



The Nexus between Diversity Management and Cooperative Learning in Technical and Vocational Education and Training Institutions of Southwest Ethiopia People's Region

By: Getachew Robo Gebremariam

A Dissertation submitted to Graduate Studies of Addis Ababa University, in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Educational Policy and Leadership

May, 2024

Addis Ababa/Ethiopia

**The Nexus between Diversity Management and Cooperative
Learning in Technical and Vocational Education and Training
Institutions of Southwest Ethiopia People’s Region**

By: Getachew Robo Gebremariam

Advisor: Dr. Befekadu Zeleke Kidane (Assoc. Professor, Addis
Ababa University)

Co-advisor: Professor Robyn Gillies (PhD, School of Education, The
University of Queensland, Brisbane Australia)

**Department of Educational Planning and Management
College of Education and Behavioral Studies
Addis Ababa University**

May, 2024

Addis Ababa/Ethiopia

**The Nexus between Diversity Management and Cooperative Learning in
Technical and Vocational Education and Training Institutions of Southwest
Ethiopia People’s Region**

By: Getachew Robo Gebremariam

We hereby certify that this Dissertation submitted by Getachew Robo Gebremariam confirms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirements for the degree of Doctor of Philosophy in Educational Policy and Leadership.

Approved by:

Chairperson

Signature

Date

Internal Advisor

Signature

Date

External Advisor

Signature

Date

Professor Robyn Gillies, PhD



Internal Examiner

Signature

Date

External Examiner

Signature

Date

Professor Noel Kufaine, PhD




TABLE OF CONTENTS

CONTENTS	PAGE
LIST OF TABLES	XI
LIST OF FIGURES	XIII
LIST OF ABBREVIATION AND ACRONYMS	XIV
ACKNOWLEDGMENTS	XVII
ABSTRACT	XVIII
CHAPTER ONE.....	1
1. INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem.....	7
1.3 Research Questions.....	10
1.4 Objectives of the Study.....	11
1.5 Significance of the Study	11
1.6 Delimitation of the Study	12
1.7. Limitations of the Study.....	12
1.8 Definition of Key Terms.....	13
1.9 Organization of the Study.....	15
CHAPTER TWO.....	16
2. REVIEW OF RELATED LITERATURE.....	16

2.1 Introduction.....	16
2.2 The Basic Concepts of Diversity Management in a Cooperative Learning Setting	16
2.2.1 The Evolution of Diversity Management.....	17
2.2.2 History of Cooperative Learning.....	19
2.2.3 Overview of Diversity Management and Cooperative Learning In Higher Education Institutions (HEI)	22
2.3 Diversity Management Models for Higher Education Organizations.....	24
2.3.1. Assimilation Model	25
2.3.2 Affirmative Action Model.	25
2.3.3 Diversity Inclusivity Model.....	26
2.3.4 Intervention Models Of Diversity Management	27
2.3.5 Multi-Contextual Model For Diverse Learning Environments (MMDLE)	28
2.4 Diversity Management in Ethiopia.....	30
2.4.1 Ethno-Structural And Ethno-Cultural Diversity Management In Ethiopia.....	30
2.4.1.1 Ethno-Structural Diversity Management in Southwest Ethiopia People’s Region.....	32
2.4.1.2 Challenges of Inter Ethnic Group Diversity Management.....	32
2.4.2 Ethno-Cultural Diversity Management in Ethiopia.....	33
2.4.2.1 Linguistic Diversity Management in Ethiopia.....	36
2.4.2.2 Religious Diversity Management In Ethiopia.....	44
2.5 Diversity Management and Cooperative Learning.....	44

2.5.3.1 Possible Strategies of Managing Religious Diversity in Postsecondary Education Institutions.....	45
2.5.3. 2 Approaches and theories depicting the correlation between diversity management and cooperative learning.....	45
2.5.3.3 Challenges of Managing Diversity and Cooperative Learning At Heis.....	49
2.6 Strategies of Managing Diversity and Effectiveness of Cooperative Learning Processes.....	50
2.7 Advantages of Diversity Management to Cooperative Learning.....	57
2.8 Conceptual Framework.....	60
2.9 Summary of the Review of Related Literature.....	63
CHAPTER THREE.....	64
3. RESEARCH DESIGN AND METHODOLOGY.....	64
3.1 Philosophical Underpinnings to the Research Design and Methodology.....	64
3.2 Research Methodology.....	65
3.3 Research Design	65
3.4 Sources of Data.....	70
3.5 The Study Population.....	70
3.6 The Study Sample and Sampling Techniques.....	70
3.7 Data Collection Instruments and Procedures	73
3.7.1 Questionnaire.....	74
3.7.2 In-Depth Interviews.....	77
3.8 Pilot Study.....	79

3.9 Ethical Considerations and Informed Consent.....	85
3.10 Data Analysis Procedures.....	86
CHAPTER FOUR.....	93
4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF THE RESULTS .	93
4.1. Demographic Characteristics of Respondents.....	93
Research Question 1.	96
4.2 Checking Descriptive Statistics.....	96
Research Question 2.	102
4.3 Regression Analysis.....	104
Research Question 3.	106
4.4 Mediating Effect of Student Crossgroup Interaction (Interctional Diversity) Between Student Diversity Management and Applying Cooperative Learning.....	106
4.4.1 Analysis of Moment Structures (AMOS)	108
4.4.1.1 Rationale for the Use of Structural Equation Model (SEM)	108
4.4.1.2 Basic Components of SEM in the Study.....	109
4.4.1.3 Confirmatory Factor Analysis (CFA)	110
4.4.1.4 Modification of the Model	114
4.4.1.5 Squared Multiple Correlations.....	120
4.4.2 Mediating Effects of Student Cross Group Interaction in Structural Model.....	123
4.4.2.1 Standardized Regression Weights of Study Model.....	123
4.4.2.2 Direct Effect of Student Diversity Management on Applying Cooperative Learning...123	
4.4.2.3 Direct Effect of Student Diversity Management on Cross Group Interaction.....	124

4.5 Student Cross Group Interaction and Cooperative Learning.....	125
4.5.1 Standardized Indirect Effects.....	126
4.5.2 Standardized Total Effects.....	127
4.6 The Implementation Diversity Management in Applying Cooperative Learning.....	129
4.6.1 Perception of Participants towards Student Diversity Management In Applying Cooperative Learning.....	130
4.6.1.1 Lived life experiences of positive perceptions.....	132
4.6.1.2 Access to share experiences they learnt from their ethnic community.....	132
4.6.1.3 Tolerance for differences and respect.....	133
4.6.1.4 Minimize micro-aggressions in the classroom.....	134
4.6.2 Benefits of Students' Ethnic Diversity Management in Applying Cooperative Learning.....	135
4.6.2 .1 Reduce ethnic based prejudice.....	136
4.6.2.2 Mutual respect and acculturation.....	137
4.6.2.3 Equal learning opportunity.....	138
4.6.2.4 Promoting intellectual development and social inclusion.....	138
4.6.2 .5 Experience for future real life in serving a diverse community.....	140
4.6.2.6 Improve academic achievement.....	141
4.7 Major Challenges of Students' Diversity Management in Applying Cooperative Learning.....	143
4.7.1 Out group superiority of majority ethnic group students	143
4.7.2 Peer victimization.....	144
4.7.3 Homophily.....	145
Research Question 5.	145

4.8 Ways of Managing Trainees’ Diversity in Applying Cooperative Learning.....	146
4.8.1 Diagnosing the needs of students of diverse ethnicities	147
4.8.2 Creating an inclusive learning environment.....	150
4.8.3 Making your classroom more interactive.....	148
4.8.4 Reducing competitive learning among ethnic student groups.....	149
4.8.5 Trainees of diverse ethnicities should be mixed together in the group.....	149
4.8.6 Overcoming ethnocentrism in the College	150
4.8.7 Diversifying student cooperative learning activity.....	152
CHAPTER FIVE.....	154
5. SUMMARY, MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....	154
5.1. SUMMARY.....	154
5.2 MAJOR FINDINGS.....	155
5.3 CONCLUSION.....	157
5.4 Implications and Recommendations.....	158
5.4.1 Implications.....	158
5.4.1.1 Theoretical Implications.....	159
5.4.1.2 Practical Implications.....	159
5.4.1.3 Future Implications.....	159
5.4.2 Recommendations.....	159
5.4.2.1 Recommendations for Future Research.....	159
5.4.2.2 Recommendations For Future Practice.....	160
References.....	161
APPENDIX- A Questionnaire to be filled by Trainees.....	i
APPENDIX - B Questionnaire to be filled by Trainers.....	viii
APPENDIX-C Consent Form.....	xv
APPENDIX-D The Scatter Plot Graphs depicting Linear Correlation between the IVs and DVs.....	xvii
APPENDIX- E Gatekeepers’ Permission and Consent.....	xviii

APPENDIX- F Amharic versions of research tools	xix
APPENDIX- G Publication (Article 1)	xxxiv
APPENDIX- H Publication (Article 2)	xxxv
APPENDIX- I Presented Paper.....	xxxvi

LIST OF TABLES

Table 1.1 Things that Make Present Study Different From Prior Relatively Associated Local Studies.....	8
Table 2.1 Timeline of the History Of Cooperative Learning.....	21
Table 2.2 Types of Cooperative Learning Teams and Diversity Management.....	57
Table.3.1 Accessible Population, Sample Size and Return Rate of the Student Respondents.....	72
Table.3.2 Accessible Population, Sample Size and Return Rate of the Trainer Respondents.....	73
Table 3.3 Student Diversity Management Dimension.....	75
Table 3.4 The Effectiveness Of Tools To Measure The Cooperative Learning Application in Higher Education.....	76
Table 3.5 Subscales of Cooperative Learning Application Scale.....	77
Table 3.6 Reliability of Student Diversity Management.....	83
Table 3.7 The Reliability Analysis Of Items Of The Cooperative Learning Sub-Scales.....	84
Table 3.8 Cutoff Points for Interpreting a Pearson Product Moment Correlation coefficient.....	90
Table.4.1 Demographic Information of the Trainee Participants	94
Table.4.2 Trainees' Group Interaction.....	95

Table 4.3 Demographic Characteristics Of The Trainer Respondents By Work Experience, Gender, Educational Qualification And Academic Rank.....	95
Table 4.4 Group Statistics of Participants' Perceptions on Students' Diversity Management in the Application of Cooperative Learning.....	96
Table 4.5 Independent Samples Test for Perceptions on Students' Ethno- Structural Diversity Management.....	98
Table 4.6 Independent Samples Test for Perceptions on Students' Ethno-Cultural Diversity Management.....	99
Table 4.7 Independent Samples Test for Perceptions on Students' Ethno- Categorical Diversity Management.....	100
Table 4.8 The Multicollinearity Test (Relationship Between The Independent Variables).....	102
Table 4.9 Regression Coefficients.....	103
Table 4.10 Analysis of Variance -ANOVA.....	105
Table 4.11 Summary Statistics, Correlations and Results from the Regression Analysis	106
Table 4.12 The nexus between diversity management and cooperative learning.....	106
Table 4.13 Criteria for the Acceptance of Model Fitness Indices.....	109
Table 4.14 Factor Loadings /Standardized Regression Weights/: CFA (Group Number 1 - Default Model)	112
Table 4.15. Model Fit Summary of First Order CFA.	113
Table 4.16 Modification Indices.....	116
Table 4.17 Model Fit Summary Of Second Order CFA.....	120
Table 4.18 Models Fit Summary.....	120
Table 4.19 Estimates of Structural Model (Group Number 1 - Default Model).....	122

Table 4.20 Transcription, Key Direct Quotes from Semi-Structured Interviews and Emerging Themes	131
Table 4.21: Transcription, Key Direct Quotes from Semi-Structured Interviews and Emerging Themes	135
Table 4.22: Transcription, Key Direct Quotes From Semi-Structured Interviews and Emerging Themes	142
Table 4.23: Transcription, Key Direct Quotes from Semi-Structured Interviews and Emerging Themes.....	146

LIST OF FIGURES

Fig.2.1 Diversity Inclusivity Model.....	26
Fig. 2.2 Intervention Models Of Diversity Management	27
Fig.2.3 Campus Ethnic Climate Framework.	29
Fig. 2.4 Multi-Contextual Model for Diverse Learning Environments (MMDLE).....	30
Fig. 2.5 Postsecondary Pedagogy for Linguistically Responsive Teaching	43
Fig. 2.6 Modified Model of the Integration of Diversity Management With Course Contents and Its Outcomes.....	55
Fig. 2.7 Conceptual Framework.....	61
Fig 3.1 The Mixed-Methods Sequential Explanatory Design.....	66
Fig. 3.2 Visual Model for Mixed-Methods Sequential Explanatory Design Procedures.....	69
Fig. 4.1 P-P Plot of Regression Standardized Residual	104
Fig.4.2 A Diagram of a Mediation Model	108
Fig.4.3 Hypothesized Path Diagram Depicting Three-Factor Model of Students' Diversity Management (First Order CFA Model)	111
Fig. 4.4 Path Diagram Depicting Three-Factor Model Of Students' Diversity Management After Modifications.....	115
Fig. 4.5 Hypothesized Relationships among Students' Diversity Management, Cross Group Interaction and Cooperative Learning.....	117
Fig. 4.6 Full Structural Equation Model after Final Modification	119

ABBREVIATIONS AND/OR ACRONYMS

APA	American Psychological Association
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
BA	Bachelor of Arts
BSc	Bachelor of Science
CBLE	Cross Border Learning Experiences
CB-SEM	Covariance-Based Structural Equation Modeling
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CL	Cooperative Learning
CLAS	Cooperative Learning Application Scale
CMIN	Relative Chi-square
CMIN/DF	Ratio of Relative Chi-square to degree of freedom
CSA	Central Statistics Agency
DF	Degree of Freedom
DM	Diversity Management
DMQ	Diversity Management Questionnaires
DV	Dependent Variable
ECATDM	Ethno categorical Diversity Management
ECULDM	Ethno cultural Diversity Management
EEO/AA	Equal Employment Opportunity / Affirmative action
EFL	English as a Foreign Language
EOTC	Ethiopian Orthodox Tewahedo Church

ESDM	Ethnostructural Diversity Management
FDRE	Federal Democratic Republic of Ethiopia
Fig.	Figure
GDM	Global Diversity Management Model
GFI	Goodness-of-Fit Index
HEI	Higher Education Institution
IPSS	Information Processing Systems and Software
ISE	Inclusive System of Education
M.I	Modification Index
MMDLE	Multi-Contextual Model for Diverse Learning Environments
MMSE	Mixed-Methods Sequential Explanatory Design
MoE	Ministry of Education
NDT	No Down Time
NFI	Normed Fit Index
NIH	National Institute of Health
P- Value	Probability Value
Par Change	Parameter Change
PhD	Doctor of Philosophy
P-P plot	Probability Plot
QUAL-quan	QUAN + qual. Sequential triangulation
QUAN+QUAL	Equivalent quantitative and qualitative research triangulation
r	Correlation coefficient
R ²	The coefficient of determination
RMSEA	Root Mean Square Error of Approximation
SD	Standard deviation

SEM	Structural Equation Model
SNNPR	Southern Nations, Nationalities, and Peoples' Region
SPSS	Statistical Package for the Social Sciences
SRMSR	Standardized Root Mean Square Residual
Std.	Standard
SWEPRS	Southwestern Ethiopian People Regional State
TLI	Tucker–Lewis index
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
VIP	Verified Index of Probability

ACKNOWLEDGMENTS

I would like to express my deepest gratitude and appreciation to my advisors, Dr. Befekadu Zeleke and Professor Robyn Gillies, for their nonstop support, guidance, and constructive comments throughout the study. Without their unreserved dedication and scholarly guidance, completion of this study would have been impossible. I would also like to extend my gratitude to Professor Abebaw Yirga Adamu and Dr. Getnet Tizazu for his constructive suggestions at the conception stage of this thesis.

I am also grateful to Bonga College of Education, African Union Commission (Mwalimu Nyerere Scholarship Scheme) and Addis Ababa University, for providing educational resources and financial assistance for my study.

I would also like to thank Mr. Alexander Chenchenko, Dr. Bereket Wondimu, Dr. Mitiku Hambisa Abdisa, Dr. Desta Geneme, Professor Berhanu Nigussie and Dr. Dubale Sahile for their great contributions in instrumentation and language improvements.

Next, I would like to express my heartfelt gratitude and appreciation to my beloved wife, Tedlanesh Gebeyehu, for her sympathy, encouragement, and support throughout my study, as well as to my daughters, Eunice Getachew and Elro'i Getachew, for their love and the precious times they kindly gave me.

I also extend my special thanks to Bezabih Meshesha Mero, Robo Gebremariam, Tweled Gebeyehu, Asmamaw Abebe, Engida Eshetu, Mesfin Cherinet, Girma and Zelalem Zekarias for their encouragement and incessant prayers for my success. I would also like to thank my brothers Seyoum Robo, Engida Robo, and Abraham Robo, and my sisters Yemisrach Robo and Tsion Robo, and Elias Bogale, for their hospitality and support during my study leave.

Lastly but not least, my sincere appreciation also goes to my family, including Gebeyehu Woldesenbet, Tsehaynesh Gayde'o, Abebe Gebresillasie, Banchayehu Gebeyehu, Sofia Lemma, Worku Kenito, and Demeke Demissie, for their moral support during challenging and extended study times.

Abstract

In a healthy interactive classroom situation managing ethnically, linguistically and religiously diverse learners work better with the implementation of cooperative learning. This study investigated the relationship between students' diversity management and cooperative learning applications in Technical and Vocational Colleges in Southwest Ethiopia. A mixed research methodology, specifically a sequential explanatory mixed methods design, was employed to carry out the research investigation. The empirical data were collected from 458 trainees, 181 trainers, and 20 educational officials using questionnaires and in-depth interviews respectively. Two standardized questionnaires, such as the students' diversity management questionnaire and the Cooperative Learning Application Scale (CLAS), were adapted (modified) and administered to collect data. The quantitative data was analyzed by using both descriptive and inferential statistics. The inferential statistics were employed by using IBM SPSS Amos 23 and descriptive statistics by using SPSS version 23. The qualitative data was analyzed by using the narrative analysis method. It was found that trainees have more positive perceptions of students' diversity management in the application of cooperative learning than do trainers. The implementation of cooperative learning was found to be highly influenced by student diversity management. The results of the study also revealed that students' diversity management significantly predicted cooperative learning application ($b = .668$, $t(639) = 26.315$, $p < .001$). Students' diversity management also explained a significant proportion (52.10%) of variance in cooperative learning application, $R^2 = .521$, $F(1, 635) = 692.502$, $p < .001$. Cross group interaction has a mediating role between student diversity management and cooperative learning. In conclusion, escalating the effectiveness of student diversity management increases the effectiveness of the

implementation of cooperative learning by enhancing cross-group interaction. When cross-group interaction is cooperative, it maximizes learning outcomes, enhances academic accomplishment, and develops interpersonal communication skills. The researcher recommends a future study be conducted on the direct effect of student diversity management on cross group interaction.

Keywords: diversity management, cross-group interaction, cooperative learning, perception, mediation, direct effect, indirect effect

CHAPTER ONE

1. INTRODUCTION

This chapter describes the conceptual basis for what the researcher investigates, including the background of the study, statement of the problem, what has already been known about the problem, how the study is different from other previous studies, how it addresses something that is not already known or has not been studied before, or how it extends prior research on the topic in some way, research questions, the objectives of the study and its significance, delimitation of the study and definition of key terms.

1.1 Background of the study

Students' diversity is the range of differences, including but not limited to ethnicity, gender, age, language, social class, cultural group, physical ability or attributes, and religious beliefs. Having a diverse group of students simply means recognizing that all the pupils are unique in their own way. There has always been diversity in the classroom, but in today's society, it is more important to acknowledge it and make positive use of it (Howard, 2010). So, the increase in diverse groups within educational organizations has made it important for educators and educational researchers to deal with diversity management from an alternative perspective.

Various scholars have defined the term diversity management, but it has no single universally accepted definition because its historical background and practices are very comprehensive (Aydan, 2015; Vermeulen, 2011). Historically, it is a relatively young discipline, which originated out of many different historical and social disciplines. United States of America (USA) have begun using the terms "diversity management" and "Managing diversity" in the 1980s. Subsequently, the diversity management field emerged in the 1990s (Brazzel, 2003). Diversity management is an emerging field of research, teaching, theory and practice. While there is no consensus among diversity management scholars and practitioners about purpose, methods, outcomes and values, a relatively comprehensive definition of the field is:

"Diversity management uses applied behavioral science methodology, studies, and theory to manage institutional change and stability processes, which support diversity in

organizations and oppose discrimination based on ethnicity, language, religion, gender, culture, and other human differences. Diversity management promotes the values of respect for human differences, social justice, and participation while announcing these values.” (Brazzel, 2003, p51).

Similar to the conceptual change over time, the connotations of the term ‘diversity management’ vary from one place to another. In the USA, for instance, diversity management is still associated (rightly or wrongly) with affirmative action and equal opportunity in a multi-cultural (ethnicity, race, gender, sexual preference, etc.) contexts. In Europe, the emphasis has been more on the management of language and national differences as well as equal opportunity for women (gender mainstreaming) (Vermeulen, 2011). Today, the concept of diversity management has been broadened beyond the US and Western experiences throughout the world.

The studies presented in Singh’s book explored that the development of educational and social relationships among students of different ethnic groups and linguistic groups reduced prejudice among school children (Singh, 1994). The reduction of prejudice among diverse ethnic and linguistic groups of students is one of the functions of student diversity management. Furthermore, the qualitative results of the findings portrayed that diversity management and selection of collaborative learning methods have direct relationships. Datta (1994) also conducted a research on "The effects of cross-ethnic tutoring on interracial relationships and academic achievements”, and found out that cross-ethnic tutoring has positive relationships both with learners’ friendship and academic achievements.

Terenzini, Cabrera, Colbeck, Bjorklund, and Parente (2014) explain that the structural diversity and its management have a positive influence on students’ academic and intellectual skills development. They also have verified that ethnically homogeneous classrooms produce “an impoverished” educational experiences.

Pike and Kuh (2006) argued that states student diversity (structural diversity) has a positive effect on student development and learning is not universally accepted because the direct relationship between the two is mainly determined by the effectiveness of diversity

management. As Sharan (2010) points out cooperative learning, resprocally, offers teachers in the diverse classroom a vast access to flexible teaching strategies they can rely on to help them manage the varied backgrounds in their classrooms, and create an interactive and nurturing learning environment. She also found out that teachers can recognize the importance of the students' diversity management in effecting the cooperative learning (CL) by learning about their students' ethnic, linguistic, and religious diversity and at the same time integrating CL methods and strategies in their teaching repertoire.

Given the implementation of this integration into effect helps create a culturally responsive Cooperative Learning classroom, where learning is made relevant for all. Moreover, Wazzan (2015), in his study on 'Group dynamics in the EFL classroom: the role of the cohesive group of Syrian tertiary learners', realizes that successful group diversity management is a vital element in the teaching and learning process. Affirming these results, as Gebremariam (2019) indicated an effective classroom diversity management is one of the facilitating factors for the implementation of effective cooperative learning which in turn, depict the relationship between these variables.

Ordu (2015) demonstrates that the students' diversities affect the students' performance positively, create variety and abundance when properly managed; but they may cause alliances and effect students negatively when they are not managed well. As indicated by Adamu (2014), the presence of a diverse student population is perceived as an advantage by most students because a diverse student population provides students with an ideal opportunity to learn from each other's culture, languages, religions and experiences. In connection with this, Adamu (2013b) also explains that unless the students' diversity is effectively managed, it becomes a source of conflicts among University students. Generally speaking, the wealth of research findings explored on student diversity and cooperative learning implementation practices in diverse classroom over the past 30 years. However, few qualitative researchers (Ordu, 2015; Gebremariam, 2019; Iyer, 2013; Milner and Tenorehave, 2010) qualitatively addressed the relationship between the student diversity management and cooperative learning implementation which inspired the researcher to investigate the association between these two classroom dynamics issues in an inferable manner.

Theoretical underpinnings of the diversity management and cooperative learning

There are various theories that describe both positive and negative effects of students' ethnic, linguistic and religious diversity on cooperative learning and social functioning. Theories that describe positive effects include Macrostructural theory (Blau, 1974), contact theory (Allport, 1954) and intellectual and moral development theory (Gurin, Dey, Hurtado and Gurin, 2002; Piaget, 1965). On the contrary, the Constrict theory (Putnam, 2007) and conflict theory (Blalock, 1967) describe the negative effects of students' diversity on schooling and social functioning. Thus, the students' diversity may become a source of either enrichment or deprivation of learning based on the mode of its management. Diversity Management (DM) has often been appraised as a "double-edged sword", leading to effective or poor cooperative learning. Consequently, effective diversity management enhances the positive influences on cooperative learning and ineffective diversity management impedes cooperative learning.

Literature and many theories relevant to diversity management have been postulated in light of diversity among workforce. However, a few academic perspectives like the socio-cultural theories of learning and/or social interdependence theory, multi-cultural education, sociology of education and theories of learning underlie the foundations for interplay between diversity management and cooperative learning (Kaur, 2017; Alsubaie, 2015). One of the major theories that enhance cooperative learning in a diverse students group is social constructivism. It has been advanced by Vygotsky who considered that the roles of culture and society, language, and interaction are important in understanding how humans learn (Vygotsky, 1978). It suggests that cooperative learning focus on use of this instructional strategy in a linguistically, ethnically and culturally diverse groups of students because in this learning strategy, one of the guiding principles is making students working group a mixed on one or more of a number of variables including sex, ethnicity, social class, religion, personality, age, language proficiency, and diligence (Bartolo, 2007).

1.2 Statement of the problem

Most of the times, the post secondary education institutions including TVETs are known for their student diversity in terms of ethnicity, linguistic group, schooling diligence, socio-economic status, residential backgrounds and other dimensions. According to World Education Statistics report (WES, 2019) the tertiary education in Ethiopia remains discriminatory. The Participation rates are highly tilted toward men and urban dwellers. Consequently, a number of non-majority ethnic group of students willingly or unwillingly enroll to the TVET programs at their locality. This is because most of the children of ethnic groups living on the social, political, provincial and economic minority are less accessible to quality secondary education to join University (Fisseha, 2015; Pedersen and Digby, 2013). Post secondary education diversity management projection initiates from the admission of diverse student body. This study, concurrently, explores the degree of student diversity management and its association with cooperative learning in TVET campuses in Southwest Ethiopia People's region.

The ethnic, linguistic, and religious dimensions of diversity provide learning accessible to students through students' cross ethnic relationships and interactions (Gobena, 2016). Diversity can support a broad range of learning, including active thinking skills and intellectual engagement, and democracy outcomes such as perspective-taking, citizenship engagement and cultural understanding (Adamu, 2014). Contrarily, the opposite happens if learners' diversity is not successfully managed. If the diversity, multi-ethnicity and multiculturalism are valued and healthily managed, it can serve as essential resources for maximizing cooperative learning in the TVETs. Managing diversity relates to all the processes addressing attitudes, methods and skills in dealing with a diverse group of students (i.e. negotiation skills, conflict management, building mutual trust, living together, etc.). The research literature on diversity in higher education also identifies several benefits of diversity which can be grouped into three major categories based on beneficiaries; namely individual benefits, institutional benefits, and societal benefits (Gurin, Dey, Hurtado and Gurin , 2002; Milem, 2003; Terenzini, Cabrera, Colbeck, Bjorklund, & Parente, 2001).

Institutional Setting and the Problem

Some local studies portray that ethnic identity based conflicts arise across Ethiopian higher education institutions in different times (Adamu, 2016; Semela, 2012; Gobena, 2016). Thus, nowadays, student diversity management is salient issue in educational organizations for the effectiveness of the teaching-learning processes. More specifically, in South-West Ethiopia, the ethnic conflicts erupt (around Sheko-Mezhengir in Bench-Sheko zone), Yeki Woreda (around Tepi town) in Sheka Zone and Bitta Woreda in Kaffa zone have caused lost of lives, destruction of properties and close down of educational organizations till the recent times. Although the major clashes have been mitigated, the ethnic conflicts and the latent tensions continued (Gebre-Egziabher, 2007; Yusuf, 2019). The ethnic and linguistic diversity conflicts replicated and widespread in educational organizations, including the Tepi Campus of Mizan-Tepi University, TVETs and secondary schools around these localities. These educational organizations are confronting immense challenges of lack of peace and stability, which requires better diversity management skills (Ezega.com, 2018).

Technical and Vocational Education and Training (TVET) institutions in Ethiopia embrace the diverse student groups by levels of classes from the short term periodical trainings to level V. In other words, students' diversity in TVETs is not merely confined to ethnic, religious, linguistic and cultural diversity, but serves vastly different target groups, including primary education completers, youths with average academic achievement in general secondary education (post Grade 10 level), students from emerging areas (areas that need special supports and pastoralist areas), learning capabilities, and unemployed people (MoE, 2008). Unlike Ethiopian Universities, the composition of numeric minority ethnic groups increases in TVETs of Southwest Ethiopia (Wolde-Selassie, 2004). This is because there is such very diminutive number of nonmajority ethnic groups in Southwest Ethiopia People's Region as Bench, Me'en, Kafficho, Dizi, Sheko, Suri, Amhara, Wolayita, Kambata, Majang, Chara, Na'o, Konta, etc.

With regard to the diversity in Ethiopian public universities, students come from each area of the country which increases the degree of diversity. Although students come from a limited locality, the nature and spectrum of students' diversity in TVETs of South-West Ethiopia is different from the students' diversity in Ethiopian public Universities. As research depicts

(Gebremariam, 2019, 2020) most minority ethnic groups in South-West Ethiopia have less access to University study. Hence, different numeric minority ethnic and linguistic groups join TVET institutions via local government sponsorship (Gebremariam, 2011; Sarah & Kjetil, 2003). The educational organizations, including TVETs, Colleges and schools in the region experience highly diversified classrooms. Consequently, it is common to find a mix of students in terms of ethnicity, language, and religion within a classroom. Some of the ethnic groups that attend level I to level IV TVET program within the same classroom at the TVETs include Bench, Dawro, Kambata, Dizi, Kaffecho, Chara, Na'o, Amhara, Oromo, Sheko, Mezhengir, Shekecho, Menit, Suri/Surma, Wolayta, Konta etc. Thus, the researcher is interested in the state of diversity management, and its relationship with and influence on cooperative learning; the challenges that both teachers and students face in a diverse classroom.

In recent years, it is evidenced that the Colleges and TVETs of Southwest Ethiopia face challenges of ethnic identity conflicts concurrent to political turbulences. Tepi TVET is one of the known institutions in the region that experience frequent opening and closing down across different times because of ethnic based conflicts in the general public and educational organizations. One of the major hindering factors against diversity management in such educational organization and other sectors is tokenism from the side of political representatives. That is, through false promises to build the capacity of the general public and non-majority ethnic group in particular (Gebremariam, 2011).

A number of studies depict that effective management of diverse work force increases the effectiveness of the given organization (Ankita, 2014; Jonna, 2013; Louvrier, 2013). However, the researcher is not certain about whether the management of students' diversity has the association with the implementation of the cooperative learning. Thus, this study is aimed at investigating the association between the students' diversity management and the application of cooperative learning.

The following table (1.1) depicts there are some relatively approaching local studies on ethnic, linguistic and religious diversity issues in academic settings, but these studies have not demonstrated to what extent does diversity management associated with the cooperative learning in TVET institutions in Southwest Ethiopia.

Table 1.1: Things that make present study different from prior relatively associated local studies

Relatively comparable local research studies	Author	Year	Study Approach	Things that make the present study differs from prior studies and bridging the gaps
1.Diversity Management and students' Cross-Border Learning Experiences at Selected Ethiopian Universities (PhD dissertation)	Gobena, Hailemariam Kekeba	2016	Case study & qualitative research Methods	<ul style="list-style-type: none"> ➤ The relationship between student ethnic diversity management and cooperative learning was examined. ➤ The influence of student ethnic diversity management on cooperative learning was examined. ➤ Little or no attention has been given by the prior researchers to investigate the links between ethnic, linguistic and religious diversity management and cooperative learning. ➤ The mediating effect of crossgroup interaction was investigated.
2.Ethnic and Religious Diversity in Higher Education in Ethiopia. The Case of BahirDar University (PhD dissertation)	Adamu,Abeb aw Yirga	2014	Qualitative research	
3.Students Diversity Management in Ethiopian Public Universities: Practices and Way Forward (PhD dissertation)	Woldegebriel , Mesfin Manaze	2020	Mixed research Method	
4.Intergroup Relations among the Ethiopian Youth Effects of Ethnicity, Language, and Religious Background (Journal article)	Semela, Tesfaye	2012	Descriptive research	
5.Intergroup Relations Among Ethnically Diverse University Students in Ethiopia	Adamu, Abebaw Yirga	2013a	qualitative study approach	
6.Ethnicity, Language, Friendship, and Intergroup Relations on Campus	Adamu, Abebaw Yirga	2016	qualitative research approach	

In the present study, the researcher attempted to bridge some of the context (replication), theoretical (contribution) and methodological gaps of prior studies from global and local studies. From the global perspectives, while research findings portray the relationships between classroom diversity and cooperative learning, there is no clear insight on the relationships between diversity management and cooperative learning. Dörnyei (1997), in his study, finds out that more than mere group dynamism,

the degree of dynamic group cohesiveness has a direct relationship with cooperative learning performance. That means the more cohesive the group, the more productive it is and the more non-cohesive the group, the less effective the group is. More importantly, various investigations (Bruce, 2009; Rego and Domnguez, 1998) have persistently shown that cooperative learning is effective in diversified (heterogeneous) student groups, if the students consider the diversity as a source of enrichment rather than as a deprivation of knowledge and information. Thus, in the present study, the researcher proposed there is a relationship between students' diversity management and application of cooperative learning.

As can be seen in the table 1.1, Gobena (2016) has conducted a research on 'diversity management and students' cross-border learning experiences at selected Ethiopian universities' and found out that institutional service and students diversity management strategies and the collaborative instructional strategies have paved a way to the holistic development of students in a multi-ethnic context at selected Universities. In his case study the Cross Border Learning Experiences (CBLE) refers to a cooperative learning strategy among University students those come from different ethnic, linguistic and religious backgrounds and live cohesively, develop multiple perspectives which enhance social skills needed to live in a diverse society. However, his study has not shown to what extent do diversity management and Cross Border Learning Experiences (CBLE) are correlated with each other. Moreover, Adamu (2013b) also qualitatively investigated that the University stakeholders have weak diversity management experiences to support students develop positive attitudes and promote diversity mainly because of lack of institutional priority as well as poor managers' confidence and diversity management skills. Consequently, these poor student diversity management practices result in adverse effects such as poor language learning and communication skills among diverse ethnic group and linguistic groups of higher education students because students more frequently use local languages than the medium of instruction (i.e., English) in instructional processes. But, this finding did not determine the degree of the nexus between the students' diversity management and cooperative language learning method. Thus, this study is intended to answer the following research questions.

1.3 Research questions: This study was guided by the following

1. What are the trainees and trainers' perceptions on ethno-structural, ethno-cultural and ethno-categorical diversity in Technical and Vocational Education and Training institutions (TVETs) of Southwest Ethiopia People's Region?
2. Is there a statistically significant direct relationship between diversity management and cooperative learning? To what extent is the student diversity management related to the cooperative learning?
3. Is there a statistically significant mediated path from student diversity management to applying cooperative learning via student cross-group interaction?
4. What are the major challenges and prospects of classroom diversity and its management in the implementation of cooperative learning in TVETs of Southwest Ethiopia People's Region?
5. How do trainers at Technical and Vocational Education and Training institutions (TVETs) manage trainees' ethno-structural, ethno-cultural and ethno-categorical diversity?

The perceptions towards what is to be managed (the elements of the student diversity management) are principal component of the 'how of the diversity management'. As a result, the first research question helps us explore the students' and teachers' perceptions of ethnic, linguistic and religious diversity. The second question focused on determining the measures of the strength of association between diversity management and cooperative learning and the direction of the relationship. Here, two things, the magnitude and direction of the relationship were determined. The third research question presents the question of analysis of which dimension of the diversity management (ethno-structural, ethno-cultural and ethno-categorical diversity management) and to what extent it relates to applying cooperative learning.

Subsequently, this research examined the mediation effect of student cross group interaction. The fourth research question was proposed to identify the major challenges (threats) of diversity and its management; it also helps us to find out the opportunities and prospects of the students'

diversity and its management. The fifth research question enables us to assess the way how the trainers manage students' ethno-structural, ethno-cultural and ethno-categorical diversity.

1.4 Objectives of the study

The main purpose of this study is to examine the relationship between the diversity management and cooperative learning in Technical and Vocational Education and Training Institutions of Southwest Ethiopia People's region. More specifically, the objectives of this study were:

1. To investigate trainees and trainers perceptions on ethno-structural, ethno-cultural and ethno-categorical diversity in Technical and Vocational Education and Training institutions (TVETs) of Southwest Ethiopia People's Region?
2. To determine the direct relationship between diversity management and cooperative learning, and mediation effect of student cross group interaction between these variables.
3. To determine the mediation effect of student cross-group interaction between student diversity management and applying cooperative learning.
4. To explore major challenges and prospects of classroom diversity and its management in applying cooperative learning in TVETs of Southwest Ethiopia People's Region?
5. To examine the ways how do trainers at Technical and Vocational Education and Training institutions (TVETs) manage trainees' ethno-structural, ethno-cultural and ethno-categorical diversity?

1.5 Significance of the Study

This study makes the following academic and practical contributions to education policy and leadership: Student diversity management in a teaching and learning setting is a young discipline that affects the application of cooperative learning. As a result, this study contributes to the current literature or body of research by presenting a model demonstrating inclusive learning environments that excel at cooperative learning. A basic practical contribution of the study in the mentioned field of study is that its informative evidence about students' diverse bodies can be used as an enriching factor for higher education institution student learning.

This study can also be used to create awareness among higher education institution instructors and leaders about student diversity management in an instructional setting. The study was more important to the officials (leaders) of higher education institutions because it lets them know about their students in a dynamic classroom and campus. It also educates the College students about their future careers and how to work cooperatively within a diverse community.

1.6 Delimitation of the Study

This sub-section presents things over which I had control, such as location (site, setting), population (participants) and variables of the study.

The sites of this study were the Technical and Vocational Education and Training (TVETs) of Southwest Ethiopia. There are many emerging TVET colleges in Southwest Ethiopia. However, the study was particularly conducted in Bonga Poly Technic College, Aman Poly Technic College, Mizan ATVET College and Tepi Poly Technic College.

The accessible population and samples for this study were TVET students enrolled in level I through level V, trainers and educational leaders in Bonga Poly TVET College, Aman Poly Technic College, Mizan Agriculture TVET College and Tepi poly Technic College.

In terms of the variable, the study was delimited to the three variables. The independent variable has three dimensions (ethno-structural, ethno-cultural and ethno-categorical diversity management dimensions) and dependent variable has seven dimensions (Positive Interdependence, Interaction, Social Skills, Group Reflection, Heterogeneity, Assessment, and Tutoring). The intermediate variable was crossgroup interaction.

1.7. Limitations of the Study

This study was conducted with a number of limitations that could affect the results negatively. The major and overall limitations of the study include the following:

The data collection activities were carried out during the year of the establishment of a newly emerging regional government known as the Southwest Ethiopian People's Region, which was the study's overall focus. The researcher was unable to obtain possible support from the

Southwest Ethiopia People's Region Science and Information Technology Bureau to approach TVET colleges and collect data in a well-coordinated manner due to poor organizational arrangements.

The budget allocated by the sponsoring university was not adequate to stay a long time at the research sites and collect an appropriate amount of data via in-depth interviews. The financial constraints on the study have an immense influence on almost all phases of the study.

Another major limitation of this study was the unwillingness of participants to fill out the questionnaire and be interviewed. Furthermore, some participants were not positive about recording their interview audio transcriptions because they did not trust the confidentiality of the report. Despite the disadvantages, the researcher worked hard to find all possible ways to collect adequate data from the participants while adhering to the informed consent agreement.

1.8 Definition of key terms

Ethnic group: Ethnicity refers to a group of people who have or share large measure of a common culture or similar customs, mutual intelligibility of language, belief in a common or related identities, a common psychological make-up, and who inhabit an identifiable, predominantly contiguous territory (FDRE Constitution, 1995).

Diversity in the classroom: Diversity in the classroom is the variation across groups of individuals in terms of their backgrounds and lived experiences in the multilingual/multicultural classroom, such as, ethnicity, gender, linguistic and cultural background, mental and physical ability, family structures, learning styles, etc. (Janmaat, 2012).

Diversity management: The diversity management refers to strategies of educational stakeholders to promote greater inclusion of students in instructional settings from different backgrounds such as ethnic groups, language, and religion. Thus, assuming such responsibilities in planning, organizing and coordinating student population in-line with ethno-structural, ethno-cultural and ethno-categorical diversity are termed as ethno-structural diversity management, ethno-cultural diversity management and ethno-categorical diversity management respectively (Gebremariam, 2019).

Ethnostructural Diversity Management: It is the function of classroom management in which students of different ethnicities in the classroom are handled by teachers (Schaefer, 2013).

Ethnocultural diversity Management: It is the function of classroom management in which students of different Ethnic and cultural backgrounds are managed by teachers (Schaefer, 2013).

Ethnocategorical diversity Management: It is the management of ethnic fractionalization and representation. It is also the function of classroom management in which student ethnic diversity and stereotyping are managed by teachers (Schaefer, 2013).

Positive Interdependence: it is the perceptions of all group members that they cannot achieve their goals by themselves if the others do not achieve theirs. So, to make the cooperative learning results effective teachers must design and communicate the objectives and tasks to students, so that they understand the efforts of each team member are essential to the success of the group (Jacobs and Seow, 2015).

Interaction: interaction is a state of an active learning environment where all students engage in learning activities, help and support each other regardless of their ethnic, linguistic and religious backgrounds (Gebremariam, 2019).

Social Skills: One of the main purposes of practicing cooperative learning is attaining the social skills. These skills include interpersonal skills, communication skills, decision making skills, and generally human skills (Yassin, Razak, & Maasum, 2018).

Group Reflection: group reflection is the processes of peer assessment by group members in learning activities being carried out. This reflection improves their awareness of the group's strengths and weaknesses, as well as their progress and setbacks, and allows them to take action for correction and improvement.

Heterogeneity: In this study, the level of heterogeneity is associated with a degree of ethnic, linguistic, and religious diversity in TVET institutions in general and intra-group differences in

course working groups in particular. These diversity dimensions enable students to consider and value different perspectives and points of view (Jacobs and Seow, 2015).

Assessment: assessment dimension is a measure of effectiveness of cooperative learning in terms of information, equity, and fairness of the evaluation system at both the individual and group level. Foremost, the evaluation system is a key to the necessary conditions for cooperation (Nelson Laird, Hurtado, and Yuhas, 2018).

Tutoring: Tutoring is an age-old teaching practice. It is an overall support and guidance provided by the teacher to diverse individuals or groups in a diverse manner. Teachers must plan and structure the learning sequence, make sure that the students know and understand the task, monitor the process and observe the students, helping them if needed. Generally, tutoring is guiding tutees through the process of independent learning (Datta, 1994).

1.9 Organization of the Study

This study is organized into five chapters. Chapter one presents the introductory basis for the study. It encompasses subsections such as introduction, background of the study, statement of the problem, research questions, Objective of the study, significance of the study, delimitation of the study, definitions of key terms and organization of the study.

