. Empat set instrumen diadaptasi daripada kajian Ruane (1995), MacKay dan Robinson (1966), Hoy dan Ferguson (1985) dan Bandur (2008) yang melibatkan sampel seramai 350 orang guru sekolah menengah di Negeri Kwara, Nigeria melalui kaedah tinjauan. Analisis awal data terdiri daripada analisis deskriptif, sementara ujian normal dan analisis komponen utama pula dilakukan melalui Pakej Statistik Sains Sosial (SPSS). Analisis Pemodelan Persamaan Berstruktur (SEM) dengan Analisis Struktur Momen (versi AMOS 23.0) digunakan untuk mengesahkan hipotesis yang dijana untuk kajian ini, dan menguji kesesuaian data berhubung dengan model yang dicadangkan. Dapatan kajian mendapati bahawa terdapat kesan pengantaraan hubungan pengurusan berasaskan sekolah terhadap birokrasi dan keberkesanan sekolah dan dalam masa yang sama juga analisa mendapati bahawa pengurusan berasaskan sekolah tidak menjadi perantara diantara iklim sekolah dan keberkesanan sekolah. Justeru itu, kajian ini mengesahkan teori berkaitan birokrasi keperluan di sekolah awam. Ia juga membuktikan bahawa walaupun iklim sebagai satu faktor utama, komposisi dan struktur sekolah berbeza mengikut konteks. Hal ini secara signifikan dapat meningkatkan kemampuan pentadbiran menggerakkan ahli secara kolektif bagi memperkukuhkan sistem sekolah.

Kata kunci: Iklim sekolah, Birokrasi, Keberkesanan sekolah, Pengurusan berasaskan sekolah, Sekolah menengah.

Abstract

School effectiveness is a global issue among education stakeholders particularly in developing countries where difficulties in delivering quality education are widespread. However, internal and external factors in schools make school outcomes unpredictable, thus making bureaucracy an effective managerial and analytical tool which can be used to examine organizational structure and direct human behaviour. This study examined the effect of the school climate and bureaucracy on effectiveness by means of mediating the relationships through school-based management through a quantitative research of the cross-sectional survey type with population of 7,533 teachers. Four sets of instruments were adapted from the study of Ruane (1995), MacKay and Robinson (1966), Hoy and Ferguson (1985) and Bandur (2008) and were administered on a sample of 350 teachers in Nigeria secondary schools through a stratified random sampling of the proportionate method. The preliminary analysis of data was done through the Statistical Package of Social Sciences (SPSS). The Structural Equation Modelling (SEM) analysis with the Analysis of Moment Structures (AMOS 23.0 version) was employed to test the fitness of data in relation to the constructs in the model and further confirm hypotheses generated for this study. The findings of this study revealed that, the underlying predictors were true measure of their respective constructs. There was a mediating effect of school-based management on bureaucracy and school effectiveness while the other path analysis revealed that school-based management did not mediate between school climate and school effectiveness. This study expands theory on bureaucracy as bright side and validates the assertion that, bureaucracy is required in public schools. It further proves that, even though climate is a key factor in school, the composition and structure of school differ across context. This can significantly increase the administration's ability to collectively address member's interest and further strengthen the school system.

Keywords: School climate, bureaucracy, school effectiveness, school-based management, secondary schools.

Acknowledgement

To the glory of Almighty, The entirely Merciful and especially Merciful, Whose eternal mercy has helped me to complete this study. Undeniably, His divine kindness is felt in all facets of my life “Shukra Li Robil Alamin”. The success of this work is dedicated to my parents, Alhaji and Hajia Abdulkadir Idilobe, whose immense moral and spiritual support has taken me farther. However, this accomplishment would not have been possible without the continuous guidance of my supervisors, Dr Ismail Hussein Amzat and Dr Khaliza Saidin, who offered me insight, expertise experiences and further stimulated my interest in this research. Working with them was entirely useful to me and has truly provided me rare opportunity and unique privilege to my personal growth and career development. Indeed, I am humbly thankful to them for their relentless efforts, amazing support, constant enthusiasm, suggestions, timely feedbacks, constructive criticism, critical analyses, and most importantly, flexibility and willingness to help at each stage of this study.

My earnest appreciation goes to my dearest husband, Engr Abubakar Yusuf for his unconditional love, endless support, encouragement, strength, hopefulness, and patience through it all. His dependable backing, emotional support and sacrifices made this possible. And to my children, Mariam, Mansour, Bintarosul and little Maryam who was delivered during this programme, for their patience and understanding. I am grateful to my parents and siblings for their perpetual support which keeps me thriving during this study. Specifically, I am indebted to my Royal Father, Alhaji Dr Ibrahim Sulu-Gambari (The 11th Emir of Ilorin) who deserve special mentioning for offering me constant and unwavering support throughout my career journey. His Personal Assistant, Alhaji Raheem Murtala is also worthy of mention for his untiring efforts.

I cannot underestimate the emotional support and interminable care received from Yusuf Kola Kobi, Hajia Maryam Ronke Afariogun, Hajia Umma Jummai Zakari and Mallam Alkasim Haruna while on this study. Finally, I submit my appreciation to my employer, University of Ilorin, Nigeria for this opportunity; principals and teachers of sampled schools in Kwara State; and my research assistance for rendering unconditional support during data collection.

Table of Contents

Permission to Use.....	ii
Abstrak	iii
Abstract	iv
Acknowledgement.....	v
Table of Contents	vi
List of Tables.....	xi
List of Figures	xiii
List of Appendices	xv
List of Abbreviations.....	xvi
CHAPTER ONE INTRODUCTION	1
1.1 Introduction.....	1
1.2 Background of the Study	3
1.2 Statement of the Problem.....	13
1.4 Research Objectives.....	16
1.5 Research Questions.....	17
1.6 Research Hypotheses Development	18
1.7 Significance of the Study.....	21
1.7.1 Theoretical Contributions	22
1.7.2 Practical Contributions	23
1.7.3 Methodological Contributions	24
1.8 Conceptual Framework.....	25
1.9 Theoretical Framework.....	27
1.9.1 Bureaucratic Theory	28
1.9.2 Taguiri Taxonomy	30
1.9.3 School Based Management Theory	31
1.9.4 Parson’s Organizational Effectiveness	33
1.10 Scope and Limitation of the Study	34
1.11 Operational Definition of Terms	35
1.11.1 School Effectiveness	35
1.11.2 School Climate	36
1.11.3 School Bureaucracy	36
1.11.4 School Based Management.....	37

1.11.5	Secondary Schools	37
1.12	Summary of Chapter One	37
	CHAPTER TWO LITERATURE REVIEW	40
2.1	Introduction.....	40
2.2	Systems Theory	41
2.3	School Effectiveness.....	44
2.3.1	Goal Approach to School Effectiveness	48
2.3.2	System Resource Approach to School Effectiveness	50
2.3.3	Dimensions of School Effectiveness	51
2.3.3.1	Productivity	52
2.3.3.2	Adaptation	53
2.3.3.3	Cohesiveness	55
2.3.3.4	Commitment.....	56
2.4	School Climate.....	57
2.4.1	Dimensions of School Climate	63
2.4.1.1	Ecology.....	63
2.4.1.2	Milieu	69
2.4.1.3	Social System	71
2.4.1.4	Culture	72
2.4.2	School Climate and Effectiveness	75
2.5	Bureaucracy	77
2.5.1	Dimensions of Bureaucracy.....	84
2.5.1.1	Division of Labour	84
2.5.1.2	Hierarchical-Rules.....	86
2.5.1.3	Impersonality.....	89
2.5.1.4	Competence	90
2.5.2	Bureaucracy and Effectiveness.....	93
2.6	School Based Management and School Effectiveness	96
2.7	Summary of Chapter Two	101
	CHAPTER THREE METHODOLOGY	102
3.1	Introduction.....	102
3.2	Research Paradigm	104
3.3	Research Design	106
3.4	Population for the Study	108

3.5	Sample Size	110
3.6	Sampling Technique	112
3.7	Instrumentation	117
3.7.1	Measurement of School Climate.....	119
3.7.2	Measurement of Bureaucracy	121
3.7.3	School Based Management Questionnaire	123
3.7.4	School Effectiveness Questionnaire	123
3.8	Pilot Study	125
3.8.1	Validity of the Instrument.....	125
3.8.1.1	Content and Face Validity	126
3.8.1.2	Construct Validity	128
3.8.2	Reliability of the Instruments	129
3.9	Data Collection	131
3.10	Data Analysis.....	132
3.11	Summary of Chapter Three	137
	CHAPTER FOUR FINDINGS AND DISCUSSION	139
4.2	Data Preparation	139
4.3	Descriptive Analysis of Items.....	145
4.4	Testing Normality of Distribution	162
4.5	Factor Analysis	166
4.5.1	Sampling Adequacy.....	168
4.5.2	Factor Loading.....	170
4.6	Measurement Models.....	177
4.6.1	Confirmatory Factor Analysis for School Climate	179
4.6.2	Confirmatory Factor Analysis for Bureaucracy.....	183
4.6.3	Confirmatory Factor Analysis for School Based Management.....	188
4.6.4	Confirmatory Factor Analysis for School Effectiveness	189
4.7	Construct Validity of the Model	193
4.8	Structural Model	196
4.8.1	Model Construction	197
4.8.2	Analysis of Regression Path Coefficient	197
4.8.2.1	Findings of the Hypotheses	197
4.8.3	Testing for Mediation	203

4.8.4	Testing for Mediation of school climate on school-based management and school effectiveness	204
4.8.5	Discussion of Findings.....	208
4.9	Summary and Conclusion.....	210
CHAPTER FIVE SUMMARY AND CONCLUSION		213
5.1	Introduction.....	213
5.2	Appraisal of Research Objectives.....	213
5.2.1	Research Objective One: To examine the teachers' perception of school climate, bureaucracy, school-based management and school effectiveness in Nigeria secondary schools	216
5.2.2	Research Objective Two: To examine whether the constructs of school climate, bureaucracy, school-based management and school effectiveness valid, reliable; and meet SEM's model-fit indices minimum requirements.	216
5.2.3	Research Objective Three: To examine whether bureaucracy significantly influence school-based management in Nigeria secondary schools.	218
5.2.4	Research Objective Four: To examine whether school climate significantly influence school based-management in Nigeria secondary schools ..	219
5.2.5	Research Objective Five: To examine whether bureaucracy significantly influence school effectiveness in Nigeria secondary schools.....	219
5.2.6	Research Objective Six: To examine whether school climate significantly influence school effectiveness in Nigeria secondary schools.....	220
5.2.7	Research Objective Seven: To examine whether school-based management significantly influence school effectiveness in Nigeria secondary schools	220
5.2.8	Research Objective Eight: To examine whether school-based management functions as a mediator in the effect of bureaucracy and school effectiveness in Nigeria secondary schools	221
5.2.9	Research Objective Nine: To examine whether school-based management functions as a mediator in the effect of school climate and school effectiveness in Nigeria secondary schools	221
5.3	Research Contributions and Implication	222
5.3.1	Theoretical Implication.....	222
5.3.2	Practical Implication	225
5.3.3	Methodological Implication.....	228
5.4	Research Limitation.....	229
5.5	Conclusion	230
5.6	Recommendation for Future Research	232

REFERENCES	235
Appendix A	261
Appendix B	262
Appendix C	263
Appendix D	264
Appendix E	265
Appendix F	270
Appendix G	271
Appendix H	275
APPENDIX I.....	279
APPENDIX J	280