Chapter two presents review of the related literature in line with the association between student diversity management and cooperative learning. In this chapter the review includes both theoretical frameworks and empirical studies. Chapter three deals with the design and methodology employed in conducting the study. It incorporates subsections; namely, proposed research design and methodology, accessible population, sources of data, participants, sample and sampling techniques, data collection instruments and procedures, pilot test, ethical considerations and informed consent, and data analysis method and procedures.

Chapter four provides the presentation, analysis and interpretation of the data collected from both primary and secondary sources. Chapter five presents the major findings of the study, summary, conclusions and recommendations.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter presents the review of related literatures. To do so, the review of the literature places the research focus into context by analyzing and discussing the existing body of knowledge and effectively enlightening the readers about things that are known in the research and where the gaps and tensions in the research exist. In addition to this, a well-articulated, thorough literature review has been made to provide the foundation for a substantial and contributing dissertation. The purpose of this chapter is to develop a well documented argument for the selected research topic and chosen research design and methodology.

The followings are basic contents of the review; overview of diversity management and cooperative learning in educational organizations, evolution of diversity management and cooperative learning, models of diversity management in post secondary education institutions, diversity management and cooperative learning, ethnic diversity management and cooperative learning, linguistic diversity management and cooperative learning, and religious diversity management and cooperative learning. Subsequently, from the review of the related literature, the researcher devised the conceptual framework of the study (see Figure 2.1.)

2.2 The Basic Concepts of Diversity Management in a cooperative learning setting

In today's pluralistic society, the educational system and learning environment should be the reflective of the cultural and ethnic diversity. Subsequently, the learning strategies for diverse student groups are selected in a way that it can provide accommodation to all students (Manning, 1994). Unlike the traditional lecture, cooperative learning can be very useful to involve students from all cultural backgrounds to a new discipline. The teacher can divide classes into smaller groups who must each work toward common learning outcomes. Creating a diversity responsive classroom where students cooperatively work in such learning methods not only trains students for their future careers, but also helps them learn the courses at their hands more adequately

because it engages them more inclusively and teaches them about future working environment within a diverse community (Plessis and Bisschoff, 2007).

Several studies suggest that the ethnicity, language and religion affect cooperative learning (Sharan, 2010; Jacobs, Lee, and Neg, 1997; Gobena, 2016; Gebremariam, 2020).

2.2.1 The Evolution of Diversity Management

Historically, the origin and notion of the of diversity management emanate from the democratization of the workplaces in the two regions of North America and Europe (Vermeulen, 2011). Its practices had two different strands which co-exist: the need to furnish a fair and equitable work environment by mitigating biases and furthering equal opportunities, and the recognition of the intention to boost integration by making practical provisions for cultural differences. The evolutionary history of diversity management in the USA and Britain follows the assimilation approach, conventional ‘equal opportunities’ approach, affirmative action (equal employment) opportunity (EEO/AA) approaches and transformative diversity management approaches. In both North American and European contexts, the root underpinnings of theories and practices of diversity management are unlike. In North America it emphasizes the ‘historical role in absorbing immigrants’ and ‘a value system rooted in equal employment opportunity, antidiscrimination and fairness paradigms. In Europe dominant focus has been on the ‘problems’ of migrant workers and strategies to ‘integrate’ immigrants into the existing labor market and employment structures of each country (Pedersen and Digby, 2013).

The diversity management approach considers the diversity of the general public; the greater the diversity of the selection pool and student population, the more diverse the stakeholder pool that celebrates and respects differences in values, customs, and norms. David (2010) and Goodman (2011) explain that according to the transformative diversity management model, higher education leaders are expected to foster an educational climate in which individuals as well as diverse groups achieve their maximum learning potential. As a result, if the degree to which the implementation of diversity management is transformational and all-inclusive, students’ cross-ethnic learning increases. In the higher education context, transformative diversity management can be accomplished via the introduction of institutional

culture changes. These changes include enhancing the selection of diverse group of students to join the educational organizations, integration of cultural, social and academic experiences into the teaching learning process, promoting the practices that combat inequities in access to academic programmes, and student services (Museus and Harris, 2010).

Pertaining the evolutionary events of diversity management, citing Wilson (1997), Fubara, Gardner and Wolff, (2011) describe three distinct time frames. The first time period is the Age of Inequality, the period extends from 1950 to 1960. This time period was considered as homogeneity and disregarding the minorities' case where "differences in race, ethnicity, culture, physical or mental disability, religion and anything else were noted and responded to negatively. People who did not fit the majority groups have been stereotyped and prejudiced.

The next period of time was from 1960 to 1990, which has been considered as the Age of Equality. This was a period of massive transition prompted by the sexual revolution, the rise of feminism, the antiwar movement and the civil rights movement. Cultural transformations were accompanied by demographic changes. Both the scholarly and the popular press have extensively noted that the American institution, which was historically dominated by White males, is changing in composition in perceptible ways. More women, ethnic minorities, people with disabilities, and others who are both visibly and invisibly different from the mainstream have been entering the workforce than ever before. With this transition came an emphasis on inclusion, minimizing prejudice, and treating people equally. Equality, of course, reflects an imperative step in the human right concern. However, in a diverse society, "treating people equally" often means "treating them like members of the majority group." (Bettio and Sansonetti, 2015)

The last time frame of the evolutionary tree of diversity management was the modern era as the Age of Equity (Wilson, 1997 as cited in Fubara, Gardner and Wolff, 2011). An equity standard involves first recognizing and acknowledging differences, then accommodating those differences in order to treat people fairly. The researcher further contends that the reasoning behind these efforts extends beyond humanity: organizations that are welcoming diverse employees and accommodating of their differences are able to attract and retain the best employees period. Of course, there is an ambiguity between the equality approach (ignoring

differences) and the equity (managing diversity approach, valuing differences). Every organization must strive to resolve the problems that holdback its function and maintain the balance between equal treatment and valuing diversity.

2.2.2 History of Cooperative Learning

The history of people's cooperation has aged thousands of years back. Although the history of cooperation has aged many millenniums, a myth persists that the world is based on the competitive principle of "survival of the fittest." However, cooperation has been found to be directly related to success of the members of the cooperative team, and competitiveness has been found damaging to social work and career success. "The more competitive a person is, the less chance he or she has of being successful" (Kohn, 1996). One of the major studies on peer learning (cooperation in learning) and competitive learning has been conducted by Miller (Miller, 1929 as cited in Yassin, Razak, and Maasum, 2018). In USA, after a long history of peer learning functionality starting from 18th century has run out in 1930s. However, in the late 19th and beginning of the 20th century, educators have promoted peer learning to teach both minority and majority students in the classroom by minimizing the interpersonal competitions (Yassin et al, 2018).

Philosophers and psychologists in the 1930s and 40's such as John Dewey, Kurt Lewin, and Morton Deutsch have also contributed a lot to the cooperative learning theory practiced today. Dewey suggested that it is important that students develop knowledge and social skills that could be used outside of the classroom, and in the democratic society. This theory portrayed students as active recipients of knowledge by analyzing the information and solving problems in groups, engaging in the learning process together rather than being passive receivers of information (e.g. teacher talking, students listening). Lewin has contributed to cooperative learning were based on the ideas of establishing relationships between group members in order to successfully carry out and achieve the learning goal. Deutsch's findings provide cooperative learning by positive social interdependence, the idea that the student is responsible for contributing to group knowledge (Johnson and Johnson, 2018).

The reason why the majority of researchers have agreed on the advantages of cooperative learning over competitive and individualistic learning is found to be its effectiveness to improve students' academic, leadership, and social skills, and develop self confidence to all students in the classroom if it is implemented successfully. (Gebremariam, 2019; Johnson, Johnson and Holubec, 1998; Yassin et al, 2018).

Cooperative learning is fundamentally guided by two theories: Structure-Process-Outcome theory and Social Interdependence theory (Johnson and Johnson, 2018). Although cooperative learning has been implemented in human learning history, there has been a little research conducted on it until the 1960s (Jacobs, Power and Loh, 2002). Since 1960s different researchers in the field of education and behavioral studies have theorized different postulations.

The following table 2.1 portrays that various hypotheses and research that have mainly governed the implementation of the cooperative learning over the period of time.

Table 2.1 Timeline of the History of Cooperative Learning

	Researcher and/or theorist	Research and/or theory developed
1930s - 40s	John Dewey, Kurt Lewin, Jean Piaget, Lev Vygotsky Stuart Cook	Research on cooperation
1960s	Madsen (Kagan) Bruner, Suchman B. F. Skinner 1962-Morton Deutsch (Nebraska Symposium) Robert Blake & Jane Mouton David Johnson Roger Johnson	Research on cooperation & competition in children Inquiry (Discovery) Learning Movement Programmed learning, behavior modification Cooperation & trust, conflict Research on intergroup competition Begins training teachers in Cooperative Learning
1970s	David Johnson 1973: David DeVries & Keith Edwards 1974-1975-David & Roger Johnson David & Roger Johnson Mid 1970s, David DeVries & Keith Edwards, David & Roger Johnson, Stuart Cook, Elliot Aronson, Elizabeth Cohen, others Robert Slavin Spencer Kagan 1976-Shlomo & Yael Sharan 1978- Elliot Aronson	Social Psychology of Education Combined instructional games approach with intergroup competition, teams-games-tournament Research review on cooperation/competition Learning Together and Alone Annual Symposium at APA Begins development of cooperative curricula Continued research on cooperation among children Small Group Teaching (group investigation) Jigsaw Classroom,
1980s	1981, 1983-David & Roger Johnson: 1985- Elizabeth Cohen Spencer Kagan 1989-David & Roger Johnson:	Meta-analyses of research on cooperation Designing Group work Developed structures approach to cooperative learning Cooperation & Competition-Theory & Research
1900s	Early 1990s-1996	Cooperative learning gains popularity among educators -First Annual Cooperative Learning Leadership Conference, Minneapolis

Source: Yassin, Razak, & Maasum, (2018)

2.2.3 Overview of diversity management and cooperative learning in Higher Education Institutions (HEI)

Historically, many literatures have documented that diversity management is a North American concept originated by the Equal Pay Act of 1963 and the Civil Rights Act of 1964 (Bell, 2012; Ellickson, 2001 as cited in Ferdman and Deane, 2014). The history of the integration of diversity management and application of cooperative learning has been evolved from the search for the solutions to a diversified student group and learning strategies (Sharan, 2010; Brazzel, 2003; Lumadi, 2008). The diversity management in the field of education, research, theory and practice came into being out of manifold procedures to respond to the student level, classroom level and institutional level diversity issues and instructional strategies in educational organizations (Sharan, 2010). Some of the main classroom diversity dimensions that require effective management to accomplish successful cooperative learning strategies include individual differences in learning, socioeconomic status, gender, ethnicity, language, geographic location, parents' education, religion etc. (Janmaat, 2012).

In an increasingly global world, student diversity and its management are highly necessary as a means to enable higher education institutions to accommodate learners and educators from various backgrounds. In addition to increasing learning access to all kinds of learners, a diverse learning environment also improves learning experiences and learners' academic performance as proven by empirical evidences. On the contrary, some other findings depict a lack of diversity in colleges and Universities limits opportunities for both learners and educators. The America's higher education system, for instance, has developed the diversity management, which is proactive in fostering the educational benefits of diversity in the classroom and across campus by developing policies that address the learners' and educators' backgrounds (Chen, 2017).

Another explanation of the evolutionary trends of diversity management in higher education evolves from Protest, turbulence, and social unrest about oppression, in the 1960s and 70s, institutional advantages of integration of diversity in 1980s and 1990s and development of theories and methods for supporting humanity, socialization, and organizational change in 2000s (Brazzel, 2003). The twenty-first-century HEIs operate in a vast dynamic world in terms of

social, cultural, technological, political and other aspects and comprising members typified by a diversity of language, ethnicity, values, beliefs, and cultures. Subsequently, their success in the international competition depends on the effectiveness with which their leaders manage diversity (Mampane, 2019).

Lumadi (2008) and Louvrier (2013) have documented that the evolution of diversity management has passed through shrinking, stretching, bending, and fixing phases. The shrinking phase is the process through which scope of a concept is limited to a narrower set of definition and policy goals. The extension of the meaning and scope of the concepts to incorporate different dimensions of diversity management is known as stretching. Bending of a concept aims to fix the meaning of a concept in order to match the policy goals, which are different to the ones that the concept originally intended to address. Fixing phase is the essential step for having a workable definition on which higher education institutional policies could be based. Temporarily fixed definition of the diversity management resulted from the three prior phases: shrinking, stretching and bending. In the process of evolution, a concept can experience one or more of these transformations at the same time. Therefore, it is important to consider these forms of conceptual transformations can be interdependent. However, the concept of diversity management is not universally alike; it is contextual, contested, and temporal.

On the basis of the above evolutionary trends of diversity management, different countries associate their diversity management policies with their business, multiculturalism issues and educational organization policies. In the UK, for instance, diversity management fixed as a policy approach to address multicultural society; bent away from morally driven equal opportunities agenda towards a pro-business one (Liff, 1996); stretched to include multiple forms of difference (Healy and Oikkelome, 2010) and shrunk to instrumental logic and bottom line concerns. Likewise, in France where republicanism and assimilation are promoted and practiced, the diversity management is fixed around values of freedom, equality, and brotherhood; bent to the values of French Republicanism (Al Ariss and Ozbilgin, 2010); shrunk to issues of assimilation of ethnic minorities and stretched to include issues related to culture and gender (Cornet, 2002) and business processes (Dameron and Joffre, 2007). In Germany, the notion of the diversity management is fixed around integration. Subsequently, the diversity management is

bent to address immigration issues; shrunk to gender equality and integration of immigrant ethnic minorities (Koppel, Schler, and Dokow, 2007) and stretched to respond to business needs (Vedder, Van de Vijver and Liebkind, 2006).

Various research findings documented that teachers' understanding, managing and treating their students' political affiliation, gender, learning abilities, ethnic, linguistic and religious differences help them provide positive, confident and interactive learning environment, and raise awareness of individual differences among their students. One of the major classroom provisions to maximize students' learning promotes plurality and inclusive environment where all voices are heard, and all students' needs are accommodated. Such a democratic learning environment, in turn, enhances cooperative learning (Hoosein, 2014).

Furthermore, as indicated by Sharan (2010) full understanding and treatments of the different interests, political, linguistic, social and cultural backgrounds, values, and abilities of group members are in fact the group's greatest asset and enrich the class pool of knowledge. Hence, if these diverse networks among higher education students (i.e., social capital) are appropriately managed, the spectrum of interdependent learning experiences increases. Even though the claim that structural diversity has a positive effect on student development and perceptions of the campus environment is not universally accepted, Pike and Kuh (2006) explain that the relationship between students' interaction with diverse group members and cooperative learning are positive.

2.3 Diversity management models for higher education organizations

In response to increasing diversity in postsecondary institutions in the United States of America, the country has taken various measures in its general public regulations in general and higher education institutions in particular. Some of its measures were working with private and public sector partners, identify and prioritize the skills their students must tolerate the diversity and possess compulsory skills to be successful graduates and then distribute resources across their campuses so those priorities can be achieved. While students of a diverse group is learning together, the instructional leaders should be aware that non-majority students often have difficulty (or have no interest) in assimilating into the majority culture and may feel frustrated

and isolated on their postsecondary campus (Weicheng, 2003 as cited in Chen, 2017). Therefore, it requests teachers' effective diversity management skills in such instructional states as it provides formal opportunities for non-majority and majority students to interact with one another and learn from each other in various contexts is needed. Creating a welcoming campus and classroom climate involves a complex interaction of many elements, both academic and social in natures which directly and indirectly influence cooperative learning among diverse groups of the learners.

2.3.1. Assimilation model

The assimilation model suggests that new people who come into the educational organization adapt to existing organizational norms. The assimilation and integration models mainly promote the view that non-dominant groups should discount their cultural identity and accept or at least integrate into the dominant culture (Olsen and Martins, 2012; Jonna, 2013). In the context of postsecondary education, since these approaches emphasize the integration of non-dominant groups in to the dominant culture, they hardly work towards a reciprocal inter-group relationship that underpins the benefits of cooperative learning.

2.3.2 Affirmative action model

The affirmative action model ensures that disadvantaged student population to get access to all levels of educational organizations. Contrary to the proponents of assimilation model and integrationists' viewpoints, affirmative action model focus on the multicultural theoretical perspective that a non-dominant group should maintain its culture and develop its identity; and that the majority should recognize the rights of non-dominant groups. The affirmative model has often been seen as a corrective approach in which remedial actions are made to bring about an equitable social arrangement without affecting the underlying sources of inequality. Since the approach is based on providing 'positive discriminatory' support to disadvantaged groups, it hardly brings about change which equally benefits both the non-dominant and the dominant groups (Dancy II, 2010; Mitchell and Edwards, 2010).

2.3.3 Diversity Inclusivity model

Another student diversity management model in diverse cooperative learning group is a diversity inclusivity model. Based on the underpinnings of the prior models of recognizing student diversity such as multicultural education (Banks, 2007; Grant and Sleeter, 2008), feminist theory (Maher and Tetrault, 1995; McIntosh, 1983 as cited in Nelson Laird, Hurtado, and Yuhas, 2018), and course planning models (Lattuca & Stark, 2009 as cited in Nelson Laird, Hurtado, and Yuhas, 2018), Nelson Laird (2010, 2014) developed a model that identified a diversity inclusivity continuum for nine course elements (i.e., purpose (goals), content, foundations (goals), learners, instructors, pedagogy, classroom environment, assessment (evaluation), and adjustment (Nelson Laird, Hurtado, and Yuhas, 2018). For example, course content can be broadened from focusing on a single linguistic, ethnic and religious group (mono-cultural group) to incorporating the contents from diverse linguistic, ethnic and religious groups (multicultural groups). The model suggests that it is possible to consider the students' diversity in planning and delivering the higher education courses (see figure, 2.1). Thus, this model is very important to depict the extent to which the pedagogy includes classroom diversity.

Element		Inclusivity Continuum	
Purpose/ goals	Prepare students	→ Prepare students for diverse experiences	→ Prepare students to actively engage in a diverse society
Content	Monocultural	→ Additive	→ Multicultural
Foundations/ perspectives	Unexplored	→ Exposed	→ Multiple foundations/perspectives examined
Learners	Passive acceptors	→ Participants with some learning needs	→ Collaborators with diverse learning needs
Instructor(s)	Unexplored views, biases, values	→ Exploring own views, biases, values	→ Understands own views, biases, values
Pedagogy	Filling students with knowledge	→ Transitional—using varied techniques	→ Critical/equity oriented
Environment	Ignored	→ Inclusive	→ Empowering
Assessment/ evaluation	“Standard”	→ Mixed methods	→ Methods suited to student diversity
Adjustment	Adjustment to cover material	→ Adjustment to some needs of students	→ Adjustment to diverse needs of students

Figure 2.1 Diversity Inclusivity model

Source: Nelson Laird (2014)

2.3.4 Intervention Models of Diversity Management

The intervention model of diversity management suggests how the maturity (age and legitimacy of activity), resources, and strength of support shape the depth of diversity interventions that organizations adopt. Some diversity management activities remain at a superficial level, because they are firm with the intervention strategies that do not change the way higher education institutions embrace diversity and inclusion; others can effect deeper changes in organizations, driving the HEIs toward an ideal state of full inclusion. However, it is rare to find diversity management interventions that seek to resolve the problems of prejudice.

We can divide the strategies of intervention model in to three categories; (1) informational interventions: these strategies of diversity management activities seek to provide information, training, and education to members of staff; (2) Structural interventions, which seek to change and develop organizational structures and processes; and (3) cultural interventions, these diversity management interventions focus on changing the institutional cultures from exclusive and chauvinistic to attractive and welcoming to diverse student groups (Özbilgin, Jonsen, Tatli, Vassilopoulou, and Surgevil, 2013).

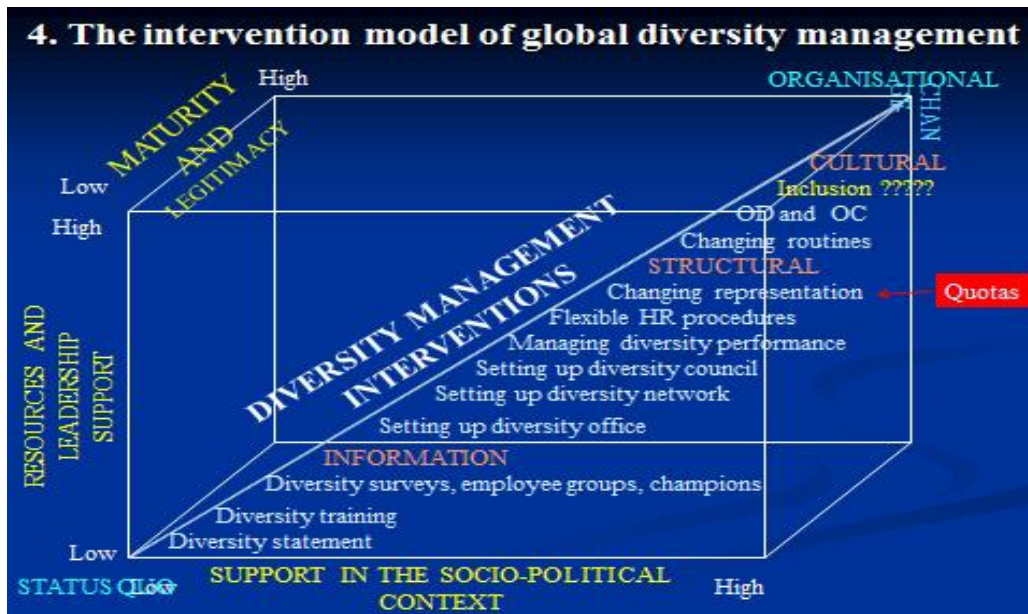


Fig. 2.2 Intervention Models of Diversity Management

Source: Özbilgin, Jonsen, Tatli, Vassilopoulou, and Surgevil 2013.

2.3.5 Multi-Contextual Model for Diverse Learning Environments (MMDLE)

The Multi-Contextual Model for Diverse Learning Environments was devised by Hurtado, Alvarez, Guillermo-Wann, Cuellar and Arellano (2012), students' multiple social identities are at the center of curricular and co-curricular spheres, where they exist in dynamic relationship with faculty and staff identities through practices involving both content (or educational programming) and process (pedagogies and forms of practice). The model was based on a synthesis of nearly 30 years of research on underrepresented populations in higher education. Subsequent to the model, the student diversity and its relationship to learning process can be analyzed. The theoretical framework of this study is governed by the Multi-Contextual Model for Diverse Learning Environments (Yen Ling, 2013). The followings are the major reasons for the selection of this model to guide the reviews.

A. It considers the holistic contexts of the diversity and its management at micro level (Individuals), and Macro level (Institutional level) and (Society and community level). It also considers five dimensions of campus diversity; namely organizational, historical legacy of inclusion, compositional, psychological and behavioral dimensions. The campus ethnic climate framework identifies four dimensions of internal forces – historical legacy of inclusion and exclusion, structural (compositional), psychological, and behavioral (Hurtado, Milem, Clayton-Pedersen and Allen, 1998) and one organizational dimension. A fifth dimension, organizational/structural, was added later, and articulates a different aspect of campuses that focuses on infrastructure and organizations that can enhance diversity. It encompasses institutional policies, processes, and practices (Milem, Chang and Antonio, 2005).

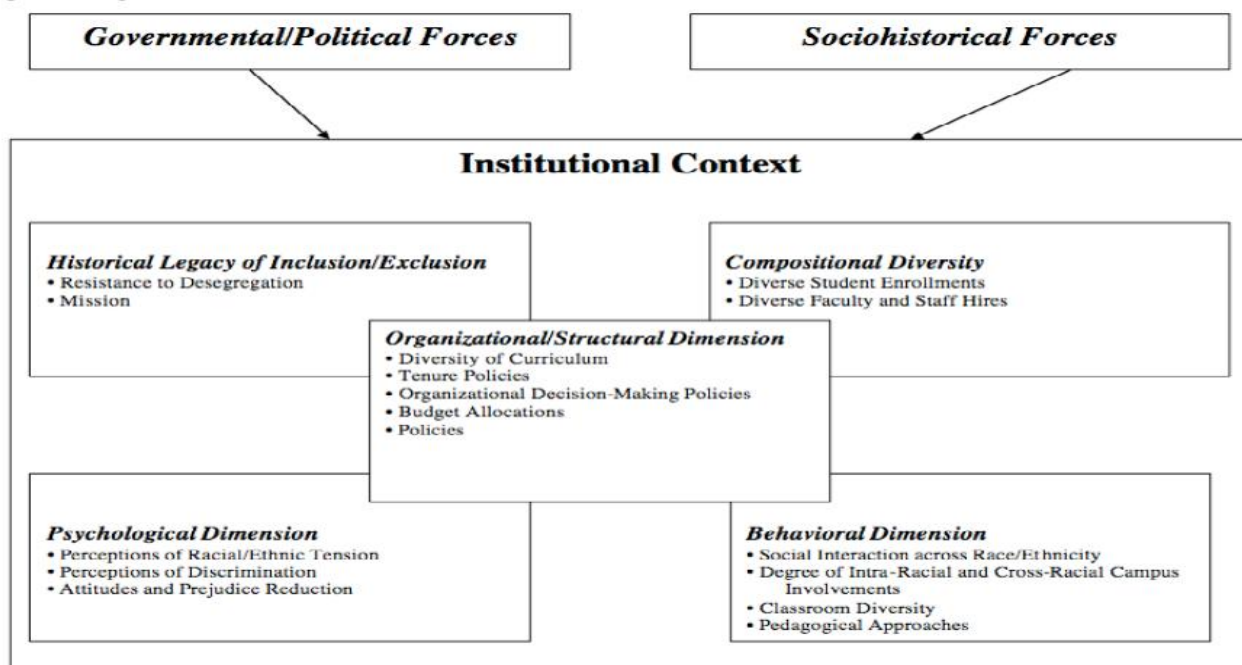


Figure 2.3 Campus ethnic Climate Framework.

Adopted from Milem, Chang, and Antonio (2005), as cited in Hurtado, Milem, Clayton-Pedersen, and Allen (1998, 1999).

- B. It has been found to be a more comprehensive model accounting for diversity management, institutional climate, educational practices, and student outcomes.
- C. It contributed in light of developments in research and new connections identified in the literature.
- D. As part of the model, the developers situated diversity management as embedded in the central tasks of educators and trainers; primarily faculty, administrators, and staff in interaction with increasingly diverse students, all who possess multiple social identities.
- E. Macro level forces that influence the institutions are presented as a way to integrate a variety of procedures to highlight the multi-contextual nature of educating students in a diverse learning environment and learning cooperatively (Yen Ling, 2013).

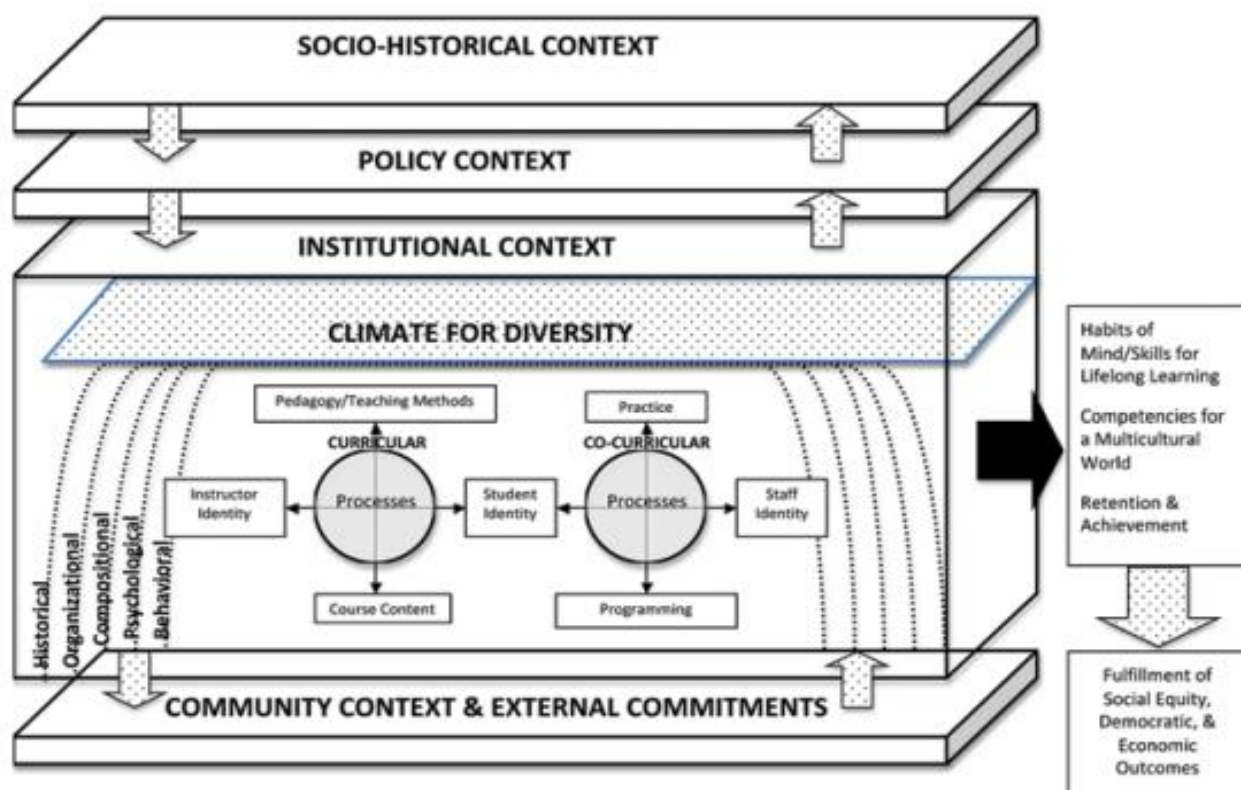


Fig. 2.4 Multi-Contextual Model for Diverse Learning Environments (MMDLE)

Source: Hurtado, Alvarez, Guillermo-Wann, Cuellar and Arellano (2012)

2.4 Diversity management in Ethiopia

2.4.1 Ethno-structural and ethno-cultural diversity management in Ethiopia

The regional governments are encouraged to ensure that the contexts of their institutions reflect the ethnic pluralities that characterize their society. This, first, applies to the regional states that are relatively ethnically homogenous, but still have some minorities in their midst. The recognition of the Kunama and Irob ethnic communities in Tigray regional state, as well as the Agewi and the Oromo in the Amhara regional state. Second, and more importantly, it applies to the ethnically heterogeneous regional states like Gambela, Benishangul-Gumuz, SNNPR and Harari. The FDRE constitution acknowledges equitable representation of each ethnic group reflects the constitutional commitment to accommodate intra-state diversity. By ensuring representation of the different ethnic groups that inhabit the state, it conveys the information that

each region belongs to all who live in it. However, it is yet not clear if ethnic migrants must also be represented in the state structures. The constitution provides different strategies to respond to the case of intra-state minorities and ethnic migrants by employing flexible language policy in education in ethnically heterogeneous regional and protecting the right to statehood and the creation of special woredas zones. These solutions have their own drawbacks in addressing the problems of ethnic diversity (Fessha, 2010).

The right of ethnic communities to self rule is a major feature of the constitution. It has provided ethnic groups with the territorial space that is necessary to promote their language and cultural identity and manage their own affairs. The FDRE constitution has also limitations in responding to ethnic diversity management. The problem with the Ethiopian system is that it overemphasizes ethnic diversity, both in the symbolic territory and in the institutional expression of self-rule. Another problem of the constitution to manage ethnic diversity is the dogmatic approach to ethnicity has resulted in overlooking the consideration of other historically relevant identities, but also the extension of political identity to ethnic groups that do not consider themselves as such. Ethnic groups that have never mobilized themselves politically have been given a lowly political status (Fessha, 2010).

One of the major purposes of the introduction of ethnic federalism in any multi-ethnic setting is ideal to accommodate ethnic diversity while at the same time maintaining national unity. The profound idea is neither to create ethnic boundaries nor to demarcate each ethnic group with a mother state of its own with the resultant consequence that territories are defined as belonging to the regionally empowered group with other groups treated as guests or outsiders. However, from its practice it seems its grand aim has been distorted (Fessha, 2010).

Many democratic states consider federalism as one among the many responses to ethno-national issues. As a result, federalism is often used as a tool of accommodating diversity, but it is not to mean federalism is a panacea to all ethnic diversity challenges. However, it can be employed in an ethnically diverse group of people for two basic advantages: a) it brings about peace and stability in conflicting societies; and b) it entrenches and institutionalizes ethno-cultural justice (Regassa, 2010).

2.4.1.1 Ethno-structural diversity management in SouthWest Ethiopia People's region

Before we review the ethnic diversity management in educational organizations and in the classroom contexts, let's discuss the national and local ethno-political environments around the post secondary education institutions.

The southwest Ethiopia People's region constitute six Zones (Kaffa, Sheka, Dawro, Me'rab Omo, Kanta and Bench-Sheko Zone) . These Zones are ethnically very diverse without any group constituting the majority of the Zonal population and other examples include although the Bench-Sheko zone, and Sheka Zone refer to the Bench, and Shekacho respectively, these groups constitute a numerical minority in their own territory.

2.4.1.2 Challenges of Inter ethnic group diversity management

Educational leaders experience problems in dealing with diversity is not because diversity itself is a problem, as differences have always existed between people and they are what make post secondary education institutions unique. It is problems related to the creation of integrated teams are usually to be found in people's attitudes toward diversity (Badat, 2010).

Socialization with the same. The students from different ethnic groups tend to socialize within their own ethnic groups. However, the leader may believe that the students from all ethnic groups have a good relationship and in an ethnically mixed group they work well together in the classrooms. Likewise, students tend to socialize outside the classrooms with students who share the same ethnic identity and in the classrooms; teachers are encouraged to use heterogeneous groups where students perform better. Students of the same ethnic groups gather together for the purpose of protection and to avoid intergroup tensions that may lead to conflicts. Another challenge that the educational organizations face is developing relationships between teachers and students from different ethnic groups (Handjani, 2014).

Lack of understanding of cultural values and norms of some ethnic groups

The students of higher education institutions should understand the cultures of most of the diverse natures of colleagues through cultural celebrations, but from some of the leaders'

perspectives, it was evident that there is a gap in the leaders understanding of the cultural values and norms of some ethnic groups (Handjani, 2014).

2.4.2 Ethno-cultural diversity management in Ethiopia

2.4.2.1 Linguistic diversity management in Ethiopia

Ethiopia is a home for more than eighty linguistic groups. To manage these groups, an Ethiopian constitution (FDRE Constitution, 1995) makes Amharic as the working language of the federal government (Article 5 (2)), and give the right to the regional states to determine their respective working languages. Moreover, “every nation, nationality and people has the right to speak, to write and to develop its own language” (Article 39(2)).

Because of the plurality of languages in Ethiopia, the FDRE constitution provides the rights to the regional states to adopt their own working language. This makes the regulation of linguistic diversity management a problematic issue in so far as the situation of zones (intra-sub-state) minorities is concerned. However, the troubles of zonal (intra-state) minorities’ language, seems to be resolved, to a certain extent, by the fact that a majority of the ethnically plural states have opted to use Amharic as their working language and medium of instruction in some zones (Fisseha, 2015; FDRE Constitution, 1995). In the Southwest Ethiopian context, the decision has been made to adopt Amharic as the working language in most of zones is understandable where there are more than a dozen linguistic groups. Forms of marginalization of the local languages in that region are also mitigated by the fact that the ethnically defined zones within the regional state use their respective languages in the administration. Ethnic migrants, when it comes to language use, occupy a very different position in the states that are relatively ethnically homogenous. Accordingly, the states of Oromiya, Tigray, Somalia and Amhara have adopted the language of the majority ethnic group as the working language. However, the implementation of this strict policy of monolingualism has been problematic in states where there are large numbers of individuals that do not speak majorities’ language.

Most major urban areas of the states of Oromiya and SNNPR, for instance, are inhabited by Amharic-speaking people in large numbers. Subsequently, the children of Amharic speaking parents forced to school by using majority language. As a result, large numbers of ethnic

migrants that live in these urban centers for decades no longer enjoy the right to use the ethnically plural states have adopted Amharic as their working language. Ethnic migrants occupy contrasting positions in ethnically plural states and ethnically homogenous states. The strict monolingual policy adopted by these states has meant that the large number of ethnic migrants that live in the capital towns of these states cannot communicate in their own language with the public authorities and government offices. The opposing positions of ethnic migrants suggest the need to adopt a balanced approach that would accommodate the interests of ethnic migrants without adversely affecting the interests of people belonging to the indigenous ethnic groups (Fessha, 2010; Adamu, 2019).

2.4.2.2 Religious diversity management in Ethiopia

In Ethiopia, although there are some tensions due to religious conflicts in the recent times, the religious tolerance has been globally appreciated for a long time (Yusuf, 2019). The FDRE Constitution, article 27, proclaims the freedom of religion; therefore, it enhances the multiplicity of diverse religions.

'Freedom of Religion, Belief and Opinion, sub-article 1. Everyone has the right to freedom of thought, conscience and religion. This right shall include the freedom to hold or to adopt a religion or belief of his/her choice, and the freedom, either individually or in community with others, and in public or private, to manifest his religion or belief in worship, observance, practice and teaching. Sub-article 2. Without prejudice to the provisions of sub-Article 2 of Article 90, believers may establish institutions of religious education and administration in order to propagate and organize their religion. Sub-article 3. No one shall be subject to coercion or other means which would restrict or prevent his freedom to hold a belief of his choice.' (FDRE Constitution, 1995).

Therefore, the constitution enhances the religious plurality which, in turn, requests the knowledge and skills of its management so that it can guarantee the co-existence of diverse religions.

2.5 Diversity management and cooperative Learning

There is a deficit of research and literature that directly depict the relationship between diversity management and cooperative learning. However, different researchers (Pike and Kuh, 2006) explain that the relationship between students' interaction with diverse group members positively affect cooperative learning when appropriately managed. Thus, they reason, a statistically significant relationship between interacting with diverse peers and learning to function in a diverse classroom is not necessarily a function of the diversity of the campus. Structural diversity can be positively related to informal cross-group interaction, which in turn is related to diversity influences, thereby producing a significant indirect relationship between the student diversity and learning which may function after students' graduation in the general public.

In the late 19th century, John Dewey, the philosopher, psychologist and educator, sought educational means for establishing and nurturing the connection between the learner and diverse community (i.e., individual and society). He claimed that students' interest in their studies would be stimulated when given the opportunity to bear responsibility for actively being engaged in instructional processes. The developers and researchers of cooperative learning models such as Group Investigation and that of policy makers and even curriculum designers, who seek to make the classroom a relevant place for all diverse students in the complex and fast-changing reality of today's educational organizations, have used his ideas in the field (Sharan, 2017).

The theoretical underpinnings of cooperative learning methods trace their roots to social interdependence theory, conceptualized by Morton Deutsch (Stewart and Paine, 2010); others to a neo-behaviorist orientation and a motivational perspective, where some competition and the accumulation of rewards are incorporated. In all forms of cooperative learning, the group dynamics is an essence that can maximize diverse group interaction and cooperative learning (Slavin, 2010).

2.5.1 Ethno-structural Diversity Management and Cooperative Learning

Ways of managing ethnic Diversity in instruction

Differences in their cultures, language, ethnicity and religion should, moreover, not only be acknowledged, but also be utilized to the benefit of the institution. It is very important, therefore,

that institutional leaders should do their best to establish a climate that is harmonious and a culture in which acceptance and tolerance of diversity of whatever kind are the norm rather than the exception and are related to the institution's vision and mission. Institutional diversity management should be an inclusive process aimed not only at ensuring adherence to policies, but also at generating the kind of institutional behavior and performance that enhances recognition of and benefit from diversity (Dike, 2013).

The significance of knowledge and understanding of the diversity dimensions of higher education institution's population is critical to the mitigation of the stigmatization, the reduction of bias, and the inclusivity of all classes of students (Scheepers, 2010). To this purpose, diversity management strategies should address staff and student inequities in ways that are unique to particular circumstances.

2.5.2 Linguistic Diversity management and cooperative Learning

2.5.2. 1 Challenges of linguistic diversity management in the classroom

As Zadjia (2015) indicated that in most of African education system, the instructional language (the medium of instruction) is not normally used in students' immediate environment, a language which neither the learner nor the teacher understand and use well enough. Researches show that in the linguistically diverse classrooms categorized into three groups of students those get disadvantaged; namely, cultural minority, social minority and academically weak students (Nyaga, 2013). Thus, the following policy attempts have been in place over the times to mitigate the problems of the linguistic diversity in educational organizations.

1. Policy ideologies

(i) Linguistic assimilation. The proponents of linguistic assimilation suggest that every student, regardless of the origin, should learn the widely spoken and dominant language of the society. Under this ideology, monolingualism is seen as functional while multilingualism is assumed as an anomalous. Linguistic assimilation also promotes the sameness and building one nation. The French colonial regime, for instance, practiced some form of linguistic assimilation in their colonies in Africa where people were forced to learn French (Nyaga, 2013). In Ethiopian higher education institutions, although English is the major medium of instruction, due to the problem

of English proficiency most students switch the classroom language to Amharic, Oromiffa and others. The majority of students use Amharic for medium of communication inside and outside of the campuses. The linguistic diversity, by itself, compels the students to use one common language for mutual understandings (IPSS, 2010).

(ii) Internationalism. Since English is the international language, language of technology, commerce and business, many countries are using it as a medium of instruction in their higher education institutions. As a result, internationalism ideology dominates language policies in many countries especially in sub-Saharan Africa where the ex-colonial languages have been given official status and dominance especially in the education domain (Nyaga, 2013).

2. Teachers' attitudes towards linguistically diverse classrooms

Many teachers of linguistically diverse classroom consider the situation as educational deprivation and challenge rather than opportunity to learners. Indeed it becomes a challenge if it is not properly managed. Positive attitudes (orientations) of teachers of linguistically diverse learners towards students' linguistic diversity could effectively overcome the language barriers in their classrooms (Nyaga, 2013).

2.5.2. 2 Ways of managing Linguistic Diversity in instruction

The presence of large number of home languages in many postsecondary education organizations request the implementation of different inclusive strategies in teaching learning processes rather than the traditional modes of education. Some of the ways to manage linguistic diversity in the classroom includes the followings.

1. Multilingual education: constructive language policy

The debates on models of languages of instruction are divided into two classes: monolingual (language immersion or submersion) versus bilingual (or multilingual) education. Supporters of monolingual education are convinced that it is best to immerse non-majority as soon and as often as possible. Within this perspective the non-majority language of students has no place in the classroom or elsewhere in educational institutions and is not included in the curriculum.

Supporters of language immersion programmes do not oppose the principle of multilingual education as such (Sierens and Van Avermaet, 2013).

One of the major ways to respond to linguistic diversity in educational organizations is delivery of multilingual education. Various research studies documented that multilingual education has been responsive to normalize the existence of linguistic diversity in the classroom and empower teaching and learning process. Provision access for students to make use of their linguistic resources in the classroom is also advantageous to students' learning and for their developing multilingual competencies (Cenoz and Gorter, 2014; Garc'ía, Ibarra Johnson and Seltzer, 2017; Garc'ía and Wei, 2014 as cited in Busse, Cenoz, Dalmann and Roggec, 2019). However, in many situations, foreign language education continues to ignore diversity in the classroom and fails to incorporate students' linguistic resources. Failing to make use of linguistic diversity resources is not only detrimental to students with a non-majority background but also to students of the majority population who cannot benefit from the linguistic resources of their peers (Busse et al. 2019).