UUM
Universiti Utara Malaysia

List of Tables

Table 2.1	Dimensions of School Climate	61
Table 2.2	Characteristics of School Structures	81
Table 3.1	Number of Secondary Schools/Teachers in Kwara State, Nigeria.	110
Table 3.2	Population and Sample for Survey	117
Table 3.3	Measures of School Climate	121
Table 3.4	Measures of Bureaucracy	122
Table 3.5	Measures of School Effectiveness	124
Table 3.6	Reliability of Scales and Sub-scales	131
Table 3.7	Technique for Data Analysis for the mediating effect of school-based management on school climate, bureaucracy and school effectiveness in Nigeria secondary schools.	135
Table 4.1	Distribution of Number of Missing Value on each case	142
Table 4.2	Demographic Statistics of Teachers	142
Table 4.3	Teacher Characteristics by Gender	143
Table 4.4	Teacher Characteristics by Age Group	143
Table 4.5	Teacher Characteristics by Qualification	144
Table 4.6	Teacher Characteristics by Length of Service	145
Table 4.7	Descriptive analysis of responses on School Climate	146
Table 4.8	Descriptive analysis of responses on Bureaucracy	151
Table 4.9	Descriptive analysis of responses on School Effectiveness	155
Table 4.10	Descriptive analysis of responses on School-Based Management	160
Table 4.11	Assessment of Normality	163
Table 4.12	Skewness and Kurtosis Tests	165
Table 4.13	Measure of Sampling Adequacy	169
Table 4.14	Factor Loading for School Climate	171
Table 4.15	Factor Loading for Bureaucracy	173
Table 4.16	Factor Loading for School Effectiveness	175
Table 4.17	Factor Loading for School Based Management	176
Table 4.18	Modification Index (School Climate)	182
Table 4.19	Modification Index (Bureaucracy)	186

Table 4.20	Measures for Model fit	193
Table 4.21	Construct Validity for School Climate, Bureaucracy, School-Based Management and School Effectiveness in Nigeria secondary schools	194
Table 4.22	Standardized direct effect of school climate, bureaucracy, school-based management and school effectiveness in Nigeria secondary schools.	202
Table 4.23	Direct, Indirect and Total Effects of school climate, bureaucracy, school-based management and school effectiveness in Nigeria secondary schools.	206
Table 5.1	Summary of model fits by Fitness Indices	218



List of Figures

Figure 1.1.	Map of Nigeria	12
Figure 1.2.	Hypothetical framework of school climate, bureaucracy, school-based management and school effectiveness in Nigeria secondary schools	20
Figure 1.3.	Conceptual Framework of school climate, bureaucracy, school-based management and school effectiveness in Nigeria secondary schools	26
Figure 2.1.	Educational Sub-systems	43
Figure 2.2.	Taguiri's dimension of school climate	62
Figure 2.3.	The Basic Organogram of Secondary Schools in Kwara State, Nigeria	88
Figure 3.1.	Outline of Chapter Three	103
Figure 3.2.	Federal Senatorial District Map of Kwara State, Nigeria.	115
Figure 3.3.	Seven-Point Likert Scale	119
Figure 3.4.	Data Collection Techniques	132
Figure 3.5.	Data Analysis Flow Chart	134
Figure 4.1.	Initial Measurement Model of School Climate	180
Figure 4.2.	Final Measurement Model of School Climate	183
Figure 4.3.	Initial Measurement Model of Bureaucracy	184
Figure 4.4.	Final Measurement Model of Bureaucracy	188
Figure 4.5.	Final Measurement Model of School-Based Management	189
Figure 4.6.	Initial Measurement Model of School Effectiveness	190
Figure 4.7.	Final Measurement Model of School Effectiveness	192
Figure 4.8.	Final Structural Equation Modelling for School Climate, Bureaucracy, School-Based Management and School Effectiveness in Nigeria secondary schools.	200

Figure 4.9.	Mediation of School Based Management on Bureaucracy and School Effectiveness in Nigeria secondary schools.	203
Figure 4.10.	Mediation of School Based Management on School Climate and School Effectiveness in Nigeria secondary schools.	205



List of Appendices

Appendix A	Letter to Kwara State Government	261
Appendix B	Response from Kwara State Government	262
Appendix C	Letter of Introduction from UUM	263
Appendix D	Letter of Cooperation to Teachers	264
Appendix E	Research Questionnaires	265
Appendix F	Yamane (1967). Sample Size Table	270
Appendix G	Model Fit Summary	271
Appendix H	SEM output for the Model	275
Appendix I	Modification Index for School Climate	279
Appendix J	Modification Index for Bureaucracy	280



UUM
Universiti Utara Malaysia

List of Abbreviations

FGN	Federal Government of Nigeria
NPC	National Population Commission
NPE	National Policy on Education
USAID	United States Agency for International Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
OECD	Organization for Economic Co-operation and Development
UBE	Universal Basic Education
SBM	School Based Management
SDC	School Development Committee
CS	Committee System
SEM	Structural Equation Modelling
AMOS	Analysis of Moment Structures
SPSS	Statistical Package for Social Sciences
MoEHCD	Ministry of Education and Human Capital Development
SSCS	Saskatchewan School Climate Scale
SOI	School Organization Inventory
TALIS	Teaching and Learning International Survey
CFA	Confirmatory Factor Analysis
PCA	Principal Component Analysis
MCAR	Missing Completely at Random
MAR	Missing at Random
NMAR	Non-Ignorable Missing at Random
NCE	Nigeria Certificate in Education
ND	National Diploma
HND	Higher National Diploma
GFI	Good of Fit Index
RMSEA	Root Mean Square Error of Approximation
CFI	Comparative Fit Index
NFI	Normed Fit Index
AGFI	Adjusted Goodness of Fit Index
PNFI	Parsimonious Normed Fit Index

AVE	Average Variance Explained
DF	Degrees of Freedom
P-Value	Probability Value
CMIN (X^2)	Chi-Square
X^2/DF	Chi-square/Degrees of Freedom
SE	Standardized Estimates
CR	Critical Ratio
UUM	Universiti Utara Malaysia



UUM
Universiti Utara Malaysia

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Education and has been regarded as the high contribution that any nation can use for the speedy improvement of an individual and material resources (FGN, 2013). It is a fundamental right that every citizen is expected to enjoy, that is why schools should provide a healthy environment that would help teacher and student maintain good behaviour necessary for achieving excellence.

There is no gain saying that secondary education is not only important but unique in the educational system of a nation. Secondary education which is the key transition stage from basic to tertiary is a fundamental level of education that offers to foster learner moral and intellectual capabilities in preparing them for independent and meaningful life and for further education. Having realised this, the Nigerian government has adopted education as an instrument for national development. Hence, an organization like secondary school is value driven with techniques and structures aiming at training the younger generation to be able to solve their immediate problems, perform their social responsibility, develop and promote world's cultural heritage and compete globally (Federal Government of Nigeria, 2013; USAID, 2012).

However, noteworthy progress in expanding capacity of secondary education has been attained by governments in their various countries, leading to a substantive growth in secondary education all over the world. This is evident in the 50% global rise recorded in the number of teachers in secondary schools from 20.3 million to 30.4 million

The contents of
the thesis is for
internal user
only

REFERENCES

- Abinboye, D. (2011, September). Ten million Nigeria children out of school. *News watches Magazine*. Retrieved from <http://www.news watch.com02-152012>.
- Adamolekun, L. (2013, February 12). Education sector in crisis: Evidence, causes and possible remedies. *Vanguard*. Retrieved from <http://www.vanguardngr.com/2013/02/education-sector-in-crisis-evidence-causes-and-possible-remedies/>
- Adejumobi, F. T., & Ojikutu, R. K. (2013). School climate and teacher job performance in Lagos state Nigeria. *Discourse Journal of Educational Research*, 1(2), 26–36.
- Ademola-Olateju, B. (2014, February 18). Nigeria and its declining education - The way forward. *Premium Times*. Retrieved from <http://www.premiumtimesng.com/opinion/155328-nigeria-and-its-declining-education-the-way-forward-by-bamidele-ademola-olateju.html>
- Adeogun, A. A., & Olisaemeka, B. U. (2011). Influence of School Climate on Students' Achievement and Teachers' Productivity for Sustainable Development. *US-China Education Review*, 8(4), 552–557.
- Adesulu, D. (2014, August 12). Mass failure as WAEC releases May/June exam results. *Vanguard*. Lagos. Retrieved from <http://www.vanguardngr.com/2014/08/mass-failure-as-waec-releases-mayjune-exam-results/>
- Aggarwal-Gupta, M., & Neharika, V. (2010). Measuring Effectiveness of Schools in India: A Multiple Stakeholder Framework. *E-Journal of Organizational Learning and Leadership*, 8(2), 1–13.
- Ainscow, M., Dyson, A., Goldrick, S., & West, M. (2012). Making schools effective for all: rethinking the task. *School Leadership & Management*, 32(3), 197–213.
- Aja-Okorie, U. (2010). Administrative Challenges Confronting School Principals in Nigeria: A Gender-Based Perspective, 21(3), 5–14.
- Ajebelen, A. J. (2016). The use of ICT to enhance university education in Nigeria. *International Journal of Education, Learning and Development*, 4(5), 1-11.
- Akçınar, B. (2013). The Predictors of School Adaptation in Early Childhood. *Procedia Social and Behavioral Sciences*, 93, 1099–1104.
- Alammar, L. (2015). The effective school: The role of the leaders in school effectiveness. *Educational Research and Reviews*, 10(6), 695–721.

- Ali, N., Sharma, S., & Zaman, A. (2016). School culture and school effectiveness: secondary schools in Pakistan. *Malaysian Online Journal of Educational Management*, 4(4), 50–65.
- Alizadeh, M. J., Ali, A., & Hosseini, G. (2013). Description of bureaucracy structure of the university and job – alienation of its staff, 2(3), 2567–2575.
- Allison, P. D. (2002). Missing data: Quantitative applications in the social sciences. *British Journal of Mathematical and Statistical Psychology*, 55(1), 193–196.
- Alvi, M. (2007). A manual for selecting sampling techniques in research. In *University of Karachi, Iqra University* (p. 55).
- AlZboon, S. O. (2013). Social Adaptation and its relationship to achievement motivation among high school students in Jordan. *International Education Studies*, 6(10), 63.
- Amah, E., & Ahiauzu, A. (2013). Employee involvement and organizational effectiveness. *Journal of Management Development*, 32(7), 661–674.
- Amah, E., Daminabo-Weje, M., & Dosunmu, R. (2013). Size and organizational effectiveness: Maintaining a balance. *Advances in Management and Applied Economics*, 3(5), 115.
- Aminuddin, H., Tymms, P., & Habsah, I. (2008). Academic productivity as perceived by Malaysian academics. *Journal of Higher Education Policy and Management*, 30(3), 283–296.
- Anderson, C. S. (1982). The Search for school climate: A review of the literature. *Review of Educational Research*, 52(3), 368–420.
- Anderson, G. J., & Walberg, H. J. (1978). *The assessment of learning environments: A manual for the Learning Environment Inventory and the My Class Inventory*.
- Anderson, J. C. J., & Gerbing, D. D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Ashraf, G., & Abd Kadir, S. bte. (2012). A review on the models of organizational effectiveness: A look at Cameron’s model in higher education. *International Education Studies*, 5(2), 80–87.
- Asiabaka, I. P. (2008). The need for effective facility management in schools in Nigeria. *New York Science Journal*, 1(2), 10–21.
- Aslanargun, E. (2012). Principals’ values in school administration. *Kuram ve Uygulamada Egitim Bilimleri*, 12(2), 1339–1344.