In the context of mono and bi-lingual education system, Sierens and Van Avermaet (2013) indicated that the students are divided in to either those members of whose languages that enjoy a high degree of cultural prestige, and educational benefits and, whose languages are often felt to have no educational value. Let us consider the arguments advanced in favor of monolingual and multilingual educational models. Proponents of the monolingual model believe that students from non-majority backgrounds should be immersed in the language of schooling; non-majority group's languages have no role to play at the educational institutions because they are seen as obstacles to effective acquisition of the majority language. Proponents of bilingual models, on the other hand, argue that education partly in non-majority language provides a more effective basis for learning the language of schooling than immersion, enhances pupils' self-esteem, and helps to preserve non-majority languages. However, there is no single universal linguistic model that fits all contexts. There are three strategies for responding to linguistic diversity at postsecondary education institutions: a constructive language policy; raising language awareness (linguistic sensitization); and facilitating functional multilingual learning.

These are the major possibilities to deal with linguistic diversity within an educational environment.

Linguistic diversity or multilingualism is a specific aspect of diversity within the educational programme. UNESCO (2009 as cited in Mensah, 2015) advocates language policies that support multilingualism, the use of multiple languages in instruction. It suggests that such policies are central to the long term sustainability of cultural diversity. However, there is no a single definition for the term because different discourses of the multilingualism assign different meanings to it. Here, let's highlight our discussion on multilingualism long focused on language of teaching and learning: what type of language education fits pupils from non-majority backgrounds the best, monolingual or multilingual? The educational organizations choosing a multilingual approach can use more than one language of instruction and administration, and teach their regular curriculum subjects in different languages. In turn, non-majority students enrolled in such organizations can be more advantageous from multi-lingual curriculum than from mono-lingual education (Sierens and Van Avermaet, 2013).

2. Enhancing bilingual education (dual-language) perspective

On the other side of the argument, the supporters of bilingual education are convinced that children benefit from an education in their own language – in addition to or in combination with education in the majority language of instruction, which for them is a second language. They argue that education in the mother tongue provides a more effective basis for learning the language of instruction than total immersion. Secondly, learning their native language in postsecondary education would improve the wellbeing of children from the non-majority backgrounds by supporting positive identity construction, which is known to have a positive influence on academic achievement. Thirdly, teaching non-majority languages helps these languages to survive over time. The United States and Canada has accretion of long term experience with bilingual and multilingual education for students from both majority and non-majority groups, especially Spanish and/or English programs for the Spanish-speaking population of the USA (Sierens and Van Avermaet, 2013).

As Cole (2008) indicated students proficient in languages other than medium of instruction learn more effectively in dual-language learning environment. This approach is important for a number of reasons. First, diverse people's language is recognized, accepted and respected when it becomes a subject being taught to their instructional medium-speaking peers. Second, potentially bilingual students can share their native-language expertise as peer tutors to instructional medium-speaking peers who are learning a second language for fortification; in the process, they gain experience working in English as well. Third, the long-term benefits are enormous because, in this additive bilingual strategy, students proficient in languages other than instructional medium-speaking students become bilingual. Fourth, it mitigates the problem of discrimination against the linguistic groups of students. Second-language learning has mutual advantages for both English-speaking monolingual students and non- English speaking groups because it improves over times when they communicate informally at certain times in the classroom, during the school day and outside the classroom in their second language. This kind of second language learning strategy for a diverse student group does not rely merely on the teacher as the locus of teaching. Students become tutors and resources for one another; second-language learning is reciprocal.

3. Language awareness raising: linguistic sensitization

The impression of language awareness presents postsecondary education institutions with another way of managing linguistic diversity (Devlieger, Frijns, and Sierens, 2011). Interaction between students themselves and between students and teachers remains an important factor in the creation and shaping perceptions against different languages, non-majority language speakers and multilingualism (Rampton, 1995).

The awareness creation about the coexistence of different languages in the classroom is important to help students develop positive perceptions towards linguistic diversity and to create a positive attitude towards all languages. During the sensitization about linguistic diversity we need to consider its two dimensions; social-emotional and social-cultural dimensions (Sierens etal, 2013).

A positive attitude towards linguistic diversity may contribute to a better understanding between students in the classroom and elsewhere at the educational organizations (Gebremariam, 2019; Wright and Tropp, 2005). It also contributes to express their ideas, opinions and feelings in their own language, develop self confidence, social skills and positive self image.

4. Functional multilingualism and cooperative learning

Functional multilingualism is an access for the choice of a particular language based on the specific contexts in which the language is to be used (Verhoef and Venter, 2008). The teacher encourages students to help each other in the execution of a group work or in the presentation of group work. This approach demands a cooperative learning method: the teaching environment should allow students to interact on a regular basis and should not be entirely teacher-directed. During such intensive interactive moments the linguistic skills of the students help to solve problems (Mensah, 2015; Sierens et al, 2013).

In cooperative learning approach and usage of different languages, both teachers and students are beneficial. Some of the advantages of it includes; the teacher reinforces the insights, the students gained about the processes or events, When those students who speak certain language explain something to students who speak another language and the teacher paraphrases this using the medium of instruction to all students, in everyday life a fine line separates language awareness and the functional use of different languages; many research findings affirm that the functional applicability of home languages in the classroom has positive relationship with the effectiveness of learning processes and students' academic achievements, the recognition of linguistic diversity at educational institutions as an added value rather than a 'problem' or 'deficit' and it maximizes the best learning opportunities for all children (Mensah, 2015; Sierens et al, 2013).

5. Code-switching and code-mixing

Code-switching and code-mixing are the most studied classroom sociolinguistic phenomena. Different scholars have defined the terms in different ways. Some of them define code switching as "the intersentential alternating use of two or more languages or varieties of a language in the same speech situation." In connection with it, code mixing has been defined as the

"intrasentential use of two or more languages or varieties of a language" (Kamwangamalu, 2010). However, Waris (2012) opposes this statement by indicating that Code-switching can occur between sentences (intersentential) or within a single sentence (intrasentential). According to his article Code mixing usually occurs when conversant use both languages together, switch between the two languages to the extent that they change from one code to the other in the course of a single speech. In some cases, both Code-switching and code-mixing are traditionally defined synonymously (Nyaga, 2013).

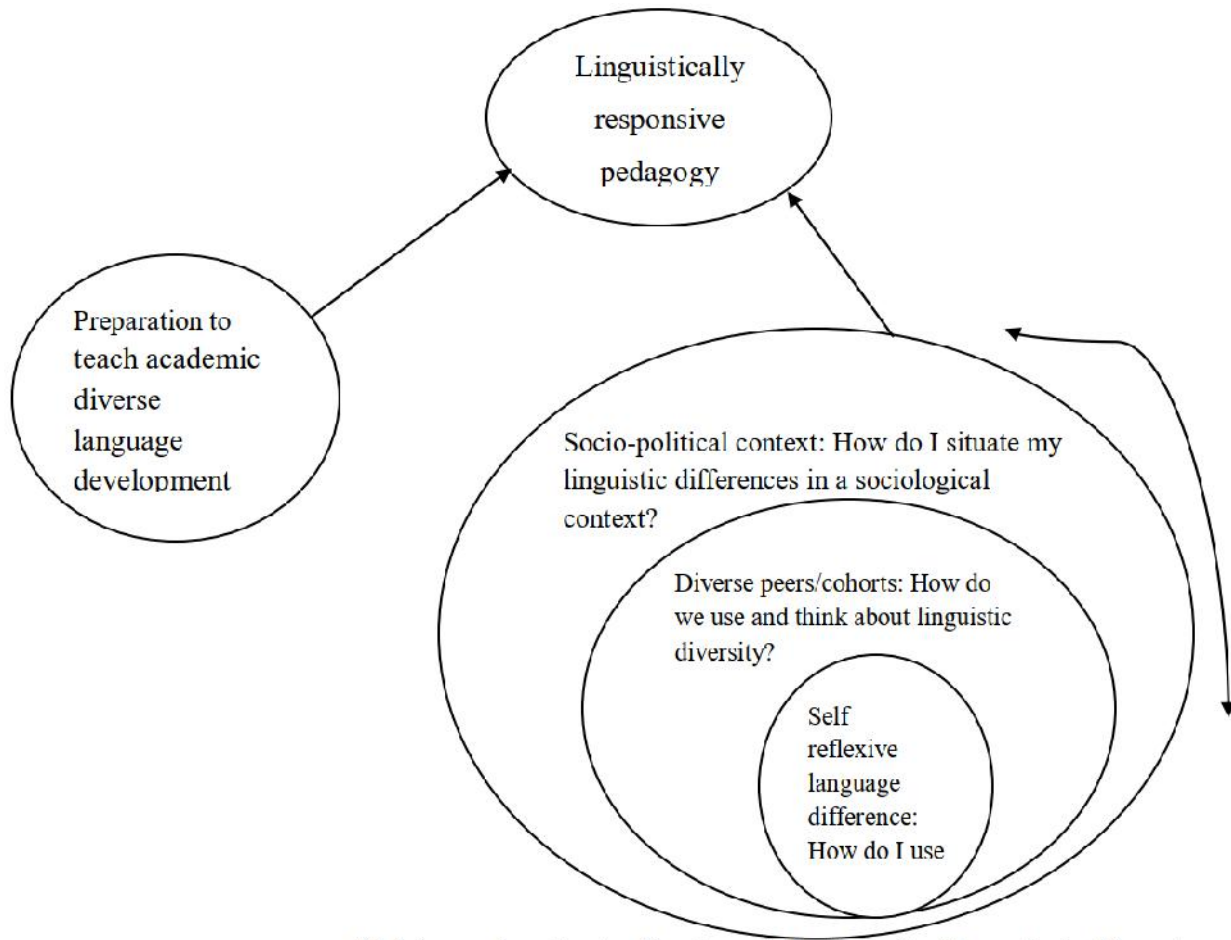
They involve the alternation between languages, and are common instructional strategies in bilingual and multilingual contexts in managing classroom linguistic challenges that confront teachers. Code alternation functions best when all students are competent speakers of the languages involved, but in submersion classrooms it is more of a coping strategy for dealing with a foreign instructional medium and does not necessarily contribute to second language learning (Benson, 2004).

6. Linguistically responsive pedagogy

Richards, Brown and Forde (2004) claim that culturally and linguistically responsive pedagogy facilitates and improves the access of learning for all students. If the classroom is a linguistically responsive, there will be effective teaching and learning, and the application of cooperative learning among diverse group of students. The linguistically responsive pedagogy has three dimensions: (a) institutional, (b) personal, and (c) instructional. The institutional dimension reflects the diversity management and its policies and values. The personal dimension stands for the understandings and the perceptions of the teachers towards linguistically responsive pedagogy. The instructional dimension includes objectives, contents and materials, methods, and activities that form the basis of instruction. All three dimensions are important for the effectiveness of the teaching and learning processes in a diverse classroom.

In classrooms where the medium of instruction is English and students using diverse home languages, linguistically responsive teachers may organize the group of culturally diverse students in the classroom so that students can have more opportunities to learn from each other. This kind of teaching practices enhances the learning environment that values diversity and

inclusion and maximizes students learning opportunity. Research shows that students are more beneficial if their native language is used as the medium of instruction. Accordingly, in a classroom where multi-lingualism is not functional, one can treat the classroom students as of prestige language versus marginalized and indigenous language speakers. But, linguistically responsive pedagogy may respond to this question (Jarosinski, 2019).



Valuing and understanding linguistic diversity: From the inside out

Figure 2.5 Postsecondary pedagogy for linguistically responsive teaching

Source. Adapted from Achugar, Schleppegrell, and Oteiza (2007).

Note. The figure depicts the understandings of linguistic diversity as repertoires for using as integral part of classroom instruction. Concentric circles show movement for prospective

teachers from inside out: self-reflexive inquiry, explored and deepened in a linguistically diverse cohort of education students (prospective teachers), and embedded within sociopolitical contexts.

2.5.3 Religious Diversity management and cooperative Learning

Religious diversity is often times used as synonym for religious pluralism and/or religious tolerance. Although the religious diversity includes religious tolerance, the two concepts have distinct meanings. Religious diversity is more than mere tolerance of differences it requires some knowledge and acknowledgements of differences. There is no doubt that tolerance is important as it helps to resolve religious disputes peacefully. Religious diversity is more than the mere tolerance of religious differences; but it encompasses the recognition and acknowledgement of the religious differences. It also requires some knowledge of the differences (Haarscher, 2008).

The most recent Ethiopian census, conducted in 2007, estimated 44 percent of the population are the followers of the Ethiopian Orthodox Tewahedo Church (EOTC), 34 percent are Sunni Muslim, and 19 percent belong to Christian evangelical and Pentecostal groups. However, after the 2007 census, the population has significantly increased. The demography about the distribution of believers, the EOTC predominates in the northern regions of Tigray and Amhara, while Islam is more distributed in the Afar, Somali, and Oromia Regions. The majority of Protestant Christians in the SNNP and Gambella Regions and parts of Oromia Region. The religious minority groups, groups that together constitute less than 5 percent of the population, have joined Eastern Rite and Roman Catholics, members of the Church of Jesus Christ of Latter-day Saints, Jehovah's Witnesses, Jews, and practitioners of indigenous religions. The Rastafarian community numbers approximately 1,000 and its members primarily reside in Addis Ababa and Shashemene town in Oromia Region (Theodros, 2017; US State Department, 2019; CSA, 2007).

Religious diversity as part of cultural make-up, is one of the thematic areas of research and instruction in higher education institutions, because our religious values are components of our intrinsic behaviors (affections) as a component of learning outcomes (Warner-Soderholm and Kriger, 2014). Thus, the management of religious diversity is the function of educational organizations to entail supervision and a process that involves the furnishing learning environment where all students from diverse religious background can school without prejudices

(Schnke, 2015). As White (2009) indicated in response to the religious diversity, the teachers and educational administrators should be aware of the religious practices of students. In addition to this, since the religion exists within multiculturalism, it should not be ignored from the curriculum.

2.5.3.1 Possible strategies of managing religious diversity in postsecondary education institutions

A. Recognizing classroom religious diversity

Warner-Soderholm and Kriger (2014) suggested the following techniques for managing the classroom religious diversity in higher education institutions. (1) Promote the religious pluralism; with the constructive interaction between different religious communities within a higher education institution, leads to religious pluralism. (2) Respect the religions of others; creating a classroom should incorporate climate where beliefs and personal values are explicitly valued. The teacher should also actively show professional curiosity and openness for the religious practices, values and beliefs of others. Consider other's religion in and outside of the class as an opportunity for learning and reflection. (3) The teacher should be a role model to trust others; Spiritual beliefs and values are deeply ingrained. As a result, it is important to recognize the diversity of values and religion-based behaviors of students and others.

The teacher should actively seek out interaction with students and others from different spiritual cultures and practice what he or she preach; this helped both the teachers and students to be flexible in their worldviews and to grow both professionally and personally. Teachers' life can then tend to be filled with more trust, compassion and tolerance of religiously and culturally diverse students. Teachers' spiritual practice in the classroom is often largely invisible because their actions do not come with explicit religious labels. (5) Combating religious illiteracy; In response to the recognition of the religious diversity, public schools are required to inform administrators and teachers about the religious practices of their students. Religious discrimination emanates in part from religious illiteracy. Due to religious illiteracy some teachers often fail to discuss or even understand the religious dimensions of policy challenges. As Guo (2012) indicated one of the resolutions to religious illiteracy is creating awareness to the

educators and educational administrators that the religion is an important part of a well-rounded academic education. Learning about religion will also help teachers and students overcome their fear and support social interaction between non-majority and majority students.

B. Institutionalizing religious diversity management

Another strategy to manage classroom religious diversity is institutionalizing the recognition of diverse religious values. It is important for educators provide institutionalized means for the explicit recognition and representation of oppressed groups. Some of such strategies include modifications of curricula, using different media to enhance religious diversity, dress codes, provision of prayer rooms for Muslim students (Kanu, 2008 as cited in Guo, 2012).

C. Secularism and religious freedom

The word secularism was derived from the secular education movement for the complete separation of religious thoughts from other forms of education. Secularism is commonly defined as the idea that religion should not get in the way with or be amalgamated into formal education system. Because of the breadth and comprehensiveness of the term secularism, there is no a single universal definition. However, the idealists, on the one hand, propose that the spiritual elements of human life should not be ignored. On the other hand, the materialists suggest that the general measure lies in the conviction that life can be best dependent on by applying ethics, and the universe best interpreted, by process of reasoning, without reference religious values. A secular principle of a democratic governance of a religiously diverse society requires the religious members to respect one another's religion to live together (Berhane, 2009).

The Ethiopian Constitution, Article 11, states that 'The state shall not interfere in religious matters and religion shall not interfere in state affairs.' Therefore, this article declares the positions that the state power should not interfere the religious decisions and the religious institutions should not influence the public policy and decisions (FDRE Constitution, 1995). Despite the article, Abbink (2014) indicated that in some cases the federal government has been intervening the Islamic affairs. So, he recommends that it demands significant consideration to be taken to not overlook the regional and local policy sets of religions and higher education institutions' secularism. In England, the school system enhances the tolerance

of every student's religious conviction by expecting that the religions are teaching the future generations to be tolerant, loyal, open minded, patriotic and respectful to others (Modipa, 2014).

2.5.3. 2 Approaches and theories depicting the correlation between diversity management and cooperative learning

Symbolic interactionism

A micro-sociological viewpoint called symbolic interactionism focuses on the face-to-face interactions that occur between people. According to this perspective, human thinking, experience, and behaviour are primarily socially orientated because people communicate through symbols that are translated into language. Because symbolic engagement is necessary for social continuity, society and individual interaction cannot exist without symbols.

From a social constructionist standpoint, it is impossible to execute cooperative learning successfully without taking into account the main elements of symbolic interaction (Johnson and Johnson, 1996).

Functionalism theory

One of the major theory schools in western sociology is functionalism theory. According to the theory, every member of society should routinely contribute to its development through cooperation. The link between education and social organisations is emphasised by the functionalism idea in education. Furthermore, the purpose of education ought to align with the relevant social context inside the educational framework. Education's primary purpose is to support the social, political, and economic systems. This study provides a brief overview of the evolution of functionalism in Western Sociology and provides an examination of education function from a functionalism standpoint.

The Structural Approach

The structural model has been developed and used since the 1960s. The structural model advocates mitigating violent and discriminatory structures of learning. This model, on the other hand, embraces student diversity management while applying cooperative learning. Cooperative learning is an age-old teaching method (more than forty years old) and dozens of research studies (Johnson and Johnson, 1989, 1994a, 2000, 2009; Marzano, Pickering and Pollock, 2001) have

verified how cooperative structures of learning can reduce the academic gap between learners, increase educational equality, boost achievement, improve mixed-ethnic relations, replace racism with understanding and empathy (Kagan and Kagan, 2009).

Nakagawa (2003) states that students get together for academic and non-academic purposes such as building team spirit and positive relationships among students, information sharing, critical thinking, communication skills; and mastery (learning/memorization) of specified subject matter. Many of the structures can fulfill a number of aims simultaneously, depending on how the teacher uses them. Structures can be mixed and matched, and adapted to the particular student group. Holt (1993) also notes that this variety is necessary because the structures have different functions or domains of usefulness. Different structures are useful for distinct objectives such as team building, class building, communication building, mastery learning, and concept development. Structures differ also in their usefulness in the academic, cognitive, and social domains, as well as in their usefulness in different steps of a lesson. Thus, the effectiveness of application of cooperative learning is associated with its structure and the purpose of the team building.

Student diversity management has a positive interplay with Cooperative learning than individualistic and independent learning. However, the students' diversity management in structural model is through focusing on the socio-metrically conducted classroom management (Johnson and Johnson, 1999).

The Inclusive System of Education (ISE) Model

The Inclusive System of Education (ISE) for student diversity management has been operational since 2003 in Hungary. The ISE model is a system level (i.e., educational system) that opposes the educational segregation and stratification and enhances inclusiveness from the educational practice to the classroom level. It also describes the inclusiveness of the diverse group in education system from classroom to the system level (Arató, 2013).

The Post-Structural Approaches

The post-structural approaches of cooperative learning underlies to a scientific shift in education. This paradigm is a deconstructive model of a structural approach. By the means of cooperative structures, the prior paradigms were de-constructed the hierarchical social stratifications, ethnocentrism and anti-democratic structures within classrooms, schools, higher education institutions and the whole public education system. The post-structural paradigm advocates the restructuring of learning and inter-ethnic interactions between the learners by changing the behaviors (Arató, 2008, 2010, 2011; Arató and Varga, 2006, 2012; Benda, 2007).

Re-structuring the learning process is a post-structural action from the aspect of traditional structures of learning because it goes beyond the simple structures of a frontal class-work, traditional group work, or socio-metrically conducted management of the diverse classroom. It debugs the ordinary hierarchical learning structures and creates open atmospheres by increasing access and cooperation to all kinds of the students to learn. It also sets up new structures with the purpose to break down the given social structures within a class of learners belonging to the same learning group and to enhance cooperation among students with different backgrounds (Arató, 2014).

In educational institutions those accommodating diverse learning groups, the state of diversity management determines the measures of cooperative learning (Karssen, Vander Veen and Volman, 2016). More specifically, this study is intended to examine the relationships, challenges of classroom diversity and its management in link with cooperative learning in Technical and Vocational Education and Training institutions of Southwest Ethiopia.

2.5.3.3 Challenges of managing diversity and cooperative learning at HEIs

i. Negative attitude against the integration of diversity to the existing system: to combat the negative attitudes towards campus diversity, arranging possible settings to a diverse student population talking about their feelings and listening to the feelings of others. This could be done through assigning group tasks to mix of student groups, organizing various clubs on democratic culture (inclusion), team-building exercises, student-staff discussions, diversity workshops, and

the inclusion of all those attached to the institution in deliberations and decisions that might affect them (Mampane, 2019).

ii. Rigidity of leadership styles of instructional leaders: Effective educational managers never assume that people want to be treated according to established rigid standards because it is not open for the accommodation of individual differences and/or the needs of diverse stakeholders (Engelbrecht and Bhengu, 2015). Irrelevant leadership style that does not well-consider the nature of people and the operation or task dimension in the higher educational institutions is a factor that holds back factor that desecrates the success of diversity management and instruction.

One of the yardsticks to measure the effectiveness of diversity management in higher education institutions is its flexibility to swiftly changing global contexts and local population dynamics. Institutional leaders should therefore create opportunities for stakeholder to participate in decision making, think and freely contribute ideas on policy development that would benefit the whole educational organization. Workshops aimed at training stakeholders in policy development and the leadership processes that could bring about transformation, particularly useful in this regard since they give partners a sense of being empowered and sense of ownership in every institutional and national concern. By doing so, the institutional leaders give opportunities to the diverse student population to exercise democratic leadership via exerting talents to commit themselves wholeheartedly to the change and persuade others to change their negative attitudes toward transformation into positive ones (Malloy, Osipov and Vizi, 2015).

2.6 Strategies of managing diversity and effectiveness of cooperative learning processes

Diversity management in higher education informs instructional leadership. The following section presents the basic standards of Professional practice that guide the diversity management practices in postsecondary education.

i. Selecting responsive instructional materials and learning methods to diversity in the classroom

Research findings have documented that a suitable pedagogy for the diversified classroom has direct association with the student centered learning methods. Furthermore, most cooperative

learning researchers are also educators who have designed a variety of methods (that consist of steps to be followed systematically), models (that present guidelines that can be adapted flexibly), and short term procedures to promote learning together in small groups. Common to all cooperative learning methods, models, and procedures is that they organize the learning groups from diverse students' backgrounds to work together, in such a way that they can only succeed in completing the work through behavior that demonstrates interdependence, while holding individual contributions and efforts accountable (Sharan, 2017).

The classroom adaptation strategy can be employed by individual instructors through adjusting the instructional materials and course works to the classroom group dynamics context (Gooblar, 2017). Instructors' curricular material and methodology selection, including their individual interactions with students, can foster inclusive classroom climates. Research indicates that trainings for both educational leaders and students can be more effective when they involve in active learning techniques, not teacher centered methods, so participants engage with the course content, and when the trainings avoid assigning blame or responsibility to participants for current diversity issues (Bell-Ellwanger, 2016).

Regarding the diverse classroom responsive instruction, Jeannin (2013) in her study suggested that teachers should include local examples and encourage students to experience various communities' issues to share, exchange, and learn from others. Moreover, the quality of learning improves by a contextualized teaching approach that makes the course locally and culturally relevant. Teachers should also recognize student's diversity in prior knowledge, especially for historically or socially sensitive topics such as interethnic, cross-cultural, inter-linguistic and inter-religious relationships.

Using different methods to teach diverse learners is imperative for adaptation of teaching to meet different needs and students backgrounds. As Bartolo, Cefai, Calleja, and Chetcuti (2007) demonstrated the followings as two underpinnings of using instructional differentiation to accommodate the religious and cultural values of all students; (a) the need for a constructivist approach to education that requires to consider the students backgrounds: their cultural background and entry behavior including prior knowledge and experiences, their interests, learning styles (ways of learning), and readiness levels (previous learning in each area of the

curriculum); and (b) the need to understand the coverage of the curriculum so that one can adjust it to the diversity of student strengths and needs.

ii. Organize the classroom to promote equal valuing and participation of diverse students

The classroom seating arrangement can either facilitate the cooperation of diverse student body or marginalize students with high levels of challenge. Inclusion may request for a little difficulty and creative thought when determining who sits where. Members of diverse cooperative group need to assume different responsibilities. Sometimes, however, certain students are abstained from specific responsibilities due to the nature of some challenging conditions (Bartolo et al., 2007).

In some situations, despite being educated in mainstream settings non-majority learners are not fully included in the social life of higher education institutions. When pupils with special educational needs do have opportunities to work with or alongside peers this is usually with low attaining children or other children with learning difficulties. Various research studies present different reasons in-line with such classes of students; while some of these social isolations are due to the difficulties that have led to the designation of special educational needs, much of it may be due to unintentional or, in some cases, deliberate separation from the class. These learners are often viewed as lacking the social skills to engage, and potentially become academically dependent on peers or diverting other children's attention away from their learning (Baines, Blatchford and Webster, 2015). With regard to these challenges, Gebremariam (2019) suggested that some of the HEIs' courses should integrate communication skills, engaging students in different club responsibilities and different skill trainings like life skills training should be strengthened to enhance students' social integration.

iii. Developing trust and engaging individual cultures

This strategy serves to maintain the integrity of non-majority student groups, and exploring that the lack of diversity in colleges and Universities is deprivation of teaching-learning processes. Instructional leadership then must focus on nurturing trust within the diverse learning environment. Instructors may aim to achieve this objective through the development of new

pedagogical approaches and applying cooperative learning methods in which their performance is evaluated based on how they nurture positive relationships with their students. Furthermore, it is necessary for instructors and educational leaders to undergo training in cultural competence, especially for majority group member instructors who may have limited knowledge and awareness of diversity (Chen, 2017).

iv. The stakeholders should be Models

Instructors and educational administrators should serve as role models of tolerance, cultural awareness, and inclusive education, not only for students but for their colleagues as well. Appointing educational leaders from different ethnic, linguistic, and religious backgrounds makes the learning environments inclusive for the students (Aguirre and Martinez, 2014). Colleges and universities that are dedicated to advancing diversity as an institutionalized value must consider faculty of different ethnic, linguistic and religious dynamics as more than a tool, strategy, or demographic number. Hence, instructors and educational officials must aim to manage diversity by nurturing equality and cultural competence in the higher education institutions and developing trust to establish a helpful and supportive learning environment for all students (Chen, 2017).

v. Developing new admission policy and inclusive education policies

This strategy recommends the higher education institutions and other stakeholders to provide equal access to higher education admission. It also enhances the structural diversity of higher education students which can be achieved through increasing the proportional representation of non-majority groups. In addition, institutional policies that increase the compositional diversity of an institution indicate that diversity is highly valued by the institution and its leaders (Milem, Mitchell, Chang and Lising, 2005). This can also be performed through trainings and increasing the awareness of campus communities and instructors on the issues (Chen, 2017).

vi. Introducing diversity into the higher education institutions through a systemic approach

Introducing diversity into the university from a systemic approach has the propensity to challenge the historical understanding of power and equity and is necessary as colleges and universities prepare their students for the global society of the 21st century. Aguirre and

Martinez (2003) used two approaches to demonstrate the interrelationship between diversity and institutions of higher education. Specifically, they considered the connection between the role of institutional leaders and the implementation of diversity in the higher education institutions. They concluded that the higher education student group dynamics impacts the advancement of cross-cultural learning. Institutions that incorporate diversity into the framework of their organization are more likely to be successful in institutionalizing diversity as part of the overall culture.

According to Milem, Chang and Antonio (2005), successful diversity management cultures in higher education institutions must provide all students with the full range of educational benefits accrued through cross-ethnic, linguistic and religious interactions (Chen, 2017).

vii. Integration of diversity management and instruction with institutional aims

Bell-Ellwanger (2016) noted that different stakeholders of Higher education campus leaders may consider aligning policies and practices across the institution with their mission statement. In turn, it could be connected to the institution's overall strategic plan and vision for student learning and success. The implementation of the campus diversity management need not be considered the sole responsibility of designated institutional officials or line managers. Institutions could also build their capacity to collect and analyze the data required to set and manage their diversity and inclusion efforts in order to facilitate assessment of the achievement of diversity management plan.

Derek and Kecia (2004) found out that some of the benefits of content and diverse group include provision for variety approaches to help students of all types of acquire the necessary competencies, to enable teachers successfully manage diversity as per needed in the 21st century, and to provide information indicating which methods tend to be more effective, although empirical evidence of that sort is scarce. Lyon and Guppy (2016) also found out that interaction between diverse students and good diversity management enhanced positive learning outcomes and less intergroup conflicts.

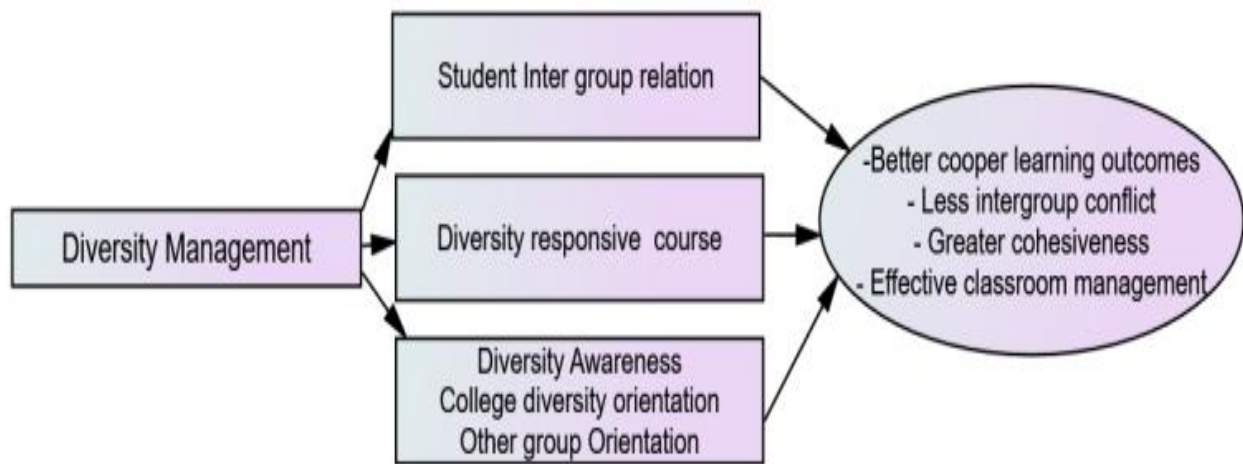


Figure 2.6 Modified model of the integration of diversity management with course contents and its outcomes

Source: Adapted from R. A. Derek & M. T. Kecia (2004). Blending Content and Contact: The roles of diversity curriculum and campus heterogeneity in fostering diversity management competency. *Academy of Management Learning & Education*, 3 (4), 380-396.

viii. Institutional Awareness

Mampane (2019), in his study on “higher education diversity management in South Africa” suggests that stakeholders should have a clear understanding of the meanings that different groups of people attach to terms (concepts) such as diversity, ethnocentrism, unity, religiosity, culture, beliefs, values, traditions, equity, etc. Awareness of higher education institution leaders as diversity advocates, by implication, help integrate staff and students in their institutions. They should also have knowledge and skills to manage change in general (developmental, transitional, and transformational) and in the management of diversity in particular. They should be equipped with the communication and influential skills required to convince, inspire, and motivate others. They also need to have the emotional intelligence and motivational skills needed to sensitively manage institutional transformation interactions between staff with different expectations, fears, and cultural or other orientations.

ix. Participation of diverse stakeholders

Those instructors who strive to manage classroom diversity employ a bottom-up leadership style that fosters partners' participation. In inclusive higher education institutions, decision-making and management procedures are participatory. In inclusive process all parties who have a stake in the achievement of institutional success will be engaged in planning, implementation and decision-making on diversity management. One of the best functional models of diversity management in South Africa is the involvement of communities and the decline of residential segregation, separate schools, and sports as well as the differential treatment of racial and ethnic groups (Mampane, 2019).

x. Ensuring the curricular materials promote equality and diversity

Regarding the effect of diversity management on teaching and learning processes in postsecondary education institutions, the government of USA, Department of Education has rendered its efforts to help postsecondary education institutions to voluntarily pursue campus diversity; promulgating discretionary grant priorities that can be used to promote racial, ethnic, and socioeconomic diversity at postsecondary institutions in Department of Education-funded grant programs (Bell-Ellwanger, 2016)

xi. Selection of appropriate group dynamics

Institutionalization of the diversity management is the act of putting the following principles of diversity management in to practice. These are recognizing ethnic and cultural diversity in the curriculum; using appropriate teaching methods which encourage students from all ethnic, linguistic and cultural groups to participate; monitoring assessment and results to check that fairness to all groups is demonstrated; considering the institutional calendar to ensure that major cultural and religious holidays are recognized; ensuring that higher education institutions' publications do not contain hate speeches and assumptions about the ethnicity of the students; developing proactive policies against discrimination and harassment; and providing places for all faiths to carry out acts of worship. Thus, the provisions for these principles, on the one hand promotes the equality among the learners and on the other hand, provides well-coming learning environment for all students (Claeys-Kulik and Jørgensen, 2018; Howard, 2010).

Table 2.2 Types of Cooperative learning teams and diversity management

Cooperative learning teams	Degree of heterogeneity	Group diversity management
Heterogeneous team	- Recognizes group dynamics, mixed group formation	➤ Easier to manage diversity
	- Mixed ability, sex, ethnicity, language, and religion	➤ Maximizes tutoring ➤ Requires more teacher preparation time ➤ Ranks and categorizes students ➤ Limited leadership opportunities
Random team	Randomly formed teams	➤ Diversity not ensured ➤ Potential for off-task behaviors ➤ All 'low' or 'all high' teams may develop ➤ Farness ➤ Novelty, variety, and fun ➤ Quick and easy
Student selected team	<ul style="list-style-type: none"> • Student-select own team • Familiarity • Easy decision making 	<ul style="list-style-type: none"> ➤ Novelty, variety, and fun ➤ Not balanced ➤ Potential for off-task behavior high
Homogeneous team	<ul style="list-style-type: none"> • Teams with a shared trait (ability, interest, language) 	<ul style="list-style-type: none"> ➤ Leadership opportunities ➤ High esteem for top groups ➤ Differentiated instruction ➤ Lack of equity ➤ Poor esteem low groups ➤ Negative stereotypes

Source: Adapted from S. Kagan, & Kagan (2009). Cooperative Learning. San Clemente, CA: Kagan Publishing

2.7 Advantages of diversity management to cooperative learning

All students can profit from opportunities to learn from and interact with persons whose backgrounds and opinions differ from their own in educational institutions with courteous diversity management.

Such learning opportunities need to be planned, organized, coordinated, and carried out properly at the institutional and classroom levels.

According to research, diversity management in leadership and instruction within higher education institutions has a number of benefits. These benefits include more learning opportunities, a greater body of knowledge about the world, improved problem-solving, increased creativity and innovation, a wider range of skill sets, a better organizational reputation that increases market share, and better accomplishment of the institutions' vision, mission, and goals (Ozbilgin, 2009).

A diverse student body has many benefits for maximizing cooperative learning, including improving students' analytical and critical thinking abilities, preparing them for success in an increasingly diverse and interconnected world, reducing acts of discrimination, and allowing higher education institutions to fulfill their responsibility for paving the way for students from all backgrounds (Bell-Ellwanger, 2016).

Build confidence later in life

According to recent studies, kids who receive education that recognizes diversity feel more confident both inside and outside of educational institutions. It is possible for students to become at ease with differences among social groups and with themselves through managing ethnic, linguistic, and religious diversity (Bennett, 2020).

Promote empathy and reduces prejudice

Students can grow prejudices when they enroll in and attend educational institutions with racially, linguistically, or religiously divided learning environments. Being educated and schooled to challenge discriminatory stereotypes results from observing the segregation practices at higher education institutions. Students can draw parallels between their own life and those of their friends through studying variety.

Teaching about variety and how to manage it improves cultural competence, which in turn enables pupils to have empathy for other people's experiences. As a result, it is essential to view it as being equally crucial to managing diversity; teachers must create opportunities for students and staff to collaborate in varied groups (Bennett, 2020).

Economic, Social, and academic benefits

Research demonstrates that better management of student body diversity in higher education institutions is essential for improving the economic, social, and educational opportunities for diverse students. Diverse learning environments help students sharpen their critical thinking and analytical skills; prepare students to succeed in an increasingly diverse and interconnected world; break down stereotypes and reduce bias; and enable the educational organizations to fulfill their role in opening doors for students of all backgrounds. Higher education diversity management is also beneficial to foster social mobility to its graduates (i.e., it enhances graduates' income (Bell-Ellwanger, 2016).

Improve Student Achievement

Student performance is directly impacted by how diversity is managed among pupils.

According to studies, pupils in diverse groups do better on average. Lessons on diversity that have been carefully organized encourage a depth of understanding while exposing students and teachers to other cultures, religions, ethnicities, and languages. Because of this, students in diverse educational environments perform better academically than those in institutions of higher learning with more homogeneous populations (Bennett, 2020).

Foster critical thinking

Regarding the advantages of diversity management, Mampane (2019) looked into how different learning environments in HEIs help students and faculty develop analytical and critical thinking abilities and get ready to flourish in a world that is becoming more diverse and interconnected.

Diverse learning environments foster creativity, critical thinking, and problem-solving. In a diverse classroom, students bring a variety of perspectives that push their classmates to think creatively and work together to find a suitable solution for their group. Cooperative groups are a fantastic tool for classroom learning.

When students are given the chance to work with various peers or on diverse themes, they can challenge prejudices and find commonalities with their classmates (Bennett, 2020).

Academic and socioemotional benefits of managing diversity in the classroom must be given top priority by educators, who must also emphasize teaching students about diversity and providing them with various learning opportunities. Students who are exposed to a diverse situations and individuals will grow more personally and have a significant impact on society (Bennett, 2020).

Social integration and empowerment

When diversity is successfully managed, social integration occurs, and all of the varied groups are recognized and given the power to experience equality.

Institutions can also be able to accommodate ethnic diversity while maintaining institutional cohesion (Mampane, 2019).

2.8 Conceptual framework

The conceptual framework for this study is derived from the review of literature and theoretical framework of the study. The conceptual framework depicts the association between the diversity management and cooperative learning. For the quantitative part of this study, the theories and/ or models guide the research questions and justify what is being measured (variables), and describes how those variables are related. In the qualitative part of the study the theories and/ or models justify the phenomena being investigated (qualitative). So, this sub-section also includes a discussion of how the research questions align with the respective theories or models and illustrates how the study fits within the prior research based on the theories and/or models.

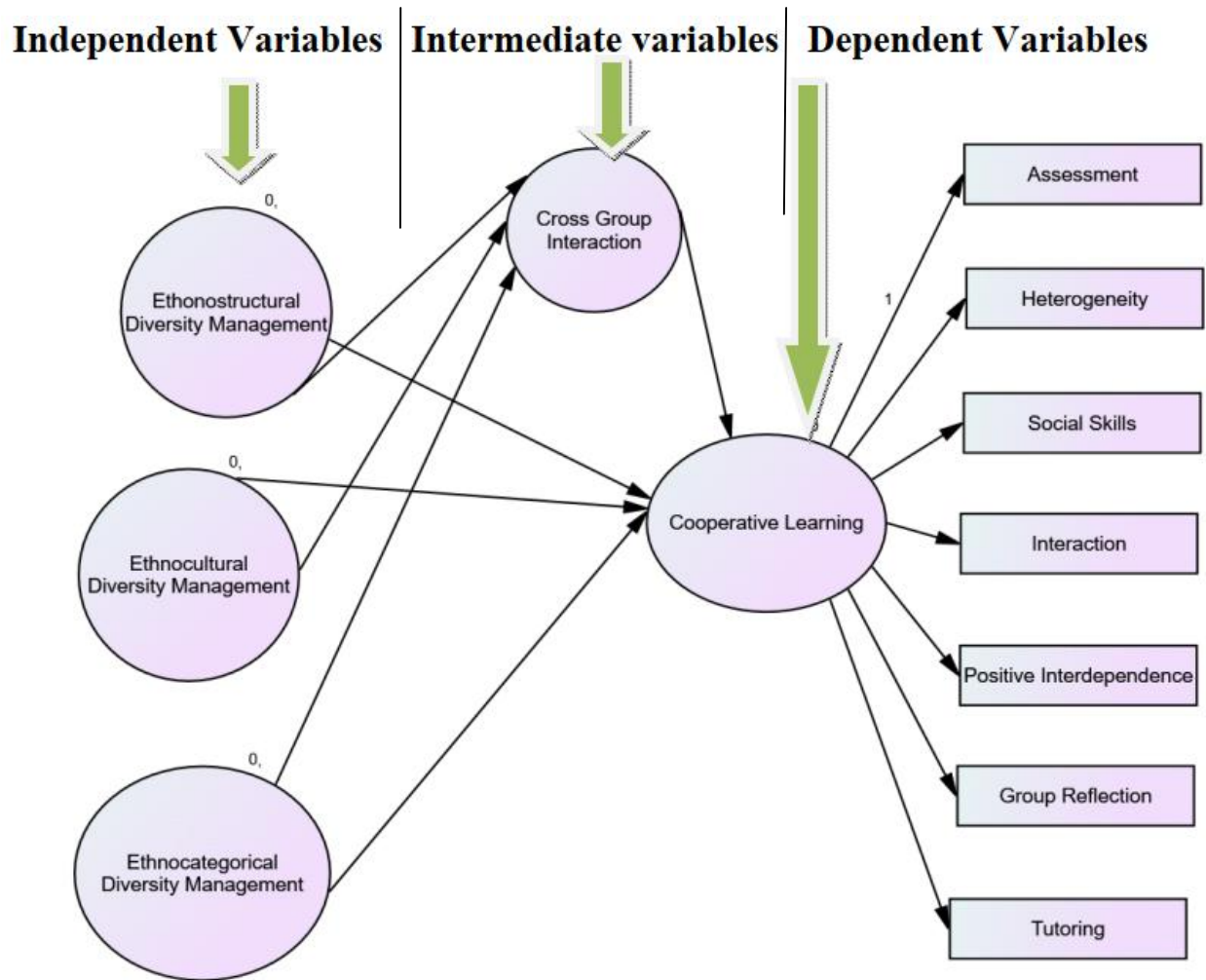


Fig. 2.7 Conceptual framework

The above figure (2.7) shows the conceptual framework proposed in this study. The conceptual framework assumes that there is a relationship between ethnic, linguistic, and religious diversity management and cooperative learning in TVET institutions.

In ethnically, linguistically and religiously diverse classroom, cooperative learning is most widely used for students to help each other; improve social acceptance of all types of learners, and assist with classroom management (Kaur, 2017). It has become imperative for teachers to devise means of managing students' diversity to maximize teaching and learning. Kagan and Kagan (1998) note that a well-structured cooperative learning activity supports a diverse classroom management through using the following strategies:

1. Establishing a considerate, cooperative classroom through energizing class building activities.
2. Making lessons enjoyable; use strategies to reach all your students
3. Decreasing the achievement gap; promote belonging for students of all ability levels, ethnic, linguistic, and religious groups.
4. Establishing a classroom environment where everyone wants to be.
5. Engaging students and avoid classroom disruptions through class building and teambuilding.
6. Teaching students the skills they really need to succeed in educational organizations and throughout their live.
7. Promoting considerate, kindness, empathy, respect and responsibility without separate lessons.

Johnson and Johnson (1989), in their investigation entitled “Cooperation and competition” found that cooperation among learners pave the way for effective diverse classroom management. In this inquiry, the social interdependence theory declares that the type of interdependence structured in a situation determines how individuals interact with each other which, in turn, determine the outcomes of the cooperative learning groups. This theory provides a platform for our work on cooperative learning as a classroom management tool.

Furthermore, Bitzer (2004) find out that cooperative learning strategy as an alternative for addressing diversity management issues in the South African higher educational context. He elaborates on the underlying premises of cooperative learning in a socially and culturally diverse educational environment by using two imaginative scenarios pertaining to higher education in South Africa. He shows that higher education teaching and learning should use cooperative learning in a way that enables diverse students to develop interpersonal communication skills which they need to accomplish team work.

2.9 Summary of the Review of Related Literature

The summary of the review of related literature synthesizes three major components of the chapter; namely, the conceptual framework, the theoretical framework (theories and models dealt with the association of diversity management and cooperative learning in higher education institution settings) and the empirical studies that explore the link between the diversity management and cooperative learning. Accordingly, the first sub-section of the review of related literature strived to depict the relationship between the independent variable (diversity management with three dimensions) and the dependent variable (application of cooperative learning with seven dimensions).

The second sub-section of the chapter presents the theories and models that guide the diversity management and the application of cooperative learning in higher education institutions. And then, it defines the model that mainly guides the present study.

The third sub-section the chapter provides a general, overview and synthesis of the existing literature related to the research topic under study. It identifies topics, themes, trends, and critiques in research methodology, design, and findings. It describes the literature in related topic areas and its relevance to the research topic and research approach. It also presents and empirical research sources for each concept and perspectives.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Philosophical underpinnings to the research design and Methodology

There is a significant association between the philosophical foundations and the choice of research methodology. Creswell (2014) states that there is a very significant relationship between philosophical paradigm and methodology because the methodological implication of paradigm choice is important to answer the research questions; select the participants; and collect, analyze and interpret the data.

This research design roots its philosophical foundation in Pragmatic Paradigm because it rejects the need to locate a study either in a positivism (postpositivism) paradigm or an Interpretivism (constructivism) paradigm. The Pragmatic Paradigm proposes that it is not possible to access the ‘truth’ about the real world exclusively by virtue of a single or mono-paradigmatic orientation of research. Accordingly, in the present study, this paradigm enables the researchers to understand the participants’ behavior, attitude and interaction by using mixed methods as a pragmatic way (Alise and Teddlie, 2010; Biesta, 2010; Kivunja and Kuyini, 2017; Subedi, 2016).

On the basis of the above description about the pragmatic paradigm, the present study is at the outset, beginning from post positivism for the quantitative phase and shift to constructivism for the qualitative phase. Thus, the philosophical foundations behind the mixed-methods sequential explanatory design are divided according to the phases of the research. Subsequently, two research frameworks governed the Methods Sequential Explanatory Design; namely, the post positivism in quantitative phase and constructivism (interpretivism) in qualitative phase. The post-positivist assumptions have represented the traditional form of research, and these assumptions hold true more for quantitative research than qualitative research (Kivunja and Kuyini, 2017).

Giddings and Grant (2006) argue that post positivism is a shift from within the positivist paradigm. It developed during the 1960s, largely from the increasing recognition without and

within science of the ideological and practical limitations of certain designs and strategies. So, post positivism upholds most of the key philosophical assumptions of positivism but in a changed or more modified form that is all theories cannot be verified by applying scientific methods.

3.2 Research Methodology

The research methodology is a comprehensive description of the participants, tools and techniques. In this study, to serve the purpose of the research, the researcher employed the mixed research methodology, particularly, Explanatory Mixed Methods Designs. The mixed research methodology is a systematic steps and ways that we followed from the data collection up to the final research report. This methodology was employed on the basis of the two basic reasons. The first reason for using explanatory mixed methods research is that the use of both quantitative and qualitative approaches provided a more complete understanding of the research problem than either approach alone. It also enables to have a rich description of the research theme. The second major reason is it enables the researchers to consolidate the larger quantitative data collection and analysis incorporated with a smaller qualitative data (Given, 2008). Subsequently, the research design is selected based on the nature of the problem and research questions (Gay, Mills, and Airasian, 2012).

3.3 Research Design

A thorough reviewing and analyzing the past research and literature helped the researcher to select appropriate research design in line with the research questions. Accordingly, the Mixed-Methods Sequential Explanatory Design (MMSE) was employed to determine the link between students' diversity management and cooperative learning.

3.3.1 Basic procedures in the mixed-methods sequential explanatory design

Relying on the research questions and suggestions of Creswell (2012) and Gay et al. (2012), the researcher chose an explanatory mixed methods design (QUAN-qual) out of three types of mixed methods designs: triangulation mixed methods designs (QUAN+QUAL), exploratory mixed designs (QUAL-quant), or an explanatory mixed methods design (QUAN-qual). Each of these three models

has concurrent and sequential designs. In this study, using the mixed-methods sequential explanatory design, the researcher first collected and analysed the quantitative data. In the second phase, the researchers collected and analysed qualitative data. The quantitative results obtained in the first phase were qualitatively substantiated and explained. The qualitative data and their analysis were refined and explained those statistical results by exploring the participants' views in more depth.

To serve the purpose of the study, the researcher preferred this design because he believes the determination of the relationships between the variables of diversity management and dimensions of application of cooperative learning can primarily be collected and analyzed quantitatively. Moreover, quantitative data collection, analysis and interpretation overweighed the qualitative data and results. And then, after connecting and integrating two phases, the discussion and interpretations was performed. The following figure portrays that the mixed data collection and analysis was employed sequentially starting from quantitative phase followed by qualitative phase.

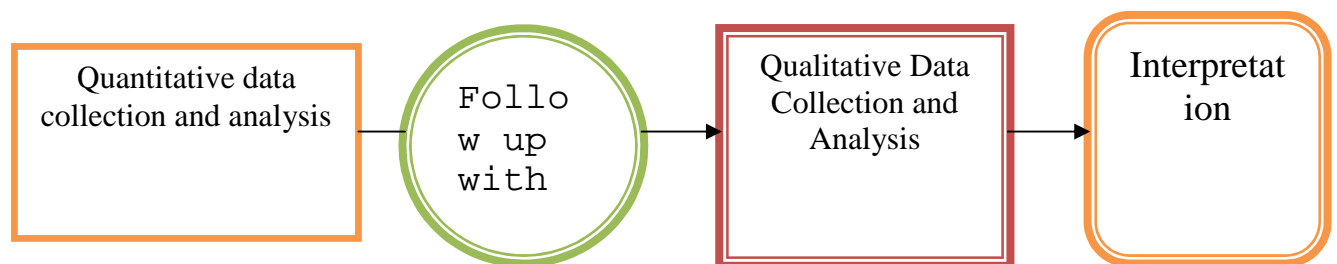


Fig 3.1. The mixed-methods sequential explanatory design

The followings are some of the basic procedures employed in the mixed-methods sequential explanatory design (Ivankova, Creswell, and Stick, 2006)

1. **Identifying the outliers** (value that does not fit other sample distribution) or extreme cases. On the other way, the identification of outliers is known as case selection. The options for case selection in the mixed-methods sequential explanatory design include exploring a few typical cases or following up with outlier or extreme cases. Nevertheless the case selection is one of the basic procedures in connecting two phases of the research; it might be too difficult for the researcher how he/she can select extreme cases because there are no established guidelines to do so. To mitigate this challenge, the researcher proposed the following possibilities. Based on three composite variable scores computed during the first,

quantitative, phase, the researcher first calculated the grand mean scores and their respective group means for all participants in each of the four groups. To limit the number of the participants, who are eligible for consideration as atypical representative of their respective groups, he use the standard error of the mean to establish the lower and upper boundaries for the scores clustered around each group mean. Using the cross-tabulation procedure in SPSS, the researcher identified a few participants from each group with the mean scores within one standard error of the mean.

The statistical results, the standard error of measurement as output of SPSS have two purposes; determining the reliability and identifying extreme cases. The standard error of measurement is an estimate of how often one can expect errors of a given size in an individual's rating score, thereby the researcher can identify the extreme cases. The lowest standard error of measurements indicates the high reliability and the larger Std. Error of Mean implies little reliability.

2. **Explaining results:** Conduct a quantitative survey to identify how two groups compare to a variable. Next to this is following up with qualitative in-depth interviews to explore the reasons why these differences were found.
3. **Using a typology:** Conduct a quantitative survey and develop factors through a factor analysis (the intercorrelation of variables with a scale). Then, using these factors as a typology to identify themes in qualitative data, such as in-depth interviews.
4. **Examining multilevel** (multistage format of Mixed-Methods Sequential Explanatory Design): Conduct a survey at the students and instructors level. Gather qualitative data through interviews at the class level. Survey the entire TVET School at the institutional level. Collect qualitative data at the sub-regional level. Information from each level builds to the next level.

The dissertation by Ivankova (2004) on doctoral students' persistence in an online learning environment has been successful in the use of the mixed-methods sequential explanatory in examining the link between doctoral students' persistence in an online learning environment and

achievement. Smart's a Mixed Methods Study of the Relationship between Student Perceptions of Teacher-Student Interactions and Motivation in Middle Level Science and the findings about the relationships between the variables were also helpful to make use of the design (Smart, 2014). This design has also been properly employed in the doctoral study of Bullock (2017) to examine the nexus between school leaders' role and Students' Mathematics Achievement through the Lens of Complexity Theory. He found out a significant regression equation predicting the school-wide average Mathematics proficiency scores based on several characteristics of the school leader and student demographics. Accordingly, the design was implemented by referencing these and other more exemplary empirical studies that have been employed in the prior research setting.

3.3.2 Visual Model for Mixed-Methods Sequential Explanatory Design Procedures

The Procedures to be employed in implementation of mixed-methods sequential explanatory design is illustrated in the following Visual Model diagram (Fig. 3.2).

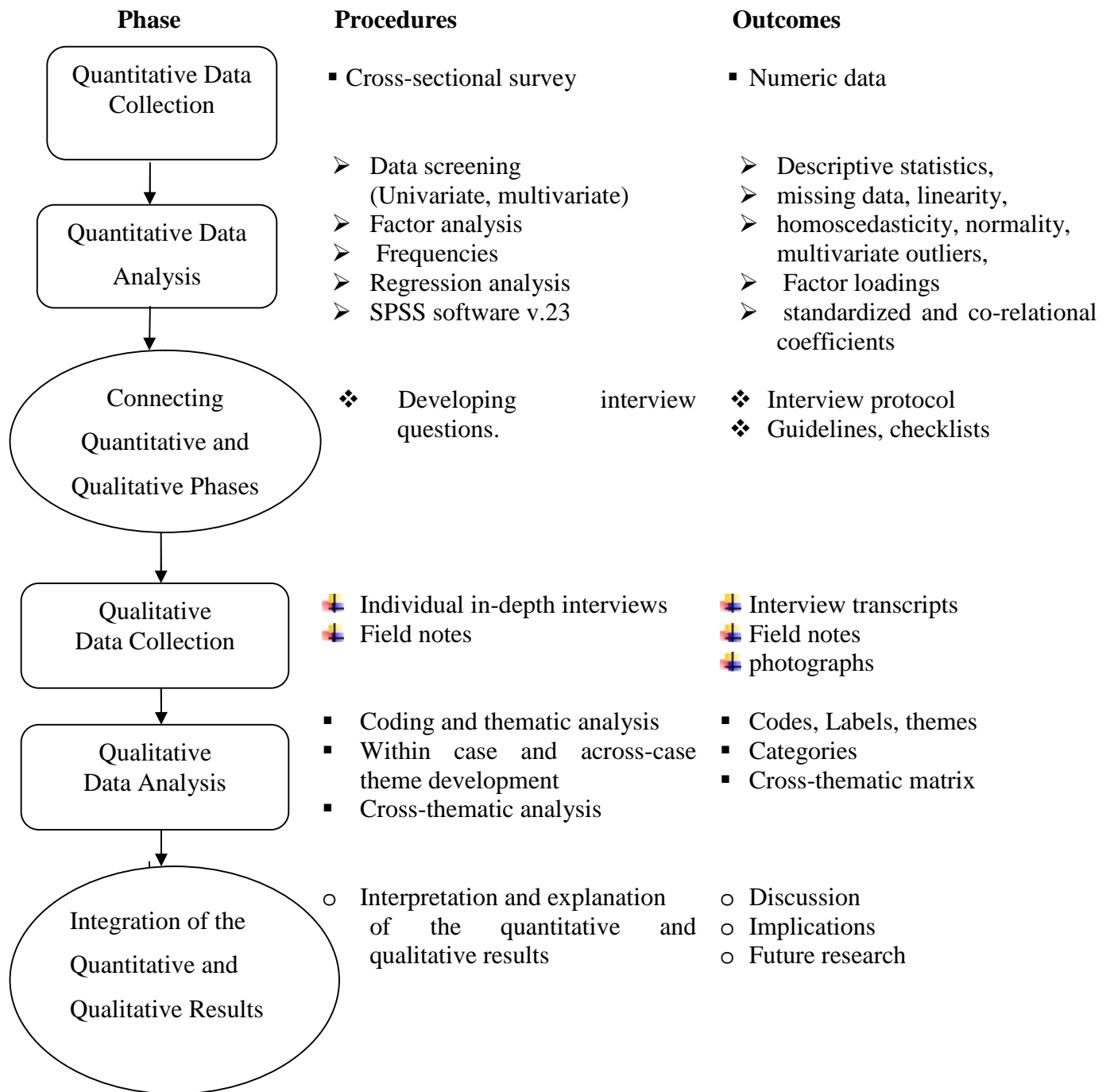


Fig. 3.2 Visual Model for Mixed-Methods Sequential Explanatory Design Procedures

Source: Adopted from Nataliya V. Ivankova, John W. Creswell and Sheldon L. Stick (2006).

Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice

3.3.3 Integration and interpretation of the Quantitative and Qualitative Results

After collecting and analyzing both quantitative and qualitative data, the researcher integrated the outcomes of both phases of the study together. Thus, during this stage the researcher further extrapolated the statistical results from the quantitative phase by using qualitative results.

3.4 Sources of Data

The primary data for this study were collected from trainees, teachers and instructional leaders selected from the four sample TVETs through Cross-sectional survey questionnaire, and interviews. Official documents from the Central Statistics Agency (CSA), office of registrar and Southwest Ethiopia People's Regional Education Bureaus (SWEPREB) and TVET Burea (REB) were used as secondary sources.

3.5 The study population

The research sites were selected by employing the purposive sampling technique based on the levels of TVET programs being commenced (i.e., from level I to level V). The target populations for this study were TVET students enrolled in level I through level V, trainers and educational leaders in Bonga Polytechnic College, Mizan-Aman Polytechnic College, Mizan ATVET College, and Tepi polytechnic College.

3.6 The study Sample and Sampling Techniques

This sub-section identifies the major demographic characteristics of the participants, which are mainly associated with the research objectives such as their age, gender, ethnicity, language and religion.

Most of the times, representative participants identification from the accessible population is questioned. Determining the sample size can be done in a number of ways. From his reviews, Dalachew (2019) determined a few approaches, including a census for small populations, copying the sample size of related research, using existing tables, and employing formulas to compute a sample size.

The sample size of participants was calculated in the current study using Raykov and Marcoulides, and Kline's formula. Raykov and Marcoulides (2006) suggested a minimum sample size of at least 10 times the sum of the free model parameters.

One of the major challenges in mediation studies using Structural Equation Modelling is requiring larger sample size (NIH, 2012). At the beginning, the researcher used the formula. Subsequently, there are 29 observed variables (i.e., 19 parameters compute to student diversity management; 3 parameters compute to student cross group interaction and 7 parameters compute to applying cooperative learning) and 36 latent variables (i.e., 3 exogenous variable, student diversity management; 1 mediating variable, student cross group interaction; 1 endogenous variable, applying cooperative learning and 31 error terms; a total of 63 parameters) which means the current study requires at least $10 \times 63 = 630$ samples. Then, the researcher employed simple random sampling technique, particularly lottery method to select both participant trainers and trainees.

Hence, based on Raykov and Marcoulides (2006) and Kline's (2005) recommendations, the researcher determined that $10 \times 63 = 630$ participants would be the minimum and could be currently employed. Finally, the researcher distributed 512 survey questionnaires to students and 200 to teachers, expecting that all respondents would not fill them out correctly, would not return them, or would not accept them at all. Of these, a total of 639 (90%), i.e., 458 (89.45%) and 181 (90.5%) questionnaires, were correctly completed and returned from the trainees and trainers, respectively (see tables 3.1 and 3.2).

Table.3.1 Accessible Population, Sample Size and Return Rate of the Student Respondents

Name of the sample TVET	Accessible Population	Number of Questionnaires Distributed	Number of questionnaires returned										Gender		Total	Return Rate Or accepted
			Level –I		Level-II		Level-III		Level-IV		Level-V		Male	Female		
			No	%	No	%	No	%	No	%	No	%				
Aman Poly Technic College	1,079	115	41	42.5	0	0	7	7.2	43	44.3	6	6.2	42	55	97	84.43
Bonga Poly Technic College	834	167	49	30.6	8	5	59	36.9	25	15.6	19	11.9	68	92	160	95.81
Mizan ATVET College	1,099	130	0	0	0	0	38	33.4	76	66.7	-	-	72	42	114	87.69
Tepi Poly Technic College	640	100	25	28.7	0	0	25	28.7	30	34.5	7	8	39	48	87	87
Grand Total	3,652	512	115		8		129		174		33		221	237	458	89.45

There were no level one and level two batches in several colleges since the TVET colleges were closed down during the COVID-19 pandemic. Table 3.1 further reveals that respondent trainees from TVET College were selected using the proportional stratified sampling technique. In addition to this sampling method, 458 trainees were selected using a simple random sampling method to participate in completing the questionnaire grounding on Raykov and Marcoulides' (2006) proposition.

The proportional stratified sampling technique was employed to select respondent trainers from each TVET College. Accordingly, applying the Raykov and Marcoulides (2006) 181 teachers were selected by using a simple random sampling method to take part in filling the questionnaire. Twenty educational officials (department heads) of TVETs were selected by using a purposive sampling method.

Table.3.2 Accessible Population, Sample size and return rate of the trainer respondents

Name of the sample TVET	Accessible population	Number of questionnaires distributed	Gender		Total	Return Rate
			Male	Female		
Aman Poly Technic College	102	60	43	11	54	90
Bonga Poly Technic College	118	55	41	8	49	89.09
Mizan ATVET College	96	45	32	8	40	88.89
Tepi Poly Technic College	60	40	26	12	38	95
Grand Total	376	200	152	39	181	90.5

3.7 Data Collection Instruments and procedures

In this section, the types of data that were collected as well as the specific instruments and sources that were used to collect those data were identified and described. For quantitative phase of this study, it was also described the specific type of scale of measurement used in questionnaires.

Before the collection of data, the researcher performed the following significant procedures;

- 1) The researcher identified the types of data important for the research purpose and for the selected design;
- 2) The researcher determined the types of instruments used to collect the data and then
- 3) The researcher decided to locate the standardized tools and use self developed instruments. Accordingly, to gather adequate data for this study, the researcher employed the following two data collection instruments; namely, questionnaires and in-depth interviews. The

researcher basically incorporated these instruments to encompass both quantitative and qualitative data from the informants.

3.7.1 Questionnaire

In this research, two standardized questionnaires such as students' diversity management questionnaire and Cooperative Learning Application Scale (CLAS) were adapted (modified), and administered.

The students' diversity management questionnaire is adapted from Hampton University diversity management questionnaires (DMQ) and then contextualized in researcher's variables and settings. Accordingly, the questionnaires encompassed three dimensions; namely, Ethno-structural Diversity Management, Ethno-cultural Diversity Management and Ethno-categorical Diversity Management items.

Regarding the type of scales used in the data collection on DMQ, the researcher employed the Lickert scale type, particularly, the five point scales (Strongly agree, Agree, Undecided, Disagree and Strongly Disagree). As Brown (2010) indicated the Lickert scale is important for such reasons as it is easily understandable by the subjects, adequate information can be gathered with consuming less time and economy, and the researcher can collect unbiased information from the subjects that enable him to compare and analyze data. The same procedure was employed for the second part of the questionnaire; Cooperative Learning Application Scale (CLAS).

The first session of teachers' and students' questionnaire presents the items of ethnic, linguistic and cultural diversity management (Independent Variable) practices in the South-West Ethiopia People's regional TVETs.

Table 3.3: Student Diversity management dimension

Student Diversity management dimension	Number of items
A. Ethno-structural Diversity Management	5
B. Ethno-cultural Diversity Management	9
C. Ethno-categorical Diversity Management	5

Subsequently, the dimensions of the effectiveness of cooperative learning in higher education is adapted and analyzed using the Cooperative Learning Application Scale (CLAS) (Atxurra, Villardón-Gallego, and Calvete, 2015). As can be seen in the table below (table 3.4), researchers in the field of the education and behavioral studies have employed various scales and sub-scales to measure the effectiveness of the cooperative learning methodology in higher education institutions. However, reviewing an ample of literatures and empirical studies (see table 3.4 below) the majority of these tools have perceptible drawbacks and might not fit the purpose of the present study. Consequently, for the present study Cooperative Learning Application Scale (CLAS) was selected as a measuring scale for the following fundamental reasons.

1. It incorporates essential elements of the Cooperative Learning methodology.
2. It promotes the diversity of learning group as one of the major dimensions of the cooperative learning.
3. It has been validated through confirmatory factor analyses of the theoretical model of the construct.
4. The validity and reliability of the tool have been well evaluated by the researchers.

Table 3.4: The effectiveness of tools to measure the cooperative learning application in higher education

Tool to measure the effectiveness of cooperative learning in higher education	Authors (Developers)	Number of sub-scales	Number of items	Drawbacks of the tool to measure the effectiveness of cooperative learning in higher education
Classroom Life Instrument (CLI)	Johnson, Johnson, and Anderson (1983)	4 (positive interdependence, assessment, tutoring, heterogeneity)	59	-It did not include significant dimensions such as group reflection, interaction, academic and social skills -It has been designed for a non-higher education sample
Cooperation and competition (Elements of Cooperative Learning)	Johnson and Johnson (1989)	5 (positive interdependence, individual and group accountability, promotive interaction (face to face), interpersonal and small group skills, group processing)	-	It does not include important aspects such as assessment, or heterogeneity
Cooperative Learning Observational Schedule	Veenman, Benthum, Bootsma, Dieren, and Kemp (2002)	7 (Positive interdependence, individual responsibility, interaction, social skills, group processing, workgroup monitoring, and pupil engagement rates)	23	It has been designed for assessment of the level of implementation of the AC to be carried out by an outside observer rather than the students.
Quality of Cooperative Learning (QCL)	Hijzen, Boekaerts, and Vedder (2006)	4 (two for interdependence and social skills, while the other two are attitudes toward AC and quality of group cohesion)	29	It does not fit to the purpose of the present study because it does not recognize student diversity
Autoinforme de Interacción Grupal (AIG)	Ibarra and Rodríguez (2007)	9 (Exploratory questions, cumulative reasoning, conflict management, group composition, task features, processes and procedures, individual and group motivation, performance evaluation and general conditions)		It does not fit to the purpose of the present study because it does not recognize student diversity
Cooperative Learning Scale	EL-Deghaidy and Nouby, (2008) in Kiper (2016)	One dimension	20	It lacks significant dimensions of cooperative learning related with the theme
Cuestionario de Análisis de la Cooperación en Educación Superior (ACOES)	García, González, and Mérida (2012)	7 (Conception (idea) of group work, utility, planning of the group work by the teachers, criteria for the organization of groups, group rules, internal procedures, and efficiency of group work)	49	Highlights group work attitudes and group work organization, that is, they are not aimed at determining the conditions for cooperation
Cooperative Learning Process Scale (CLPS)	Bay and Çetin (2012)	-	-	It does not include important aspects such as assessment, tutoring or heterogeneity
Cooperative Learning Application Scale (CLAS)	Atxurra, Villardón-Gallego, and Calvete, (2015)	7 (Positive interdependence, interaction, social skills, group reflection, heterogeneity, assessment and Tutoring)	44	Chosen for the present study; recently studied and accepted by scholars in the field of education.

The second part of the teachers' and students' questionnaires requests about the effectiveness of the application of cooperative learning. The researcher employed the Cooperative Learning Application Scale (CLAS) to analyze the CL dimensions, encompassing 44 items (the dependent variable (DV)), of the study.

Table 3.5: Subscales of Cooperative Learning Application Scale

Scale of CL dimension	Number of items	Item
1. Assessment	6	13,26,34,42,47,55
2. Heterogeneity	4	11,19,27,35
3. Social skills	7	12, 17, 20, 28, 36, 43, 48
4. Interaction	4	21, 29, 37, 56
5. Positive interdependence	9	18, 22, 30, 44, 38, 48, 49, 51, 53
6. Group reflection	7	15, 23, 31, 39, 14, 16, 50
7. Tutoring	7	24, 32, 40, 46, 52, 54, 57

3.7.2 In-depth Interviews

In-depth interviews are often known to be semi-structured interviews because the researcher retains some control over the predetermined questions but open-ended. The researcher developed interview guides before conducting the interview sessions. During the conversational interview, the participants are free to extrapolate their feelings or take the interview in new but related directions. But, it does not mean that the researcher is a blocked-in to elicit further information (Given, 2008). The researcher selected the semi-structured interview as a tool for data collection for its following advantages. The Semi-structured interview is a qualitative interviewing where a schedule is prepared, but it is sufficiently open-ended to enable the contents to be re-ordered, digressions and expansions made, new avenues to be included, and further probing to be undertaken (Cohen, Manion, & Morrison, 2005).

In the semi-structured interview, initially the researcher described the major themes (topics) of interview by anticipating probing questions associated with topic under investigation.

Nevertheless the following major themes were considered as a guideline, the probing questions posed after the questionnaire is distributed and analyzed. The first guiding question for interview was ‘how do students and teachers perceive about ethnic, linguistic and religious diversity at Technical and Vocational Education and Training institutions of Southwest Ethiopia? The second research question, ‘What are the major challenges and prospects of classroom diversity and its management in applying cooperative learning?’ was examined by using in-depth interviews. Questions which branch from the research questions were asked and analyzed during in-depth interviews. The expected questions may include ‘how are the cooperative groups organized? Are the groups made consider students ethnic, linguistic and religious diversity? ‘What strategies do teachers and other instructional leaders follow to effectively conduct cooperative learning among diverse student groups? What are the aids and traits (challenges and prospects) of diversity management approaches along with cooperative learning?’).

As Marshal, Cardon, Poddar, and Fontent (2013) indicated most of the time the sample size in qualitative research is not justified because there are no well reputable guidelines to enable the calculation of sample size a priori for qualitative study. However, Dworkin (2012) suggests twenty five to thirty subjects to take part in a qualitative study. Greater than thirty (30) sample sizes for qualitative study is too large (Boddy, 2016). Thus, the researcher selected twenty people (five people from each research setting) for the interviews.

The interviews were carried out in free classrooms with five educational officials at each research site from different zones with consideration of each participant’s spare time. The interviews were conducted in Amharic language and scheduled for one hour to one and half an hour with each participant.

3.8 Pilot study

Malmqvist, Hellberg, Molla, Rose and Shevlin (2019) suggest that the implementation of pilot study is highly recommended for the main stage of the study irrespective of the type. Different scholars and researchers determine the sample size for pilot study based on various techniques. Sheatsley (1983), for instance, recommends 10 to 25 pilot sample sizes but Sudman (1983) recommends 20 to 50 participants. However, Julious and Patterson (2004) method of using confidence intervals for a given precision constructed around the anticipated value (.95 for the present study) to set the sample size. But, the final pilot sample size decision was made by the researcher based on available time and budget to carry out the pilot test. Accordingly, the researcher decided to test the questionnaires of 32 instructors and 58 trainees from each group for the survey study and 12 participants for qualitative phase of the study.

Prior to commencing the main study, the research instruments for this study were pilot tested in Mizan Abysinya TVET College which is non-sample site in the main study (target area and data collection process). Underlying the following reasons, pilot test is very important phase of this study. Regarding the importance of the pilot study, many studies affirm that a pilot test has the following significances (Igwenagu, 2016; Johnson and Christensen, 2004; Admassie, 2017; Dibaba, 2017). In the present study, it has helped the researcher to;

- 1) Amend a research proposal and modify methodology for the main study.
- 2) Test the adequacy, amend and develop research instruments to be used in the main study.
- 3) Collect preliminary data and find out the difficulties and limitations of the instrumentation.
- 4) Determine the reliability and validity of the instruments, and feasibility of the main study.
- 5) Determine what resources (finance, partakers in the research and assistant researchers) are needed for a planned study.
- 6) Identify logistical problems which may occur using the proposed methods; and to estimate the cost of the main study.

Thus, pilot testing the instrumentations is one of the essential stages of the present study.

Validity and Reliability

This section presents the procedures to be used to determine the validity and reliability of the data and to examine its appropriateness to the proposed methodology. Triangulation was employed to cross check the trustworthiness of the data by using different research methods.

Validity

Gay, Mills and Airasian (2012) indicated that validity is a quality of data that establishes the trustworthiness of research by addressing the credibility, transferability, dependability, and confirmability of their studies and findings. It has also to do with whether the data are, in fact, what they are believed or claimed to be. In other words, it describes whether instruments actually measured what the researcher intended to measure or not based on the focus of the research. Mertler and Charles (2005) indicate that validity of both qualitative and quantitative research can be established by experts' external criticism.

In the quantitative phase of the study, validated instruments borrowed from authorized institutions (Hampton University, Gertrude, 1986) and authors of the instruments (Atxurra, Villardón-Gallego, & Calvete, 2015) was cited accordingly and included in the dissertation appendices. Thus, in this study, the validity stands for a degree to which the study was accurately reflect the relationship between cooperative learning and students' diversity management as it is described in the study focus. It is hardly possible to fully control the risk of validity. Although there is no a single research method that ensure the validity of a study, various researchers employ different ways to mitigate the problem. Some of these ways include staying long time with participants, frequent observations, triangulation, elucidation of unsure findings with participants and audio-taping and verbatim recording of interviews, and repeated instrument testing (Dalachew, 2019; Dibaba, 2017; Admassie, 2017; Maxwell, 1996). Different authors suggest long term observation, peer examination, establishing consistency and repeatability of data collection through different instruments, member checks, checking the consistency, establish an audit trail, practicing triangulation and reflexivity as strategies to facilitate the trustworthiness and dependability of the research findings (Guba, 1981; Gay, et al. 2012; Creswell, 2012).

Validity in quantitative research phase

In the quantitative research phase, validated instruments borrowed from different sources were adapted and piloted, justified and identified how they were modified.

Validity in qualitative research phase

Testing validity and reliability have traditionally been attached to the quantitative research methods. However, most qualitative researchers argue that both quantitative and qualitative research should consider the following strategies to maximize the validity. According to Creswell (2003) the Validation of the qualitative results incorporates four basic strategies to be employed to determine the trustworthiness and dependability of the information and matches the reality in place. These are (1) triangulation – crosschecking the information from interviews and field notes; (2) member checking – asking the participants to comment on the accuracy of the identified categories and themes; (3) providing adequate description to discuss the results; and (4) external audit – asking a person outside the research to conduct an in-depth review and provide feedback.

In addition to the above descriptions, Johnson and Christensen (2004) recommend to researchers to conduct extended fieldwork, low inference descriptors, triangulations, participant feedback, peer review, external audit, and reflexivity. More importantly, through the interpretive validity that is the degree to which the research participants' viewpoints, feelings, thoughts, intentions, and experiences were accurately understood by the qualitative research and portrayed in the research report.

Maxwell (1996) indicated that the measure of validity of the qualitative instruments is a degree to which the results of the study are transferable to the population. The validity of the qualitative instruments establishes the credibility and trustworthiness of data collected by enhancing strong association between empirical materials (data) and the real practice on the ground. Although there is no research method that gives assurance to the validity of a qualitative research, the researcher performed it through the collection of multiple data set (i.e., adequate interview transcripts); 2) Minimizing the researcher's biases during qualitative analysis of the verbatim of the participants and researcher's insights and reflections. Accordingly, the

trustworthiness of the qualitative findings were maintained via maximizing the degree of reflexivity by using low inference descriptors (i.e., minimizing the degree of judgmental conclusion; hast generalization based on a small number of transcripts) and by increasing the number of verbatim or direct quotations in data presentation and analysis); 3) the researcher gave qualitative instruments to the reviewers for criticism and feedback.

For that reason, the feedback for modification was received from educational researchers, postgraduate colleagues (PhD candidates in the department of Educational Policy and Leadership at Addis Ababa University) and pilot interviewees. The qualitative research validity is usually understood as the strong connection between the research findings and the concrete reality on the ground.

Reliability

Reliability is the degree to which study data consistently measures whatever it measures.

Although the term reliability is usually used to refer to instruments in quantitative research; the researcher also considers the reliability in qualitative research (Gay, et al, 2012).

Reliability in quantitative research phase

This section describes and defends the procedures used to determine the reliability of the data collected. Reliability is the extent to which measuring scales and procedures of student diversity management and Cooperative Learning Application Scales (CLAS) are consistent and yield the matching result within factors and variables. In this sub-section the researcher explained specific approaches on how reliability addressed for quantitative and qualitative data collection approaches.

Reliability of Student Diversity Management questionnaire

Although there is no formula that absolutely guarantees the reliability of standardized instruments, on the basis of references to works of Boot, Colomb and Joseph (2003), the researcher used Hampton University student diversity management questionnaire by adapting it to the research setting. The researcher performs this by considering two justifications. These are, 1) the questionnaires satisfy the following characteristics; the source is published by a reputable

press (The Hampton University press); the publisher uses peer reviews for everything it publishes; the author is a reputable scholar and it is an up to date source. 2) The researcher checked the reliability of the modified instrument during the pilot study.

Table 3.6 Reliability of Student Diversity Management

Independent Variables	Number of Items	Reliability (Cronbach's Alpha)
1. Ethno-Structural Diversity Management	5	.945
2. Ethno-Cultural Diversity Management	9	.964
3. Ethno-categorical Diversity Management	5	.949

Reliability of Cooperative Learning Application Scale (CLAS) questionnaire

The Cooperative Learning Application Scale (CLAS); developed by Atxurra, Villardón-Gallego, & Calvete, (2015) comprises seven dimensions (Positive interdependence, interaction, social skills, group reflection, heterogeneity, assessment and tutoring) and 44 (forty four) items. The scale is prepared in the 5 Point Likert type and the items are graded from 1 to 5 as follows: “Strongly disagree”, “Disagree”, “Undecided”, “Agree”, “Strongly Agree”. CLAS has been used in many recent educational research, doctoral dissertations and master’s theses around the world (Warner-Soderholm and Kriger, 2014; Birhanu, 2019; Ordu, 2015). This instrument fits well into the purpose of this study because of the major reasons mentioned in the questionnaire session.

According to the research by Atxurra, Villardón-Gallego, and Calvete (2015) aimed to develop and validate an instrument to measure the degree of application of CL in Higher Education in diverse student group situations, on the basis of the essential theoretical elements of CL has affirmed the instrument (CLAS) is both valid and reliable during the authors’ analysis but it was also piloted after adapting the tools for the present research purpose as follows.

Table 3.7 The reliability analysis of items of the cooperative learning sub-scales

Dependent Variable (Cooperative Learning scales)	Number of Items	Reliability (Cronbach's Alpha)
1. Assessment	6	.966
2. Heterogeneity	4	.950
3. Social Skills	8	.979
4. Interaction	4	.968
5. Positive Interdependence	7	.970
6. Group Reflection	7	.979
7. Tutoring	8	.981

In the above table, the result of Cronbach's alpha for all the cooperative learning dimensions is greater than .9. This indicates that the items for application of cooperative learning are highly correlated. Although the alpha value is affected with the number of items, the results also depict the items were constructed in more related way.

Reliability in qualitative research phase

In this study, in the qualitative phase, the researcher examined the results of the investigation by considering whether the data were collected consistently when using the same techniques over time. In other words, reliability of qualitative instruments session presented and tested the consistency and repeatability of data collection through in-depth interviews.

In general, Subsequent to the pilot study seven items from diversity management survey and nine items from perceptions statements were deleted and additional minor modifications have been conducted on adapted questionnaires.

3.9 Ethical considerations and informed consent

Ethics is an important factor to successfully accomplish an investigation on diversity management and cooperative learning. Data collection for this study was ethical and respected individuals and research sites. The researcher obtained permission before starting data collection. Getting the informed consent from the participants and research sites, and employing an ethical practice was performed through clarification of the purpose of the study. During data collection, the researcher protected the privacy and confidentiality of informants who participated in the study. Since the diversity issue is socially and politically sensitive, protecting the anonymity of individuals by assigning codes to returned instruments and keeping participants' identity confidentially offers privacy to them. For the ethical reason, the researcher also protected the well being of key informants in the research report. Moreover, it was the right of the informants to withdraw at any stage or not to complete particular items in the questionnaire and interviews (Creswell, 2012).

American Psychological Association (APA, 2010) recommends us to maintain the following five principles. These are the principle of respect for people's rights and dignity, the principle of fidelity and responsibility, the principle of integrity, the principle of justice, and the principle of beneficence and nonmaleficence. In the current study, the researcher, as much as possible, maintained each of these principles. The principle of beneficence and nonmaleficence suggests that researchers have to take care about whom they are working and interacting with and minimize or avoid the harm against subjects. The principle of fidelity and responsibility encourages the relationships which researchers should establish trust with those they work together. Researchers are concerned about the ethical compliance of their colleagues' academic and professional conduct and they strive to contribute a portion of their professional time for little or no compensation or personal advantage.

The principle of integrity promotes accuracy, honesty, and truthfulness in the science, teaching, and practice of research. When deception of participants is ethically reasonable to maximize benefits and minimize harm, researchers have a serious obligation to consider the need for, the possible consequences of, and their responsibility to correct any resulting mistrust or

other harmful influences that arise from the use of such techniques. Even though this study is educational investigation, the researcher needs to plainly explain the purpose of the study. The principle of justice enhances the fairness and justice of equal access and services being resulted from the research to all concerned persons. The principle of respect for people's rights and dignity describes the responsibility of researchers to respect the dignity and wellbeing of all people, and the rights of individuals to privacy, confidentiality, and self-determination. This principle also suggests mitigating the researcher's biases based on ethnic identity, gender, socioeconomic status, religion, national identity and experiences (Gay, et al, 2012).

During the second, qualitative, phase of this study, the researcher seeks an in-depth description of different phenomena in diverse group learning and its management. Subsequently, informants may be asked to personality or identity sensitive issues of their life experiences over a period of time. Thus, during the qualitative data collection process, the researcher requires a sufficient level of trust based on a high level of participant disclosure. This discussion advances some ethical issues to be anticipated when conducting a qualitative investigation. Thus, the researcher attempts to identify the guidelines for ethical considerations and state the purpose of the study, the roles of research team, being respectful of the research site, reciprocity, using ethical interview practices, maintaining confidentiality, and collaborating with participants (Creswell, 2012). The researchers also, as much as possible, respect the indigenous culture of the informants (Lincoln, 2009).

3.10 Data analysis procedures

The following major procedures were employed in data analysis processes by using mixed-methods sequential explanatory design are the following.

Procedure 1. Quantitative data analysis

The aim of quantitative phase is to determine the strength and direction of the correlation between the diversity management and cooperative learning. This procedure of data analysis incorporates factor analysis and Regression analysis by using SPSS V.22.

Generally, the quantitative part of this study satisfy the following assumptions. According to Neuman (2007) the following major assumptions enhance the trustworthiness of the results of this study that the inferential statistics relies on.

1. The sample population stands for or represents the population and it allows the researcher to infer the results to the general population.
2. The distribution of data is normal.
3. The samples with greater homogeneity had a smaller sampling error and narrower confidence intervals.

Quantitative and qualitative data analysis in this study was sequentially be employed by giving priority to quantitative data. Priority was given to the quantitative approach because the quantitative data collection overweighs and comes first in the sequence, and it represents the major aspect of the mixed-methods data collection process. The goal of the qualitative phase was to explore the subjective phenomena of the research settings and interpret the statistical results obtained in the first, quantitative phase (Ivankova, Creswell, and Stick, 2006).

The aim of quantitative phase is to determine the strength and direction of the correlation between the diversity management and cooperative learning. This procedure of data analysis incorporates factor analysis and Regression analysis by using SPSS V.22.

The researcher employed the Pearson Product Moment Correlation to measure the magnitude and determine the direction of the relationships. I used the Pearson Product Moment Correlation out of different correlation models because the data to be used are jointly normally distributed (data that follow a biviriate normal distribution). The normality of the data was analyzed by using Shapiro-Wilk Test. There are three sub-procedures to perform quantitative analysis.

Procedure 1.1 Determining scales of measurement

If there were no successful measurements, this research would have ended with poor quantitative results or GIGO (i.e., the principle of garbage-in garbage-out works, here). This sub-level of data analysis in this study is the step in which the researcher determined the types of measurement scales to be used which were later determined the type of statistical analysis. Consequently, in

this study the nominal scales and interval scales of measurement were used (Creswell, 2012). The participants' demographic characteristics such as gender, department, ethnicity, language, class of study (year) and religion are nominal (categorical) variables. These variables (categorical, nominal) are qualitative variables, but they were represented by different numbers or letters during data analysis. The rating scales used in Cooperative Learning Application Scales (CLAS) and students' Diversity Management (DM) are interval variables because they have no true zero point. For example, if one informant rates '2' for a certain item and another informant rates '4' for the same item, it does not mean that the later informant has as twice larger attitude as the former one (Gay, et al, 2012).

Procedure 1.2 Regression Analysis procedure

Regression analysis is a set of statistical procedures used to explain and/or predict the values of a dependent variable based on the values of one or more independent variables (Gay, et al, 2012). In this study, both simple regression and multiple regression analysis were employed. Simple regression was employed by using one dependent variable (Cooperative Learning) and one independent variable (Each DM dimension). Although I did not manually calculate the regression equation, the following formula represents the equation formula in SPSS V.22 data analysis process:

$$Y = a + bX$$

Where, Y is the predicted value of Cooperative Learning

a is the Y-intercept

b is the regression coefficient or slope, and

X is an independent variable (ESTDM, ECULDM or ECATDM separately).

Here the regression coefficient portrayed the predicted change in 'Cooperative Learning, (Y)' given a one unit change in 'ESTDM, ECULDM or ECATDM independently (X)'.