- Awang, Z. (2015). *SEM made simple* (First). Selangor: MPWS Rich Publication Sdn Bhd.
- Ayeni, A. J. (2012). Assessment of principals' supervisory roles for quality assurance in secondary schools in Ondo State, Nigeria. *World Journal of Education*, 2(1), 62-69.
- Ayeni, A. J., & Ibukun, W. O. (2013). A Conceptual Model for School-Based Management Operation and Quality Assurance in Nigerian Secondary Schools. *Journal of Education and Learning*, 2(2), 36-43.
- Bandur, A. (2008). *A study of the implementation of school-based management in Flores Primary Schools in Indonesia*. University of Newcastle, Australia.
- Bandur, A. (2012). Decentralization and School-Based Management in Indonesia 2 Decentralization versus Centralization 3 The Emergence of a Decentralized System of Education in Indonesia. *Asia Pacific Journal of Educational Development*, 1(1), 33-47.
- Barker, R. G., & Gump, P. V. (1964). *Big school, small school: High school size and student behaviour*. California: Stanford University Press.
- Bascia, N., & Maton, R. (2015). Teachers' work and innovation in alternative schools. *Critical Studies in Education*, 57(1), 131-141.
- Bauman, Z. (1988). *Modernity and the Holocaust*. New York: Cornell University Press.
- Bayat, A., Louw, W., & Rena, R. (2014). Investigating the confluence of factors impacting on underperformance at selected secondary schools in the Western Cape, South Africa. *International Journal of Educational Sciences*, 7(1), 41-55.
- Beatriz, P., Deborah, N., & Hunter, M. (2008). Improving School Leadership: Policy and Practice. Retrieved November 4, 2017, from https://books.google.com.my/books?hl=en&lr=&id=1OvVAgAAQBAJ&oi=fnd&pg=PA17&dq=Pont,+Nusche+and+Moorman,+2008&ots=bvvqsv0lv6&sig=z0ccV-aweGfi_wbWtFj-RsQU7Zo&redir_esc=y#v=onepage&q=Pont%2C+Nusche+and+Moorman%2C+2008&f=false
- Bene, S. (2016). Issues of the Teacher and Improved Educational Achievement in Nigerian Schools. *Education Research Journal*, 6(2), 49-57.
- Berliner, D. C., & Biddle, B. J. (1995). *The manufactured crisis: Myths, frauds, and the attack on America's public schools*. New York, NY: Basic Books.
- Bjork, R. M., & Taylor, P. (1977). How Useful Is the American Educational Bureaucracy? *Peabody Journal of Education*, 55(1), 51-55.

- Black, M. (2008). *The social theories of Talcott Parsons*. Prentice-Hall, Inc.
- Blau, P. M., & Scott, R. W. (2003). *Formal organizations: A comparative approach*. California: Stanford University Press.
- Blimpo, M. P., Evans, D. K., & Lahire, N. (2011). School-based management and educational outcomes : lessons from a randomized field experiment, (November), 1–54. Retrieved from <http://go.worldbank.org/OFULGUZMA0>
- Bohte, J. (2001a). School Bureaucracy and Student Performance at the Local Level. *Public Administration Review*, 61(1), 92–99.
- Bolarinwa, O. A. (2015). Principles and methods of validity and reliability testing of questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195–201.
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, 17(3), 303-316.
- Boonla, D., & Treputtharat, S. (2014). The Relationship between the Leadership Style and School Effectiveness in School Under the Office of Secondary Education Area 20. *Procedia - Social and Behavioral Sciences*, 112(1), 991–996.
- Botha, R. J. (Nico). (2010). School effectiveness: conceptualising divergent assessment approaches. *South African Journal of Education*, 30(2005), 605–620.
- Bozkuş, K. (2014). School as a social system. *Sakarya University Journal of Education*, 4(1), 49–61.
- Bradshaw, C. P., Waasdorp, T. E., Debnam, K. J., & Johnson, S. L. (2014). Measuring School Climate in High Schools: A Focus on Safety, Engagement, and the Environment. *Journal of School Health*, 84(9), 593–604.
- Brauckmann, S., & Schwarz, A. (2014). Autonomous leadership and a centralised school system: An odd couple? Empirical insights from Cyprus. *International Journal of Educational Management*, 28(7), 823–841.
- Brouillette, L. (1997). Who defines “democratic leadership”? Three high school principals respond to site-based reforms. *Journal of School Leadership*, 7, 569–591.
- Bryman, A., & Cramer, D. (2005). *Quantitative Data Analysis With SPSS 12 and 13* (First). East Sussex: Routledge.
- Buckley, J., Schneider, M., & Shang, Y. (2005). Fix It and They Might Stay: School Facility Quality and Teacher Retention in Washington, D.C. *Teachers College Record*, 107(5), 1107–1123.

- Byrne, B. M. (2001). Structural Equation Modelling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing*, 1(1), 55–86.
- Byrne, B. M. (2010). *Multivariate applications series. Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York: Routledge/Taylor & Francis Group.
- Caldwell, B. J. (2008). Reconceptualizing the Self-managing School. *Educational Management Administration & Leadership*, 36(2), 235–252.
- Cameron, K. (1978). Measuring Organizational Effectiveness in Institutions of Higher Education. *Administrative Science Quarterly*, 23(4), 604–632.
- Cameron, K. S. (1984). The effectiveness of ineffectiveness. *Research in Organizational Behavior*, 6, 235–285.
- Cameron, K. S., & Whetten, D. A. (1996). Organizational Effectiveness and Quality: The Second Generation. *Handbook of Theory and Research*. New York, NY: Agathon Press.
- Camminatiello, I., Paletta, A., & Speziale, M. T. (2012). The effects of school-based management and standards-based accountability on student achievement: Evidence from pisa 2006. *Electronic Journal of Applied Statistical Analysis*, 5(3), 381–386.
- Can, Ş. (2010). Attitudes of pre-service teachers from the department of elementary education towards the effects of materials use on learning. *Turkish Online Journal of Educational Technology*, 9(2), 46–54.
- Carron, A. V., & Brawley, L. R. (2000). Cohesion: Conceptual and Measurement Issues. *Small Group Research*, 31(1), 89–106.
- Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (1998). *The measurement of cohesiveness in sport groups. Advances in sport and exercise psychology measurement* 31(1), 89-106.
- Cerit, Y. (2010). The effects of servant leadership on teachers' organizational commitment in primary schools in Turkey. *International Journal of Leadership in Education*, 13(3), 301–317.
- Cerit, Y. (2012). The relationship between bureaucratic school structure and classroom teachers' professional behaviours. *Educational Administration: Theory and Practice*, 18(4), 497–521.
- Chan, F., Lee, G. K., Lee, E., & Allen, C. A. (2016). Structural equation modeling in rehabilitation counseling research. *Rehabilitation Counseling Bulletin*, 51(1), 44–57.

- Cheloti, S. K., Obae, R. N., & Kanori, E. N. (2014). Principals' Management Styles and Students' Unrest in Public Secondary Schools in Nairobi County , Kenya. *Journal of Education and Practice*, 5(29), 29–38.
- Cheng, Y. C. (1996). *School effectiveness and school-based management: A mechanism for development* (First). Washington, DC: Falmer Press.
- Cheng, Y. C. (1996). The Theory and Characteristics of School- based Management. *International Journal of Educational Management*, 7(6), 6–18.
- Cheng, Y. C., & Chan, M. A. (2000). Implementation of school-based management: A multi-perspective analysis. *International Review of Education*, 46(3/4), 205–232.
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11(2), 296–325.
- Cheung, S. M. C., & Kan, F. L. F. (2009). Teachers' perceptions of incorporated management committees as a form of school-based management in Hong Kong. *Asia Pacific Education Review*, 10(2), 139–148.
- Chitiavi, M. J. (2002). *Guidance and Counseling Series-School administration*. Nairobi: Kenya Pavement Publishers.
- Chubb, J. E., & Moe, T. M. (1990). *Politics, Markets and America's Schools*. Washington, DC: The Brookings Institution.
- Coakes, S. J., & Steed, L. G. (2001). SPSS: analysis without anguish: version 10.0 for Windows,(Version 10.0 for Windows.). Australia: John Wiley & Sons Ltd.
- Cohen, J., & Geier, V. (2010). *School climate research summary*. New York, NY. Retrieved from www.schoolclimate.org/climate/research.php
- Cohen, J., McCabe, E., Michelli, N., & Pickeral, T. (2009). School climate: Research, policy, teacher education and practice. *Teacher College Record.*, 111(1), 180–213.
- Coleman, J. S., Campbell, E., Hobson, C., McPartland, J., Mood, A., Weinfeild, F., & York, R. (1966). *Equity of education opportunity*. Washington, DC: US Government printing office.
- Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School Engagement Trajectories and Their Differential Predictive Relations to Dropout. *Journal of Adolescence*, 74(4), 274–283. <https://doi.org/10.1002/pits>

- Creemers, B., & Kyriakides, L. (2007). *The Dynamics of Educational Effectiveness. The Dynamics of Educational Effectiveness: A Contribution to Policy, Practice and Theory in Contemporary Schools*.
- Cresswell, J. W. (2013). *Research design: Qualitative, quantitative and mixed methods approaches* (Fourth). London: SAGE Publications, Ltd.
- Croft, D. B., & Halphin, A. W. (1962). *The organizational climate of schools*. Missouri.
- Cubukcu, F. (2010). Student teachers' perception of teacher competence and their attribution for success and failure in learning. *The Journal of International Social Research*, 3(10), 213–217.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods*, 1(1), 16-29.
- Daft, R. L. (2007). *Organizational theory and Design* (Nineth). OH: Thomson Southwestern.
- Dagneu, A. (2014). Impact of School Climate on Students ' Academic Achievement in Bahir Dar Secondary Schools : Ethiopia. *Education Research Journal*, 4(2), 28–36.
- Daniel, A., & Arthur, G. (2009). *The evolution of management thought* (Sixth). United States of America: John Wiley & Sons Inc.
- Danner, R. B., & Pessu, C. O. a. (2013). A Survey of ICT Competencies among Students in Teacher Preparation Programmes at the University of Benin, Benin City, Nigeria. *Journal of Information Technology Education: Research*, 12(1), 35-49.
- Dellar, G. B. (1998). School climate, school improvement and site-based management. *Learning Environment Research*, 1(3), 353–367.
- Demir, H. (2013). Physical education teachers' organizational commitment. *Educational Research and Review*, 8(5), 164–170.
- Demirkasimoğlu, N. (2010). Defining “teacher professionalism” from different perspectives. *Procedia - Social and Behavioral Sciences*, 9, 2047–2051.
- DeVon, H. a., Block, M. E., Moyle-Wright, P., Ernst, D. M., Hayden, S. J., Lazzara, D. J., ... Kostas-Polston, E. (2007). A psychometric toolbox for testing validity and reliability [Electronic Version]. *Journal of Nursing Scholarship*, 39(2), 155–164.

- DiPaola, M. F., & Hoy, W. K. (2001). Formalization, conflict, and change: constructive and destructive consequences in schools. *International Journal of Educational Management*, 15(5), 238–244.
- Du Gay, P. (2000). In praise of bureaucracy: Weber, organization, ethics. *Acta Sociologica*, 14(4), 337–339.
- Duze, C. O., & Ogbah, R. (2013). Retaining and Developing Quality Teachers: Critical Issues for Administrators in Nigeria Secondary Schools. *Journal of Sociological Research ISSN Journal of Sociological Research*, 4(41), 145–161.
- Ebrahimi, M., & Mohamadkhani, K. (2014). The relationship between organizational climate and job involvement among teachers of high schools in Delijan city of Iran. *International Journal of Management and Business Research*, 4(1), 65–72.
- Ekundayo, H. T. (2010). Administering secondary schools in Nigeria for quality output in the 21st century: The principals challenge no title. *European Journal of Educational Studies*, 2(3), 187–190.
- Evans, N. N., Bosire, J., & Ajowi, J. (2016). Analysis of the Challenges Faced by Principals in the Management of Support Staff in Public Secondary Schools in Nyamira County, Kenya. *Quest Journals Journal of Research in Humanities and Social Science*, 4(3), 41–50.
- Eydi, H. (2015). Organizational Effectiveness Models: Review and Apply in Non-Profit Sporting Organizations. *American Journal of Economics, Finance and Management*, 1, 460–467.
- Fafunwa, A.B. (2004). History of Education in Nigeria. Ibadan: NPS Educational Publisher Ltd.
- Farrugia, P., Petrisor, B. a., Farrokhyar, F., & Bhandari, M. (2010). Practical Tips for Surgical Research: Research questions, hypotheses and objectives. *Canadian Journal of Surgery*, 53(4), 278–281.
- Federal Government of Nigeria. (2013). *National Policy on Education* (6th ed.).
- Field, A. (2009). *Discovering statistics using SPSS*. . (Fourth). California: Sage publications.
- Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. *Structural Equation Modeling: A Second Course*, 10(6), 269–314.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.