While measuring three independent variables (ESTDM, ECULDM and ECATDM), the more likely the researcher is to predict its associations to the dependent variable. Multivariate

statistical analyses inform us how much of the variance was observed in the dependent variable is attributed to and by the independent variables (Johnson and Christensen, 2004; Gay, et al, 2012). However, in this study, there is no an assumption (or an alternative hypothesis) that suggest there is a teacher who manage students' ethnic, linguistic and religious diversity separately turn by turn because a TVET teacher never plan to manage ethnic diversity separate from linguistic and religious diversity and vice versa.

Multiple regression combines variables that are known individually (Ethno-structural Diversity Management (ESDM), Ethno-cultural Diversity Management (ECULDM) and Ethno-categorical Diversity Management (ECATDM)) to predict the criterion variable (cooperative learning) into a prediction equation. The multiple regression equation calculated by the statistical program, SPSS V.22 for three dependent variables and cooperative learning (dependent variable) was the following:

$$Y = a + b_1 (\text{ESTDM}) + b_2 (\text{ECULDM}) + b_3 (\text{ECATDM})$$

According to various studies (Datta, 1994; Heba and Nouby, 2008; Schober, Boer and Schwarte, 2018 and Ivankova, Creswell, and Stick, 2006), the cutoff points have arbitrary and inconsistently been used judiciously. For example, a correlation coefficient of 0.65 could either be interpreted as a “good” or “moderate” correlation, depending on the applied rule of thumb. It is also quite unpredictable to claim that a correlation coefficient of 0.39 represents a “weak” association, whereas 0.40 is a “moderate” association. The following table (Table 3.9) portrays the cutoff points to measure the magnitude of the relationships between two variables.

Table 3.8 Cutoff points for interpreting a Pearson Product Moment Correlation

Coefficient

Absolute Magnitude of the observed correlation coefficient	Interpretation
.02 - .35	There is only a slight relationship.
.35 - .65	It is useful for limited prediction.
.66 –.85	Good prediction can result from one variable to the other.
.86 and above:	Typically achieved for studies of construct validity or test–retest reliability. Testing the significance level is important.

Source: Creswell, W. J. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th Ed.). University of Nebraska–Lincoln.

For the purpose of this study, the researcher employed the cut points by synthesizing the works of Creswell (2012) and Schober, Boer and Schwarte’s (2018) correlation measures for the reason why they have employed 95% level of confidence for testing and so does the present research pursuit. Accordingly, the calculated $r = 0.95$ in the above table (table 3.6) is a very strong correlation during the validation test. Rather than using oversimplified rules, the researcher suggests that a specific coefficient should be interpreted as a measure of the strength of the relationship in the context of the posed scientific questions. The researcher needs to consider that the range of the assessed values should be considered in the interpretation, as a wider range of values tends to show a higher correlation than a smaller range. The observed correlation may also not necessarily be a good estimate for the population correlation coefficient, because samples are inevitably affected by chance. Therefore, the observed coefficient here is accompanied by the 95% confidence interval, which provides the range of reasonable values of the coefficient in the population from which the data were sampled (Schober, Boer, and Schwarte, 2018).

Procedure 1.3 Determining the direct and indirect effects student cross group interaction

In this phase of the research, the researcher was able to pinpoint the mediating effects of the student cross-group interaction between cooperative learning and student diversity management.

Procedure 2. Connecting Quantitative and qualitative phases

The researcher then analyzed the qualitative data to help explain how and why certain external and internal factors tested in the first phase, were significant or not significant predictors of cooperative learning. Thus, the quantitative data and statistical results provided a general understanding of what internal and external factors contribute to cooperative learning. The qualitative data and its analysis secured the needed explanation as to why certain factors significantly or not significantly affect the participants' persistence.

Procedure 3. Qualitative data analysis

The qualitative analysis phase of this study was carried out by using narrative analysis method. This stage of the study was conducted by pursuing the following procedures.

Descriptive details in researcher's field notes and direct quotes from the participants during informal conversations were presented as qualitative data. Next to each descriptive note, the researcher incorporated his own reflections, insights and interpretations separate from the descriptions and verbatim. The following paragraphs details specific procedures of qualitative data analysis.

Data collected from teachers and educational leaders through semi-structured interviews were analyzed by carrying out the following procedures. The interview records of each informant (interviewee) were transcribed into textual data. Since the interview records were carried out in Amharic language, it was directly translated into English during transcription; the entire transcripts of all interviewees were documented. The researcher repeatedly read the textual data and check; 1, if the emerging issues raised by informants are associated with theme or not; 2, if the interview transcripts are credible and plausible in line with real context or not; and 3, what is absent from the data. Subsequently, the researcher carefully read the transcripts of semi-structured interviews at least three times.

Next to translation, transcription and reading the verbatim, the researcher performed initial coding; code the themes and sub themes, and prearrange pseudonym for the participants. Giving pseudonym for participants is necessitated to protect confidentiality and well being of the participants; only the researcher knew the correct names, department, and educational attainment of the participants specifically for the purpose of this study. Regardless of the probing questions,

the researcher coded the interview questions and their responses as sub-themes. The researcher coded the subthemes for numerous reasons in this research. One of the reasons is the interview transcripts expected to incorporate large volume of data from the participants. Thus, from the continuous description of participants for interview questions, the researcher phrased the responses of each participant by highlighting using different colors and categorized each phrase under the code for sub-theme. Accordingly, the researcher took the phrases of description of each informant to each sub-theme. For this purpose, the pseudonyms were prearranged for participants and codes were given to sub-themes (responses to interview questions).

After commencing coding processes, the coded copies of the transcribed interviews were taken apart to be categorized under each theme. And then the researcher labeled varieties of categories that are relevant to the research questions under each topic.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND DISCUSSION OF THE RESULTS

This chapter presents data presentation, analysis and interpretations of the results. The first sub-section of this chapter comprises of data presentation and analysis of the quantitative data. The second sub-section incorporates the presentation and interpretation of quantitative data. The third sub-section of the chapter presents the interpretation of the integrated results.

4.1. Demographic Characteristics of Respondents

As part of the questionnaire, demographic characteristics were gathered to determine the representativeness of the samples to the total population and the degree of the heterogeneity of the respondents. Accordingly, the background information about trainees' gender, age, TVET Level and ethnic background was collected and analyzed. By the same token, the gender, work experience, educational qualification and academic rank of the trainer respondents were also collected and analyzed.

Table.4.1 Demographic information of the trainee participants

		Frequency	Percent
Sample Poly Technical College	Aman Poly Technic College	97	21.2
	Bonga Poly Technic College	160	34.9
	Mizan ATVET	114	24.9
	Teppi Poly Technic College	87	19.0
Gender	Male	221	48.3
	Female	237	51.7
Age	18- 21	307	67.0
	22-25	124	27.1
	Over 25	27	5.9
TVET Level	Level I	117	25.5
	Level II	12	2.6
	Level III	123	26.9
	Level IV	174	38.0
	Level V	32	7.0
Students' ethnic background	Kaffecho	201	43.9
	Bench	56	12.2
	Shekacho	12	2.6
	Dawuro	12	2.6
	Yem	4	.9
	Konta	3	.7
	Mezhengir	3	.7
	Suri	2	.4
	Mi'enit	4	.9
	Other	163	35.5
Students' residential background	Rural	207	45.2
	Suburban	115	25.1
	Urban	136	29.7

As can be seen in the above table (4.1) a total of 458 trainees took part in the study (i.e, Aman Poly Technic College (97, 21.2%), Bonga Poly Technic College (160, 34.9%), Mizan ATVET (114, 24.9%), and Teppi Poly Technic College (87, 19.0%)). The student respondents were almost equal number of females (237, 51.7%) and males (221, 48.3%). The majority (307, 67.0%) of student respondents were between the age of 18-21. The majority participants were also selected from Kaffecho ethnic groups (201, 43.9%) and came from the rural areas of the region (207, 45.2%).

Table.4.2 Trainees' group interaction

Item	Very often		Often		Rarely		Never	
	No	%	No	%	No	%	No	%
1. The frequency of interaction that students' have with other ethnic groups in the TVET colleges.	183	40.0	118	25.8	148	32.3	9	2.0
2.The frequency of interaction that students' have with other religious groups in the TVET colleges	151	33.0	147	32.1	138	30.1	22	4.8
3.Applicable settings (situations) in which students interact with other ethnic groups								
Classmates							256	55.9
Dating field experiences							16	3.5
Roommate student							34	7.4
Neighborhood group organizations							32	7.0
Hometown							21	4.6
Church /Mosque							32	7.0
Group work							27	5.9
Other places							40	8.7

Data in the above table (4.2) portray that most students experience crossethnic and cross-cultural interactions within institutional settings. More than half of the trainee respondents interact with diverse group being classmates.

Table 4.3 Demographic characteristics of the trainer respondents by work experience, gender, educational qualification and academic rank

Item	Category	Frequency	Percent
Gender	Male	142	78.5
	Female	39	21.5
Work Experience	10 years and above	56	30.9
	5-9 years	91	50.3
	1-5 years	34	18.8
Educational Qualification	MA/MSc and above	7	3.9
	BA/BSc	170	93.9
	Diploma	4	2.2
Academic Rank	Rank A	29	16.0
	Rank B	140	77.3
	Rank C	12	6.6
Total		181	100.0

Source: Field survey

The trainers' sample about three fourth (142, 78.5%) was male. The average work experience of trainers was between 5-9 years (50%). Nearly all (94%) of the sample trainers was BA/BSc holder.

Perceptions on ethno-structural, ethno-cultural and ethno-categorical student diversity

Research Question 1.

1. What are trainees and trainers perceptions on ethno-structural, ethno-cultural and ethno-categorical diversity in Technical and Vocational Education and Training colleges (TVETs) of Southwest Ethiopia People's Region?

4.2 Checking Descriptive Statistics

As can be seen in the following table (4.4), the researcher checked the Individual-Group Statistics Section first to determine if the Count and the Mean are reasonable.

Table 4.4: Group Statistics of participants perceptions on students' diversity management in the application of cooperative learning

	Respondents	N	Mean	Std. Deviation	Std. Error Mean
Perceptions on students' ethno-structural diversity management	Trainees	458	3.765	.71422	.03337
	Trainers	181	3.615	.82577	.06138
Perceptions on students' ethno-cultural diversity management	Trainees	458	3.803	.75695	.03537
	Trainers	181	3.166	.88915	.06609
Perceptions on students' ethno-categorical diversity management	Trainees	458	3.784	.73625	.03440
	Trainers	181	3.761	.77125	.05733

With regard to the perceptions of trainees and trainers on students' ethno- structural diversity management in the application of cooperative learning, the above table (4.4) portrays that the majority of both sample groups rated positive and agreed that there is a good practice of students' ethno- structural diversity management in the diverse classrooms (Mean_(trainees) = 3.765, SD_(trainees) = .71422; Mean_(trainers) = 3.615, SD_(trainers) = .82577).

Another statistical tool used in the above table (4.4) is the standard error of measurement to state the reliability. The standard error of measurement is an estimate of how often one can expect errors of a given size in an individual's rating score. In this variable (perceptions on ethno-structural diversity management), both sample groups have low standard error of measurements (Std. Error Mean $_{(trainees)} = .03337$, Std. Error Mean $_{(trainers)} = .06138$). Hence, a small standard error of measurement indicates high reliability of the items was supported.

A look into the above table (4.4) also tells us trainees rated more positive to the items of perceptions on managing ethno-cultural diversity practices in their institutions to put cooperative learning in to place (Mean $_{(trainees)} = 3.803$, SD = .75695) than trainers (Mean $_{(trainers)} = 3.166$, SD $_{(trainers)} = .88915$). However, the perceptions of the majority of the two group respondents towards the items of students' ethno-categorical diversity management were positive and relatively closer to each other. Thus, smaller participants' standard error of measurement showed the higher reliability.

Hypothesis Testing

H₀: There is no a statistically significant perception difference between trainees and trainers on students' ethno- structural diversity management in TVETs of Southwest Ethiopia.

Table 4.5 Independent Samples Test for Perceptions on students' ethno- structural Diversity management

Mean	SD	Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
		Equal variances assumed	3.396	.066	2.29	637	.022	.15029	.06562	.02143	.27915
		Equal variances not assumed			2.15	292.107	.032	.15029	.06987	.01279	.28779
G1	3.765	.71422									
G2	3.615	.82577									

An independent samples t- test was computed to compare the Perceptions on students' ethno structural diversity management for trainees and trainers. There were statistically significant differences between the two groups of respondents since the alpha value is less than 0.05, $<.05(t(637) = 2.290, P = .022)$ in the scores for mean score of trainees ($M = 3.7651, SD = .71422$) and trainers ($M = 3.6148, SD = .82577$). This is because the result is considered statistically significant if the p-value from the t test is less than 0.05. On the other hand, the result is not statistically significant if the p-value is greater than 0.05. The magnitude of differences in the means (mean difference = $.15029$, 95% CL: $.02143$ to $.27915$) was greater than zero. Hence, null hypothesis was not supported.

H₀: There is no a statistically significant perception difference between trainees and trainers on Students' ethno- cultural diversity management.

Table 4.6 Independent Samples Test for Perceptions on students' ethno-cultural diversity management

		<i>Levene's Test for Equality of Variances</i>		<i>t-test for Equality of Means</i>							
<i>Mean</i>	<i>SD</i>	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>95% Confidence Interval of the Difference</i>		
									<i>Lower</i>	<i>Upper</i>	
		<i>Equal variances assumed</i>	8.004	.005	9.109	637	.000	.63702	.06993	.49969	.77435
		<i>Equal variances not assumed</i>			8.498	288.553	.000	.63702	.07496	.48948	.78456
<i>G1</i>	3.803	.75695									
<i>G2</i>	3.166	.88915									

G1: Trainees

G2: Trainers

An independent samples t- test was computed to compare the Perceptions of trainees and trainers on the ethnostructural diversity management for the application of cooperative learning. There were statistically significant differences between the two groups of respondents since the alpha value is less than 0.05, $<.05$ ($t(637) = 8.498, P = .000$) in the scores for mean score of trainees ($M = 3.803, SD = .75695$) and trainers ($M = 3.166, SD = .88915$). The magnitude of differences in the means of tranees and trainers (mean difference = $.63702$, 95% CL: $.48948$ to $.78456$) was statistically significant. Hence, H_0 is rejected because $H_0 > 0$, and H_1 was supported.

H_0 : There is no a sitatistically significant perception difference between trainees and trainers on Students' ethno- categorical diversity management.

Table 4.7 Independent Samples Test for Perceptions on students' ethno-categorical diversity management

		<i>Levene's Test for Equality of Variances</i>		<i>t-test for Equality of Means</i>							
<i>Mean</i>	<i>SD</i>	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>95% Confidence Interval of the Difference</i>		
									<i>Lower</i>	<i>Upper</i>	
		<i>Equal variances assumed</i>	2.523	.113	.349	637	.727	.02289	.06552	-.10578	.15156
		<i>Equal variances not assumed</i>			.342	316.81	.732	.02289	.06686	-.10865	.15443
<i>G1</i>	3.784	.73625									
<i>G2</i>	3.761	.77125									

G1: Trainees

G2: Trainers

An independent samples t- test was computed to compare the Perceptions of trainees and trainers on students' ethno structural diversity management. There were no statistically significant differences between the two groups of respondents since the alpha value is greater than 0.05, $>.05$ ($t(637) = .349$, $P = .727$) in the scores for mean score of trainees ($M = 3.784$, $SD = .73625$) and trainers ($M = 3.761$, $SD = .77125$). The magnitude of differences in the means (mean difference = $.02289$, 95% CL: $-.10578$ to $.15156$) was very small. Hence, H_0 was retained until it finds more appropriate data.

This does not imply that the researcher believes the null hypothesis to be true; rather, it just indicates that there isn't enough data at this time to reject it. The researcher does not use the phrase "accept the null hypothesis," but he also does not proceed in rejecting the null hypothesis instead of retain it. Price, Jhangiani, Chiang, Leighton, and Cuttler (2017) outline what should be done by the researchers in the event that the null hypothesis cannot be rejected. H_0 is not rejected but it is retained until it finds more appropriate data.

The relationship between diversity management and cooperative learning

Research Question 2.

2. Is there a statistically significant relationship between diversity management and cooperative learning? To what extent is the student diversity management related to the cooperative learning?

Assumptions

Checking the following basic assumptions of multiple regression is inevitable to employ the multiple linear regression for data analysis processes.

The researcher decided to choose to analyze the data using multiple regressions because the data has met the following basic assumptions that are required for running multiple regressions to give valid results.

Assumption #1: The dependent variable, cooperative learning, is measured on a continuous Scale (i.e., it is an interval variable).

Assumption #2: The research has three independent variables, which are interval variables.

Assumption #3: The relationship between (a) each independent variable (Ethnostructural Diversity Management, Ethnocultural Diversity Management and Ethnocategorical Diversity Management) and the dependent variable (cooperative Learning), and (b) the independent variables and the dependent variable collectively is linear.

Assumption #4: There is no multicollinearity in the data

Table 4.8: The multicollinearity test (relationship between the independent variables)

		Correlations		
		Ethnostructural Diversity Management	Ethnocultural Diversity Management	Ethnocategori cal Diversity Management
Ethnostructural Diversity Management	Pearson Correlation		.645**	.577**
	Sig. (2-tailed)		.000	.000
	N	639	639	639
Ethnocultural Diversity Management	Pearson Correlation	.645**		.651**
	Sig. (2-tailed)	.000		.000
	N	639	639	639
Ethnocategorical Diversity Management	Pearson Correlation	.577**	.651**	
	Sig. (2-tailed)	.000	.000	
	N	639	639	639

** . Correlation is significant at the 0.01 level (2-tailed).

The multicollinearity statistics measures whether there is a strong relationship between the independent variables. If the correlation coefficient is greater than 0.85 (>0.85), the researcher conclude that there is the problem of multicollinerity. Any pair of variables with a correlations higher than $r = .85$ signifies potential problems (Kline, 2005). In such cases, one of the two variables should be excluded from further analysis. However, the correlation coefficients .645, .577 and .651 depict there is no multicollinearity. Moreover, VIF 1.846, 2.137 and 1.871 are less than 10 and the tolerance .542, .468 and .534 are greater than .1 (10%) shows that there is no multicollinearity problem.

Table 4.9 Regression coefficients

Model	Coefficients ^a		t	Sig.	Collinearity Statistics	
	Unstandardized Coefficients	Standardized Coefficients			Tolerance	VIF
	Std. Error	Beta				
(Constant)	.325	.104	12.768	.000		
Ethno structural Diversity Management	.242	.030	.300	.062	.542	.846
Ethno cultural Diversity Management	.168	.032	.210	5.232	.000	.468
Ethno categorical Diversity Management	.258	.030	.326	8.698	.000	.534

a. Dependent Variable: Cooperative Learning

Based on the nonstandard coefficients the researcher obtains the regression equation:

$$Y = .325 + .242x_1 + .168x_2 + .258x_3$$

Where x_1 = students' ethno structural diversity management, x_2 = students' ethno cultural diversity management, x_3 = students' ethno categorical diversity management

Assumption # 5 The variance of the residuals is constant (Test for homoscedasticity)

Homoscedasticity is the assumption that the variation in the residuals or the amount of error in the model is similar at each point across the model. In other words, the spread of the residuals is fairly constant at each point of the predictor variables or across the linear model.

Assumption # 6 The values of residuals are normally distributed

This assumption was tested by looking at the P-P plot for the model. The closer the dots lie to the diagonal line, the closer to normal the residuals are distributed.

The following P-P plot of regression standardized residual shows that the residuals are normally distributed.

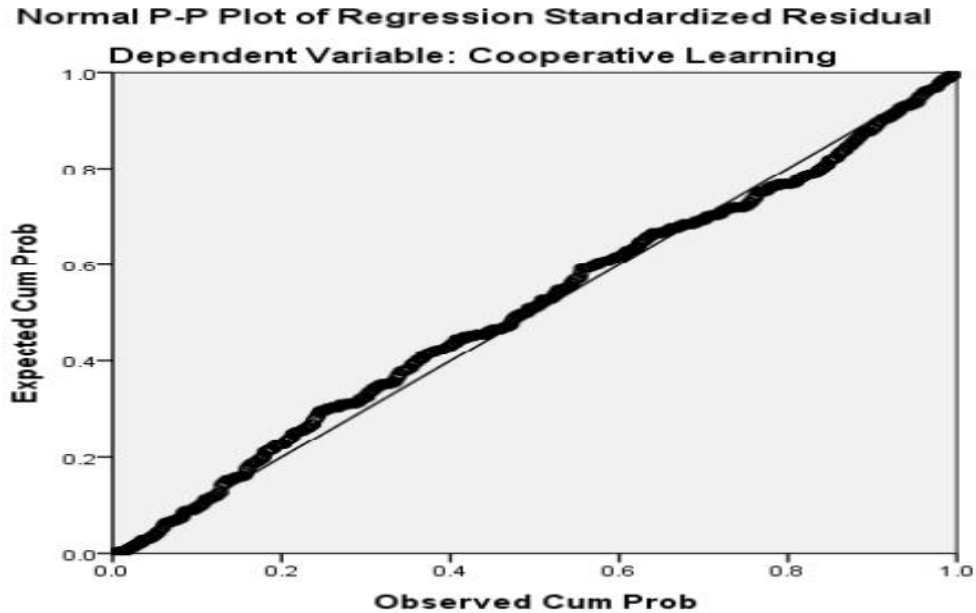


Fig. 4.1 P-P plot of regression standardized residual

Assumption #7: There are no influential cases biasing the model

There are no significant outliers, high leverage points or highly influential points. Outliers, and influential points are different terms used to represent observations in our data set that are in some way unusual when the researchers wish to perform a multiple regression analysis. Therefore, the researcher thoroughly checked the absence of the outlier in the data view both manually and SPSS search technique.

4.3 Regression Analysis

A simple linear regression was calculated to the dependent variable cooperative learning was regressed on predicting variable students' diversity management to test the null hypothesis 'there is no a statistically significant relationship between students' diversity management and cooperative learning. The model was found to be good because all predictors are significantly related to the outcome.

Table 4.10 Correlation between diversity management and cooperative learning

Hypothesis	Sum of squares		Beta coefficient	R ²	F	P-value	Null Hypothesis
H ₀ 1: There is no statistically significant relationship between ESTDM and CL.	Regression	106.251	0.623	0.388	404.675	0.00 ^a	Rejected
	Residual	167.249					
H ₀ 2: There is no statistically significant relationship between ECULDM and CL.	Regression	103.524	0.615	0.379	387.968	0.00 ^b	Rejected
	Residual	169.975					
H ₀ 3: There is no statistically significant relationship between ECATDM and CL.	Regression	110.446	0.635	0.404	431.476	.00 ^c	Rejected
	Residual	163.054					
	Total	273.500					

dependent variable: cooperative learning

^a*predictors: (constant), ethno structural diversity management*

^b*predictors: (constant), ethno cultural diversity management*

^c*predictors: (constant), ethno categorical diversity management*

The ethno structural diversity management significantly predicted the cooperative learning, $F(1, 638) = 404.675$, $P < 0.01$ (i.e., 0.00), which means that ethno structural diversity management can play a significant role in influencing the application of cooperative learning. The unstandardized coefficient $B = .503$, $P < 0.01$ and standardized coefficient $Beta = 0.623$ portrays that if the value of ethno structural diversity management increases by one unit the effectiveness of cooperative learning increases by 0.623. Moreover, the $R^2 = 0.388$ also depicts that the model explains 38.8% of the variance in the application of cooperative learning.

It was also found that the ethno cultural diversity management significantly predicted the cooperative learning application. The results of the regression indicated the ethno cultural diversity management explained 37.9% of the variance ($R^2 = 0.379$, $F(638, 3) = 387.968$, $p < .001$). It was found that ECULDM significantly predicted CL ($\beta = 0.615$, $p < .001$), as did agreeableness.

The results of regression analysis also show that the independent variable students' ethno categorical diversity management significantly predicts the cooperative learning application. $F(638, 3) = 431.476$, $P < 0.001$, which indicates that ethno structural diversity management has a significant effect on the cooperative learning application. Moreover, the $R^2 = 0.404$ depicts that students' ethno-categorical diversity management explains 40.4% of the variance in cooperative learning application.

As can be seen in table 4.10, the researcher used an alpha level of .05 for all statistical tests and P- value found to be $< .05$. Thus, three null hypothesis presented were rejected.

Table 4.11 Summary statistics, correlations and results from the regression analysis

<i>Variable</i>	<i>Mean</i>	<i>Std</i>	<i>correlation with CL</i>	<i>Multiple Regression weights</i>	
				<i>B</i>	<i>Beta</i>
<i>CL</i>	4.0173	65474			
<i>ESTDM</i>	4.1239	81077	.623 ^a	.503	.623
<i>ECULDM</i>	3.9244	.81463	.615 ^b	.494	.615
<i>ECATDM</i>	3.9997	82769	.635 ^c	.503	.623

^a*p* predictors: (constant), ethno structural diversity management

^b predictors: (constant), ethno cultural diversity management

^c predictors: (constant), ethno categorical diversity management

In the above table (4.11), looking at the p-value of the t-test for each predictor, we can conclude that each of the student diversity management scales contributes to the model.

Table 4.12 The Nexus between Diversity Management and Cooperative Learning

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.722 ^a	.521	.520	.45356	.521	692.502	1	637	.000

a. Predictors: (Constant), Student Diversity Management

In the table 4.12, overall model shows the coefficient of determination (R^2) = .523, Adjusted R^2 =.521 shows that the predictor variable, students' diversity management, explains 52.3% of the outcome variable, cooperative learning application.

Mediating role of student cross group interaction between diversity management and cooperative learning

Research Question 3.

3. Is there a statistically significant mediated path from student diversity management to applying cooperative learning via student cross-group interaction?

4.4 Mediating effect of student crossgroup interaction (cross-group interaction) between student diversity management and applying cooperative learning

Based on the review of a number of literatures the researcher formulated the the following theoretical mediation model of the study (Derek and Kecia, 2004; Allport, 1954; Dameron and Joffre, 2007; Possi and Milinga, 2017; Sembiring, 2018).

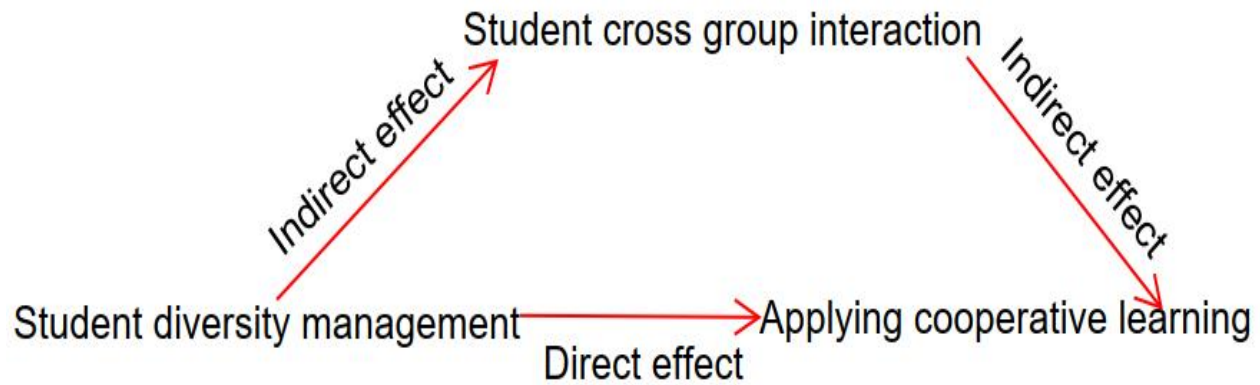


Fig.4.2 A diagram of a Mediation Model

4.4.1 Analysis of Moment Structures (AMOS)

A Structural Equation Model (SEM) of the interactions of students' diversity management, Cross group interaction (interctional diversity) and Cooperative learning variables.

4.4.1.1 Rationale for the use of Structural Equation Model (SEM)

SEM enables the researcher to estimate the effects of unmeasured, hypothetical constructs (latent construct). It also enables us to formulate priori model and test if the collected data fits it or not.

The researcher employed Structural Equation Model (SEM) using IBM SPSS Amos 23 to test the hypotheses formulated on the interaction of multiple latent and observed variables. Moreover, direct, indirect (mediated effect through intermediate variable) and total effects of exogenous (independent) variables on the endogenous (dependent) variables were examined by calculating the estimates via AMOS 23 software. Finally, the researcher used the model to easily test if it fits the theoretical framework or not by using the following parameters indicated in the table (4.13).

Table 4.13 Criteria for the acceptance of model fitness indices

Model fit index	Shorthand	Acceptable fit point	Reference
Chi-square	X^2	p-values : $\geq .05$	Bagozzi and Yi, 2012
Relative Chi-square	X^2/ Df or CMIN/DF	≤ 2 or 3	Schreiber, 2006
Root Mean Square Error of Approximation	RMSEA	$\leq .07$ with SRMR $\leq .07$ $< .09$ with CFI $> .09$	Bagozzi and Yi, 2012 Hair et al., 2010
Standardized Root Mean Square Residual	SRMSR	$\leq .07$	Bagozzi and Yi, 2012
Comparative Fit Index	CFI	$\geq .93$ with SRMR $\leq .07$ $> .92$	Bagozzi and Yi, 2012 Hair et al., 2010

4.4.1.2 Basic components of SEM in the study

Although SEM has several components, two major components, namely; the measurement model and structural model were basically used in the present study.

A. Measurement model

The measurement model defines the relations between the latent variables or constructs and their observed (manifest) variables. The latent variables (constructs) in this study include three factor students' diversity management, cross group interaction and cooperative learning. The observed (manifest) variables are often items/questions of a questionnaire which can be measured by research participant's rating.

The researcher accomplished the following basic tasks by developing the measurement model: the observed variables were measured using a valid and reliable measurement tool, the observed variables represented each latent variable, and the sizes of the latent variables were comparable.

B. Structural model

The structural model portrays how the researcher defined the relationships between the five latent variables. It also illustrates direct effects, indirect effects (mediated effects) and the error variance with respective endogenous (dependent) variables. The inclusion of error terms for each variable enables the researcher to reflect the unexplained variance in latent variables.

Mediating variable

Based on the Allport's (1954) contact theory diverse group interactions of students have mediating effects between positivity to diversity and cooperative learning. The studies by Dameron and Joffre (2007), Possi and Milinga (2017), and Sembiring (2018) also show that student interaction has a connecting interplay between student diversity and cooperative learning. Hence, the researcher considers student cross-group interaction as a mediating variable in this study. The mediating variable examined in this study was the frequency of cross group cross-group interaction inside and outside of the classroom among the polytechnic college students. The scales of mediating variable, students' cross group interaction, was measured using a five scale (from always to never) based assessment of the frequency of students' cross group interactions with diverse peers from other ethnic, religious and linguistic groups.

4.4.1.3 Confirmatory Factor Analysis (CFA)

In this study, there are 29 observed variables (i.e., 19 items correspond to student diversity management; 3 items correspond to student cross group interaction and 7 items correspond to applying cooperative learning) and 36 latent variables (i.e., 3 exogenous variable, student diversity management; 1 mediating variable, student cross group interaction; 1 endogenous variable, applying cooperative learning and 31 error terms). This number variables result in complex model structure. However, the researcher performed confirmatory factor analysis to be confident enough to present the study model.

Subsequently, confirmatory factor analysis (CFA) is used to test how well the measured variables represent the number of constructs.

The major criteria used to measure the fitness of model include; the chi-square (χ^2), Relative Chi-square, Goodness-of-Fit Index (GFI), the Normed Fit Index (NFI), the comparative fit index (CFI), and the Root Mean Square Error of Estimation (RMSEA). (Myers et al., 2013).

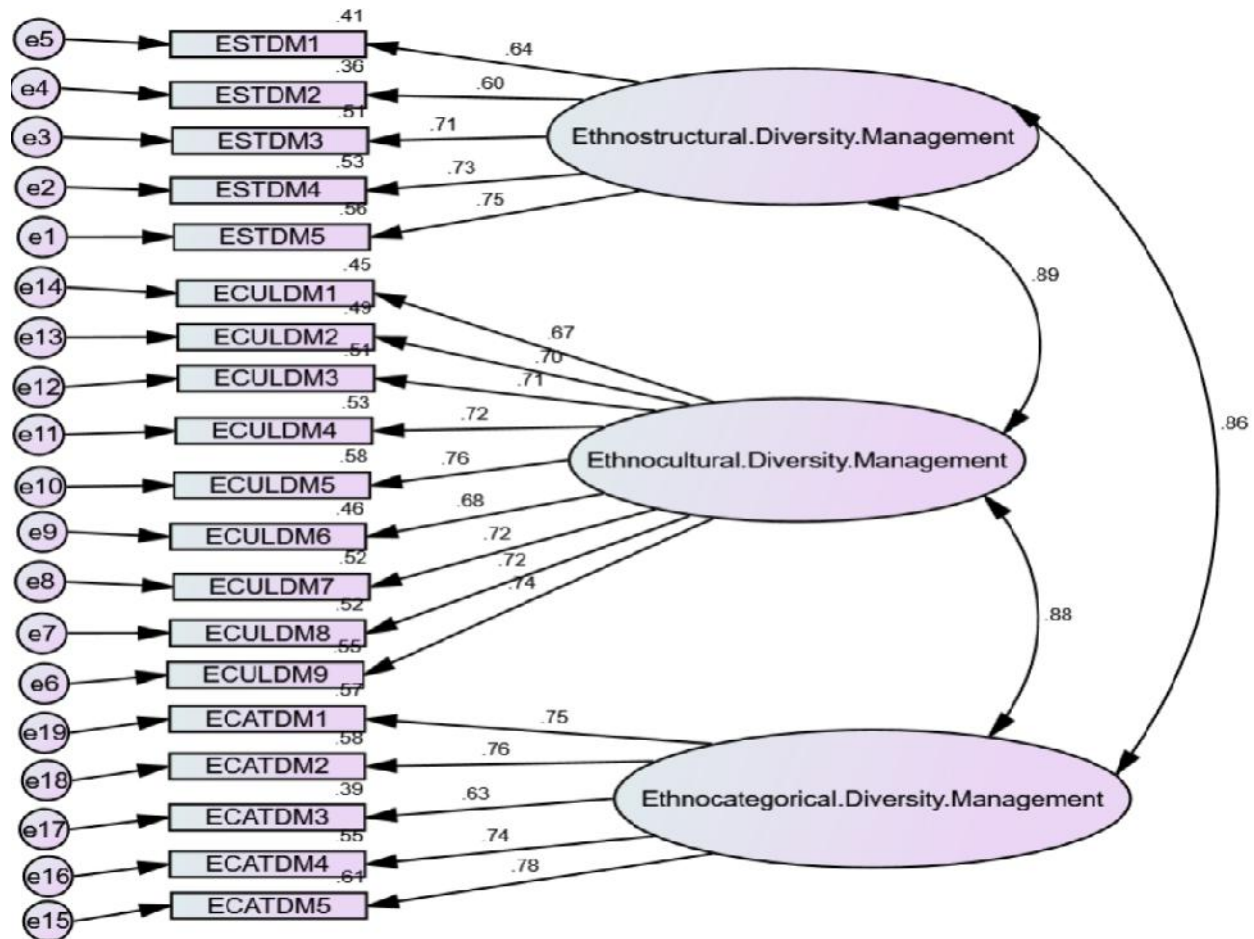


Fig.4.3 Hypothesized Path diagram depicting three-factor model of students' diversity management (First order CFA model)

As shown in the figure above (Fig.4.3), covariance is created between the independent (exogenous) variables to improve goodness of fit. It is the same as assuming independence if the researcher does not include the relationship between exogenous variables in the structural model.

If the researcher skipped this step, the AMOS outputs would have been distorted the goodness of-fit.

Determining item retention or deletion

The researcher attempted the item deletion or retention based on a number of parameters from the discriminatory factor analysis. As shown in the table below, the standardized regression weights of each of the three factors are greater than .4 for all items.

Table 4.14 Factor Loadings /Standardized Regression Weights/: CFA

Item		Factor	Estimate	P
ESTDM5	<---	Ethnostructural Diversity Management	.709	***
ESTDM4	<---	Ethnostructural Diversity Management	.619	***
ESTDM3	<---	Ethnostructural Diversity Management	.585	***
ESTDM2	<---	Ethnostructural Diversity Management	.526	***
ESTDM1	<---	Ethnostructural Diversity Management	.650	***
ECULDM9	<---	Ethnocultural Diversity Management	.733	***
ECULDM8	<---	Ethnocultural Diversity Management	.718	***
ECULDM7	<---	Ethnocultural Diversity Management	.712	***
ECULDM6	<---	Ethnocultural Diversity Management	.662	***
ECULDM5	<---	Ethnocultural Diversity Management	.746	***
ECULDM4	<---	Ethnocultural Diversity Management	.709	***
ECULDM3	<---	Ethnocultural Diversity Management	.703	***
ECULDM2	<---	Ethnocultural Diversity Management	.680	***
ECULDM1	<---	Ethnocultural Diversity Management	.658	***
ECATDM5	<---	Ethnocategorical Diversity Management	.790	***
ECATDM4	<---	Ethnocategorical Diversity Management	.736	***
ECATDM3	<---	Ethnocategorical Diversity Management	.624	***
ECATDM2	<---	Ethnocategorical Diversity Management	.757	***
ECATDM1	<---	Ethnocategorical Diversity Management	.742	***
Assessment	<---	Cooperative Learning	.865	***
Heterogeneity	<---	Cooperative Learning	.869	***
Social Skills	<---	Cooperative Learning	.921	***
Interaction	<---	Cooperative Learning	.856	***
Group Reflection	<---	Cooperative Learning	.858	***
Tutoring	<---	Cooperative Learning	.926	***
Positive Interdependence	<---	Cooperative Learning	.922	***
St. Cross Ethnic Interaction	<---	Cross Group Interaction	.719	***
St. Cross Linguistic Interaction	<---	Cross Group Interaction	.517	***
St. Cross Religious Interaction	<---	Cross Group Interaction	.675	***

The researcher did not delete any item because they all had positive and significant loading on its respective factor. Hulland (1999) claimed that a loading value of 0.4 should be considered acceptable, but Henseler, Ringle, Sinkovics (2009) recommended reviewing manifest variables with loading values between 0.4 and 0.7 before eliminating items. The regression weight for each item in the prediction of construct (factor) is significantly different from zero at the 0.001 level (two-tailed) for all items.

As can be seen in the following Table (4.15), the indices depict an inadequate fit of the model to the current data (CFI = 0.852, TLI = 0.834, NFI = 0.823, and RMSEA = 0.08). Thus, depending on the above acceptable measures of the parameters, the results of first order CFA suggested that the model requires modifications by employing the AMOS output given modification indices.

Table 4.15. Model fit summary of first order CFA.

CMIN	Model	NPAR	CMIN	DF	P	CMIN/DF
(Chi-square)	Default model	38	772.361	152	.000	5.081
	Saturated model	190	.000	0		
	Independence model	19	4363.691	171	.000	25.519
RMR, GFI		RMR	GFI	AGFI	PGFI	
	Default model	.368	.882	.853	.706	
	Saturated model	.000	1.000			
Baseline Comparisons		NFI	RFI	IFI	TLI	CFI
		Delta1	rho1	Delta2	rho2	
	Default model	.823	.801	.853	.834	.852
	Saturated model	1.000		1.000		1.000
RMSEA	Model	RMSEA	LO 90	HI 90	PCLOSE	
	Default model	.080	.074	.086	.000	
	Independence model	.196	.191	.201	.000	

Source: AMOS output Goodness of fit statistic

The chi-square (χ^2) is the most powerful measure for indication of the absolute fit index, and tests for the difference between the theoretical model and the empirical model

(Meyers et al., 2013). However, since the Chi-Square value is considered to be traditional measure for evaluating overall model fit, it is not accepted if it is greater than 3 at P-value $\geq .05$. In this study, the ratio of Chi square Min/Df for the Default model, i.e., the discrepancy divided by degrees of freedom was $(772.361 / 152) = 5.081$ before the confirmatory factor analysis has been analyzed (see table 4.14). If the Chi-square is significant at P-value $> .05$, indicates that the theoretical model does not fit the empirical data, while a non-significant Chi-square indicates a good fit. Thus, the first order confirmatory factor analysis output depicts that the model does not fit unless the following modification indices are performed (see table 4.16 below).

4.4.1.4 Modification of the model

Modification Indices

The table below (table 4.16) and figure (4.14) depict that the five reasonably substantial modification indices have all been taken into account and that the link between measurement and endogenous error variables has been evaluated. Based on the suggestions of the modification indices and modifications made, all GFIs demonstrate reasonable fitness.

Table 4.16 modification indices

Covariances: (Group number 1 - Default model, N=639)

			M.I.	Par Change
e2	<-->	e3	122.259	.420
e13	<-->	e14	29.793	.222
e12	<-->	e14	28.210	.212
e10	<-->	e11	17.644	.124
e13	<-->	e14	15.857	.154

Note: Each parameter that has a modification index greater than a specified threshold appears here, together with two numbers in columns labeled;

Where as M.I.: Modification Index; Par Change: estimated parameter change

In the above table, the recommended modification indices from the AMOS outputs enabled us to further improve the model fit by allowing additional parameters to be freely estimated. As can also be seen in the table (4.15), only considerably larger parameters that could result in significant changes in the model fit has been considered out of the numerous modification indices. Subsequently, the following path output diagram has been analyzed based on the modification indices presented in the above table ().

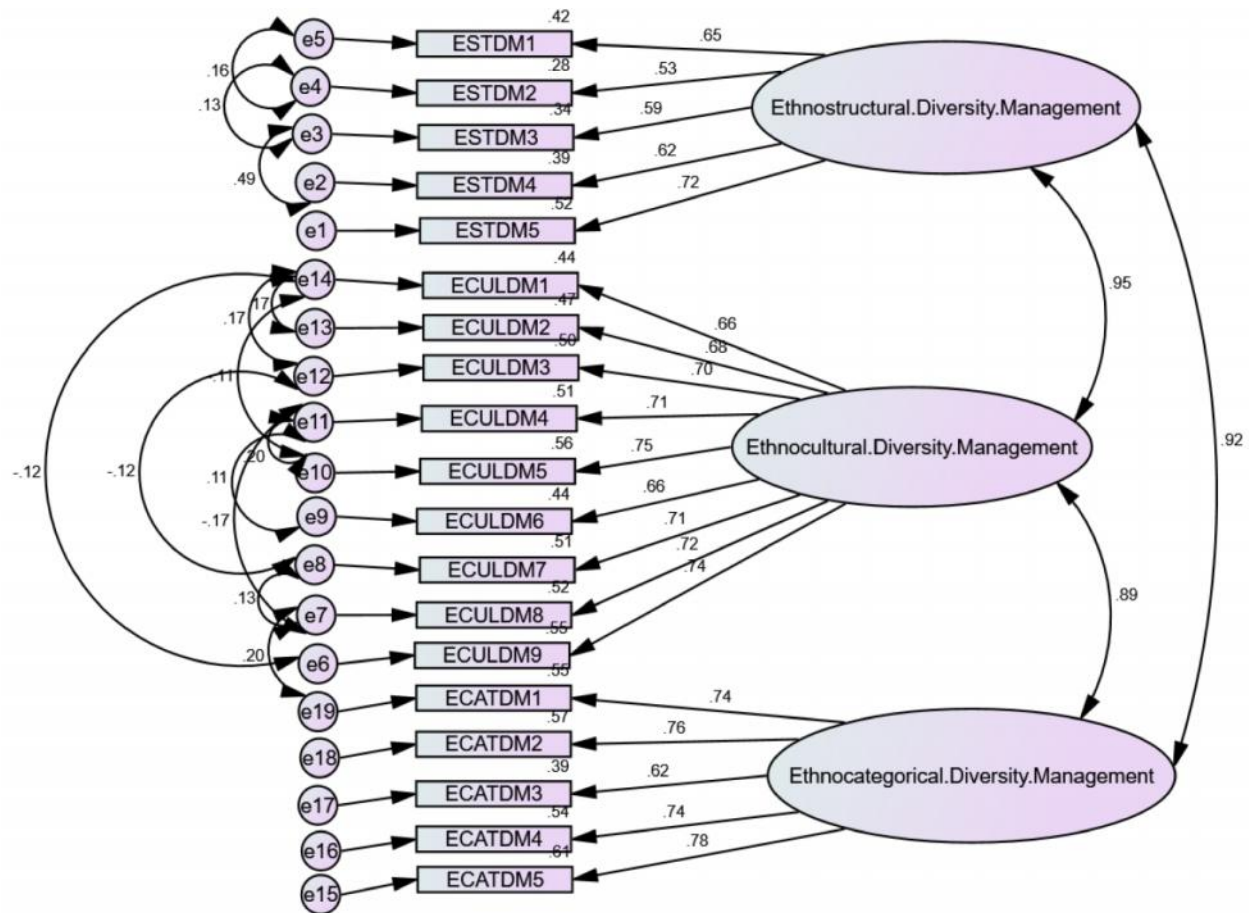


Fig.4.4 Path diagram depicting three-factor model of students' diversity management after modifications

One of the procedures to better fit the model is adjusting the covariance of exogenous variables. In almost all the mediation study, the intermediate variable between exogenous and endogenous variables involves Covariance-Based Structural Equation Modeling (CB-SEM)

(Gabriel and Patel, 2014). As can be seen in the following table, for the Default model, the ratio of chi-square to the number of degrees of freedom, CMIN/DF, is $431.544 / 139 = 3.105$ which means X^2 is a non-significant that portrays a good model fit. In other words the result depicts that the hypothesized model fits the empirical data.

Table 4.17 Model fit summary of second order CFA

CMIN	Model	NP	CMIN	DF	P	CMIN/DF
	Default model	70	431.544	139	.000	3.105
	Saturated model	209	.000	0		
	Independence model	38	4363.691	171	.000	25.519
Baseline Comparisons		NFI	RFI	IFI	TLI	CFI
		Delta1	rho1	Delta2	rho2	
	Default model	.901	.878	.931	.914	.930
	Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000	.000
RMSEA		RMSEA	LO 90	HI 90	PCLOSE	
	Default model	.057	.051	.064	.023	
	Independence model	.196	.191	.201	.000	

Source. CFA output after further model modification

The Comparative Fit Index (CFI) determines the differences between the empirical data and the theoretical model. The Values equal to or greater than .90 indicate good model fit. A value of .93 resulted in the output indicates a good fit. The Root Mean Square Error of Approximation (RMSEA) analyzes approximation error between the observed covariance and the covariance of the hypothesized model. The points less than or equal to .07 are acceptable for model fit (Meyers et al., 2013). Thus, the value of .057 is an indicator for the present model fitness.

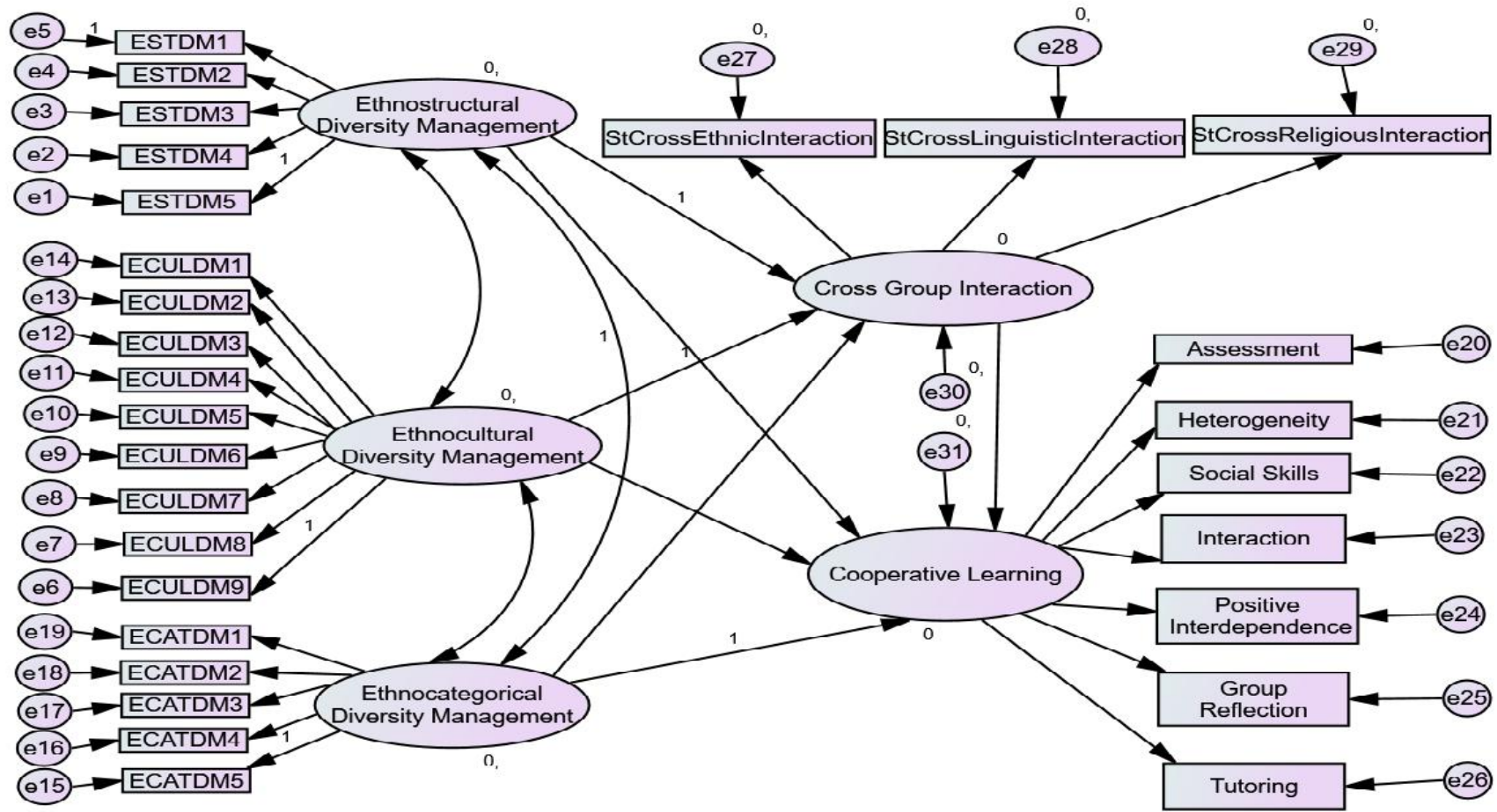


Fig. 4.5 Hypothesized relationship between students' diversity management, cross group interaction and cooperative learning

NB: observed variables were represented by rectangles. Latent variables were represented by oval shapes.

One-headed arrows point out an expected directional relationship between two variables.

Two-headed arrows point out covariance between two variables

To enable the Amos Graphics estimate the covariance between the exogenous (independent) variables, the researcher draw two-headed arrows (without constraints) because If two exogenous variables are not bonded by a double-headed arrow, Amos Graphics supposes that the variables are uncorrelated. in the above figure (4.5), and AMOS text outputs of the hypothesized model, the modification indices indicated that by adding covariance between error2 to error3 results in parameter change of .664 (i.e. If the researcher repeat the analysis treating the covariance between e2 and e3 as a free parameter, its estimate become larger by approximately 0.664 than it is in the present analysis.)

And error7 and error1 results in a parameter change of -.321 (i.e If you repeat the analysis treating the covariance between e7 and e1 as a free parameter, its estimate become smaller by approximately 0.321 than it is in the present analysis.). Performing the AMOS modification indices bring about improvements in the model. Accordingly, the following model has been considered to be well-suited model to both theoretical framework and empirical data analyzed (See figure 4.6).

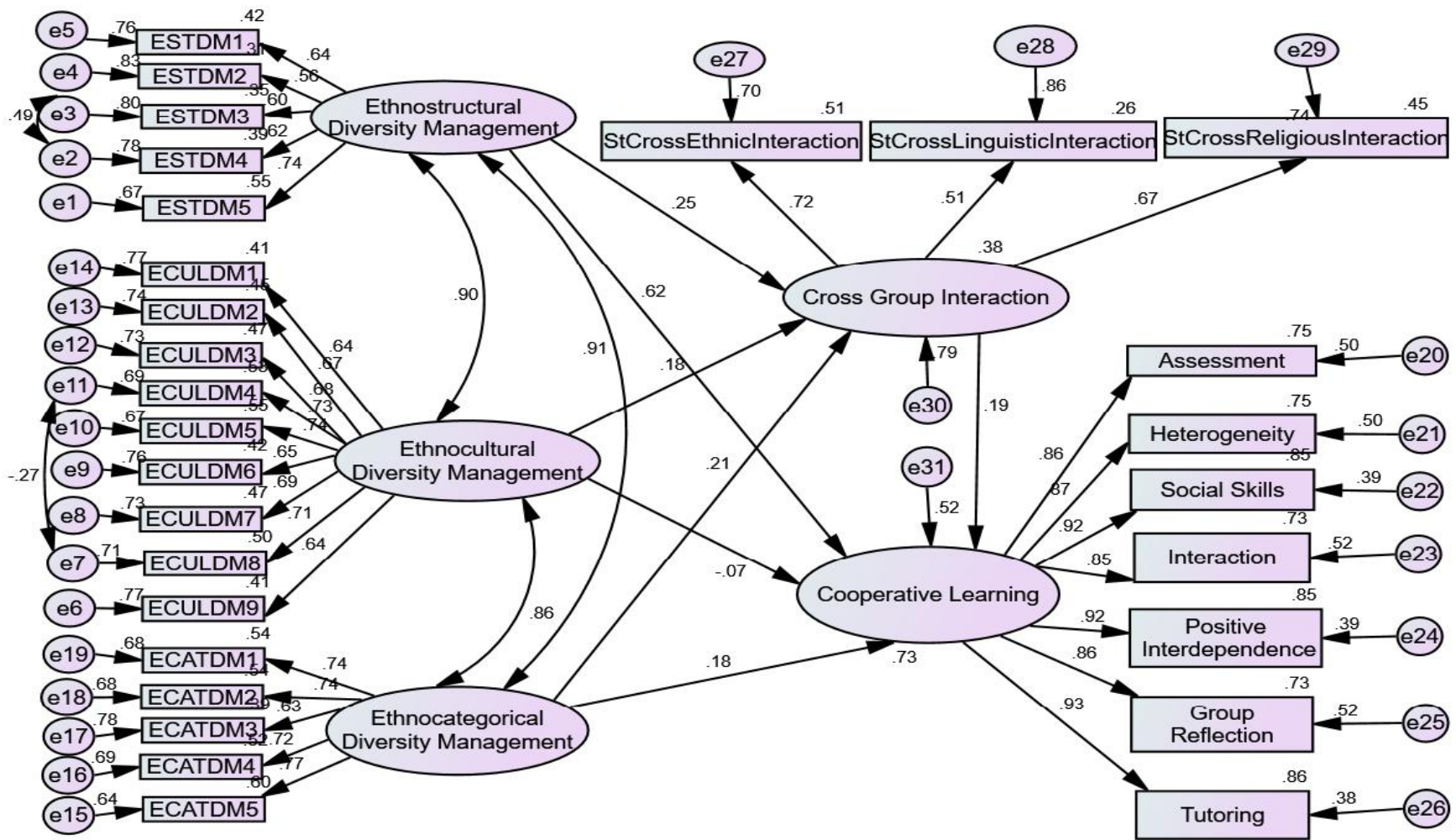


Fig.4.6 Full Structural Equation Model after final modification

Table 4.17 Model Fit Summary

CMIN	Model	NPAR	CMIN	DF	P	<u>CMIN/DF</u>
	Default model	153	985.746	351	.000	2.808
	Saturated model	464	.000	0		
	Independence model	58	9878.155	406	.000	24.330
Baseline Comparisons	Model	NFI Delta1	RFI rho1	<u>IFI</u> <u>Delta2</u>	TLI rho2	CFI
	Default model	.900	.885	.933	.922	.933
	Saturated model	1.000		1.000		1.000
	Independence model	.000	.000	.000	.000	.000
RMSEA	Model	RMSEA	LO 90	HI 90	<u>PCLOSE</u>	
	Default model	.053	.049	.057	.086	
	Independence model	.191	.188	.194	.000	

According to the above table, the overall model fitted the hypothesis and empirical data. The discrepancy divided by degrees of freedom is $985.746 / 351 = 2.808$. Thus, CMIN is non-significant, $P < .05$. The value of RMSEA = .053 (i.e. $< .08$) for the Default model also depict the good model fit. Both CFI = .933, and TLI = .922 for the Default model also confirm the goodness of the model fit.

4.4.1.5 Squared Multiple Correlations

According to the model presented in figure 4.6, it is estimated that the predictors of Cross group interaction explain 38.2 percent of its variance. This tells us 38.2 percent of the variance of cross group interaction of students was explained by cross ethnic, cross linguistic and cross religious interactions of students. In other words, the error variance of Cross group interaction is approximately 62 percent of the variance of Cross group interaction can be explained by other factors that were not analyzed in the model.

The overall model in the above figure (4.6), portray that the overall effects the predictors of Cooperative learning explained 73 percent of its variance. In other words, approximately 27 percent of the error variance of Cooperative learning was explained by other factors.

Standardized Regression Weights

The standardized regression coefficients (beta) in the path model shown above (figure 4.6) are used to estimate the relative magnitude of the effects of exogenous (independent) variables by adjusting the standard deviations so that, despite differing units of measurement, all the variables have the same standard deviation. The relative strength and direction of the effect from an independent variable to an endogenous or outcome variable in the model are measured by these standardized path coefficients.

The link between an independent variable, student diversity management and an outcome variable, application of cooperative learning can be well analyzed using unstandardized coefficients. However, it cannot depict the effect of student diversity management with mediation of student cross group interaction on the application of cooperative learning.

Table 4.19 Estimates of Structural Model (Group number 1 - Default model)

Regression weights (Standardized Direct Effect, Indirect effect and Total effect)

	Exogenous (Independent) variable						Mediating Variable					
	ESTDM			ECATDM			ECULTDM			Cross Group Interaction		
Endogenous (dependent) variable	Standardized Direct Effects	Standardized Indirect Effects	Standardized Total Effects	Standardized Direct Effects	Standardized Indirect Effects	Standardized Total Effects	Standardized Direct Effects	Standardized Indirect Effects	Standardized Total Effects	Standardized Direct Effects	Standardized Indirect Effects	Standardized Total Effects
Cooperative Learning	.617	.046	.663	.185	.039	.224	-.066	.034	-.032	.186	.000	.186
Cross Group Interaction	.245	.000	.245	.212	.000	.212	.184	.000	.184	.000	.000	.000

The above table, depict the summary report of the over all results that explicitly showed the estimates of Structural model and regression weights (standardized direct effect, indirect effect and total effect). The following sub-sections of this study (4.4.2 through 4.4.5) converse the discussions of each result presented in table 4.19.

4.4.2 Mediating effects of student cross group interaction in structural model

As the researcher stated in the introduction to this section, one of the important purposes of using the structural equation model (the path analysis model), unlike other common statistical models, is that mediating variables and their measures can be analyzed. Hence, hereunder the researcher reports the direct, indirect, and total effects of the mediating variables.

4.4.2.1 Standardized Regression Weights of study model

The standardized coefficients are the indicators to determine which predictors are more important. In regression, what they mean is that one standard deviation increase in the student diversity management results in the computed number of standard deviations of change in the application of cooperative learning. Subsequently, the standardized regression coefficients depict that the student diversity management and cross group interaction (mediating variables) have a large or negligible effect on the dependent variable, applying cooperative learning.

4.4.2.2 Direct effect of Student diversity management on applying cooperative learning

In the present study, the standard direct (unmediated) effect of ESTDM on the implementation of cooperative learning is .617. This means that when ESTDM increases by 1 standard deviation, cooperative learning application increases by 0.617 standard deviations as a result of the direct (unmediated) influence of ESTDM on cooperative learning application. This is in addition to any potential indirect (mediated) influence that ESTDM may have on the application of cooperative learning (see table 4.19).

The standardized direct (unmediated) effect of ECATDM on the application of cooperative learning is .185. This means that when ECATDM increases by 1 standard deviation, cooperative learning application increases by 0.185 standard deviations as a result of the direct (unmediated) influence of ECATDM on cooperative learning application. This is in addition to any potential indirect (mediated) impact that ECATDM may have on the application of cooperative learning (see table 4.19).

The standardized direct (unmediated) effect of ECULTDM on cooperative learning implementation is -.066. This means that when ECULTDM increases by 1 standard deviation, the application of cooperative learning decreases by 0.066 standard deviations as a result of the direct (unmediated) effect of ECULTDM on cooperative learning. This is additional to any potential indirect (mediated) effect that ECULTDM may have on the application of cooperative learning (see table 4.19).

Pike and Kuh (2006) find out that the effective management of structurally diverse student group and enhancing informal interaction among them has direct association. According to Baker and Clark (2010), there is a significant cultural diversity leadership in how diverse student groups that have little prior experience with cooperative learning and assist diverse international students bridge the gaps between their ethnic background, previous educational experiences and cultural diversity and cooperative learning. The connection between diversity and collaborative learning tells us how student diversity affects classroom behavior.

4.4.2.3 Direct effect of Student diversity management on cross group interaction

In the table 4.18, Cross-group interaction increases by 0.245 standard deviations when student ethnostructural diversity management (ESTDM) increases by 1 standard deviation. Cross-group interaction increases by 0.184 standard deviations for every standard deviation increase in ethnodiversity management. Cross-group interaction increases by 0.212 standard deviations for every 1 standard deviation increase in student ethnocategorical diversity management (ECATDM).

The management of student ethnostructural diversity has a standardized direct (unmediated) effect of .245 on cross-group interaction. That is to say, when ethnostructural diversity management (ESTDM) increases by 1 standard deviation, cross-group interaction increases by 0.245 standard deviations as a result of the direct (unmediated) influence of ESTDM on cross-group interaction. In addition, this takes into account any indirect (mediated) effects that managing ethnostructural diversity may have on intergroup relations (see table 4.19).

The direct (unmediated) effect of ethnocategorical diversity management (ECATDM) on cross-group contact is .212 on average. This means that when ECATDM increases by 1 standard deviation, cross-group interaction increases by 0.212 standard deviations as a result of the direct (unmediated) influence of ECATDM on cross-group interaction. Along with any potential indirect (mediated) effect that ECATDM may have on cross-group interaction, this is also a factor (see table 4.18). The standardized direct (unmediated) effect of ECULTDM on Cross group interaction is .184. That is, due to the direct (unmediated) effect of ECULTDM on Cross group interaction, when ECULTDM goes up by 1 standard deviation, Cross group interaction goes up by 0.184 standard deviations. This is in addition to any indirect (mediated) effect that ECULTDM may have on Cross group interaction (see table 4.19).

However, the research by Loes, Culver, and Trolan (2018) differs from the current study in two ways. First, they discovered that collaborative learning activities have a positive influence on students' openness to diversity. The second is that cross-group interaction acts as a mediator between openness to diversity and collaborative learning.

4.5 Student Cross group interaction and cooperative learning

Cooperative learning application increases by 0.186 standard deviations for every one standard deviation increase in cross-group interaction. Cross-group interaction has an overall standardized direct (unmediated) effect of 0.186 on the application of cooperative learning. This means that when cross group interaction increases by 1 standard deviation, applying cooperative learning increases by 0.186 standard deviations as a result of the direct (unmediated) influence of cross-group interaction on cooperative learning. However, additionally, there may be a mediated

(indirect) influence of cross-group interaction on the application of cooperative learning (see table 4.19).

Furthermore, a study by Sembiring (2018) indicates that students' cross group interaction is one of the most important parts of the collaborative learning which on the other hand means that student interaction influences cooperative learning outcomes. An active interaction among students stimulates collaboration in their prior knowledge, perspectives and background experiences which later promote their high- level learning. It also affects the development of students' learning process in the classroom. In addition, his, study show that student interaction among different background experiences, perspectives, and prior knowledge enhances their critical thinking and high-level Comprehension.

4.5.1 Standardized Indirect Effects

The standardized indirect effect derived from standardized scores can be a good alternative as a measure of effect size because it is scale-invariant. After performing the hypothesis testing, even though indirect effect sizes are small they are statistically significant at P-value $\leq .05$ which on the other hand explains that a non-zero effect exists in the population.

The standardized indirect effect of ESTDM on applying cooperative learning is .046, which is mediated by student cross-group interaction. That is, due to the indirect (mediated) effect of ESTDM on cooperative learning, when ESTDM goes up by 1 standard deviation, cooperative learning goes up by 0.046 standard deviations. This is in addition to any direct (unmediated) effect that ESTDM may have on cooperative learning. This means that student ethnostructural diversity management has a significant effect on the application of cooperative learning.

The above table 4.19 also portray that the standardized indirect (mediated by student cross group interaction) effect of ECATDM on cooperative learning is .039. That is, due to the

indirect (mediated) effect of ECATDM on cooperative learning, when ECATDM goes up by 1 standard deviation, cooperative learning goes up by 0.039 standard deviations. This is in addition to any direct (unmediated) effect that ECATDM may have on Cooperative learning. The result of regression coefficient of the mediation of ethnocategorical diversity management has a statistically significant mediating effect on the application of cooperative learning.

Another dimension of student diversity management is ethnocultural diversity management. The standardized indirect effect (mediated by student cross group interaction) of ECULTDM on cooperative learning is .034. That is, due to the indirect (mediated) effect of ECULTDM on cooperative learning, when ECULTDM goes up by 1 standard deviation, cooperative learning goes up by 0.034 standard deviations. This is in addition to any direct (unmediated) effect that ECULTDM may have on application of cooperative learning. It was also indicated that student ethnocultural diversity management has mediating effects on applying cooperative learning.

The majority of findings explain the observed relationship between student diversity management and inclusion, which foster collaborative learning. A new cooperative learning environment may spontaneously develop since no one group dominates in ethnically diverse environments. Because of this, students access the chance to add friends from all backgrounds to their friendship groups. In these groups with a diverse student group, a greater range of acceptable behaviors may be permitted, which in turn improves the use of cooperative learning (Nishina, Lewis, Bellmore, and Witkow, 2019).

4.5.2 Standardized Total Effects

The standardized total (direct and indirect) effect of ESTDM on cooperative learning implementation is .663. That is, due to both direct (unmediated) and indirect (mediated) effects of ESTDM on applying cooperative learning, when ESTDM goes up by 1 standard deviation, cooperative learning goes up by 0.663 standard deviations.

The widely accepted classification criteria for effect sizes in various scientific papers are presented by Cohen (1988). Effect sizes between 0.10 - 0.29 are considered to be only little,

effect sizes between 0.30 - 0.49 are considered to be medium, and effect sizes of 0.50 or higher are considered to be large for a coefficient. Depending on Cohen's recommendation, student ethnostructural diversity management has a large effect on the application of cooperative learning.

The standardized total (direct and indirect) effect of ECATDM on Cooperative.Learning is .224. That is, due to both direct (unmediated) and indirect (mediated) effects of ECATDM on Cooperative.Learning, when ECATDM goes up by 1 standard deviation, cooperative learning goes up by 0.224 standard deviations. This means, on the other hand, that the implementation of cooperative learning is only slightly influenced by the regression coefficient of .224.

Student ethno cultural diversity management (ECULTDM) has a total standardized effect of negative .032 (-.032) (direct and indirect) on applying cooperative learning. This means that when ECULTDM increases by 1 standard deviation, cooperative learning decreases by 0.032 standard deviations as a result of both direct (unmediated) and indirect (mediated) effects of ECULTDM on application.

The standardized total (direct and indirect) effect of student cross group interaction on applying cooperative learning is .186. That is, due to both direct (unmediated) and indirect (mediated) effects of cross group interaction on applying cooperative learning, when student cross group interaction goes up by 1 standard deviation, cooperative learning goes up by 0.186 standard deviations. The result, on the other hand, depict that there is a statistically significant and positive (direct) relationship between student cross group interaction and cooperative learning.

Nhan and Nhan (2019) find out that effective cooperative learning is largely influenced by student engagement. According to group dynamics theory, diverse forms of group interactions and outcomes are fostered by group formation and variation in group inputs (member abilities, skills, and relationships). Cooperative learning success consequently depends on the act of grouping students or selecting the peers. Student group formation based on diversity (mixing students up) and using different criteria for student group interaction are two different types of

group formation. The frequently asked question to measure the effect of cross-group interaction on the effects of the implementation of cooperative learning is how it can be measured how well students collaborate as a group.

4.6 The implementation of diversity management in applying cooperative learning

As discussed in the methodology section, the mixed methods sequential explanatory design is a two-phase mixed methods design. The general purpose of this design is that qualitative data helps explain or build upon initial quantitative results. Accordingly, now the researcher has reached the second phase of research to substantiate and explain the quantitative research results.

After completing the qualitative data collection, the researcher first carefully read the semi-structured interview transcripts at least three times before beginning the initial coding process.

Following completion of the coding procedures, the coded copies of the transcripts of the interviews were divided into groups according to each theme (see table). Then, beneath each topic, the researcher classified a number of categories that are pertinent to the research theme. The tables below (table 4.20 – 4.23) show that not all of the respondents' transcripts were included in this recording. These tables, for instance, did not contain the subjects' in-depth inquiries and associated answers.

The following basic procedures were used to analyze qualitative data collected from educational officials via semi-structured interviews:

Procedure 1. Each interviewee's interview records were transcribed into textual data. Because the interviews were conducted in Amharic, they were directly translated into English during transcription; direct quotes from the participants were jotted down.

Procedure 2: The semi-structured interview transcripts were carefully read three times.

Procedure 3. Next, initial coding was carried out. The pseudonyms were prearranged for the participants, and themes and subthemes were coded. Giving pseudonym for

participants is necessitated to protect confidentiality and well being of the participants; only the researcher knows the correct names, responsibility, and academic qualification of the department heads.

Four guiding interview questions were followed by many probing questions that were posed to the respondents. Then, the interview transcripts that contain a large volume of data were reduced by considering only those directly related to the major thematic issues (see the following tables, table 4.20 – 4.23).

Research Question 4. What are the major challenges and prospects of classroom diversity and its management in the implementation of cooperative learning in TVETs of Southwest Ethiopia People’s Region?

4.6.1 Perception of Participants towards Student Diversity Management in Applying Cooperative Learning

Positive perceptions from trainers and trainees are essential for a particular teaching-learning process to be successful. In this study, the perceptions of trainees and trainers were explored through in-depth interviews to determine what perceptions they have on the application of student ethnic diversity management while implementing cooperative learning.

Table 4.20 Transcription, key direct quotes from semi-structured interviews and Emerging themes (October11-26/2022)

Questions	DH2	DH 6	DH 9	DH12	DH13	DH16	DH17	DH20	Theme
How do you perceive student diversity management in applying cooperative learning at your Polytechnic College classroom?	<i>Our college, in my opinion, manages student ethnic diversity well. There is no sign of ethnic-based discrimination in my classroom .(11/10/2022)</i>	<i>Southwest Ethiopian people, by nature, attract each other to live together even before providing ways of managing diversity. Likewise, their children in college mirror their parents' life experiences. (26/10/2022)</i>	<i>I view ethnic diversity as a good opportunity for education since it gives students better access to share what they learnt in the community to the group they belong to.(13/10/2022)</i>	<i>To be honest, I think that managing students' diversity in the classroom is an important part of creating a democratic culture like openness to other worldviews, customs, and cultures, as well as to other faiths, Tolerance for uncertainty, respect, civic consciousness, accountability, and self-efficacy.(12/10/2022)</i>	<i>Diversity management, in my opinion, helps students grasp how vast the social environment is and how to empathize with others. (20/10/2022)</i>	<i>I have a positive perspective on diversity in the application of cooperative learning in the training process because it offers a chance to learn from different local vocational skills.(18/10/2022)</i>	<i>I believe it fosters a learning environment in which students of diverse ethnic backgrounds feel safe and respected. (26/10/2022)</i>	<i>Students who are coming from diverse ethnic groups and taking courses in an inclusive classroom are expected to bring about equitable learning outcomes. Trainers from diverse ethnic backgrounds minimize microaggressions and serve the needs of diverse student groups. (25/10/2022).</i>	<ul style="list-style-type: none"> - Good life experiences - Access to share experiences they learnt from their ethnic community - Tolerance for differences and respect - Minimize micro aggressions. (14/10/2022)

4.6.1.1 Lived life experiences of positive perceptions

According to the majority of department heads in the above table (4.20), student diversity management has a direct influence on the effectiveness of cooperative learning implementation in VET colleges. In today's highly dynamic classroom, VET trainers believe it is critical to improve student diversity management while implementing cooperative learning.

4.6.1.2 Access to share experiences they learnt from their ethnic community

Regarding the experience sharing among students from different ethnic backgrounds, DH3 provided the following straightforward expression:

In my opinion, trainees' pre-college experiences about ethnic diversity matter to effectively work cooperatively in the instructional activities. Trainees who come from around Mizan Teferi, for instance, take it easy to lend a hand to other individuals inside and outside of the classrooms. When the trainees were growing up in diverse ethnic communities, they did not consider diversity a learning problem but rather an opportunity to maximise access to the source of knowledge. Frankly speaking, our department courses require more practical skills than soft skills, and students can train each other. (Interview with DH 3, 26/10/2022).

According to the majority of college department heads, students prefer friends of the same ethnicity to join in the cooperative group work. Trainers extrapolate their opinions as to why students choose the same ethnic friends: to avoid social discrimination. Trainers, on the other hand, have the experience to mix up students by using different criteria that allow different ethnic students to participate in group discussions.

As a result of the diverse experiences of trainees from diverse ethnic backgrounds, the spectrum of various views broadens. Students recognize their cooperative learning group more than their social identity as a result of trainers' student diversity management skills.

4.6.1.3 Tolerance for differences and respect

The majority of educational officials in sample TVET poly technic colleges suggested that in applying cooperative learning, arranging cooperative group trainees from different ethnic backgrounds is not sufficient unless they are managed to tolerate and respect each other's opinion, cultures, and beliefs. Regarding this view, DH12 shared the following with me.

To be honest, I think that managing students' diversity in the classroom is an important part of creating a democratic culture, like openness to other worldviews, customs, and cultures, as well as to other faiths, tolerance for uncertainty, respect, civic consciousness, accountability, and self-efficacy (Interview with DH12, 12/10/2022).

During the interview sessions, some of the trainees indicated that their classrooms are able to provide equal learning opportunities to students of various ethnicities, languages, and religions. And the respondents have open and positive perceptions of the classroom's diversity as a source of cooperative learning.

Moreover, students who are schooled in an ethnically mixed classroom get more access to enhance acculturation, multiculturalism, and mutual respect for one another. TVET instructors who are conducting training with diverse student groups promote recognizing diversity and optimizing the learning outcomes (Miller and Sessions, 2005).

4.6.1.4 Minimize micro-aggressions in the classroom

It is assumed that microaggression among students can be minimized in cooperative learning groups in the classroom, which include representative ethnic students.

One of the department heads (DH, 20) shared with me the following in her departmental leadership experience.

When trainers are assigned from diverse ethnic backgrounds to a heterogeneous classroom, it meets the demands of diverse ethnic student groups and also enables trainees not to perceive that favours are done for particular ethnic groups of trainees.

I also believe the technique may reduce microaggressions and unintended microinsults among trainees (*Interview with DH 20, 25/10/2022*).

Microaggressions in the classroom are unintentional or intentional verbal, behavioral, and friendship indignities that converse hostile, disparaging, or negative messages to peers because of their membership in marginalized ethnic groups. These messages have a negative psychological influence on the target individual or learning group in the long run.

Table 4.21: Transcription, key direct quotes from semi-structured interviews and Emerging themes (October11-26/2022)

Questions	DH 1	DH 5	DH 8	DH 11	DH 14	DH16	DH18	DH20	Theme
What are the benefits of students' ethnic diversity management in applying cooperative learning at your Polytechnic College (classroom)?	<p>According to my observations, effective student diversity management practices at our polytechnic college enable trainers to reduce stereotyping among diverse student groups. (17/10/2022)</p> <p>DH4: Cooperative learning in an ethnically diverse classroom allows students to learn about and respect one another's cultures. In applying cooperative learning in a highly ethnically diverse classroom, the ethnic minority students feel freer, safer, have less loneliness, and experience less group victimization because students by default consider diversity to be normal. (17/10/2022)</p>	<p>Well-managed classroom diversity gives equal learning and all-rounded development opportunities. Furthermore, diversity in the classroom prepares students for a more diverse community. (20/10/2022)</p>	<p>In my view, on culture day, students from various ethnic backgrounds at our college have the opportunity to celebrate their culture. Additionally, it provides students increasing intellectual and social environment. (16/10/2022)</p>	<p>I consider that Students learn how to collaborate and live together in a diversity of future life experiences. (21/10/2022)</p> <p>DH12: Students who interact informally and formally with diverse ethnic groups of students gain more academic and vocational skills than students who study in a more homogeneous classroom. (12/10/2022)</p>	<p>Classroom diversity management allows students to learn from one another's experiences as well as the diverse skills they acquired as a result of their ethnic backgrounds. Different groups of students learn good lessons from others' cultures. (12/10/2022)</p> <p>DH:15 That is an excellent question! Cooperative learning in a diverse classroom, in my opinion, helps students minimize lengthy lectures and improve academic achievement. (21/10/2022)</p>	<p>In my opinion, managing student diversity drives the trainers to make changes in their mindset to be fair to diverse student groups.</p> <p>DH1:17 Students from marginalized ethnicities get communication opportunities from intergroup interaction within the cooperative classroom. (26/10/2022)</p>	<p>In my opinion, diversity accommodations enable trainees to feel neither superior nor inferior to their other peers. On top of this, it enables trainees to respect each others' and their own culture. (19/10/2022)</p> <p>DH 19 Students from underrepresented groups are especially vulnerable to negative peer interactions. The majority ethnic group of students may have more say over the outcomes of small-group discussions than the minority ethnic group. (26/10/2022)</p>	<p>Okay, I believe that practicing and accepting diversity helps to reduce discrimination and foster inclusion. It is also obvious that when ethnically diverse students trust that our college is welcoming all trainees, they feel a sense of belonging. (25/10/2022)</p>	<ul style="list-style-type: none"> ➤ Reduce ethnic based prejudice. ➤ Mutual respect and acculturation ➤ Equal learning opportunity ➤ Augmentation of intellectual and social development ➤ Experience for future real life for serving diverse community. ➤ Minimize extended lecture and improve academic achievement

4.6.2 Benefits of Students' Ethnic Diversity Management in Applying Cooperative Learning

The vast majority of participants said that addressing ethnic diversity in the classroom has an important influence on how cooperative learning is implemented.

Based on the excerpts from department heads of the sample polytechnic colleges presented in the above table (table 4.21), the following themes emerged from the multiple mouths of the participants regarding the benefits of student ethnic diversity management while applying cooperative learning. The next sub-sections do not compromise all of the participant's remarks due to the large volume of data that was gathered; nonetheless, the most frequently raised idea was taken from the participant's excerpts.

Some of the major benefits of managing students diversity includes; reducing ethnic-based prejudice; mutual respect and acculturation; equal learning opportunity; augmentation of the intellectual and social environment; experience for future real life in serving diverse communities; minimizing extended lectures; and improving academic achievement.

4.6.2 .1 Reduce ethnic based prejudice

In the interview transcript rubric, most of the words of mouth from subjects reveal that managing student ethnic diversity plays significant role in mitigating the classroom prejudice against non-majority ethnic group of trainees. Regarding this issue DH6 has the following to say, “*I think conducting cooperative learning by managing student diversity inspire the trainers to reduce ethnic based prejudices in classroom*” (Interview with DH 6: 26/10/2022).

According to Davies (2021), cooperation-based teaching and learning reduces ethnic prejudice among students. Promoting interdependence and avoiding prejudice and exclusionary practices are of fundamental principles of cooperative learning. Department heads indicated in the current study that instructors are aware of encouraging trainees to perceive they have equal status roles within the classroom and access to being equally served by all stakeholders at each hierarchical level of the college.

As a result, VET college students are more or less aware of learning in a diverse classroom and actively combat any sign of prejudice toward their peers in a cooperative learning environment. The majority of participants also explain that increasing intergroup contact reduces ethnic prejudices in students. Vervaet, Van Houtte, and Stevens, (2018) support this finding by demonstrating that when diverse ethnic trainees are assigned to diverse ethnic students, trainer ethnic-based student discrimination decreases.

When asked about the benefits of managing students' ethnic diversity in cooperative learning, the participants agreed that managing student diversity has a significant benefit in cooperative learning by providing safe and fair college learning environments for diverse ethnic groups of students learning together. Prior research findings by Davies (2021) indicate that cooperative learning pedagogy generally reduces prejudice practices among students.

4.6.2.2 Mutual respect and acculturation

In all cases the informants reported that recognizing the ethnicity and culture of others fosters mutual respect. The majority of participants stated that any trainee who wishes to have his or her ethnicity, religion, and/or language respected would do the same thing against a peer. Trainers should encourage students to make friends with students from different ethnic backgrounds. The participants on the whole demonstrated that the College experiences prepare the trainees to mutual respect and tolerance. For example, DH4 testified that the practice of student diversity management creates a better and safer learning environment for minority ethnic students in cooperative learning activities.

Cooperative learning in an ethnically diverse classroom allows students to learn about and respect one another's cultures. In applying cooperative learning in a highly ethnically diverse classroom, the ethnic minority students feel freer, safer, have less loneliness, and experience less group victimization because students by default consider diversity to be normal (Interview with DH4 17/10/2022).

In line with this issue, Miller, and Sessions, (2005) find out that teaching about tolerance, respect and acceptance of the differences is critical to make the cooperative learning to be effective and create positive learning environment. However, in the present study many department heads extrapolated that the mutual respect should not be as a doctrine or canonized as rigid, but it should be based on mutual love, respect, and acceptance of one other's humanity.

The mutual respect and acceptance, in turn, creates foundation for acculturation and welcoming atmosphere for student diversity.

4.6.2.3 Equal learning opportunity

The majority of participants agreed with the statement that cooperative learning strategies that encourage students of different ethnicities to participate are likely to provide equal access to learning. One interviewee stated that: “trainers and instructors should ensure that all ethnic students are equally motivated, inspired, and praised during their classroom participation”.

4.6.2.4 Promoting intellectual development and social inclusion

A closer look at the above table (4.21) reveals some suggestions that managing student diversity has a positive and direct relationship with the development of students' intellectual and social skills. Regarding the importance of managing student diversity in putting cooperative learning in place, DH8 explained the following:

In my view, on culture day, students from various ethnic backgrounds at our college have the opportunity to celebrate their culture. Additionally, it provides students increasing intellectual and social environment. Honestly speaking, I appreciate those instructors who have not been accused of ethnocentrism and exclusion of outgroup trainees who differ from their ethnicity (Interview with DH8, 16/10/2022)

Managing the interactions of diverse ethnic peer groups also results in inclusive classroom for applying cooperative learning. The term inclusive classroom refers to a welcoming learning environment for students of various ethnicities that is characterized by social acceptance of peer groups, positive peer relationships, intergroup harmony, and having caring friends. Here, peer groups are small, self-selected groups of like-minded affiliates who interact with one another on a regular basis. It has been suggested that students who learn in ethnically diverse classrooms have fertile ground for learning new languages and developing intellectually. According to a small number of those interviewed in polytechnic colleges, well-managed student diversity is a positive environment for intellectual and social development.

The majority of participants agreed with the statement that "student diversity management is the practice of developing social skills in students through cooperative learning processes." In support of this finding, Juvonen, Lessard, Rastogi, Schacter, and Smith, (2019), discover that, though social inclusion does not guarantee that students perform better academically, experiences of exclusion can undermine diverse students' engagement and performance.

4.6.2 .5 Experience for future real life in serving a diverse community

The participants on the whole demonstrated that the practices of trainers to effectively accommodate and serve diverse ethnic students in cooperative learning can help trainees be ready for their future career-based service to diverse communities. Some felt that the application of cooperative learning to diverse ethnic students helped trainees practice working in diverse teams, while others considered that ethnic diversity in the instructional setting has an adverse effect on the future careers of the trainees because they get back to their communities with some bad habits they learned from peers. As it has been known in cooperative learning implementation, every student is responsible for his/her own and his/her peers' learning. Students also discover about their future that everyone is accountable for maintaining others' peace and security in a diverse society.

Relating to the development of soft skills by trainees to serve a diverse community after graduating in the future, DH11 suggested that, “*I think, trainees who are studying in ethnically diverse classrooms are learning how to collaborate and live together in the future ethnically diverse communities that they are going to serve*” (Interview DH11, 21/10/2022)

Much of the information gathered through interviews shows that trainees are learning how to treat and serve diverse ethnic customers (clients), employees, and subordinates fairly in their future working positions. In an inclusive classroom, students collaborate and make an effort to build the cooperative skills that they can use to treat diverse ethnic customers (clients), employees, and subordinates fairly in their future working positions. In an inclusive classroom, students collaborate and make an effort to build the cooperative skills that they can use in the future. Students learn how to involve community members in their organization or instructional activities in a similar way they perform while implementing cooperative learning in a diverse ethnic group of students.

While a few respondents contend that the current mindset has no predictive power regarding interviewees' future lives of community service, others agreed that pupils who practice prejudice against ethnic minority students are teaching themselves to be biased and narrow-minded in their future work lives.

Inline with previous studies by Gross and Maloney (2012), Students learn better in a diverse educational setting. Encountering new concepts, values, and behaviors leads to thinking in deeper, more complex, and more creative ways, rather than furthering past ideas and attitudes. Experiencing diversity on campus is beneficial for all students. Students have more fulfilling social relationships and report more satisfaction and involvement with their college experience.

Furthermore, students experiencing diversity at TVET College prepare themselves for the diversity they encounter the rest of their lives. Cooperative learning in diverse ethnic groups to recognize and accept people different from themselves is very important in their world.

According to prior study, pupils perform better in a diversified learning environment. Instead of strengthening preexisting beliefs and attitudes, learning new ideas, values, and behaviors encourages deeper, more intricate, and more fair thinking. All students benefit from seeing diversity on campus. Students report more satisfying social interactions and higher levels of engagement and satisfaction with their college experience.

Furthermore, the diversity that TVET college students meet helps them prepare for the diversity they experience throughout their future life. It is crucial for diverse ethnic groups to learn to work together to recognize and accept others who are different from themselves. Supporting this finding, the quantitative results of this study showed that those students who are going to be trainers are taught to accommodate diverse student population.

4.6.2.6 Improve academic achievement

Some participants reported that using cooperative learning in an ethnically diverse student group reduces the achievement gap between students. DH: 15, for instance, forwarded the following in plain words, *“That is an excellent question! Cooperative learning in a diverse classroom, in my opinion, helps students minimize lengthy lectures and improve academic achievement”* (DH15 interview, 21/10/2022).

Most interviewees said that managing student ethnic diversity in the classroom had a significant influence on students' academic success.