- Frederickson, H. G., Smith, K. B., Larimer, C. W., & Licari, M. J. (2015). *The public administration theory primer*. (Third, Ed.). Westview Press.
- Frederickson, H. G., Smith, K. B., Larimer, C. W., & Licari, M. (2015). *The public administration theory primer* (Third). Boulder, CO: Westview press.
- Freiberg, J. H., & Stein, T. A. (1999). Measuring, improving and sustaining healthy learning environments. In J. H. Freiberg (Ed.), *School Climate: Measuring, improving and sustaining healthy learning environments* (First, p. 231). Philadelphia: Falmer.
- Friedman, B. D., & Allen, K. N. (2011). Systems Theory. In R. J. Brandell (Ed.), *Theory and practice in clinical social work* (Second, p. 855). Los Angeles: SAGE Publications, Inc.
- Gallagher, M., & Griffore, J. (2013). *School Effectiveness Framework 2013*. Ontario: Ministry of Education. Retrieved from <https://www.wcdsb.ca/about/pdf/Ministry-SEF-Document-2013.pdf>
- Gamage, D. T. (1996). *School-based management: theory, research and practice*. Colombo: Karunaratne & Sons.
- Garba, A. (2012). Secondary Education in Nigeria: A Synthesis of Basic Student-Specific Concerns from Guidance and Counselling Perspective. *Journal of International Cooperation in Education*, 15(2), 195–205.
- Gay, B., & Weaver, S. (2011). Theory building and paradigms: A primer on the nuances of theory construction. *American International Journal of Contemporary Research*, 1(2), 24–32.
- Gaziel, H. (1998). School-Based Management as a Factor in School Effectiveness. *International Review of Education*, 44(4), 319–333.
- Ghani, M. F. A., Siraj, S., Radzi, N. M., & Elham, F. (2011). School effectiveness and improvement practices in excellent schools in Malaysia and Brunei. *Procedia - Social and Behavioral Sciences*, 15, 1705–1712.
- Goldring, E., Porter, A., Murphy, J., Stephen, N. E., & Cravens, X. (2006). Assessing Learning Centered Leadership; Connections to research, professional standards and current practices. Retrieved November 4, 2017, from <http://www.tandfonline.com/doi/pdf/10.1080/15700760802014951?needAccess=true>
- Gottfredson, G. D., Gottfredson, D. C., Payne, A. A., & Gottfredson, N. C. (2005). School Climate Predictors of School Disorder: Results from a National Study of Delinquency Prevention in Schools. *Journal of Research in Crime and Delinquency*, 42(4), 412–444.

- Gray, J. (2004). School effectiveness and the “other outcomes” of secondary schooling: a reassessment of three decades of British research. *Improving Schools*, 7(2), 185–198.
- Gray, J., Kruse, S., & Tarter, C. J. (2015). Enabling school structures, collegial trust and academic emphasis: Antecedents of professional learning communities. *Educational Management Administration & Leadership*, 1–17.
- Grisay, A., & Mahlck, L. (1991). The Quality of Education in Developing Countries: A Review of Some Research Studies and Policy Documents. Issues and Methodologies in Educational Development: An IIEP Series for Orientation and Training, 3.
- Gruenert, S. (2008). School Culture, School Climate: They Are Not the Same Thing. *Principal Arlington*, 87(4), 56–59.
- Gupta, S., & Gupta, A. (2013). The Systems Approach in Education. *International Journal of Management*, 1(1), 52–55.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis. Vectors* (7th ed.). Pearson Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(2), 1–12.
- Hale, E. L., & Moorman, H. N. (2003). *Preparing school principals: A national perspective on policy and program innovations*. Washington, DC: Institute for Educational Leadership.
- Hall, R. H. (1987). *Organizations: structures, processes and outcomes* (fourth). New Jersey: Prentice-Hall.
- Hallinan, M. T. (2008). Teacher influences on students' attachment to school. *Sociology of Education*, 81(3), 271-283.
- Hallinger, P. (2011). Leadership for learning: Lessons from 40 years of empirical research. *Journal of Educational Administration*, 49(2), 125–142.
- Hanson, M. (1973). On Social Systems theory as a Predictor of Educational Change: The Adoption of Classroom Innovations. *Journal of Educational Administration*, 11(2), 272-284.
- Harn, B., Parisi, D., & Stoolmiller, M. (2013). Balancing Fidelity with Flexibility and Fit: What Do We Really Know about Fidelity of Implementation in Schools? *Exceptional Children*, 79(2), 181–193.

- Harper, D. (1965). The Growth of Bureaucracy in School Systems. *American Journal of Economics and Sociology*, 24(3), 261–271.
- Harwell, M. R. (2011). *Research Design in Qualitative/Quantitative/ Mixed Methods. The Sage handbook for research in education: Pursuing ideas as the keystone of exemplary inquiry*, 147. <https://doi.org/10.4135/9781412961288.n380>
- Hazzi, O., & Maldaon, I. (2015). A pilot study: vital methodological issues. *Verslas: Teorija Ir Praktika/Business: Theory and Practice*, 16(1), 53–62.
- Hill, P. T. (2014). *governing schools for productivity*. Texas.
- Ho, E. S. C. (2005). Effect of school decentralization and school climate on student mathematics performance: The case of Hong Kong. *Educational Research for Policy and Practice*, 4(1), 47–64.
- Hofman, R. H., Hofman, W. H. A., Gray, J. M., & Wendy Pan, H. L. (2015). Three conjectures about school effectiveness: An exploratory study. *Cogent Education*, 2(1), 1–13.
- Holmes-Smith, P. (2001). Introduction to structural equation modeling using LISREL. Perth: ACSPRI-Winter training program.
- Hongboontri, C., & Keawkhong, N. (2014). School Culture: Teachers' Beliefs, Behaviors, and Instructional Practices. *Australian Journal of Teacher Education*, 39(5), 66-88.
- Houtte, M. Van. (2005). Climate or Culture? A Plea for Conceptual Clarity in School Effectiveness Research. *School Effectiveness and School Improvement*, 16(1), 71–89.
- Hoy, W. K., & Ferguson, J. (1985). A theoretical framework and exploration of organizational effectiveness of schools. *Educational Administration Quarterly*, 21(2), 117–134.
- Hoy, W. K., & Miskel, C. G. (2012). *Educational Administration: Theory, Research, and Practice* (Nineth). New York, NY: McGraw-Hill.
- Hoy, W. K., & Sweetland, S. R. (2001). Designing Better Schools: The Meaning and Measure of Enabling School Structures. *Educational Administration Quarterly*, 37(3), 296–321.
- Hoy, W. K., Sweetland, S. R., & Smith, P. (2002). Toward an Organizational Model of Achievement in High Schools: The Significance of Collective Efficacy. *Educational Administration Quarterly*, 38(1), 77–93.

- Huang, X., Lee, J. C., Zhang, Z., & Wang, J. (2016). Teacher Commitment in Northwest China. In *Educational Development in Western China* (pp. 261–275). Sense Publishers.
- Hughes, J. N. (2011). Longitudinal Effects of Teacher and Student Perceptions of Teacher-Student Relationship Qualities on Academic Adjustment. *Chicago Journals*, 112(1), 38–60.
- Huntly, H. (2008). Teachers' work: Beginning teachers' conceptions of competence. *The Australian Educational Researcher*, 35(1), 125–145.
- Ibrahim, M. S., Ghavifekr, S., Ling, S., Siraj, S., & Azeez, M. I. K. (2014). Can transformational leadership influence on teachers' commitment towards organization, teaching profession, and students learning? A quantitative analysis. *Asia Pacific Education Review*, 15(2), 177–190.
- Idiaghe, J. E. (2015). Bureaucratic-administrative skills in post-secondary education system and national development. *Sky Journal of Education Research*, 3(1), 1–5.
- Idris, A. R., & Abdul Samad, R. S. (2008). School-based management: A model of implementation for Malaysian Primary Schools. *International Conference on Educational Innovation*, 501-515.
- Ifedeli, C. J. (2015). Instructional supervision and quality assurance. *European Journal of Business and Social Sciences*, 4(9), 22–29.
- Ihejiamaizu, E. C. (1996). *Administrative and Organization Theory*. Calabar: Executive Publishers.
- Ilanlou, M., & Zand, M. (2011). Professional competencies of teachers and the qualitative evaluation. *Procedia - Social and Behavioral Sciences*, 29(1), 1143–1150.
- Insel, P. M., & Moos, R. H. (1974). Psychological environments: Expanding the scope of human ecology. *American Psychologist*, 29(3), 179–188.
- Inuwa, A. M., & Yusof, N. B. M. (2012). Teachers challenges in Nigerian Public secondary school's climate: implications on students dropouts. *Science Journal of Sociology and Anthropology*, 2012, 1–7.
- Inuwa, A. M., & Yusof, N. B. M. (2013). Parents and Students Perspectives of School Culture Effects on Dropouts and Non-dropouts in Sokoto Metropolis Nigeria. *Research on Humanities and Social Sciences*, 3(18), 89–96.
- Isaiah, M. N., & Nenty, H. J. (2012). Predicting Job Dissatisfaction among Community Junior Secondary School Teachers in Botswana. *Psychology*, 3(3), 277–283.

- Jacob, B. A., & Rockoff, J. E. (2011). *Organizing schools to improve student achievement: Start times, grade configurations, and teacher assignments. The Hamilton Project*. Retrieved from http://www.brookings.edu/~media/research/files/papers/2011/9/organization_jacob_rockoff/092011_organize_jacob_rockoff_brief
- Jacob, N. E., & Shari, B. (2015). Organizational Effectiveness in Educational Institutions. *International Journal of Management Research and Review*, 2(12), 2015–2026.
- Jamrog, J. J., & Overholt, M. H. (2004). Measuring HR and Organizational Effectiveness. *Wiley Interscience*, 31(2), 33–45.
- Jayasinghe-Mudalige, U. K., Udugama, J. M. M., & Ikram, S. M. M. (2012). Use of Structural Equation Modeling Techniques to Overcome the Empirical Issues Associated with Quantification of Attitudes and Perceptions. *Sri Lankan Journal of Applied Statistics*, 13, 15–37.
- Johanson, G. A., & Brooks, G. P. (2010). Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*, 70(3), 394–400.
- Jöreskog, K. G. (1993). Testing structural equation models. *Sage Focus Editions*, 154, 294–294.
- Kalkan, F. (2016). Relationship between professional learning community, bureaucratic structure and organisational trust in primary education schools. *Kuram ve Uygulamada Egitim Bilimleri*, 16(5), 1619–1637.
- Katzenbach, J. R., & Zhan, Z. (2010). *Leading outside the lines: how to mobilize the (in) formal organizations, energize your team and get better results*. California: Jossey-Bass.
- Kean, T. H., Kannan, S., & Piaw, C. Y. (2017). The Effect of School Bureaucracy on the Relationship between Principals' Leadership Practices and Teacher Commitment in Malaysia Secondary Schools. *Malaysian Online Journal of Educational Sciences*, 5(1), 37–55.
- Kelly, A. (2012). Measuring “equity” and “equitability” in school effectiveness research. *British Educational Research Journal*, 38(6), 977–1002.
- Kennedy, M. M., Ahn, S., & Choi, J. (2008). The Value Added by Teacher Education. *Handbook of Research on Teacher Education*, 3, 1249–1273.
- Kilinc, A. Ç. (2014). Examining the Relationship between Teacher Leadership and School Climate. *Educational Sciences: Theory and Practice*, 14(5), 1729–1742.