A similar pattern of results was obtained in the Williams and Hamm (2018) study, which showed that trainees who learn with diverse peers perform better as compared with those who learn in homogeneous groups.

Table 4.22: Transcription, key direct quotes from semi-structured interviews and Emerging themes (October11-26/2022)

Questions	DH 1	DH 3	DH7	DH8	DH11	DH14	DH:16	Emerging themes
In your opinion, what are the major challenges of students' diversity management in applying cooperative learning at your Polytechnic College classroom?	<p><i>The democratic freedom granted to students poses a challenge for trainers in managing their diversity. Another challenge is the selection of a student representative because most ethnic groups want their own representative.</i></p> <p>(17/10/2022)</p> <p>DH2:</p> <p><i>I heard about and realized that students who come from South Omo can't easily interact in course work because of their poor learning competence. Hence, trainers intentionally or unintentionally insult and/or belittle their ethnicity and birthplace.</i></p> <p>(11/10/2022)</p>	<p><i>It is hard for me to please all students from diverse ethnic groups because, when I speak in my mother tongue with the student from my ethnic background, others consider me to be favoring or privileging him or her.</i>(24/10/2022)</p> <p>DH4:</p> <p>My fear is that some reluctant trainers who do not acknowledge and recognize linguistic diversity may ignore its influence on their learning. Another challenge is students' poor language proficiency.</p> <p>(17/10/2022)</p> <p>DH:6</p> <p><i>The attitudes of students toward out-group ethnic backgrounds in diverse learning group is a big challenge. Most trainers stated that out of campus ethnic-based federalism has a negative impact on students' learning cooperation because they have already internalized differences rather than unity and cooperation.</i></p> <p>(26/10/2022)</p>	<p><i>In my experience with my students I learned that there are some trainees attracted to the speaker of similar mother tongue. Some students in compositionally diverse classrooms those come from specific parts of the region and are generally labeled as lazy as a result of unequitable elementary and secondary schooling.</i></p> <p>(23/10/2022)</p>	<p><i>In a few cases, some students insulted other ethnic groups by referring to their feeding, hygiene, and traditional beliefs.</i></p> <p>DH10</p> <p><i>In some cases, students from marginalized ethnic groups are offended in the classroom due to poor hygiene, resulting in a hostile classroom environment.</i></p> <p><i>On top of that, some disrespectful students write graffiti on toilets and classroom walls that belittle and offend some one's ethnicity creating a hostile learning environment.</i></p> <p>(22/10/2022)</p>	<p><i>In my teaching experience, I've heard students from various ethnic groups disparage the ethnic identities of others.</i></p> <p>(21/10/2022)</p> <p>DH:12</p> <p>One of the major challenges in applying cooperative learning in a diverse ethnic classroom is forming friendships based on similar ethnicity.</p> <p>(12/10/2022)</p> <p>DH:13</p> <p><i>Lack of institutional support for student diversity management in instruction</i></p> <p>(20/10/2022)</p>	<p><i>Student diversity management in the classroom creates a welcoming and inclusive learning environment.</i></p> <p>(12/10/2022)</p> <p>DH:15</p> <p>I believe that attempting to manage student ethnic diversity in a large, diverse classroom may have a negative impact on cooperative learning because, while not visible in the big picture, there is evidence of ethnocentrism among a few students.</p> <p>(21/10/2022)</p>	<p><i>Students from urban areas and major ethnic groups have a higher social status, which may result in better academic performance</i></p> <p>..(18/10/2022)</p> <p>DH:17</p> <p><i>Sometimes aggressive behavior and discrimination against the minority ethnic group of students in team work.</i></p> <p>(26/10/2022)</p>	<p>- Outgroup superiority of majority ethnic group students</p> <p>- Peer victimization</p> <p>- Homophobia</p>

4.7 Major challenges of students' diversity management in applying cooperative learning

4.7.1 Out group superiority of majority ethnic group students

Trainers are expected to fairly manage trainee diversity and emotional intelligence in a classroom that is becoming more diverse. Some VET trainers claimed that they struggle to encourage ethnic diversity in their cooperative learning contexts because a small number of trainees who identify as members of a minority ethnic group claim that members of the dominant ethnic group ignore their presence in the group.

A category or group that trainees do not socially interact with in the classroom is referred to as outgroup. The fact that groups convey their identities through their distinctive languages and religions is one of the main characteristics of the in-out-group split in Southwest Ethiopian poly technic Colleges. Thus, the researcher considers language and religion act as fundamental barriers for the creation of social groups. Among the major challenges of managing student diversity in arranging cooperative learning groups of diverse ethnic backgrounds is the broad difference in pre-college academic performances. Regarding this matter, one of the department heads, DH2, at Teppi Polytechnic College shared the following with me:

I heard about and realised that most students who come from South Omo can't easily interact in course work because of their poor learning competence. Hence, trainers intentionally or unintentionally insult and belittle their ethnicity and birthplace by asking discouraging questions like, "Are you Menit? Where are you from?" (*Interview with DH2, 11/10/2022*)

Attending courses in such an irritating learning environment, where the rights of minority students are not respected, makes it difficult for minority ethnic peers to endure the ideas of such classmates. There were also some unfavourable remarks about the prejudice of a few trainers towards trainees who belong to other ethnic groups. Additionally, trainees of minority ethnicities

are traduced by their majority ethnic counterparts for participating in cooperative learning groups.

4.7.2 Peer victimization

The majority of participants agreed with the statement that peer discrimination is one of the major challenges of managing student ethnic diversity during cooperative learning. Another interviewee alluded to the notion of this action and explained that it is mainly done against the ethnic minority students in cooperative group activities.

DH16 and DH17 forwarded that the students' origin (residential background) and ethnicity serve as tools for Peer victimization in the classroom. DH17 provided a short answer to the question 'what are the major challenges of students' diversity management in applying cooperative learning at your Polytechnic College classroom?' *"Sometimes aggressive behavior and discrimination against the minority ethnic group of students impede outcomes of team work (Interview with DH17, 26/10/2022).* DH16 also suggested the following in his own words.

Students from urban areas and majority's ethnic background assumed to have a higher social status, which may result in better academic performance which inturn wrongly direct them to discriminate their peers come from deep inner rurals and shires and from minority ethnic groups (*interview with DH16 18/10/2022*).

There have been some concerns that the academic success of the discriminating ethnic minority students was also negatively impacted by state peer victimization. The researcher has confirmed from various interview sessions that the current study yields results consistent with those of D'hondt, Maene, Vervaet, Houtte, and Stevens, (2021), found out that students of minority ethnic descent are more likely to report ethnic discrimination by peers if the school adopts a more multicultural policy or if there is a high concentration of students from non-minority ethnic backgrounds.

4.7.3 Homophily

The tendency of students to do cooperative group activities with student of similar ethnicity, religion, or language is one of the major challenges of student diversity management. This reminds me the expression, '*birds of a feather flock together*'. In the present study, the practices of homophilic group formation are not consistent across research sites and sample classrooms.

Most department heads agree that ethnic-based federalism created out of the educational organizations through political means has a detrimental effect on students' ability to learn collaboration since they have already internalized divisions rather than unity and cooperation.

A few of the interviewees suggested that some students form friendships and share seats with students of similar ethnicities. In some classrooms, language was the reason for friend selection in the classroom seating arrangements for a small number of participants. One individual stated that 'Students want to join a similar ethnic group because they feel insecure with varying ethnic partner and want to flee discrimination.' In support of this idea, another participant commented that 'students also prefer peers from the same ethnicity to obtain psychosocial benefits because some unethical students segregate students from different ethnicities after identity exploration.'

Homophily of diverse ethnic students in general means the trainers become vigorous in-group favoritism—that is, they prefer the ethnic group(s) they belong to more than any other.

Research Question 5. How do trainers at Technical and Vocational Education and Training institutions (TVETs) manage trainees' ethno-structural, ethno-cultural and ethno-categorical diversity?

Table 4.23: Transcription, key direct quotes from semi-structured interviews and Emerging themes

Questions	DH:2	DH:3	DH:6	DH:9	DH:10	DH:13	DH:19	Theme
How do you manage trainees' diversity in applying cooperative learning at your Polytechnic College (TVET)?	Before suggesting ways to help student ethnic diversity, I first identify the needs of diverse student groups, and then I treat cooperative group students in accordance with their expectations. As a result, I am able to serve students without engaging in ethnocentrism (11 October, 2022).	<p><i>During the group discussion, to stimulate the intergroup contact and interaction, I create an interactive classroom even for cross-ethnic based discussions (24 October, 2022).</i></p> <p>DH:5</p> <p><i>In group discussion among diverse ethnic groups of students, I encourage cooperative learning, not individualistic competitive learning. The implementation of cooperative learning minimizes interethnic group completion in learning outcomes and academic achievement (20 October, 2022).</i></p>	<p><i>The application of cooperative learning in ethnically diverse classroom presents a range of challenges for trainers. So, the VET trainers should first be trained on how fairly serve all of ethnic group of learners</i></p> <p>(26 October, 2022)</p>	<p><i>I think the ethnic divisions have been politically and constitutionally designed and constructed over the last three decades, but before that time, Ethiopian people did not distinguish who was from which ethnicity, and neither do the students. As a result, we as trainers must work to remove the propaganda of ethnic differences from trainees' minds (13 October, 2022).</i></p>	<p><i>A single way to manage diversity and their competing demands may not be sufficient to handle them, so trainers should flexibly use alternative approaches for each group of students. During the small group learning, the trainer should mix up the students as much as possible (21 October, 2022)</i></p>	<p><i>First and foremost, trainers must be open-minded and free of ethnocentrism in order to find a way forward for the inclusion of all ethnic students, particularly in cooperative learning processes, such as encouraging them to answer oral questions, present group discussion results, and enable them to actively participate in practical projects without prejudice (20 October, 2022).</i></p>	<p><i>In my view, the trainer's identity may sometimes have an influence on the classroom diversity climate, which may in turn influence cooperative learning in diverse classrooms. Thus, the primary role of trainers is to create inclusive learning environments in order to reach all students and reap the benefits of cooperative learning (16 October, 2022)</i></p>	<ul style="list-style-type: none"> ➤ Determine the needs of students of diverse ethnicities; social and educational ➤ Create an inclusive learning environment ➤ Make your classroom more interactive ➤ Reduce competitive learning among ethnic student groups ➤ Teach about the unity of diverse ethnic groups ➤ Students of diverse ethnicities should be mixed together in the group ➤ combat ethnocentrism in the College ➤ Devide instructional roles for students from various ethnic backgrounds

4.8 Ways of Managing Trainees' Diversity in Applying Cooperative Learning

4.8.1 Diagnosing the needs of students of diverse ethnicities

The trainers attempting to manage student ethnic diversity while implementing cooperative learning should keep in mind the needs of the trainees associated with their cultural backgrounds. Accordingly, trainees who come from different ethnic backgrounds to the TVET College have different social and educational needs.

The need to be equally recognized, acknowledged, and respected by their classmates and teachers is included in the social needs of trainees. Williams and Hamm (2018) claim that ethnic minorities in particular require diversity in the social network to be included. Regarding the social needs of various pupils, one responder said that when cooperative learning is used in a classroom with diverse ethnic backgrounds, the trainers are expected to evaluate each group member's progress.

Access to educational resources for kids from various ethnic backgrounds is an issue of the educational needs. According to several respondents, the educational facilities—including textbooks, libraries, playgrounds, project areas, and ICT rooms—should fairly serve the pupils. In-depth interview findings typically showed two things.

First, some officials propose that the trainers assess the needs of minority ethnic pupils in order to properly and equally accommodate each student due to the complicated level of ethnic diversity in the classrooms of the South West Ethiopian educational institutions. Children from ethnic minorities experienced significant obstacles in their pre-college education (i.e., primary and secondary education), and as a result, they performed poorly in college due to their weak academic backgrounds. It must be noted that ethnic minority students should receive specific supports in the TVET colleges when comparing our findings to those of earlier studies (Gebremariam, 2019), it must be pointed out that ethnic minority students should be provided special supports in the TVET colleges.

Second, informants reported that some ethnic minority students want to maintain their respect for their identity in some cases. The current findings are directly in line with previous

findings (Davies, 2021) that explain how outgroup bias has a negative influence on cooperative learning outcomes when implemented among diverse ethnic students.

4.8.2 Creating an inclusive learning environment

The majority of participants agreed that today's education system is a highly demanding inclusive environment for ethnically diverse trainees because it improves social and psychological adjustments for classroom cooperation. Furthermore, Nishina, Lewis, Bellmore, and Witkow (2019) show that ethnic composition in the classroom is an indicator of a welcoming learning environment. As a result, the greater the ethnic diversity in the classroom, the more inclusive the learning environment for cooperative learning. It also encourages social interactions among students.

According to the above table (4.22), some interviewees believe that inclusive classrooms reduce discrimination against ethnic minority trainees by peers and teachers, while others advocate for inclusive strategies to mix students of different ethnic backgrounds. It was also suggested that trainees use inclusive language on a regular basis so that all ethnic trainees can understand every message conveyed in and out of the classroom.

4.8.3 Making your classroom more interactive

What is intriguing about the data in this table (4.22) is that interviewees stated unequivocally that cross-ethnic group interaction is a fundamental component of cooperative learning in a diverse ethnic group. Students from various ethnic backgrounds can interact and share ideas in cooperative learning groups in interactive classrooms.

Overall, these findings are consistent with those reported by Loes, Culver, and Trolian (2018), who found cross-group interaction of students to be a mediating variable between collaborative learning implementation and student diversity openness (student diversity management). The study's findings revealed that trainees' access to collaborative learning provided them with the opportunity to interact with peers from other ethnic groups.

More broadly, these basic findings are consistent with research showing that implementing cooperative learning in an active, heterogeneous, and interactive group is more effective. One of the advantages of implementing cooperative learning in ethnically diverse classrooms is that extensive lectures are reduced and, at best, replaced by interactive lectures. As a result, trainees are advised to create cooperative group activities that facilitate interaction among diverse ethnic students while implementing cooperative learning.

4.8.4 Reducing competitive learning among ethnic student groups

The application of cooperative learning, in its nature, requires cooperation rather than competition and individualistic learning. Only a small number of respondents indicated that there are some trainees who want to be more competitive than cooperative in learning and assessment modes. The majority of participants agreed with the statement that most trainees are interested in cooperative learning rather than competitive learning. When asked about why few students prefer to learn individually and do not want to help their peers, the participants were unanimous in their view that competitive learning consumes less time to perform and enables few students to achieve high marks.

A number of studies depict that cooperative learning is more effective in interdependent and heterogeneous groups than individualistic and competitive groups (Juvonen, Lessard, Rastogi, Schacter, & Smith, 2019; Grütter, Meyer, Philipp, Stegmann, & van Dick, 2021). These studies also depict that neither competitive nor individualistic learning is convenient for student ethnic diversity management and social inclusion in the education system.

4.8.5 Trainees of diverse ethnicities should be mixed together in the group

When asked about the efficacy of cooperative learning among mixed-ethnic trainees, one interviewee stated:

When I assign a mixed-ethnicity team a group discussion or project, they complete it together without regard for their ethnic backgrounds. However, when we give students the freedom to choose a team based on their interests, they join and are drawn to the same ethnic group of students. As a result, the group becomes homogeneous, and the group workout results are most likely deficient. However, in order to work cooperatively, all trainees must develop mutual trust, respect, and acceptance.

Another interviewee argued that our

'student should accept pluralism and work together not only for the sake of accomplishing their classroom activities and projects, but, also they should practice to cooperatively solve the problem they encounter throughout their lives'.

Based on both quantitative results and interviewees' expressions, we can conclude that trainee diversity management is a major element of the application of cooperative learning. It is possible to create a diverse ethnic trainee mix by encouraging cross-ethnic friendships among students (Juvonen et al. 2019). Previous research also shows that students' interest in working with diverse ethnic trainees leads to them liking the college they join and performing better (Nishina et al., 2019). According to Williams and Hamm (2018), the use of cooperative learning in an environment that effectively manages trainees' ethnic backgrounds leads to social and cognitive development.

4.8.6 Overcoming ethnocentrism in the College

Managing stereotyping, disregarding differences and superiority of one's ethnicity in the classroom is a very demanding responsibility of a cooperative learning instructor. In some cases,

trainees choose their classmates based on their ethnicity, which leads to stereotypes of others. According to a small number of those interviewed, trainees in some classrooms want to interact with and form groups with their homogeneous ethnic peers. Only a few respondents extrapolated that, in addition to peer discrimination, there is evidence of ethnic discrimination by instructors. However, the majority of participants reject the explanation that the instructors engage in ethnic discrimination.

The importance of tolerance and diversity management is highlighted because some trainees show disrespect and intolerance towards ethnic groups other than their own. When asked how ethnocentrism can be reduced in ethnic plural classrooms, participants agreed that cross-ethnic interaction among trainees is a good solution in cooperative learning. According to Adamu (2013), ethnic and religious student stereotyping decreases as students live together longer and interact in instructional activities. As a result, as ethnocentrism increases, group interaction decreases, this has a negative impact on the use of cooperative learning in ethnically diverse classrooms. Trainers must be aware of the negative effects of student ethnocentrism. According to Nishina, Lewis, Bellmore, and Witkow (2019), the application of cooperative learning in well managed ethnically diverse classroom has been promoted as ‘21st century skills’ in which the practice of ethnocentrism is controlled in diverse ethnic classroom.

When the researcher asked about the state of managing ethnocentrism while using cooperative learning in the TVET College, the majority of respondents said that educated people practise ethnocentrism more than less educated people. However, previous research has produced two propositions on this issue. The first proposition describes how more educated individuals and seniors in college are less ethnocentric in their interactions with diverse ethnic trainees (Pettigrew and Tropp, 2011).

The second viewpoint, on the other hand, supports the responses of the current study participants, namely that more educated people and senior trainees are more ethnocentric than less educated and fresh college trainees. According to one of the participating department heads (DH7):

In most cases in our country, both in higher education organisations and in the political arena, educated people are fighting for a given ethnicity not because they want to sacrifice for that ethnicity in order to liberate and alleviate the problems of that ethnic group, but because they first calculate their personal benefits, and then they begin to fight for that ethnicity in the name of an activist or national politician. TVET College administrators must manage ethnocentrism because some trainers and trainees consider themselves political activists, which can permeate the instructional processes. You know, nowadays, the ordinary community is not as disruptive to the lives of others (Interviewee with DH7, October 23, 2022).

DH14 also expressed in plain words that since there is an indicator of ethnocentrism in our College instructional processes, the trainers should curiously control cross-ethnic interactions.

Two factors, in my opinion, cause students to become ethnocentric during cooperative learning processes. The first is a homogeneous neighbourhood where they grow up. When trainees grow up in an ethnically homogeneous community, they may not realise that there are other cultures and languages besides their own. And their worldview becomes more limited. Similarly, some students read books that primarily proclaim the superiority of their ethnicity and want to listen to and discuss their ethnicity's patriotic history (Interviewee with DH 14, October 12, 2022).

These findings are more consistent with local research findings, which explain how University and College trainees and graduates engage in ethnocentrism, which disrupts cooperative learning in ethnically diverse classrooms (Mekonnen, 2013; Dumessa and Roro, 2013 and Anteneh, 2012). As a result, in order to achieve effective learning outcomes through the use of cooperative learning, trainers must effectively manage ethnic diversity without disparaging one another's ethnic background. (i.e., acceptance, respect and recognition).

4.8.7 Diversifying student cooperative learning activity

It is critical to share instructional roles with members of a diverse group. On the one hand, trainees have a strong sense of belonging. They, on the other hand, practice interdependence in order to achieve cooperative teamwork. One respondent shared his personal experience while assigning cooperative group work in the following manner:

I select a mature group member to be the team leader and facilitate sharing diverse roles with each member of the group to perform on the entire activity and present the group's common understandings. In general, I believe that the use of cooperative learning in shared instructional roles among an ethnically diverse group of trainees results in active participation and mutual understanding of the learning material. As a result, ethnic minority trainees exercise their academic participation rights because a more competitive classroom jeopardizes the rights of ethnically diverse trainees (Interviewee with DH: 17, October 26, 2022).

The majority of participants agreed with the statement that sharing activities among diverse ethnic classrooms reduces ethnic discrimination and increases positive learning outcomes such as test scores and enjoyment of college life. Furthermore, jigsaw cooperative learning groups are recommended because they are simple to learn, easy to work with for teachers, and can be combined with other training strategies. A similar pattern of results was obtained in the Gorgonio, Silva, Vale, and Silva (2017) study, which looked at a diverse group of trainees in terms of gender and ethnicity and discovered that they performed better academically and were more creative and innovative.

CHAPTER FIVE

5. SUMMARY, MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. SUMMARY

The main objective of this study was to investigate the link between student diversity management and applying cooperative learning in Technical and Vocational Colleges of Southwest Ethiopia People's Region. To achieve this objective the following research questions were formulated.

1. What are trainees and trainers' perceptions on Student Diversity management in applying cooperative learning in Technical and Vocational Education and Training colleges?
2. Is there a statistically significant relationship between diversity management and cooperative learning? To what extent is the student diversity management related to the cooperative learning?
3. Is there a statistically significant mediated path from student diversity management to applying cooperative learning via student cross-group interaction?
4. What are the major challenges and prospects of classroom diversity and its management in the implementation of cooperative learning in TVETs of Southwest Ethiopia People's Region?
5. How do trainers at Technical and Vocational Education and Training institutions (TVETs) manage trainees' ethno-structural, ethno-cultural and ethno-categorical diversity?

To act in response to the above research questions, Mixed research methodology and mixed methods sequential explanatory design were employed for data collection, analysis and interpretation. The questionnaires and in-depth interviews were used to collect data. The pilot study was thoroughly carried out to check the validity and reliability of the instruments to conduct the main study. Research ethical considerations were also carefully taken.

The first sub-section of the data presentation, analysis and interpretation chapter presents the descriptive statistics of the sample and population demographics. This section discusses the setting, general population, target population, and study sample. In the second sub-section, the tests of hypotheses, normality, assumptions and p-value were performed and extrapolated. In the third sub-section of the fourth chapter, the results and discussions were presented aligned with the five research questions.

5.2 MAJOR FINDINGS

Based on the empirical results obtained from the subjects and analysed, the following major findings were drawn in line with the respective research questions.

Trainees and Trainers' Perceptions on Student Diversity management in applying cooperative learning in Technical and Vocational Education and Training colleges

According to the participants' perspectives in the current study, cooperative learning and student diversity management work well together. As perceived by the research participants, effective student diversity management has immense influence on the application of cooperative learning. Both trainees and trainers have significant and positive perceptions towards the nexus between the student diversity management and applying cooperative learning. Hence, the interaction between student diversity management and the adoption of cooperative learning should therefore be the subject of additional research. It is advisable to consider that, just as important as managing students' diversity, trainees should come across opportunities to work in diverse groups.

Relationship between Diversity Management and Cooperative Learning

The results of the study show that students' diversity management significantly predicted cooperative learning application, $b = .668$, $t(639) = 26.315$, $p < .001$. Students' diversity management also explained a significant proportion (52.10%) of variance in application of cooperative learning, $R^2 = .521$, $F(1, 635) = 692.502$, $p < .001$. Students' diversity management has direct influence on the effectiveness of the cooperative learning application.

Mediating Roles of Student Cross-Group Interaction between Student Diversity Management and Cooperative Learning

Student cross group interaction found to be significantly mediating variable between the diversity management and applying cooperative learning. The AMOS output, also portray that the mediation between SDM and CL found to be partial intervention because various theories suggest that effective student diversity management has strong and positive connection with implementation of cooperative learning . The results of mediation analysis also depict that there is multi-collinearity among the mediator variable (interaction), SDM and the CL which cannot be avoided by the researcher and is found to be inevitable.

The Major Challenges and Prospects of Classroom Diversity and its Management in the implementation of Cooperative Learning

From the short review of qualitative results, the following key findings were also emerged. The qualitative results supported the quantitative findings on department heads' perspectives of student diversity management when cooperative learning is used in the Polytechnic College classrooms, indicating that most of them have positive opinions of it. These were identified by the expressions highlighting positive life experiences, the ability to discuss lessons gained from one's ethnicity, appreciation for diversity, and reduce microaggressions were used.

Together, the findings also support the following as major advantages of managing students' ethnic diversity in cooperative learning: lowering ethnic-based prejudice, fostering mutual respect and acculturation, equal learning opportunities, enhancing intellectual and social development, providing experience for future real-life serving diverse communities, reducing extended lectures, and raising academic achievement.

However, even better results are achieved when using our algorithm on the opportunities of student diversity management to apply cooperative learning; it also finds out such major challenges as the group superiority of majority ethnic group students, peer victimisation, and homophily.

Ways of Managing Trainees' Diversity in applying Cooperative Learning

The qualitative results also found evidence for ways to manage trainees' diversity in applying cooperative learning at Polytechnic College (TVET) by suggesting diagnosing the social and educational needs of students of diverse ethnicities; creating an inclusive learning environment; making our classroom more interactive; reducing competitive learning among ethnic student groups; teaching about the unity of diverse ethnic groups; students of diverse ethnicities should be mixed together in the group; combating ethnocentrism in the college; and diversifying the instructional roles for students from various ethnic backgrounds.

5.3 CONCLUSION

Student diversity management in applying cooperative learning in a socially and culturally diverse educational setting has multiple benefits for the instructional processes of technical and vocational colleges. The teaching and learning processes at technical and vocational institutions found to be cooperative in a way that enables different students to maximize learning outcomes, enhance academic accomplishment, and develop the interpersonal communication skills necessary for teamwork.

Both trainees and trainers had good and practically approaching opinions on how students' ethno-structural, ethno-cultural and ethno-categorical diversity is managed in the application of cooperative learning. Cooperative learning has been found to work better in diverse classrooms from an ethno-structural, ethno-cultural, and ethno-categorical perspective than it does in monolithic groupings.

There is a statistically significant relationship, $r(639) = .723$, between the students' diversity management and application of cooperative learning. Students' diversity management significantly predicted cooperative learning application. Moreover, the positive coefficients of the independent variables (ESDM, ECULDM and ECATDM) affirm that it can significantly predict the effectiveness of cooperative learning in a diverse classroom setting.

This research has shown that cross-group interaction plays a mediating role between student diversity management and applying cooperative learning. The tree factor structure including ESDM, ECULDM and ECATEDM, of student diversity management is found to be partially intervened by the three factor variable, cross-group interaction, i.e., ethnic diversity based interactions, linguistic diversity based interactions and religious diversity based interactions. The results, on the other hand, showed that the cross-group interaction has significant direct effect on the implementation of cooperative learning. According to the results, it can also be concluded that the escalating effective student diversity management increases the effectiveness of the implementation of cooperative learning by enhancing cross-group interaction.

Trainees and educational stakeholders of TVET Colleges have more positive perceptions than negative perspectives towards student ethnic diversity management during the implementation of cooperative learning. Overall, our results demonstrate a strong effect of managing student ethnic diversity on the effectiveness of cooperative learning. This is an important finding in the understanding of the classroom dynamics is an opportunity for applying cooperative learning that being a challenge. However, student ethnic diversity management is not merely therapy for cooperative learning because there are some factors holding back its efficacy.

5.4 IMPLICATIONS AND RECOMMENDATIONS

5.4.1 IMPLICATIONS

The findings and models discussed in this thesis offer knowledge regarding theory, application, and further research. It has significantly advanced our understanding of how to support student diversity and learning in higher education institutions. It serves as yet another example of how diversity management and collaborative learning are related.

5.4.1.1 Theoretical implications

This study has implications for the provision of empirical evidence on how the research questions were answered in line with the conceptual framework formulated in the study. As a result, novice researchers and practitioners can learn how findings were linked back to the conceptual framework developed in Chapter 2.

5.4.1.2 Practical implications

This paper provided Practical implications for the applications of new insights derived from the dissertation to solve real and significant problems in the area of classroom dynamics and its leadership. These implications refer to how the results of the study can be applied in professional practice.

5.4.1.3 Future implications

The findings of this study encourage further research utilizing an experimental research methodology to determine if cooperative learning is more successfully implemented in relatively homogeneous classrooms or well-managed diverse classroom groups.

5.4.2 RECOMMENDATIONS

The following recommendations were suggested based on the research findings and conclusions.

5.4.2.1 Recommendations for future research

This study used a non-experimental research approach to show that there are statistically significant links between student diversity management and the adoption of cooperative learning. The researcher recommends a future study be conducted on the direct effect of student diversity management on cross group interaction or cross-group interaction.

The researcher suggests that future studies be carried out using experimental research, splitting research participants into experimental and control groups, to examine student diversity in the use of cooperative learning. Subsequently, although the study was carried out in technical and vocational institutions, it can still be done in colleges, as well as in primary and secondary schools.

5.4.2.2 Recommendations for future practice

Based on the results and findings of the present study the following recommendations were suggested for future Practice.

1. Because the results of this study show a significant relationship between diversity management and cooperative learning, teachers at Technical and Vocational Colleges should carefully manage student diversity while implementing the cooperative learning strategy inside and outside of the classroom.
2. To accommodate the diverse student body, technical and vocational colleges' educational administrators should provide inclusive and cooperative learning environments.
3. Student ethnic diversity within the learning environment more enriches the learning opportunities than it impairs. Hence, technical and vocational college trainers should organize and provide training to the college students on how they can cope with the diverse student group to effectively learn cooperatively. The training should emphasize promoting diversity in a cooperative learning environment.
4. The findings of the present study depict that cooperative learning among ethnically, linguistically, and religiously diverse student groups results in better academic performance and greater quality instruction. So, technical and vocational college students should be encouraged to tolerate their peers' differences by engaging in teamwork inside and outside of the classroom.

References

- Abbink, J. (2014). Religious freedom and the political order: the Ethiopian 'secular state' and the containment of Muslim identity politics, *Journal of Eastern African Studies*, 8(3), 346-365, DOI: 10.1080/17531055.2014.917855
- Achugar, M., Schleppegrell, M., & Oteíza, T. (2007). Engaging teachers in language analysis: A functional linguistics approach to reflective literacy. *English Teaching: Practice & Critique*, 6(2), 8-24.
- Adamu, A.Y. (2019). Ethnic Violence Challenging Ethiopian Universities. *Published on Inside Higher Ed*, Retrieved from (<https://www.insidehighered.com>)
- Adamu, A.Y.(2013a). Intergroup relations among ethnically diverse University students in Ethiopia. *Journal of Education and Research*, Vol. 3, No. 2, pp. 77-95, DOI: <http://dx.doi.org/10.3126/jer.v3i2.8399>
- Adamu, A.Y.(2013b) "Causes of Ethnic Tension and Conflict among University Students in Ethiopia" Athens: ATINER'S Conference Paper Series, No: EDU2013-0644.
- Adamu, A.Y.(2014). Ethnic and Religious Diversity in Higher Education in Ethiopia: The Case of Bahir Dar University, University of Tampere, School of Education, Tampere University Press
- Adamu, A.Y.(2016). Ethnicity, Language, Friendship, and Intergroup Relations on Campus, *International Journal of Learner Diversity and Identities*, 23(3), 13-22.
- Admassie, A. Z. (2017). Principal Leadership Practices, Teacher Motivation, and Student Achievement in Secondary Schools of Addis Ababa City Government. Un-published PhD Dissertation presented to the Department of Educational Planning and Management, Addis Ababa University.
- Aguirre, A. & Martinez, R.O. (2014). Closing the gap: Affirmative action in higher education, the utilization of the diversity rationale, and select examples of legal challenges between 1995 and 2002. In *Affirmative action*, Ed. J.A. Beckman, vol. I, 159–178. Denver: Praeger.

- Aguirre, A., & Martinez, J. R. (2003). The diversity rationale in higher education: An overview of the contemporary legal context. *Social Justice*, 30(1), 138-152.
- Al Ariss, A. & Ozbilgin, M. (2010). Understanding Self-Initiated Expatriates: Career Experiences of Lebanese Self-Initiated Expatriates in France. *Thunderbird International Business Review*, 52 (4), 275-285.
- Alise, M. A., & Teddlie, C. (2010). A continuation of the paradigm wars? Prevalence rates of methodological approaches across the social/behavioral sciences. *Journal of Mixed Methods Research*, 4(2), 103-126. <https://doi.org/10.1177/1558689809360805>
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Alsubaie, A.M. (2015). Examples of Current Issues in the Multicultural Classroom, *Journal of Education and Practice*, 6 (10), 86-90
- Ankita, S. (2014). Workforce Diversity: A Key to Improve Productivity. *Procedia Economics and Finance*, 11(1), 76 – 85.
- Anteneh, T. (2012). An integrative approach to intercultural communication in context: empirical evidences from higher education. PhD Dissertation, Addis Ababa University.
- APA, (2010). Ethical Principles of Psychologists and Code of Conduct, by American Psychological Association, Retrieved from <http://www.apa.org/ethics/code/index.aspx>.
- Arató, F. & Varga, A. (2006). Együtt-tanulók kézikönyve – Bevezetés a kooperatív tanulásszervezés rejtelmeibe [Handbook for cooperative learners – Introduction to cooperative learning]. Pécs: PTE BTK, Neveléstudományi Intézet, Romológia és Nevelésszociológia Tanszék.
- Arató, F. & Varga, A. (2012). Intézményfejlesztési útmutató a differenciált, IPR alapú fejlesztések megvalósításához [A Guide for Differentiated and ISE Based Institutional Development]. Budapest: Közigazgatási és Igazságügyi Hivatal.
- Arató, F. (2008). A kooperatív tanulás szerepe az IPR alapú intézményfejlesztésben [The Role of Cooperative Learning in ISE based institutional development]. In F. Arató (Ed.), *Kooperatív tanulásszervezés az integráció szolgálatában* (pp. 7–12). Budapest: Educatio Kht.

- Arató, F. (2010). Egy általános kooperatív modell lehet ségér l (An Opportunity of a General Cooperative Model). *Iskolakultúra*, 20(1), 106–116.
- Arató, F. (2011). A kooperatív tanulásszervezés paradigmaticus jellege [Paradigmatic Feature of Cooperative Learning]. In T. Kozma & the researcher. Perjés (Eds.), *Új kutatások neveléstudományokban* (pp.11–22). Budapest: ELTE Eötvös Kiadó,.
- Arató, F. (2013). Towards a Complex Model of Cooperative Learning. *Da Investigação às Práticas*, 3(1), 57-79.
- Arató, F. (2014). Deconstruction of Education. *Hungarian Educational Research Journal*, 4(2), 45–62, DOI: 10.14413/herj.2014.02.05.
- Atxurra, C., Villardón-Gallego, L., & Calvete, E., (2015). Design and Validation of the Cooperative Learning Application Scale (CLAS). *Revista de Psicodidáctica*, 2015, 20(2), 339-357, DOI: 10.1387/RevPsicodidact.11917ISSN: 1136-1034 eISSN: 2254-4372. Retrieved from www.ehu.es/revista-psicodidactica © UPV/EHU
- Aydan, O. (2015). Diversity in high schools and diversity management: A qualitative study, *Educational Research and Reviews*, Vol. 10 (7), pp. 839-849, DOI: 10.5897/ERR2015.2079. Retrieved from <http://www.academicjournals.org/ERR>
- Badat, S. (2010). *The challenges of transformation in higher education and training institutions in South Africa*. South Africa: Development Bank of Southern Africa.
- Bagozzi, R.P. & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *J. of the Acad. Mark. Sci.* 40, 8–34 <https://doi.org/10.1007/s11747-011-0278-x>
- Baines, E., Blatchford, P., & Webster, R. (2015). The challenges of implementing group-work in primary school classrooms and including pupils with Special Educational Needs. *Special issue of Education*, 13 (43), 15-29.
- Baker, T. and Clark, J. (2010). Cooperative learning - a double-edged sword: A cooperative learning model for use with diverse student groups. *Intercultural Education* 21(3):257-268 DOI:10.1080/14675981003760440

- Banks, J. A. (2007). *Educating citizens in a multicultural society* (2nd Ed.). New York: Teachers College Press.
- Bartolo, A.P. (2007). *Responding to Student Diversity: Teacher's Handbook*. University of Malta.
- Bartolo, P., Cefai, C., Calleja, C., Chetcuti, D. (2007). *Responding to student diversity: Teacher's Handbook*. University of Malta, Socrates: Comenius.
- Bay, E., & Çetin, B. (2012). Birli isüreci ölçe i (SÖ) geli tirilmesi. Uluslararası nsan Bilimleri Dergisi, 9(1), 1064-1075. Retrieved from: <http://www.insanbilimleri.com>
- Bell-Ellwanger, J. (2016). *Advancing Diversity and Inclusion in Higher Education: Key Data Highlights Focusing on Race and Ethnicity and Promising Practices*. Office of Planning, Evaluation and Policy Development Office of the Under Secretary U.S. Department of Education.
- Benda, J. (2007.) *Örömmel tanulni [Learning with Joy]*. Budapest: Agykontroll Kiadó.
- Bennett, N.A. (2020). *Benefits of teaching classroom diversity*. Kickboard, Oretha Castle Haley Blvd, New Orleans, La 70113 (855) 456-1946
- Benson, C. (2004). The importance of mother tongue-based schooling for educational quality. Background paper prepared for the Education for All Global Monitoring Report 2005, The Quality Imperative
- Berhane, Z. (2009). The Scope of Religious Freedom and its Limits under the FDRE Constitution: A Survey of Contemporary Problems and Challenges. Un-published MA thesis, Addis Ababa University
- Bettio, F. & Sansonetti, S. (2015). *Visions for gender equality*. Luxembourg, Publication Office of the European Union.
- Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Sage handbook of mixed methods in social &*

- behavioral research* (2nd ed., pp. 95-118). Thousand Oaks, CA: Sage.
<https://doi.org/10.4135/9781506335193.n4>
- Birhanu, M. (2019). Practices and Challenges of Cooperative Learning in Selected College of Arsi University: As a Motivational Factor on Enhancing Students' Learning. *Universal Journal of Psychology*, 7(1): 1-17, DOI: 10.13189/ujp.2019.070101
- Bitzer, E. (2004). Cooperative learning, in S. Gravett & H. Geyser (eds.). *Teaching and learning in higher education*. Van Schaik Publishers. Pp: 41-66.
- Blalock, H. M. (1967). *Toward a theory of minority-group relations*. New York, NY: John Wiley & Sons.
- Blau, P. M. (1974). Parameters of social structure. *American Sociological Review*, 39, 615–635.
- Boddy, C.R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, Vol. 19 Issue: 4, pp.426-432
- Boot, H.W., Colomb, G.G. & Joseph, M. W. (2003). *The crafts of research*, 2nd Eds. The University of Chicago press, Chicago & London.
- Brazzel, M. A. (2003). Historical and theoretical roots of diversity management. In L. D. Plummer, *Handbook of Diversity Management: Beyond Awareness to Competency Based Learning* (Ed.), Lanham, MD: University Press of America, Inc.
- Brown, S. (2010). *Lickert scale for surveys*. ANR Program Evaluation Iowa State University Extension, USA.
- Bruce, C. A. (2009). Cooperative Learning: New Promise for Today's Diverse Classrooms. *Diverse Learning Communities Today*, 1(5). National Association of Elementary Principals.
- Bullock, E. P. (2017). An Explanatory Sequential Mixed Methods Study of the School Leaders' Role in Students' Mathematics Achievement through the Lens of Complexity Theory. Unpublished PhD dissertation Utah State University.

- Busse, V., Cenoz, J., Dalmann, N. and Roggec, F. (2019). Addressing Linguistic Diversity in the Language Classroom in a Resource-Oriented Way: An Intervention Study with Primary School Children. *A journal of research in language studies*, Language Learning 00:0, (xxxx), pp. 1–38
- Cenoz, J., & Gorter, D. (2014). Focus on multilingualism as an approach in educational contexts. In A. Blackledge & A. Creese (Eds.), *Heteroglossia as practice and pedagogy* (pp. 239–254). Dordrecht: Springer.
- Chen, A. (2017). Addressing Diversity on College Campuses: Changing Expectations and Practices in Instructional Leadership. *Higher Education Studies*.7 (2), 17-22.
- Claeys-Kulik, A. & Jørgensen, E. T. (2018). Universities' Strategies and Approaches towards Diversity, Equity and Inclusion Examples from across Europe. European University Association, Brussels, Belgium
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed.; Erlbaum: Hillsdale, MI, USA, ISBN 0-8058-0283-5.
- Cohen, L., Manion, L. & Morrison, K. (2005). *Research Methods in Education*, Fifth edition. Taylor & Francis Group
- Cole, R. W. (2008). *Educating Everybody's Children: Diverse Teaching Strategies for Diverse Learners*, 2nd Eds, Revised and Expanded. Alexandria, Virginia USA.
- Cornet, A. (2002). "Gender mainstreaming et approche différenciée selon les sexes: quel impacts pour la gestion?" *Management International* 7 (1), 1-10.
- Cox, T. Jr. (2001). *Creating the multicultural organization: A strategy for capturing the power of diversity*. San Francisco: Jossey-Bass.
- Creswell, J.W. (2003). *Research design: Qualitative and Mixed Methods Approaches*, 2nd ed. Thousand Oaks, CA: CA:Sage.
- Creswell, J.W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*, 4th ed., International student edition. London, Los Angeles, Calif, Sage

- Creswell, W. J. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). University of Nebraska–Lincoln.
- CSA (2007). Census 2007. Central Statistics Agency report. Addis Ababa. Retrieved on October 16, 2020 from <http://www.csa.gov.et/>
- D'hondt, F., Maene, C., Vervaet, R. Van Houtte, M. & Stevens, P.A. (2021). Ethnic discrimination in secondary education: Does the solution lie in multicultural education and the ethnic school composition?. *Soc Psychol Educ* 24, 1231–1258.
<https://doi.org/10.1007/s11218-021-09651-w>
- Dalachew, F. (2019). Leadership Practices and School performance in Secondary Schools of Wolaita Zone (Southern Nations, Nationalities and peoples' Regional State). Unpublished PhD dissertation, Addis Ababa University.
- Dameron, S. & Joffre, O. (2007). The good and the bad: the impact of diversity management on co-operative relationships, *Applied Economics*, 50 (4) 5064-5075
<https://doi.org/10.1080/09585190701639786>
- Dancy II, T.E. (2010). An introduction to managing diversity: a mandate or an oxymoron, in T. E. Dancy II (ed.), *Diversity Management: (re)visioning equity on college campuses*. New York: Peter Lang, pp 1-7.
- Datta, C. J. (1994). The Effects of Cross-Ethnic Tutoring on Interracial Relationships and Academic Achievements. In (Singh, B, R, Ed.). *Improving Gender and Ethnic Relations: Strategies for Schools and Further Education*. CASSELL. Pp: 99-117.
- David, M. (2010). Introduction to the dilemmas of widening participation, in M. David et al. (eds.). *Higher education in improving learning by widening participation in higher education*. London: Routledge Taylor and Francis Group, pp 1-27.
- Davies, C.A. (2021). How Cooperative Based Teaching can Reduce Racial Prejudice In UK Schools: A Social Identity Theory Perspective. *Preprint* .Department of Psychology, Northumbria University. DOI: 10.13140/RG.2.2.34706.38087/1

- Davies, C.A. (2021). How Cooperative Based Teaching can Reduce Racial Prejudice In UK Schools: A Social Identity Theory Perspective. Retrieved on September 13, 2022 from DOI: 10.13140/RG.2.2.34706.38087/
- De Beer, J. (2011). Towards guidelines for effective diversity management in South African organizations. Unpublished dissertation, University of Pretoria.
- Derek, R. A. & Kecia, M. T. (2004). Blending Content and Contact: The roles of diversity curriculum and campus heterogeneity in fostering diversity management competency. *Academy of Management Learning & Education*, 3 (4), 380-396.
- Devlieger, M., Frijns, C. & Sierens, S. (2011) *Wetenschappelijk rapport over talensensibilisering in de Vlaamse onderwijscontext: Literatuurstudie praktijkgericht onderwijsonderzoek in opdracht van de Vlaamse OnderwijsRaad*. Brussels: Flemish Education Council.
- Dibaba, T.S. (2017). Leading Secondary School Teachers for Organizational learning: A Comparative Case Study of Government and Private Schools in Addis Ababa, Ethiopia. Unpublished PhD dissertation, The Center for Comparative Education and Policy Studies.
- Dike, P. (2013). The impact of workplace diversity on organizations. PhD Thesis Degree. Programme in International Business, Arcada.