- Kilinç, A. Ç., Koşar, S., Er, E., & Öğdem, Z. (2016). The Relationship Between Bureaucratic School Structures and Teacher Self-Efficacy. *McGill Journal of Education*, 51(1), 615–634.
- Kimbrough, R. B., & Todd, E. a. (1967). Bureaucratic organization and educational change. *Educational Leadership*, 25(3), 220–224.
- Kitavi, M. (1997). Problems facing beginning principals in developing countries: A study of beginning principals in Kenya. *International Journal of Educational Development*, 17(3), 251–263.
- Klett, K. (2011). *The Role of Theory in Educational Research*. *Norwegian Educational Research*.
- Korir, D. K. (2014). The Impact of School Environment and Peer Influences on Students' Academic Performance in Vihiga County, Kenya. *Journal of Education and Practice*, 5(11), 240–251.
- Koybasi, F., Ugurlu, C. T., & Bakir, A. A. (2017). The Factors that Influence Bureaucracy and Professionalism in Schools: A Grounded Theory Study. *Journal of Education and Practice*, 8(8), 196–207.
- Krueathep, W. (2011). How Does School Bureaucracy Affect Student Performance? A Case of New Jersey School Districts. *Journal of US-China Public Administration*, 8(2), 121–135.
- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, 105(3), 805–820.
- Kutch, M. E. (2009). High School Physics Teacher. *Journal of Educational Technology*, 10(1), 36–44.
- Kwantes, C. T., & Boglarsky, C. A. (2007). Perceptions of organizational culture, leadership effectiveness and personal effectiveness across six countries. *Journal of International Management*, 13(2), 204–230.
- Labaree, R. V. (2014). Organizing your social sciences research paper.
- Lameck, W. U. (2013). Sampling design, validity and reliability in general social survey. *International Journal of Academic Research in Business and Social Sciences*, 3(7), 212–218.
- Lawrence, S. A., & Vimala, A. (2012). School environment and academic achievement of standard IX students. *Journal of Educational and Instructional Studies in the World*, 2(3), 210–215.

- Leko, M. M., Roberts, C. A., & Pek, Y. (2015). A Theory of Secondary Teachers' Adaptations When Implementing a Reading Intervention Program. *The Journal of Special Education, 49*(3), 168–178.
- Lemieux-Charles, L., & McGuire, W. L. (2006). What Do We Know about Health Care Team Effectiveness? A Review of the Literature. *Medical Care Research and Review, 63*(3), 263–300.
- Lennon, P. A. (2010). The Relationship of Bureaucratic Structure to School Climate: An Exploratory Factor Analysis of Construct Validity. *ProQuest LLC*. Retrieved from http://ezproxy.usherbrooke.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED521632&site=ehost-live%5Cnhttp://gateway.proquest.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&res_dat=xri:pqdiss&rft_
- Little, R. J., & Rubin, D. B. (1987). The analysis of social science data with missing values. *Sociological Methods & Research, 18*(2–3), 292–326.
- Lunenburg, F. C., & Lunenburg, M. R. (2013). Convergent Roles of the School Principal: Leadership, Managerial, and Curriculum-Instructional. *International Journal of Education, 1*(1), 1–9.
- MacKay, D. A., & Robinson, N. (1966). *School organization inventory*. Edmonton.
- MacNeil, A. J., Prater, D. L., & Busch, S. (2009). The effects of school culture and climate on student achievement. *International Journal of Leadership in Education: Theory and Practice, 12*(1), 73–84.
- Madan, A. (2014). Max Weber's Critique of the Bureaucratisation of Education. *Contemporary Education Dialogue, 11*(1), 95–113.
- Malhotra, M. K., Sharma, S., & Nair, S. S. (1999). Decision making using multiple models. *European Journal of Operational Research, 114*(1), 1-14.
- Malik, M. E., Ghafoor, M. M., & Naseer, S. (2011). Organizational Effectiveness: A case study of telecommunication and banking sector of Pakistan. *Journal of Psychology and Business, 2*(1), 49–58.
- Manning, M. L., & Munro, D. (2007). *The survey researcher's SPSS cookbook*. Australia: Pearson Education.
- Maruyama, Y. (1998). A unified and broadened class of admissible minimax estimators of a multivariate normal mean. *Journal of Multivariate Analysis, 64*(2), 196-205.
- Matthew, I. A. (2013). Provision of secondary education in Nigeria: Challenges and way forward. *Journal of African Studies and Development, 5*(1), 1–9.

- Mazgon, J., & Stefanc, D. (2012). Importance of the various characteristics of educational materials: Different opinions, different perspectives. *Turkish Online Journal of Educational Technology*, 11(3), 174–188.
- McKinley, W. (2010). Organizational theory development: Displacement of ends? *Organization Studies*, 31(1), 47–68.
- McNabb, D. E. (2015). *Research methods for Political science: quantitative & qualitative approach* (Second). New Jersey: Routledge.
- Miller, G. A. (1967). Professionals in bureaucracy: Alienation among industrial scientists and engineers. *American Sociological Review*, 32(5), 755–768.
- Mintzberg, H. (2013). The restructuring of organizations. In W. K. Hoy & C. G. Miskel (Eds.), *Educational administration theory, research and practices* (Nineth). New York, NY: McGraw-Hill.
- Mitchell, M. M., Bradshaw, C. P., & Leaf, P. J. (2010). Student and Teacher Perceptions of School Climate: A Multilevel. *Journal of School Health*, 80(6), 271–280.
- Moon-Gi, S. (2004). Organizational Effectiveness in the It Industry: The Case of South Korea. *Development and Society*, 33(2), 207–228.
- Munro, B. H. (2005). *Statistical methods for health care research* (Fifth). New York, NY: Lippincott Williams & Wilkins.
- Muslihah, O. E. (2015). Understanding the Relationship between School-Based Management, Emotional Intelligence and Performance of Religious Upper Secondary School Principals in Banten Province, 5(3), 11–23.
- National Population Commission (NPC) [Nigeria] and ICF Macro. (2009). *National Demographic and Health Survey. Nigerian Demographic Health Survey 2008*. <https://doi.org/10.1111/j.1728-4465.2008.00154.x>
- Nayir, F. (2012). The relationship between perceived organizational support and teachers' organizational commitment. *Eurasian Journal of Education Research*, (48), 97–116.
- Ng, Pak Tee; Chan, D. (2008). A Comparative Study of Singapore's School Excellence Model with Hong Kong's School-Based Management. *International Journal of Educational Management*, 22(6), 488–505.
- Nicolaou, A. I., & Masoner, M. M. (2013). Sample size requirements in structural equation models under standard conditions. *International Journal of Accounting Information Systems*, 14(4), 256–274.

- Ninan, M. (2006). *School climate and its impact on school effectiveness: A case study*. Florida: Fort Lauderdale.
- Nir, A. E. (2002). School-based management and its effect on teacher commitment. *International Journal of Leadership in Education*, 5(4), 323–341.
- Núñez, P. A., Fernanda, M., & Téllez, T. (2009). ELT Materials: The Key to Fostering Effective Teaching and Learning Settings Materiales para la enseñanza del inglés: la clave para promover ambientes efectivos de enseñanza y aprendizaje. *Profile Issues in Teachers Professional Development*, 11(2), 171–186.
- Nwagwu, C. C. (2008). With effective management all students can learn: No excuse or exception. inaugural lecture series.93.University of Benin.
- Odeh, R. C., Angelina, O., & Dondo, E. (2015). Influence of school environment on academic achievement of students in secondary schools in zone “A” senatorial district of Benue State, Nigeria. *International Journal of Recent Scientific Research*, 6(7), 4914–4922.
- OECD. (2001). Scenarios for the future of floriculture.pdf. Retrieved November 4, 2017, from <http://www.oecd.org/site/schoolingfortomorrowknowledgebase/futuresthinking/scenarios/38967594.pdf>
- Ogaz, D. A. C. (2016). *Multivariate Approaches to School Climate Factors and School Outcomes*. University of Sussex. Retrieved from <http://sro.sussex.ac.uk/61527/>
- Ogbu, J. E. (2015). Influences of inadequate instructional materials and facilities in teaching and learning of electrical/electronic technology education courses. *International Journal of Vocational and Technical Education*, 7(3), 20–27.
- Okah, R., & Joy, N. (2013). Source of administrative stress among secondary school principals in Rivers State: Implication for the school administration. *Journal of Education Review*, 6(3), 427-433.
- Okendu, J. N. (2012). the Impact of School Administrative Structure and Adequate Supervision on the Improvement of Instructional Processes. *Academic Research International*, 2(3), 497–504.
- Okorji, P. N., Igbokwe, I. C., & Ezeugbor, C. O. (2016). Relationship Between School Climate And Principals’ Job Performance In Secondary Schools. *European Scientific Journal*, 12(4), 55–67.
- Olaniyan, D. A. L., & Obadara, O. E. (2008). A critical management of education in Nigeria. *International Journal of African American Studies*, 7(1), 1-19.

- Olanrewaju, K. (2016, September 15). Special Report: Learning in a dangerous environment. *New Telegraph*. Retrieved from <https://newtelegraphonline.com/teaching-learning-dangerous-environment/>
- Olawale, G. (2015, April 2). Blame student low performance on Nigeria education administration. *Vanguard*. Retrieved from <http://www.vanguardngr.com/2015/04/blame-student-low-performance-on-nigeria-education-administration-bamidele/>
- Ololube, N. P. (2013). The Problems and Approaches to Educational Planning in Nigeria: A Theoretical Observation. *Mediterranean Journal of Social Sciences*, 4(12), 37–48.
- Olsen, J. P. (2005). Maybe It Is Time to Rediscover Bureaucracy. *Journal of Public Administration Research and Theory*, 16(1), 1–24.
- Oluremi, F. (2013). Principals Organizational Management and Students Academic Achievement in Secondary Schools in Ekiti- State Nigeria. *Singaporean Journal of Business Economics, and Management Studies*, 2(2), 76–84.
- Okopi, F.O. (2011). Risk behaviours and early warning signals for ODL dropout students in Nigeria: implications for counselling. *International Journal of Psychology and Counselling*, 3(3), 40-47.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70(3), 323–367.
- Othman, C., & Kasuma, J. (2016). Relationship of School Climate Dimensions and Teachers' Commitment. *Journal of Contemporary Issues and Thought*, 6, 19–30.
- Özdemir, S., & Kılınç, Ç. (2014). The relationship between bureaucratic school structure and teachers' level of academic optimism. *Journal of Theory and Practice in Education*, 10(1), 1–23.
- Pagani, C. (2015). Diversity and social cohesion. *Intercultural Education*, 25(4), 300–311.
- Pallant, J. (2007). *SPSS Survival Manual A Step by Step guide to Data Analysis using SPSS for Windows* (Third). Berkshire: Mc Graw Hill Open University Press.
- Parson, T. (2013). An outline of the social system (1961). In C. Calhoun, J. Gerteis, J. Moody, & S. Pfaff (Eds.), *Classical Sociological Theory* (Third, pp. 502–522). United Kingdom: Wiley-Blackwell.
- Pearl, J. (2012). The causal foundations of structural equation modelling. In R. H. Hoyle (Ed.), *Handbook of Structural Equation Modelling* (pp. 68–91). New York, NY: Guilford Press.

- Perrow, C. B. (2008). Complexity, catastrophe, and modularity. *Sociological Inquiry*, 78(2), 162–173.
- Peter, L., & Skitmore, M. (1996). Approaches to Organisational Effectiveness and their Applications to Construction Organisations. *12th Annual Conference and Annual General Meeting, The Association of Researchers in Construction Management*. Retrieved from <http://eprints.qut.edu.au/archive/00004524>
- Peterson, K. D. (2002). Positive or negative. Without addressing the school culture, no reform, no new curriculum, no amount of staff development will create a high-performing school. *Journal of Staff Development*, 23(3), 10–15.
- Petty NW & Green T 2007. Measuring educational opportunity as perceived by students: a process indicator. *School Effectiveness and School Improvement*, 18(1), 67-91.
- Phin, C. (2014). Teacher competence and teacher quality in Cambodia's educational context linked to in-service teacher training: an examination based on a questionnaire survey. *Internal Journal of Educational Administration and Policy Studies*, 6(4), 62–69.
- Pianta, R. C., Kagan, S. L., & Tarrant, K. (2010). (2010). *Going to school in the United States: The shifting ecology of transition*.
- Pigott, T. D. (2001). A review of Methods for Missing Data. *Educational Research and Evaluation*, 7(4), 353–383.
- Polit, D. F., & Hungler, B. P. (1999). *Nursing research: Principles and methods* (Sixth). Philadelphia: JB Lippincott.
- Pomuti, H., & Weber, E. (2012). *Decentralization and school management in Namibia: The ideologies of education bureaucrats in implementing government policies*.
- Punch, K. F. (1972). The Study of Bureaucracy in Schools. *The Australian Journal of Education*, 16(3), 254–261.
- Punch, K. F., & Oancea, A. (2014). *Introduction to Research Methods in Education* (Second). Los Angeles: SAGE Publications, Inc.
- Pushpanadham, K. (2006). Educational Leadership for School Based management. *ABAC Journal*, 26(1), 41–48.
- Rahmatullah, M. (2016). The Relationship between Learning Effectiveness, Teacher Competence and Teachers Performance Madrasah Tsanawiyah at Serang, Banten, Indonesia. *Higher Education Studies*, 6(1), 169–181.

- Ranson, S., Farrell, C., Peim, N., & Smith, P. (2005). School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice Does Governance Matter for School Improvement? *International Journal of Research, Policy and Practice*, 16(3), 305–325.
- Ravitch, D. (2010). *The death and life of the Great American school system: How testing and choice are undermining education*. New York, NY: Basic Books.
- Razak, N. A., Darmawan, I. G. N., & Keeves, J. P. (2010). The influence of culture on teacher commitment. *Social Psychology of Education*, 13(2), 185–205.
- Redshaw, B. (2000). Evaluating organisational effectiveness. *Industrial and Commercial Training*, 32(7), 245–248.
- Regina, N. O and Stella, O. O. (2010). Perceived factors responsible for dropout in primary schools in Delta central senatorial district, Nigeria. *Pakistan Journal of Social Sciences*, 7(5), 365-370.
- Reimann, B. C. (1975). Organizational effectiveness and management's public values: A canonical analysis. *Academy of Management Journal*, 18(2), 224–241.
- Reynolds, D., Sammons, P., De Fraine, B., Van Damme, J., Townsend, T., Teddlie, C., & Stringfield, S. (2014). Educational effectiveness research (EER): a state-of-the-art review. *School Effectiveness and School Improvement*, 25(2), 197–230.
- Reynolds, D., Sammons, P., Fraine, B. De, Damme, J. Van, Teddlie, C., Stringfield, S. (2014). Educational effectiveness research (EER): a state- of-the-art review. *School Effectiveness and School Improvement*, 25(2), 197–230.
- Rubin, D. B. (1976). Inference and missing data. *Biometrika*, 63(3), 581–592.
- Saglam, H. I. (2011). An investigation on teaching materials used in social studies. *The Turkish Online Journal of Educational Technology*, 10(1), 36–44.
- Sahlberg, P. (2007). Secondary education in OECD countries: Common challenges, differing solutions. *Documento presentado en el Seminario Internacional sobre Ensino Médio Diversificado*. Brasilia, 17.
- Saleem, F., Naseem, Z., Ibrahim, K., Hussain, A., & Azeem, M. (2012). Determinants of School Effectiveness: A study at Punjab level University of Education University of Education. *International Journal of Humanities and Social Science*, 2(14), 242–251.
- Saleh, S. M. (2013, March 31). Education: Problems and challenges in Nigeria, what to be done? *Daily Trust*. Malam Madori. Retrieved from <http://www.dailytrust.com.ng/sunday/index.php/comment-debate/12514-education-problems-and-challenges-in-nigeria-what-to-be-done>

- Saltman, K. J. (2016). *The failure of corporate school reform* (Second). New York, NY: Routledge.
- Sammons, P. (2010). Equity and educational effectiveness. In *International encyclopedia of education*, 5(pp. 51–57). Oxford, Elsevier.
- Sammons, P., & Bakkum, L. (2011). Effective Schools, Equity and Teacher Effectiveness: A Review to the Literature. *Profesorado. Revista de Curriculum Y Formación Del Profesorado*, 15(3), 9–26.
- Samy, M., & Cook, K. (2009). Perceived school effectiveness: case study of a Liverpool college. *International Journal of Educational Management*, 23(2), 185–198.
- Sandberg, J., & Alvesson, M. (2011). Ways of constructing research questions: gap-spotting or problematization? *Organization*, 18(1), 23–44.
- Sarikaya, N., & Erdogan, C. (2016). Relationship between the Instructional Leadership Behaviors of High School Principals and Teachers' Organizational Commitment. *Journal of Education and Practice*, 7(3), 72–82.
- Sass, T. R., Semykina, A., & Harris, D. N. (2014). Value-added models and the measurement of teacher productivity. *Economics of Education Review*, 38, 9–23.
- Sauro, J., & Dumas, J. (2009). Comparison of Three One-Question, Post-Task Usability Questionnaires. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* pp. 1599–1608.
- Scheerens, J. (2000). *Improving school effectiveness. Fundamentals of Educational Planning* (Vol. 25). France: UNESCO. Retrieved from <http://eric.ed.gov/ERICWebPortal/recordDetail?accno=ED459535>
- Scheerens, J. (2013a). The use of theory in school effectiveness research revisited. *School Effectiveness and School Improvement*, 24(1), 1–38.
- Scheerens, J. (2013b). *What is Effective Schooling? A review of current thought and practice*. Netherlands. Retrieved from <http://www.ibworldschool.com/research/resources/documents/WhatisEffectiveSchoolingFINAL.pdf>
- Schein, E. H. (2010). *Organization culture and leadership* (Fourth). San Francisco: Jossey-Bass.
- Schmitt, M. B., Pentimonti, J. M., & Justice, L. M. (2012). Teacher-child relationships, behavior regulation, and language gain among at-risk preschoolers. *Journal of School Psychology*, 50(5), 681–699.

- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual Review of Psychology*, 6(4), 361–388.
- Schumacker, R. E., & Lomax, R. G. (2004). *Beginner's guide to structural equation modelling* (Second). London: Lawrence Erlbaum Associates, Publishers.
- Sekaran, U., & Bougie, R. (2010a). *Research Method for Business, A Skill Building Approach*. John Wiley & Sons Inc.
- Sekaran, U., & Bougie, R. (2010b). *Research methods for business: A skill building approach* (Fifth). West Sussex, UK: John Wiley & Sons Ltd.
- Seshadri, A. (2004). *Specialization in Education*. Madison.
- Shah, M. (2012). The Importance and Benefits of Teacher Collegiality in Schools – A Literature Review. *Procedia - Social and Behavioural Sciences*, 46, 1242–1246.
- Shamaki, E. B. (2015). Influence of Leadership Style on Teacher's Job Productivity in Public Secondary Schools in Taraba State, Nigeria. *Journal of Education and Practice*, 6(10), 200–205.
- Sinden, J. E., Hoy, W. K., & Sweetland, S. R. (2004). An analysis of enabling school structure. *Journal of Education and Administration*, 42(4), 462–478.
- Singh, A., & Masuku, M. B. (2014). Sampling Techniques & Determination of Sample Size in Applied Statistics Research: An Overview. *International Journal of Economics, Commerce and Management United*, 2(11), 1–22.
- Smith, K. B., & Larimer, C. W. (2004). A Mixed Relationship: Bureaucracy and School Performance. *Public Administration Review*, 64(6), 728–736.
- Smith, K. B., & Meier, K. J. (1994). Politics, Bureaucrats, and Schools. *Public Administration Review*, 54(4), 551–558.
- Smith, T. K., Connolly, F., & Pryseski, C. (2014). Positive School Climate: What It Looks Like and How It Happens. *Baltimore Education Research Consortium*, (February), 1–55.
- Spillane, J. P., & Kenney, A. W. (2012). School administration in a changing education sector: the US experience. *Journal of Educational Administration*, 50(5), 541–561.
- Spring, J. H. (2008). *The American school: From the puritans to no child left behind*. McGraw-Hill Humanities/Social Sciences/Languages.
- Stevens, J. (2002). *Applied Multivariate Statistics for the Social Sciences* (Fourth). Mahwah, NJ: Lawrence Erlbaum Associates.

- Stevens, P. A. J., & Van Houtte, M. (2011). Adapting to the System or the Student? Exploring Teacher Adaptations to Disadvantaged Students in an English and a Belgian Secondary School. *Educational Evaluation and Policy Analysis*, 33(1), 59–75.
- Straub, D., Boudreau, M. C., & Gefen, D. (2004). Validation guidelines for IS positivist research. *The Communications of the Association for Information Systems*, 13(1), 63.
- Sun, H., Creemers, B. P. M., & de Jong, R. (2007). Contextual factors and effective school improvement. *School Effectiveness and School Improvement*, 18(1), 93–122.
- Tabachnick, B. G., Fidell, L. S., & Osterlind, S. J. (2001). *Using multivariate statistics*. (sixth). New York, NY: Pearson.
- Tagoe, M. A. (2014). Making real the dream of education for all through open schooling and open universities in Ghana. *SAGE Open*, 4(4), 2158244014559022.
- Teddlie, C., & Reynolds, D. (2001). Countering the Critics: Responses to Recent Criticisms of School Effectiveness Research. *International Journal of Research, Policy and Practice*, 12(1), 41–82.
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, 83(3), 357–385.
- Thapa, A., Cohen, J., Higgins-D'Alessandro, A., & Guffey, S. (2012). *School Climate Research Summary. National School Climate Centre School - School Climate Brief*. New York, NY. Retrieved from <http://www.schoolclimate.org/climate/documents/policy/sc-brief-v3.pdf>
- Tharp, B. M. (2009). *Defining "Culture" and "Organizational Culture": From Anthropology to the Office*. *Interpretation a Journal of Bible and Theology*.
- Thatcher, R. W. (2010). Validity and Reliability of Quantitative Electroencephalography. *Journal of Neurotherapy*, 14(2), 122–152.
- The Africa-America Institute. (2015). State of Education in Africa Report 2015, 1–16.
- Thida, K., & Joy, L. C. (2012). Exploring the Implementation of School-Based Management in Selected Public Schools in Cambodia: A Multiple Case Study. In *The Asian Conference on Education 2012 Official Conference Proceedings* (pp. 1027–1041). Osaka, Japan.
- Thien, L. M., & Abd Razak, N. (2012). A Proposed Framework of School Organization from Open System and Multilevel Organization Theories. *World Applied Sciences Journal*, 20(6), 889–899.

- Thien, L. M., & Razak, N. A. (2014). Teacher commitment: A comparative study of Malaysian ethnic groups in three types of primary schools. *Social Psychology of Education, 17*(2), 307–326.
- Thomas, D. R., & Hodges, I. (2010). Designing and managing your research project: Core knowledge for social and health researchers. *Designing and Planning Your Research Project*. Retrieved from https://www.researchgate.net/profile/David_Thomas11/publication/224029399_Chapter_3_from_Designing_and_managing_your_research_project_Core_skills_for_social_and_health_research/links/00b7d520eee9676c77000000.pdf
- Tieben, N., & Wolbers, M. (2010). Success and failure in secondary education: socio-economic background effects on secondary school outcome in the Netherlands, 1927–1998. *British Journal of Sociology of Education, 31*(3), 277–290.
- Tierean, O., & Bratucu, G. (2009). The Evolution of the Concept of Bureaucracy. *Bulletin of the Transilvania University of Brasov, 2*(51), 245–260.
- Tubbs, J. E., & Garner, M. (2008). The impact of School Climate on School Outcomes. *Journal of College Teaching & Learning, 5*(9), 17–26.
- Tyler, W. (2012). *School organization: A sociological approach* (First). New York, NY: Routledge.
- Udo-akang, D. (2012). Theoretical Constructs, Concepts, and Applications. *American International Journal of Contemporary Research, 2*(9), 89–97.
- Uline, C. L., Miller, D. M., Tscannen-Moran, M., & Tschannsch-Moran. (1998). School effectiveness: The underlying dimensions. *Educational Administration Quarterly, 34*(4), 462–483.
- Uline, C. L., Wolsey, T. D., Tschannen-Moran, M., & Lin, C.-D. (2010). Improving the Physical and Social Environment of School: A Question of Equity. *Journal of School Leadership, 20*(1), 597–632.
- Uline, C., & Tscannen-Moran, M. (2008). The walls speak: The interplay of quality facilities, school climate, and student achievement. *Journal of Educational Administration, 46*(1), 55–73.
- Unachukwu, G. O. (2010). *Quantitative methods in educational management*. Enugu: Chidipat Publishers.
- UNESCO. (2011). *Focus on secondary education. Global Education Digest 2011*. Canada. <https://doi.org/978-92-9189-062-0>
- USAID. (2012). *Secondary Education*. Washington, DC: EQUIP2.

- Van Maele, D., & Van Houtte, M. (2011). The Quality of School Life: Teacher-Student Trust Relationships and the Organizational School Context Author (s): Dimitri Van Maele and Mieke Van Houtte Published by : Springer Stable URL : <http://www.jstor.org/stable/41476379> Accessed : 23-04-2016 08. *Social Indicators Research*, 100(1), 85–100.
- Wacker, J. G. (1998). A definition of theory research guidelines for different-theory building research methods in operations management. *Journal of Operations Management*, 16(4), 361–385.
- Waldron, N. L., & McLeskey, J. (2010). Establishing a collaborative school culture through comprehensive school reform. *Journal of Educational and Psychological Consultation*, 20(1), 58–74.
- Wang, W., Vaillancourt, T., Brittain, H. L., McDougall, P., Krygsman, A., Smith, D., ... Hymel, S. (2014). School climate, peer victimization, and academic achievement: Results from a multi-informant study. *School Psychology Quarterly: The Official Journal of the Division of School Psychology, American Psychological Association*, 29(3), 360–77.
- Wang, X., French, B. F., & Clay, P. F. (2015). Convergent and Discriminant Validity with Formative Measurement: A Mediator Perspective. *Journal of Modern Applied Statistical Methods*, 14(1), 83–106.
- Wardoyo, C. (2015). The Measurement of Teacher's Personality Competence and Performance Using Embedded Model. *Journal of Education and Practice*, 6(26), 18–24.
- Werang, B. R. (2014). Principals' Managerial Skills, School Organizational Climate , and Teachers ' Work Morale at State Senior High Schools in Merauke Regency- Papua-Indonesia. *International Journal of Science and Research (IJSR)*, 3(6), 691–695.
- Whitaker, T., Whitaker, B., & Lumpa, D. (2013). *Motivating and inspiring teachers: The educational leader's guide for building staff morale* (Second). New York, NY: Routledge.
- White, J. (1997). Philosophical perspectives on school effectiveness and school improvement. *The Curriculum Journal*, 8(1), 29-44.
- Wodi, I. I., & Oluwatayo, Gbenga Kayode Onyima, N. B. (2014). Competencies of Nigerian Graduate Teachers: The Insiders' Perspectives. *African Higher Education Review*, 8(1), 11–21.
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, 76(6), 913–934.

- Wong, K. K., & Sunderman, G. L. (2001). How Bureaucratic Are Big-City School Systems? *Source: Peabody Journal of Education Global Issues in Education*, 764(3), 14–40.
- World Bank. (2007). *What do we know about school-based management?* Washington, DC: The World Bank.
- Wu, J. H., Hoy, W. K., & Tarter, C. J. (2013). Enabling school structure, collective responsibility, and a culture of academic optimism: Toward a robust model of school performance in Taiwan. *Journal of Educational Administration*, 51(2), 176–193.
- Wu, R. (2005). *Relationship between Teachers' Teaching Effectiveness and School Effectiveness in Comprehensive High Schools in Taiwan, Republic of China. International congress for school effectiveness and improvement conference.* Barcelona, Spain. Retrieved from <http://eric.ed.gov/?id=ED490759>
- Ycel, C. (1999). *Bureaucracy and teachers' sense of power.* Virginia State University.
- Yusof, N. M. (2012). School Climate and Teachers' Commitment: A Case Study of Malaysia. *International Journal of Economics Business and Management Studies*, 1(2), 65–75.
- Yusuf, H. A., & Fasasi, Y. A. (2015). school plant planning and student academic performance in Ilorin South Local Government Area, Kwara State. *Sokoto International Journal of Counselling Psychology*, 3(1), 216–226.
- Yutchman, E., & Seashore, S. E. (1967). A System Resource Approach to Organizational Effectiveness. *American Sociological Review*, 32(6), 891–963.
- Zahid, G. (2014). Direct and Indirect Impact of Perceived School Climate upon Student Outcomes. *Asian Social Science*, 10(8), 90–102.
- Zepatou, V., Loizidou, M., Chaloulakou, A., & Spyrellis, N. (2016). School Facilities and Sustainability-Related Concepts: A Study of Hellenic Secondary School Principals', Teachers', Pupils' and Parents' Responses. *Sustainability*, 8(4), 1–28.
- Zepeda, S. J. (2012). *The principal as instructional leader: A practical handbook* (third). New York, NY: Routledge.
- Zikmund, W. G. (2010). *Exploring marketing research* (Tenth). OH: Thomson Southwestern.
- Zohrabi, M. (2013). Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*, 3(2), 254–262.

Appendix A

Letter to Kwara State Government

Universiti Utara Malaysia
Sintok, Kedah
Malaysia
25th May, 2006

The Honourable Commissioner,
Ministry of Education and Human Capital Development
Ilorin, Kwara State,
Nigeria

Sir,

25-05-2016

REQUEST FOR DATA ON KWARA STATE SECONDARY SCHOOLS

With due respect sir, I humbly request for some important information that will aid/assist me in my research work from your Ministry.


I am currently a student of Universiti Utara Malaysia, conducting research on school climate, bureaucracy and school effectiveness in Kwara State Secondary Schools, Nigeria. The information required include:

- The organization and administrative structure of Kwara State secondary schools. This include how schools are organized, ways in which decisions are made, those involved in decision making as well as the communication pattern;
- Current educational policy formulated in secondary schools to aid school performance;
- Human resources in secondary schools (this include the number of teachers by local government);
- No of secondary schools in Kwara State.

NOTE: All information required for both junior and senior secondary schools in Kwara State.

I shall be glad sir, if my request is considered.


Thank you for your anticipated support

Yours Sincerely,

Habibul Adheem Yusuf (900997)
Universiti Utara Malaysia

PS - AP/RS
100/25
PS 1/6
AD/RS
1/6
2/6
SP01(2)
Rababon
02/08/16

Appendix B

Response Letter from Kwara State Government



MINISTRY OF EDUCATION AND HUMAN CAPITAL DEVELOPMENT (MOEHCD)
HEADQUARTERS

P.M.B. 1391, ILORIN, KWARA STATE
Telegrams: SECEDUC Telephone: 031 221161, 220401, 220351, 223101, 220373, 221549
Website: www.kwaraeducation.com


M/ME/PRS/112/1/Vol.11
15th June 2016

Habibat, Abubakar Yusuf(900997)
University Utara Malaysia
Sintok, Kenah,
Malaysia.

RE: REQUEST FOR STATICAL DATA

Reference to your letter dated 15th June 2016 requesting for Data. We here by reference from 2014/2015 ANNUAL SCHOOL CENCUS REPORT with the following Data on public Secondary school in the state with a soft copy attached.

- 1. Senior Secondary Schools Data
- 2. Thanks for your cooperation.



Ake Temitope A.
For: Honorable commissioner

Appendix D

Letter of Cooperation to Teachers



Universiti Utara Malaysia,
06010 UUM Sintok,
Kedah Darul Aman, Malaysia
Tel: (604) 9285299/5266/5251
Fax: (604) 9285297/5298

Dear Teachers

ACADEMIC RESEARCH QUESTIONNAIRE

I am a doctoral student from the school of education and modern languages, College of Arts and Sciences, Universiti Utara Malaysia and currently working on my PhD thesis titled “The mediating effect of school-based management on school climate, bureaucracy and effectiveness in secondary schools in Kwara State, Nigeria”.

Please be assured that your responses will only be used for academic purpose. Hence, your identity will never be known throughout any part of the research process.

Thank you for taking your valuable time to fill in this questionnaire.

Yours Sincerely,

Habibat Abubakar Yusuf

(Research Student)

Awang Had Salleh Graduate School of Arts and Sciences
UUM College of Arts and Sciences
Universiti Utara Malaysia
06010 Sintok, Kedah Darul Aman, Malaysia
+601151152269

Appendix E

Research Questionnaires

Section A – Demographic Information

Kindly tick the appropriate information that fits your assessment.

(1) Gender:

Male [] Female []

(2) Age Group:

Up to 25years [] 26-45years [] 46-55years [] 56 years+ []

(3) Highest Academic Qualification:

NCE [] ND [] HND [] Bachelor Degree []

Master Degree [] Others []

(4) How long have you been working as a teacher?

Up to 5 years [] 6-10 years [] 11-15 years []

16-20 years [] 20 years + []

Section B: Perception of teachers on school climate, bureaucracy, effectiveness and school-based management in Kwara State secondary schools, Nigeria.

The following are a few number of statements about observation of teachers towards school. Please rate your opinion on your perception on the statements. The responses ranges from entirely disagree (1), mostly disagree (2), somewhat disagree (3), neither agree nor disagree (4), somewhat agree (5), mostly agree (6) and entirely agree (7).

I. School Climate

S/N	Items	<i>Disagree – Agree</i>						
		1	2	3	4	5	6	7
1	My school lacks materials needed to do my job effectively.	1	2	3	4	5	6	7
2	There is shortage of facilities.	1	2	3	4	5	6	7
3	The school lacks fund in introducing up-to-date materials.	1	2	3	4	5	6	7
4	Equipment are kept in usable condition.	1	2	3	4	5	6	7
5	My principal promote trust among staff	1	2	3	4	5	6	7
6	I show greater concern for other colleagues.	1	2	3	4	5	6	7
7	I am appreciated by other colleagues.	1	2	3	4	5	6	7
8	My mistakes are corrected by the principal.	1	2	3	4	5	6	7
9	The principal conveys clearer message to me.	1	2	3	4	5	6	7
10	I work together with other teachers	1	2	3	4	5	6	7
11	I socialise with other teachers outside school.	1	2	3	4	5	6	7
12	The principal checks my activities in the classroom.	1	2	3	4	5	6	7
13	I listen to student concerns in the classroom.	1	2	3	4	5	6	7
14	I monitor students' progress frequently.	1	2	3	4	5	6	7
15	The school emphasizes on showing respect for all students' cultural beliefs and practices.	1	2	3	4	5	6	7
16	I leave the school as classes finish.	1	2	3	4	5	6	7
17	The school formerly recognizes my effort.	1	2	3	4	5	6	7
18	The school review my work.	1	2	3	4	5	6	7

II. Bureaucracy

Indicate the extent to which you agree to the statements about your activities in school

S/N	Items	<i>Disagree – Agree</i>						
		1	2	3	4	5	6	7
1	I am over loaded with administrative responsibilities.	1	2	3	4	5	6	7
2	I am assigned to teach in my subject area.	1	2	3	4	5	6	7
3	I freely carry out my responsibilities in class.	1	2	3	4	5	6	7
4	Aside teaching, I carry out administrative work.	1	2	3	4	5	6	7
5	Arrival and departure time are strictly enforced.	1	2	3	4	5	6	7
6	I am being checked for rule violations.	1	2	3	4	5	6	7
7	I am not expected to leave school without permission.	1	2	3	4	5	6	7
8	I strictly follow school operating procedures.	1	2	3	4	5	6	7
9	I make my own decisions independently.	1	2	3	4	5	6	7
10	Written orders are followed unquestionably.	1	2	3	4	5	6	7
11	I get directives from my principal.	1	2	3	4	5	6	7
12	I am assigned subject without regard for my relevant teaching experiences.	1	2	3	4	5	6	7
13	I am encouraged to use various teaching methods.	1	2	3	4	5	6	7
14	Promotions are based on how well I do my job.	1	2	3	4	5	6	7
15	Past teaching experiences plays a large part in my assignment in this school.	1	2	3	4	5	6	7
16	I sponsor extra-curricular activities which I have no suitable background of.	1	2	3	4	5	6	7
17	Nothing is said if I get to school late.	1	2	3	4	5	6	7
18	I easily get discouraged when making decisions.	1	2	3	4	5	6	7
19	There isn't much chance for promotion unless you are "in" with the administration	1	2	3	4	5	6	7
20	I consider gravity of an offence while deciding on the appropriate penalty	1	2	3	4	5	6	7

III. Effectiveness

What is the level of your agreement to the following statements?

S/N	Items	<i>Disagree– Agree</i>						
		1	2	3	4	5	6	7
1	I want to be identified with this school.	1	2	3	4	5	6	7
2	My school is a great place to work.	1	2	3	4	5	6	7
3	I am willing to put in significant effort in my work.	1	2	3	4	5	6	7
4	I use variety of teaching strategies to help student learn.	1	2	3	4	5	6	7
5	I use computer to strengthen my skills.	1	2	3	4	5	6	7
6	<u>I encourage students to seek extra lesson to get better grades.</u>	1	2	3	4	5	6	7
7	I work on development plan of this school.	1	2	3	4	5	6	7
8	The development plan improves my work.	1	2	3	4	5	6	7
9	I get suggestions on how to improve my teaching.	1	2	3	4	5	6	7
10	I work according to the school goals	1	2	3	4	5	6	7
11	Task oriented atmosphere is fostered in my school.	1	2	3	4	5	6	7
12	I accept changes.	1	2	3	4	5	6	7
13	I quickly adjust when changes are made.	1	2	3	4	5	6	7
14	Articulations with other schools are encouraged.	1	2	3	4	5	6	7
15	I cope with disruptions.	1	2	3	4	5	6	7
16	My suggestions are accepted by the school.	1	2	3	4	5	6	7
17	I am involved in school activities.	1	2	3	4	5	6	7
18	I participate in decision making at school.	1	2	3	4	5	6	7
19	I make informal contacts with other teachers.	1	2	3	4	5	6	7

IV. School-Based Management

What is the level of your agreement to the following statements?

S/N	Items	<i>Disagree– Agree</i>						
		1	2	3	4	5	6	7
1	My workload has increased significantly under the school council structure.	1	2	3	4	5	6	7
2	There are adequate provisions for me to seek help to reduce my work load.	1	2	3	4	5	6	7
3	I think school-based management is the type of reform that school needed for better quality and improvement of student achievement.	1	2	3	4	5	6	7
4	I have opportunity to seek advice and support from other stakeholders.	1	2	3	4	5	6	7
5	The school-based policies, programs and actions have significantly improved the student achievements.	1	2	3	4	5	6	7
6	The stakeholders' participation has improved my motivation.	1	2	3	4	5	6	7
7	I consider myself as a team member.	1	2	3	4	5	6	7
8	I discuss with the principal on the strategies to implement changes.	1	2	3	4	5	6	7
9	School based management has created higher participation of stakeholders leading to improve student achievements in school.	1	2	3	4	5	6	7
10	The changing school culture resulting from implementation of school-based management has improved student achievements.	1	2	3	4	5	6	7

Appendix F

Yamane (1967) Sample Size Table

Table 1. Sample size for $\pm 3\%$, $\pm 5\%$, $\pm 7\%$ and $\pm 10\%$ Precision Levels Where Confidence Level is 95% and $P=.5$.

Size of Population	Sample Size (n) for Precision (e) of:			
	$\pm 3\%$	$\pm 5\%$	$\pm 7\%$	$\pm 10\%$
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1,000	a	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100

a = Assumption of normal population is poor (Yamane, 1967). The entire population should be sampled.

Appendix G

School Climate CFA Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	29	122.722	37	.000	3.317
Saturated model	66	.000	0		
Independence model	11	2055.242	55	.000	37.368

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.123	.940	.892	.527
Saturated model	.000	1.000		
Independence model	1.113	.340	.208	.283

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
Default model	.940	.911	.958	.936	.957
Saturated model	1.000	1.000	1.000	1.000	1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.673	.633	.644
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.081	.066	.098	.001
Independence model	.323	.311	.335	.000

Bureaucracy

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	34	208.175	57	.000	3.652
Saturated model	91	.000	0		
Independence model	13	2643.290	78	.000	33.888

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.172	.918	.869	.575
Saturated model	.000	1.000		
Independence model	1.279	.286	.167	.245

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
Default model	.921	.892	.942	.919	.941
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.731	.673	.688
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.087	.075	.100	.000
Independence model	.307	.297	.317	.000

School Based Management

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	11.976	5	.035	2.395
Saturated model	15	.000	0		
Independence model	5	1082.850	10	.000	108.285

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.054	.987	.960	.329
Saturated model	.000	1.000		
Independence model	1.790	.369	.054	.246

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
Default model	.989	.978	.994	.987	.993
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.494	.497
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.063	.015	.110	.266
Independence model	.554	.527	.583	.000

School Effectiveness

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	28	73.025	38	.001	1.922
Saturated model	66	.000	0		
Independence model	11	2766.097	55	.000	50.293

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.069	.965	.938	.555
Saturated model	.000	1.000		
Independence model	1.501	.229	.075	.191

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
Default model	.974	.962	.987	.981	.987
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.691	.673	.682
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.051	.033	.069	.425
Independence model	.376	.364	.388	.000

Appendix H

SEM Output for the Model

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SB	<---	BR	.954	.116	8.217	***	par_30
SB	<---	SC	.015	.102	.149	.882	par_31
SE	<---	BR	.471	.088	5.328	***	par_29
SE	<---	SC	.097	.062	1.563	.118	par_32
SE	<---	SB	.342	.054	6.382	***	par_33
CP1	<---	BR	1.000				
CP4	<---	BR	1.017	.065	15.697	***	par_1
CP3	<---	BR	1.075	.068	15.805	***	par_2
HR3	<---	BR	.873	.057	15.328	***	par_3
HR2	<---	BR	.897	.058	15.500	***	par_4
RL1	<---	BR	.993	.068	14.615	***	par_5
RL3	<---	BR	.769	.057	13.566	***	par_6
DL4	<---	BR	.700	.061	11.417	***	par_7
DL2	<---	BR	.756	.058	12.961	***	par_8
DL3	<---	BR	.775	.061	12.660	***	par_9
ML2	<---	SC	1.000				
ML3	<---	SC	.838	.049	17.028	***	par_10
ML4	<---	SC	.983	.060	16.451	***	par_11
SS1	<---	SC	.721	.059	12.290	***	par_12
EC1	<---	SC	.942	.053	17.691	***	par_13

			Estimate	S.E.	C.R.	P	Label
EC3	<---	SC	.660	.053	12.506	***	par_14
EC2	<---	SC	.799	.054	14.761	***	par_15
SBM9	<---	SB	1.000				
SBM8	<---	SB	.835	.049	17.133	***	par_16
SBM6	<---	SB	.891	.046	19.450	***	par_17
SBM4	<---	SB	.974	.049	19.756	***	par_18
SBM3	<---	SB	.784	.048	16.229	***	par_19
PD5	<---	SE	1.000				
PD6	<---	SE	.964	.059	16.273	***	par_20
PD4	<---	SE	.883	.054	16.331	***	par_21
CM2	<---	SE	.995	.056	17.830	***	par_22
CM4	<---	SE	.985	.052	18.961	***	par_23
CM1	<---	SE	.980	.058	16.912	***	par_24
AD2	<---	SE	.742	.054	13.723	***	par_25
AD1	<---	SE	1.064	.060	17.643	***	par_26
CM3	<---	SE	1.020	.054	19.009	***	par_27
CH2	<---	SE	.663	.055	11.983	***	par_28

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
SB <--- BR	.819
SB <--- SC	.013
SE <--- BR	.477
SE <--- SC	.098
SE <--- SB	.404
CP1 <--- BR	.769
CP4 <--- BR	.778
CP3 <--- BR	.785
HR3 <--- BR	.772
HR2 <--- BR	.787
RL1 <--- BR	.748
RL3 <--- BR	.705
DL4 <--- BR	.597
DL2 <--- BR	.663
DL3 <--- BR	.647
ML2 <--- SC	.839
ML3 <--- SC	.770
ML4 <--- SC	.754
SS1 <--- SC	.621
EC1 <--- SC	.816
EC3 <--- SC	.630
EC2 <--- SC	.725
SBM9 <--- SB	.846

	Estimate
SBM8 <--- SB	.778
SBM6 <--- SB	.834
SBM4 <--- SB	.840
SBM3 <--- SB	.754
PD5 <--- SE	.800
PD6 <--- SE	.765
PD4 <--- SE	.767
CM2 <--- SE	.826
CM4 <--- SE	.862
CM1 <--- SE	.793
AD2 <--- SE	.678
AD1 <--- SE	.818
CM3 <--- SE	.863
CH2 <--- SE	.602



APPENDIX I

Modification Index for School Climate

			M.I.	Par Change
e11	<-->	Social_Sys	10.175	.247
e9	<-->	Social_Sys	10.367	-.261
e9	<-->	Milieu	8.488	.251
e5	<-->	e10	4.744	.172
e5	<-->	e9	9.967	-.269
e4	<-->	e11	4.730	.177
e4	<-->	e10	4.666	-.171
e3	<-->	Milieu	5.219	.137
e2	<-->	Culture	5.815	.221
e2	<-->	e10	4.296	.176
e2	<-->	e5	4.140	-.142
e2	<-->	e3	7.876	-.182
e1	<-->	Milieu	7.234	-.169
e1	<-->	e2	6.979	.178
e8	<-->	Culture	4.153	.155
e8	<-->	Milieu	4.161	-.112
e8	<-->	e10	8.769	.208
e7	<-->	Social_Sys	9.602	-.162
e7	<-->	e10	6.170	-.165
e7	<-->	e9	23.504	.348
e6	<-->	Social_Sys	5.620	.157
e6	<-->	Culture	12.904	-.328
e6	<-->	e10	4.103	-.170
e6	<-->	e7	5.495	.132

APPENDIX J

MODIFICATION INDEX FOR BUREAUCRACY

			M.I.	Par Change
e4	<-->	Imp	5.420	.169
e10	<-->	Comp	11.528	-.223
e10	<-->	Hier_Rule	13.944	.212
e10	<-->	e4	16.339	.286
e9	<-->	e4	23.458	-.323
e8	<-->	Comp	4.768	.125
e8	<-->	Hier_Rule	15.714	-.199
e13	<-->	e4	4.203	.129
e13	<-->	e10	6.219	-.193
e13	<-->	e8	10.640	.223
e11	<-->	Div_Labour	8.565	-.191
e11	<-->	Hier_Rule	4.728	.122
e11	<-->	e10	6.607	-.224
e11	<-->	e8	5.379	-.179
e7	<-->	Comp	18.274	.291
e7	<-->	Hier_Rule	4.034	-.116
e7	<-->	e8	4.520	-.166
e7	<-->	e12	5.896	.196
e6	<-->	Comp	10.376	-.225
e6	<-->	e10	4.413	.190
e6	<-->	e12	14.498	-.316
e5	<-->	e9	8.207	-.254
e5	<-->	e8	16.532	.340
e5	<-->	e11	8.459	-.277
e3	<-->	Imp	9.793	.285
e3	<-->	e8	5.246	-.181
e2	<-->	Imp	10.507	-.237
e2	<-->	e9	5.067	.151
e2	<-->	e6	4.002	-.150
e1	<-->	Imp	5.112	-.176
e1	<-->	e9	9.584	.221
e1	<-->	e8	9.598	-.209
e1	<-->	e13	9.985	-.214
e1	<-->	e11	11.951	.264