DOI: 10.1080/00461520.2019.1633923
- Dörnyei, Z. (1997). Psychological processes in cooperative language learning: group dynamics and motivation. *The Modern Language Journal*, 81(4). <http://www.jstor.org/stable/328891>
- Dumessa, M. and Roro, A. G. (2013). Interethnic relations among students of Jimma University, Oromiya, Ethiopia. *Int. J. Social. Anthropology*, Vol. 5(5)
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Arch Sex Behav* (2012) 41:1319–1320
- Engelbrecht, M., & Bhengu, N. (2015). Planning for transformation in South African higher education. Paper presented in TRACK 5 at the EAIR 37th Annual Forum in Krems, Austria, 30 August till 2 September 2015.

- Ezega.com, (2018). Retrieved from <https://www.ezega.com/News/NewsDetails/6504/>
- FDRE Constitution (1995). *Constitution of the Federal Democratic Republic Ethiopia*. Negarit Gazeta. Proc. No.1/1995. (1995), Addis Ababa.
- Ferdman, B.M. & Deane, B.R. (2014). *Diversity at Work: The Practice of Inclusion*. Jossey-Bass
- Fessha, Y.T. (2010). *Ethnic Diversity and Federalism*, (eds). Ashgate Publishing Company
- Fisseha, M. (2015). Multiracial Prospects and Challenges in a Multiethnic School Learning: (Menelik II and Dejazimach Wondirad Secondary and Preparatory Schools in Focus), *Education 2015*, 5 (1): 26-38, Kotebe University College, Addis Ababa, Ethiopia. Retrieved from DOI: 10.5923/j.edu.20150501.05
- Fubara, E.I., Gardner, M.T. & Wolff, J.S. (2011). Applying diversity management principles to institutions of Christian higher education. *Christian Higher Education*, 10:112–131, Taylor & Francis Group, LLC, DOI: 10.1080/15363751003715767
- Gabriel, S.M. & Patel, V.K. (2014). AMOS Covariance-Based Structural Equation Modeling (CB-SEM): Guidelines on its Application as a Marketing Research Tool. *Revista Brasileira de Marketing*, 13, 2: DOI: 10.5585/remark.v13i2.2718
- García, M. M., González, I., & Mérida, R. (2012). Validación del cuestionario ACOES. Análisis del trabajo cooperativo en Educación Superior. *Revista de Investigación Educativa*, 30(1), 87-109.
- García, O., Johnson S. I. & Seltzer, K. (2017). The translanguaging classroom: leveraging student bilingualism for learning, *Journal of Language and Education*, 31 (6), 111-117
- Gause, C.P. (2011). *Diversity, Equity, and Inclusive Education: A Voice from the Margins*, University of North Carolina at Greensboro.
- Gay, L., Mills, G., & Airasian, P. (2012). *Educational Research Competencies for Analysis and Applications (10th Ed.)*. Pearson, Upper Saddle River. USA.
- Gebre-Egziabher, S., (2007). What role should civil society organizations play to address ethnic conflicts in Ethiopia? Paper presented at the fourth international conference on Ethiopian

development studies (4th ICEDS) on *'The challenge and opportunities for peace & development in Ethiopia & Northeast Africa*, Haworth College of business, western Michigan University, Kalamazoo, USA

Gebremariam, G.R. (2011). Socio-cultural and economic factors affecting Manjo Minority Children's primary education in Kafa Zone. Unpublished MA thesis, Addis Ababa University.

Gebremariam, G.R. (2019). Diversity Management and Learning in Multiethnic Classrooms in College of Teacher Education in Southern Ethiopia: Special Focus at Bonga CTE. *Journal of Educational and Human Research Development* 7:65-77, Southern Leyte State University, Sogod, Southern Leyte, Philippines

Gebremariam, G.R. (2020). The Contribution of Comunità Volontari Per IL Mondo (CVM) Ethiopia on Schooling of Manjo Ethnic Group Children in Kafa Zone. *Ethiopian Journal of Education*, 40 (2), 37-88.

Gertrude, H.B. (1986). *Cultural Diversity Awareness Inventory*. Washington, DC.

Gertrude, H.B. (1986). *Cultural Diversity Awareness Inventory*. Washington, DC.

Giddings, L.S. & Grant, B. M. (2006). Mixed methods research for the novice researcher. *Contemporary Nurse*, 23 (1), 3–11.

Given, L.M. (2008). *The SAGE Encyclopedia of Qualitative Research Methods*, ed. SAGE Publications India Pvt. Ltd.

Gobena, H.K. (2016). Diversity Management and Students' Cross-Border Learning Experiences at Selected Ethiopian Universities. Un-published PhD dissertation, UNISA.

Golembiewski, R.T. (1995). *Managing Diversity in Organizations*. University of Alabama Press.

Gooblar, D. (2017). Yes, you have implicit biases, too. Chron High Educ. Retrieved [18 October 2020] from <https://www.chronicle.com/article/Yes-You-Have-Implicit-Biases/241797>.

- Goodman, D. J. (2011). *Promoting diversity and social justice: education people from privileged groups*. (2nd Ed.). New York: Taylor & Francis Group.
- Gorgonio, F.L., Silva, Y.K., Vale, K.M. & Silva, H.M. (2017). Grouping students for cooperative and collaborative learning; Challenges and trends in virtual learning environments. *World engineering education conference*, 2 (1), 51-55
- Grant, C.A. & Sleeter, C.E. (2008). *Turning on Learning: Five Approaches for Multicultural Teaching Plans for Race, Class, Gender and Disability*, 5th Edition. John Wiley & Sons, Inc.,
- Gross, P.A. and Maloney, V.A. (2012). Embracing Diversity through Service Learning. *The Clearing House*, 85(5), 192-196
- Grütter J, Meyer B, Philipp M, Stegmann S and van Dick R (2021) Beyond Ethnic Diversity: The Role of Teacher Care for Interethnic Relations. *Front. Educ.* 5:586709.doi: 10.3389/educ.2020.586709
- Guba, E. G. (1981). Criteria for Assessing the Trustworthiness of Naturalistic Inquiries, *Educational Communication and Technology Journal*, 29(1), 75–91.
- Guo, Y. (2012). Exploring Linguistic, Cultural, and Religious Diversity in Canadian Schools: Pre-Service Teachers' Learning from Immigrant Parents. *Journal of Contemporary Issues in Education*, 7 (1), 4-23. <http://ejournals.library.ualberta.ca/index.php/cpi/index>
- Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, 72, 330–367.
- Haarscher, G. (2008). *Freedom of Religion in Context*. Brigham Young University, Law Review.
- Handjani, M, (2014). Managing diversity to achieve ethnic inclusion in multi-ethnic secondary schools. Unpublished MA thesis, Unitec Institute of Technology.
- Healy, G. & Oikkelome, F. (2010). Diversity, Ethnicity, Migration and work: UK and US perspectives. Red Globe Press.

- Heba, E. D., & Nouby, A. (2008). Effectiveness of a blended e-learning cooperative approach in an Egyptian teacher education programme. *Computers & Education*, 51(3), 988-1006.
- Henseler, J., Ringle, C.M, Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20:277–319.
- Hijzen, D., Boekaerts, M., & Vedder, P. (2006). The relationship between the quality of cooperative learning, students' goal preferences, and perceptions of contextual factors in the classroom. *Scandinavian Journal of Psychology*, 47, 9-21.
- Holt, D.D. (1993). *Cooperative learning a response to linguistic and cultural diversity*, A Publication of CAL Center for Applied Linguistics.
- Hoosein, S. (2014). Teachers' perspectives and instructional strategies in multicultural diverse classrooms. Unpublished MA thesis, Ontario Institute for Studies in Education of the University of Toronto
- Howard, J. (2010). The Value of Ethnic Diversity in the Teaching Profession: A New Zealand Case Study. *International Journal of Education*, 2(1), 1-22
- <https://www.ndeed.org/TeachingResources>
- Hulland, J. (1999). Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal*, 20, 195-204.
[https://doi.org/10.1002/\(SICI\)1097-0266\(199902\)20:2<195::AID-SMJ13>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7)
- Hurtado, S., Alvarez, L. C., Guillermo-Wann, C., Cuellar, M. & Arellano, L. (2012). A Model for Diverse Learning Environments: The Scholarship on Creating and Assessing Conditions for Student Success. In C. J. Smart & B. M. Paulsen *Higher Education: Handbook of Theory and Research* 27, 41–122. New York: Springer.
- Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1998). Enhancing campus climates for racial/ethnic diversity: Educational policy and practice. *The Review of Higher Education*, 21(3), 279-302.
- Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1999). *Enacting diverse learning environments: Improving the campus climate for racial/ethnic diversity*.

- ASHE/ERIC Higher Education Reports Series (Vol. 26). Washington, D.C.: George Washington University.
- Ibarra, M. S., & Rodríguez, G. (2007). El trabajo colaborativo en las aulas universitarias: Reflexiones desde la autoevaluación. *Revista de Educación*, 344, 355-375.
- Igwenagu, C. (2016). *Fundamentals of research methodology and data collection*. Enugu State University of Science and Technology.
- IPSS, FES & AAU (2010). *An Anthology of Peace and Security Research*. AAU, Institute for Peace and Security Studies in collaboration with Friedrich Ebert Stiftung, Addis Ababa, Ethiopia.
- Ivankova, N. V. (2004). Students' persistence in the University of Nebraska–Lincoln distributed doctoral program in Educational Leadership in Higher Education: A mixed methods study. PhD diss., University of Nebraska–Lincoln.
- Ivankova, N.V, Creswell, J.W, & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Method*, 18(1), 3-20 DOI: 10.1177/1525822X05282260
- Iyer, R.B. (2013). Relation between Cooperative Learning and Student Achievement. *International Journal of Education and Information Studies*, 3(1), 21-25
<http://www.ripublication.com/ijeis.htm>
- Jacobs, G. M., Lee, C, & Neg, M. (1997). Co-operative learning in the thinking classroom. Paper presented at the International Conference on Thinking, Singapore.
- Jacobs, G. M., Power, M. A., Loh, W. I. (2002). *The teacher's sourcebook for cooperative learning: Practical techniques, basic principles, and frequently asked questions*. Thousand Oaks, CA: Corwin Press.
- Jacobsa, G. & Seow, P. (2015). CoOperative LearninG PrinciPLes enhance on Line interaction, *Journal of International and Comparative Education*, 4 (1), 28-38

- Janmaat, J.G. (2012): The Effect of Classroom Diversity on Tolerance and Participation in England, Sweden and Germany, *Journal of Ethnic and Migration Studies*, 38 (1), 21-39
- Jarosinski, T. (2019). *Culturally & Linguistically Responsive Teaching. A Quick Reference Handbook for Teachers of Culturally & Linguistically Diverse Students*. Huntington Beach: Shell Education.
- Jeannin, L. (2013). Students' Perception of Diversity in an International Classroom. *High. Learn. Res. Commun.* 3(4), 6-23, DOI: 10.18870/hlrc.v3i4.165
- Johnson, B. & Christensen, L. (2004). *Educational Research. United States of America*, Pearson Education, Inc.
- Johnson, D, and Johnson, R. (2009) An Educational Psychology success story: Social Interdependence Theory and Cooperative Learning. *Educational Researcher*, 38, 365-379.
- Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Edina, MN, USA: Interaction Book Company
- Johnson, D. W., & Johnson, R. T. (1994a). *Joining together. Group theory and group skills*. Boston: Allyn & Bacon.
- Johnson, D. W., & Johnson, R. T. (2000). Cooperative learning, values, and cultural plural classrooms. In M. Leicester & C. Modgil (Eds.), *Classroom Issues: Practice Pedagogy and curriculum* (15-28). London & New York: Falmer Press.
- Johnson, D. W., Johnson, R. T., & Anderson, D. (1983). Social interdependence and classroom climate. *The Journal of Psychology*, 114, 135-142.
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1998). *Cooperation in the Classroom*. Edina, Minnesota: Interaction Book Co.
- Johnson, D., & Johnson, R. (1999). *Learning together and alone: cooperative, competitive, and individualistic learning*. Boston: Allyn and Bacon.

- Johnson, W.D. & Johnson, R.T. (2018). *Cooperative Learning: The Foundation for Active Learning*, London, United Kingdom.
- Jonna, L. (2013). *Diversity and Management: A contextual and Interview study of managers and ethnic minority employees in Finland and France*. PhD thesis submitted to Hanken school of Economics, Finland.
- Julious, S. A. & Patterson, S.D. (2004). Sample sizes for estimation in clinical research. *Pharmaceutical Statistics* 3(3):213 – 215, DOI: 10.1002/pst.125
- Juvonen, J., Lessard, L.M., Rastogi, R., Schacter, H.L., & Smith, D.S. (2019). Promoting social inclusion in educational settings: Challenges and opportunities. *Educational Psychologist*, 54, 250-270. doi: 10.1080/00461520.2019.1655645
- Kagan, S. & Kagan, M. (1998). *Multiple intelligences: the complete MI book*. San Clemente: Resources for Teachers.
- Kagan, S., & Kagan, M. (2009). *Cooperative Learning*. San Clemente, CA: Kagan Publishing
- Kamwangamalu, N.M. (2010). Multilingualism and Code switching in Education. In N.H. Hornberger & S.L. McKay (Eds.). *Sociolinguistics and language education*, pp. 116-142. Bristol: Multilingual Matters Ltd.
- Karssen, M., van der Veen, I., & Volman, M. (2016). Ethnic diversity in schools and bi ethnic Dutch students' educational outcomes and social functioning, *School Effectiveness and School Improvement*, 27:4, 613-628, DOI: 10.1080/09243453.2016.1189436
- Kaur, M. (2017). Cooperative Learning: An Effective Teaching Strategy. *International Educational Journal*, 4(1), 9-20.
- Kiper, A. (2016). Cooperative Learning Scale: Validity and Reliability Study, *International Journal of Educational Research Review*, 1 (2), 42-48
- Kivunja, C. & Kuyini, A. B. (2017). Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education*, 6 (5), 26-41.

- Kline, R.B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd Edition ed.). New York: The Guilford Press.
- Kohn, A. (1996). *Beyond Discipline: From Compliance to Community*. The University of Michigan
- Koppel, M., Schler, J. & Dokow, E.B. (2007). Measuring Differentiability: Unmasking Pseudonymous Authors. *Journal of Machine Learning Research*, Researchgate. Retrieved from <https://www.researchgate.net/publication/220320379> on October, 14, 2020.
- Kreitz, P.A. (2008). Best Practices for Managing Organizational Diversity. *The Journal of Academic Librarianship*, 34 (2), 101–120
- Liff, S. (1996). Diversity and equal opportunities: room for a constructive compromise? *Human Resource Management Journal*, 9 (1), 65-75
- Lincoln, Y. S. (2009). Ethical practices in qualitative research. In D.M. Mertens & P. E. Ginsberg (Eds.), *The handbook of social research ethics* (pp. 150–169). Los Angeles, CA: Sage.
- Loes, C.N., Culver, K. C. & Trolian, T.L. (2018): How Collaborative Learning Enhances Students' Openness to Diversity, *The Journal of Higher Education*, DOI: 10.1080/00221546.2018.1442638
- Louvrier, J. (2013). *Diversity, differences, and diversity management: A contextual and interview study of managers and ethnic minority employees in Finland and France*. Department of management and organization, Helsinki, Finland.
- Lumadi, M. W. (2008). Managing diversity at higher education and training institutions: a daunting task. *Journal of Diversity Management, Fourth Quarter*, 3 (4), 1, North West University, Mafikeng Campus, South Africa.
- Lyon, K.A. & Guppy, N. (2016). Enhancing student compositional diversity in the sociology classroom. *Teaching Sociology*, 44 (2), 106-117, American Sociological Association
- Maher, F.A. & Tetreault, K.T (1995). *The Feminist Classroom: Dynamics of Gender, Race, and Privilege Expanded Edition*. Deborah Schaffer.

- Malloy, T. H., Osipov, A., & Vizi, P. (2015). *Managing diversity through non-territorial autonomy: Assessing advantages, deficiencies and risks*. England: Oxford University Press.
- Malmqvist, J., Hellberg, K., Molla, G., Rose, R., & Shevlin, M. (2019). Conducting the Pilot Study: A Neglected Part of the Research Process? Methodological Findings Supporting the Importance of Piloting in Qualitative Research Studies. *International Journal of Qualitative Methods*, 18: 1–11. DOI: 10.1177/1609406919878341
- Mampane, S.T. (2019). Managing Diversity in South African Higher Education Institutions. In *Diversity within Diversity Management*. Eds. 139-156.
- Manning, L. M. (1994). *Celebrating Diversity: Multicultural Education in Middle Level Schools*. National Middle School Association, Columbus, OH.
- Marshall, B., Cardon, P., Poddar, A. and Fontenot, R. (2013). “Does sample size matter in qualitative research?: a review of qualitative interviews in IS research”, *Journal of Computer Information Systems*, Vol. 54 No. 1, pp. 11-22
- Marzano, R., D. Pickering & J. Pollock. (2001). *Classroom Instruction that Works. Research Based Strategies for Increasing Student Achievement*. Alexandria, VA: ASCD.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks: Sage Publications.
- Mekonnen, H. (2013). The impacts of ethnocentrism and stereotype on inter-cultural relations of Ethiopian higher education students. *Online Journal of Communication and Media Technologies* Volume: 3 – Issue: 4 – October – 2013.
- Mensah, J. K. (2015). A “coalesced framework” of talent management and employee performance for further research and practice Graduate School of Public Administration, National Institute of Development Administration. Bangkok, Thailand
- Mertler, C.A. & Charles, C.M. (2005). *Introduction to Educational Research*, 5th Ed., Pearson Education, Inc.

- Meyers, M. C., Van Woerkom, M., & Dries, N. (2013). Talent — Innate or acquired? Theoretical considerations and their implications for talent management. *Human Resource Management Review*, 23(4), 305–321. doi:10.1016/j.hrmr.2013.05.003
- Milem, J. (2003). The Educational Benefits of Diversity: Evidence from Multiple Sectors. In Milem, J.F., Mitchell, J., Chang, M.J., and Lising, A. (2005). *Making Diversity Work on Campus: A Research-Based Perspective* (Ed). Antonio University of Maryland
- Milem, J.F., Chang, M.J., and Antonio, A.L. (2005). *Making Diversity Work on Campus: A Research-Based Perspective*. Washington, DC: American Association of Colleges and Universities.
- Milem, J.F., Mitchell, J., Chang, M.J., & Lising, A. (2005). *Making Diversity Work on Campus: A Research-Based Perspective* (Ed). Antonio University of Maryland
- Miller, K.J. & Sessions, M.M. (2005) Infusing tolerance, diversity, and social personal curriculum into inclusive social studies classes using family portraits and contextual teaching and learning. *Teaching Exceptional Children Plus*, 1(3) Article 1. Retrieved [date] from <http://escholarship.bc.edu/education/tecplus/vol1/iss3/1>
- Miller, K.J. & Sessions, M.M.(2005) Infusing tolerance, diversity, and social personal curriculum into inclusive social studies classes using family portraits and contextual teaching and learning. *TEACHING Exceptional Children Plus*, 1(3) Article 1. Retrieved [October 12, 2022] from <http://escholarship.bc.edu/education/tecplus/vol1/iss3/1>
- Milner, R. & Tenore, B. (2010). *Classroom management in diverse classrooms, Urban Education*, 45(5), 561-603 DOI: 10.1177/0042085910377290
- Mitchell, R. W. & Edwards, K. T. (2010). Power, privilege, and pedagogy: collegiate classrooms as sites to learn racial equity, in T.E Dancy II (ed.) *Diversity management (re)visioning equity on college campuses*. New York: Peter Lang, pp 25-43.
- Modipa, T.I. (2014). An analysis of the implementation the policy on religious and education in schools. Unpublished Med dissertation. Pretoria: University of Pretoria.

- MoE, (2008). National Technical & Vocational Education and Training Strategy. Ministry of Education, Addis Ababa.
- Museus, S. & Harris, F. (2010). Success among college students of colour: how institutional culture matters in T.E. Dancy II (ed.). *Diversity management (re)visioning equity on college campuses*. New York: Peter Lang, pp 25-43.
- Nakagawa, J. (2003). Spencer Kagan's Cooperative Learning Structures, paper presented on 2nd peace as a Global Language Conference Proceeding and Supplement(Aichi University of Education).
- Nataliya V. Ivankova, John W. Creswell, & Sheldon L. Stick (2006). NDT Resource Center, <https://www.ndeed.org/TeachingResources>).
- Nelson Laird, T. F. (2014). Reconsidering the inclusion of diversity in the curriculum. *Diversity and Democracy*, 17 (4), 12-14.
- Nelson Laird, T. F., (2010). Conceptualizing diversity inclusivity for college courses. Unpublished manuscript.
- Nelson Laird, T.F., Hurtado, S.S., & Yuhas, B. (2018). *Measuring the Diversity Inclusivity of College Courses: An Update*. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY
- Neuman, W.L. (2007). Basics of social research: Qualitative and quantitative Approaches, 2nd Ed. Boston, Pearson Education, Inc.
- Nhan, H. & Nhan, T.A. (2019). Different Grouping Strategies for Cooperative Learning in English Majored Seniors and Juniors at Can Tho University, Vietnam. *Education Sciences*, 9 (59), 1-16. ; Doi: 10.3390/educsci9010059
- NIH, National Institute of Health (2012). Guidelines for the Investigation of Mediating Variables in Business Research. *J Bus Psychol*. 27(1): 1–14. Doi: 10.1007/s10869-011-9248-z.

- Nishina, A. , Lewis, J.A., Bellmore, A., & Witkow, M.R. (2019). Ethnic Diversity and Inclusive School Environments. *Educational Psychologist*, 54(4), 306–321, 2019. DOI: 10.1080/00461520.2019.1633923
- Nyaga, S. K. (2013). Managing linguistic diversity in literacy and language development: an analysis of teachers' attitudes, skills and strategies in multilingual classrooms in Kenyan primary schools. Unpublished PhD dissertation, Stellenbosch University
- Olsen, J. E., & Martins, L. L. (2012). Understanding organizational diversity management programs: A theoretical framework and directions for future research. *Journal of Organizational Behavior*, 33(8), 1168-1187
<http://onlinelibrary.wiley.com/doi/10.1002/job.1792/abstract>
- Ordu, A. (2015). Diversity in high schools and diversity management: A qualitative study. *Educational Research and Reviews*, 10 (7), pp. 839-849, 10, DOI:10.5897/ERR2015.2079
- Ozbilgin, M. & Tatli, A. (2008). *Global Diversity Management: An Evidence Based Approach*. Palgrave Macmillan
- Özbilgin, M. F. (2009). *Equality, diversity and inclusion at work: A research companion*. (Eds.). Cheltenham, UK, and New York: Edward Elgar
- Özbilgin, M., Jonsen, K., Tatli, A., Vassilopoulou, J., & Surgevil, O. (2013). *Global diversity management*. In Q. M. Roberson (Ed.), *Oxford library of psychology. The Oxford handbook of diversity and work* (p. 419–441). Oxford University Press.
- Patrick, A. E., Yetunde, A. A., & Sheriff, F. F. (2014). Managing Ethnic and Cultural Diversity for National Integration in Nigeria, *Developing Country Studies*, 4 (6), 70-76
- Pedersen, J. E. & Digby, A.D. (2013). *Secondary schools and cooperative learning: Theories, Models, and Strategies*, eds. Routledge, Tylor & Francis Group, New York, London.
- Pettigrew, T. F. and Tropp, L. R. (2011). *When groups meet, the dynamics of intergroup contact*. New York: Psychology Press.
- Piaget, J. (1965). *The moral judgment of the child*. New York, NY, US: Free Press.

- Pike, R. G. & Kuh, D. G. (2006). Relationships among Structural Diversity, Informal Peer Interactions and Perceptions of the Campus Environment. *The Review of Higher Education*, 29 (4), 425–450
- Plessis, P. & Bisschoff, T. (2007). Diversity and complexity in the classroom: valuing racial and cultural diversity. *Educational Research and Review*, 2 (9), 245-254. Retrieved from <http://www.academicjournals.org/ERR>
- Possi P.K, & Milinga, J.R. (2017). Learner Diversity in Inclusive Classrooms: The Interplay of Language of Instruction, Gender and Disability. *Malaysian Online Journal of Educational Sciences*,5(3), 28-45
- Putnam, R. D. (2007). “E Pluribus Unum: Diversity and Community in the Twenty-First Century. The 2006 Johan Skytte Prize Lecture.” *Scandinavian Political Studies*, 30:137 74.
- Price, P.C., Jhangiani, R., Chiang, A., Leighton, D. C.& Cuttler, C. (2017). *Understanding Null Hypothesis Testing – Research Methods in Psychology*. US, Washington State University <https://opentext.wsu.edu/carriecuttler/chapter/13-1-understanding-null-hypothesis-testing/>.
- Rampton, B. (1995). *Crossing, Language and ethnicity among adolescents*. Harlow: Longman.
- Raykov, T., & Marcoulides, G. A. (2006). *A first course in structural equation modeling* (2nd ed.). Mahwah, NJ: Erlbaum
- Regassa, T. (2010). Learning to live with conflicts: Federalism as a tool of conflict management in Ethiopia- an overview. *Mizan Law Review*, 4 (1), 52-101
- Rego, S. & Dominguez, P. (1998). Cultural and ethnic diversity, cooperative Learning and the teacher's role. *Mediterranean Journal of Educational Studies*, 3 (2), 95-111.
- Richards, H., Brown, A., & Forde, T. (2004). *Addressing diversity in schools: Culturally responsive pedagogy*. Tempe, AZ: National Center for Culturally Responsive Educational Systems, Arizona State University.
- Rudhumbu, N. (2014). Diversity management practices in higher education: Evidence from private higher education institutions in Botswana. *Journal of Education and Practice*, 5(18), 31-46

- Sarah, V., & Kjetil, T., (2003). The Culture of Power in Contemporary Ethiopian Political Life. Retrieved from <http://www.sida.se>
- Scheepers, C. L. (2010). Ethnicity, cultural diversity and poverty in South Africa: Archaeological perspectives from Iron Age Palestine. *Ethnicity and Poverty, OTE*, 23 (1), 161-177.
- Schnke, B. (2015). The management of religious diversity in schools from a legal perspective. Unpublished Med dissertation in Educational Leadership. Pretoria:University of Pretoria.
- Schober, P., Boer, C., & Schwarte, L. (2018). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia, Special article*, 126 (5), 1763-1768
- Sembiring, L.B. (2018). Researching students' interaction in collaborative learning class. *Journal of LApplied Linguistics and Literacy*, 2 (2), 125-134. Retrieved from <https://jurnal.unigal.ac.id/index.php/jall/index>
- Semela, T. (2012). Intergroup relations among the Ethiopian youth: Effects of ethnicity, language, and religious background. *Journal of Developing Societies*, 28(3), 323- 354.
- Sharan, Y. (2010). Cooperative learning: A diversified pedagogy for diverse classrooms. *Intercultural Education*. Researchgate, DOI: 10.1080/14675981003760390
- Sharan, Y. (2017). What cooperative learning contributes to the intercultural classroom? In A. Portera & C. Grant, Eds., *Intercultural Education and Competences for the Global World*, NY: Cambridge Scholars Publishing, 173-184.
- Sheatsley, P. B. (1983). Questionnaire Construction and Item Writing. In Rossi, P.H., Wright, J.D., & Andersen, A.B. (Eds.) *Handbook of Survey Research* (pp. 195–230). New York: Academic Press.
- Sierens, S. & Van Avermaet, P. (2013). Language diversity in education: evolving from multilingual education to functional multilingual learning. *Researchgate*, Retrieved from <https://www.researchgate.net/publication/286707220>

- Singh, B. R. (1994). *Improving Gender and Ethnic Relations: Strategies for Schools and Further education*. (Ed.). CASSELL.
- Slavin, R. E. (2010) Instruction based on cooperative learning. In: R. Mayer, *Handbook of Research on Learning and Instruction*. London: Taylor & Francis, 344-360.
- Smart, J. B. (2014). A Mixed Methods Study of the Relationship between Student Perceptions of Teacher-Student Interactions and Motivation in Middle Level Science. *Middle Level Education*, 38 (4), 1-19
- Stewart, K.L. & Paine, W.S. (2010). *Journal of Academic and Business Ethics J&J: An ethical analysis Johnson & Johnson: An ethical analysis of broken*. The Richard Stockton College of New Jersey
- Subedi, D. (2016). Explanatory Sequential Mixed Method Design as the Third Research Community of Knowledge Claim. *American Journal of Educational Research*, 4 (7), 570-577. Doi: 10.12691/education-4-7-10.
- Sudman, S. (1983). Applied Sampling. In Rossi, P.H.; Wright, J.D. & Andersen, A.B. (Eds.) *Handbook of Survey Research* (pp. 145–194). New York: Academic Press.
- Terenzini, P. T., Cabrera, A.F., Colbeck, C.L., Bjorklund, S.A., and Parente, J. M. (2014). Racial and ethnic Diversity in the classroom: Does it promote student learning?
- Terenzini, T.P., Cabrera, F. A., Colbeck, L. C., Bjorklund, A. S., Parente, M. J. (2001). Racial and Ethnic Diversity in the Classroom: Does It Promote Student Learning? *Journal of Higher Education*, 72 (5), 509-531
- Theodros, T.A. (2017). Religion and Development View project. In M. Christian Green, Rosalind I.J. Hackett, Len Hansen, and Francois Venter, eds. *Religious Pluralism, Heritage and Social Development* (Stellenbosch: SUN MeDIA, 2017).
- Thomas, R. (1996). *Redefining diversity*. New York: Amacom.
- Thomas, R. R.Jr. (1991). *Beyond Race and Gender: Unleashing the power of your total work force by managing diversity*. New York: AMACOM Books.

US State Department (2019). International Religious Freedom Report for 2019, United States Department of State. Office of International Religious Freedom.

Vedder, P., Vande Vijver, F. & Liebkind, K. (2006). Predicting immigrant youths' adaptation across countries and ethnocultural groups. In J.W. Berry, J.S. Phinney, D.L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: Acculturation, identity and adaptation across national contexts* (pp. 47–69). Mahwah, NJ: Lawrence Erlbaum Associates.

Veenman, S., Benthum, N., Bootsma, D., Dieren, J., & Kemp, N. (2002). Cooperative learning and teacher education. *Teaching and Teacher Education*, 18(1), 87-103. doi: 10.1016/S0742-051X(01)00052-X

Verhoef, M. & Venter, T. (2008). Functional multilingualism at the North-West University as part of the institution's transformation agenda. *Journal of Southern African Linguistics and Applied Language Studies*. 26(3), 379-392

Vermeulen, P. J. (2011). Diversity Management in Higher Education: A South African Perspective in Comparison to a Homogeneous and Monomorphous Society such as Germany, Working Paper No. 143

Vervaet, R., Van Houtte, M., & Stevens, P. A. J. (2018). The ethnic prejudice of Flemish pupils: The role of pupils' and teachers' perceptions of multicultural teacher culture. *Teachers College Record*, 120(5), 5.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.

Waris, A.M. (2012). Code switching and Mixing (Communication in Learning Language). *Journal Dakwah Tabligh*, 13 (1), 123 - 135

- Warner-Soderholm, G. & Kriger M.P. (2014). The Art of Dealing with Religious and Cultural Diversity in the Classroom. *International Journal of Business and Management*, 9(2014)10:149-160, doi:10.5539/ijbm.v9n10p149
- Wazzan, M. (2015). Group dynamics in the EFL classroom: The role of the cohesive group of Syrian tertiary learners. *Procedia-Social and Behavioral Sciences*, 199,184 -188.
- White, K.R. (2009). Connecting religion and teacher identity: The unexplored relationship between teachers and religion in public schools. *Teaching and Teacher Education*, (25), 857-866.
- Williams, J.L. & Hamm, J.V. (2018). Peer Group Ethnic Diversity and Social Competencies in Youth Attending Rural Middle Schools. *Journal of Early Adolescence* 38(6), 795–823. DOI: 10.1177/0272431617699945
- Wilson, K. G. (1997). Science and Treatment Development: Lessons from the history of behavior therapy. *Behavior Therapy*, 28, 547-558.
- Woldegebriel, M.M.(2020). Students Diversity Management in Ethiopian Public Universities: Practices and Way Forward. Unpublished PhD dissertation, Addis Ababa University.
- Wolde-Selassie A. (2004). *Ethnic Conflict and the Role of Civil Society in Ethiopia*, in “*Civil Society in Ethiopia – Reflections on Realities and Perspectives of Hope*. ed. Dr. Karl Fritz Heise, London, 2005.
- Wright, S.C.& Tropp, L. R.(2005). Language and Intergroup Contact: Investigating the Impact of Bilingual Instruction on Children’s Intergroup Attitudes. *Group Processes & Intergroup Relations*, 8 (3), 309–328 DOI: 10.1177/1368430205053945
- Yassin, A. A., Razak, N. A., & Maasum, N. R. M. (2018). Cooperative Learning: General and Theoretical Background. *Advances in Social Sciences Research Journal*, 5(8) 642-654.

- Yen Ling, K. (2013). *Introduction to Health Behavior Theories*, Geneva Foundation for Medical Education and Research. Geneva.
- Yusuf, S. (2019). *What is driving Ethiopia's ethnic conflicts? Institute for Security Studies.ISS*.
- Zajda, J. (2015). *Second International Handbook on Globalization, Education and Policy Research* (Ed). Australia, Springer.

APPENDIX- A

Questionnaire to be filled by Trainees

Addis Ababa University

College of Education and Behavioral Studies

Department of Educational planning and Management

Questionnaire to be filled by Trainees

Background and Consent

Dear trainees,

The main purpose of this questionnaire is to collect data on the nexus between students' diversity management and cooperative learning in Technical and Vocational Education and Training Institutions of Southwestern Ethiopia. You are invited to participate in filling the inventory and your participation is greatly appreciated. We trust that your responses reflect your objective view of the issue under consideration. The information collected from you will be treated confidentially. Please read and respond to each item that is applicable to you and feel free to include any suggestions that you believe would make the item/s easier to understand and respond to. No individual will be identified in any report. Participation in this inventory is voluntary. Completing this questionnaire will take approximately 45 minutes. If you agree to fill the questionnaire, Please complete all items that are applicable to you.

Thank you in advance for your cooperation.

General Direction: Encircle the letter of your choice or fill in the blank spaces provided when necessary.

Part 1. Respondent Information

1. Gender	a) Female	b) Male				
2. Age	a) 18- 21	b) 22- 25	c) Over 25			
3. TVET Level	a. Level I	b. Level II	c. Level III	d. Level IV	e. Level V	
4. Write your ethnic background	a) Kaffecho	f) Konta	b) Bench	g) Mezhengir	c) Shekacho	h) Suri

	d) Dawuro	i) Mi'enit	
	e) Yem	j) other (Please specify)_____	
5. How would you classify the community in which you spent most of your life?	a. Rural	b. Suburban	c. Urban
6. What frequency of interaction have you had with other groups in the TVET institution?	With other ethnic group	With other linguistic group	With other religious group
	a. Always b. Very often c. Often d. Rarely e. Never	a. Always b. Very often c. Often d. Rarely e. Never	a. Always b. Very often c. Often d. Rarely e. Never
7. Check all applicable areas regarding (situations) in which you interact with other ethnic groups.	a. Classmates	b. Dating field experiences	c. Roommate student
	d. Neighborhood group organizations	e. Hometown	f. Church /Mosque
	g. Group work	h. other (Please specify)_____	

Students' Perceptions of TVETs Diversity Management Survey

Part 2. Instructions; Indicate how many of your instructors perform the act of the following classroom diversity management by encircling your choice.

Almost all = 5, Most of them = 4, About half of them = 3, Some of them = 2 None = 1

A. Ethno- structural diversity Management					
My instructors manage the following aspects of classroom Ethno- structural diversity .					
1.1 Consider the ethnic diversity during the instruction.	5	4	3	2	1
1.2 Explicitly include students from diverse ethnic groups in the group works?	5	4	3	2	1
1.3 Interact with students of diverse ethnicities in an equitable manner inside of the classroom.	5	4	3	2	1
1.4 Interact with students of diverse ethnicities in an equitable manner outside of the classroom.					
1.5 Consider ethnic diversity as an integral component of instruction.	5	4	3	2	1
B. Ethno-cultural diversity Management					
2 My instructors manage the following aspects of classroom Ethno-cultural diversity .					
2.1 Consider linguistic diversity as an integral component of instructional systems.	5	4	3	2	1
2.2 Understand the unique needs of linguistically diverse learners.	5	4	3	2	1
2.3 Adapt instruction to the needs of linguistically diverse learners.	5	4	3	2	1
2.4 Help students of different languages work together inside of the classroom projects.	5	4	3	2	1
2.5 Help students of different languages work together outside of the classroom projects.					
2.6 Communicate personal tolerance for religious diversity.	5	4	3	2	1
2.7 Consider religious diversity when designing instruction.	5	4	3	2	1
2.8 Understand legal issues regarding the expressions of religion during lecture.	5	4	3	2	1
2.9 Interact with students of all religions in equitable manner.	5	4	3	2	1
C. Ethno- categorical diversity Management					
3. My instructors manage the following aspects of classroom Ethno- categorical diversity .					
3.1 Consider themselves as cultural beings in order to respect the culture of their students.	5	4	3	2	1
3.2 In contrast to the deficit based thinking, my instructors see students' culture as a classroom resource.	5	4	3	2	1
3.3 They expect their students to maximize learning in diverse classroom.	5	4	3	2	1
3.4 Feel accountable for the long-term outcomes of students. My instructors possess a commitment	5	4	3	2	1

that extends beyond the classroom. An instructor who is accountable for the long-term outcomes of students sees the larger context of their role.					
3.5 See themselves as agents of change. Multicultural instructors feel both responsible for and capable of bringing about educational change that will lead to equitable learning outcomes for students.	5	4	3	2	1

Students' Perceptions of classroom ethnic diversity

Part 3. Instructions; Indicate how strongly you agree or disagree with each of the following statements by encircling your choice.

Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 Strongly Disagree = 1

1.1 I do not believe it is important to identify immediately the ethnic groups of my classmates.	5	4	3	2	1
1.2 I believe I am sometimes surprised when members of certain ethnic groups contribute to particular College activities (e.g. bilingual students on the debate team).	5	4	3	2	1
1.3 I believe that students are responsible for solving communication problems that are caused by ethnic identity.	5	4	3	2	1
1.4 I believe ethnic minority students have equal opportunities as other students to learn equally.	5	4	3	2	1
1.5 I believe that there are times when ethnic statements should be ignored.	5	4	3	2	1
1.6 I believe my interactions with different ethnic groups affect my learning.	5	4	3	2	1
1.7 I believe the instructional materials should reflect at least some diverse ethnic groups.	5	4	3	2	1
2.1 I believe my religion may be different from some other students those who school with me.	5	4	3	2	1
2.2 I believe I would prefer to work with students whose religions are diverse.	5	4	3	2	1
2.3 I believe I am comfortable to work with students who exhibit values or beliefs different from my own.	5	4	3	2	1
2.4 I believe other than the required College activities, my interactions with classmates should include unplanned activities (e.g. Social events, meeting in shopping centers) or phone conversations with colleagues whose religion differs from mine.	5	4	3	2	1

2.5 I believe religious views of a diverse community should be included in the College's instructional materials.	5	4	3	2	1
2.6 I believe that students are responsible for solving communication problems that are caused by religious identity.	5	4	3	2	1
3.1 I believe I would be comfortable in settings with students who speak a different language than I do.	5	4	3	2	1
3.2 I believe that there are times when the use of non-formal language should be accepted.	5	4	3	2	1
3.3 I believe I am aware of linguistic equity issues related to educational access.	5	4	3	2	1
3.4 I believe classroom linguistic diversity is good to provide opportunities for students to learn more languages non-formally.	5	4	3	2	1
3.5 I believe that all students have equal opportunities to use their own language.	5	4	3	2	1
3.6 I believe one's knowledge of a medium of instruction (instructional language) may affect student's performance.	5	4	3	2	1

4. Application of Cooperative Learning

Instructions; Indicate how strongly you agree or disagree with each of the following statements by encircling your choice.

Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 Strongly Disagree = 1

1. The members of my group have skills that complement each other.	5	4	3	2	1
2. The lecturer teaches us to properly manage in-group situations.	5	4	3	2	1
3. In most courses students receive the grades they deserve, no more, no less.	5	4	3	2	1
4. The lecturer helps us identify and define the difficulties in group work.	5	4	3	2	1
5. During the lesson we have time to reflect on our ways of working in the group and how to improve.	5	4	3	2	1
6. In this subject the lecturer proposes activities which encourage individual reflection on learning.	5	4	3	2	1
7. The lecturer provides us with guidelines to solve conflicts that might arise in the group.	5	4	3	2	1
8. In this subject, each group member has to make an effort in order to help the group achieve their results.	5	4	3	2	1
9. Group members have different capabilities that facilitate the completion of the task.	5	4	3	2	1
10. In most courses, one of the goals is to learn how to engage with others.	5	4	3	2	1
11. In most courses, we have the opportunity to share our opinions with group members.	5	4	3	2	1
12. The better each group member carries out their task, the better the group's grades will be.	5	4	3	2	1
13. The lecturer provides us with tools for us to reflect on how we are working in the group.	5	4	3	2	1
14. As we work, we receive feedback from the lecturer in order to improve.	5	4	3	2	1
15. In most courses, the evaluation system is fair.	5	4	3	2	1
16. In our group we have a diversity of views, which helps us in our learning.	5	4	3	2	1
17. In most courses, respect in group relationships is encouraged.	5	4	3	2	1
18. Most courses allow me to interact with my fellow group members.	5	4	3	2	1
19. In most courses, when we work in groups, we have to make sure that we all learn.	5	4	3	2	1
20. In our group we assess the performance of each one of us and we provide guidelines for improvement.	5	4	3	2	1
21. The lecturer oversees group work as we carry it out.	5	4	3	2	1
22. If we work hard in the courses, we can achieve very good grades.	5	4	3	2	1

23. Group members are diverse in a number of ways, which enriches us.	5	4	3	2	1
24. Most courses encourage us to freely express our points of view.	5	4	3	2	1
25. In this subject, interaction with my fellow group members is necessary in order to carry out the task.	5	4	3	2	1
26. When we work in groups our grades depend on how much all members have learnt.	5	4	3	2	1
27. All the group members together, we identify which actions help the group and which don't.	5	4	3	2	1
28. During group work, the lecturer is available to answer our questions.	5	4	3	2	1
29. In these lessons we all have the opportunity to achieve good results/grades if we put our minds to it.	5	4	3	2	1
30. Most courses create opportunities for us to interact with others.	5	4	3	2	1
31. In most courses I need the help of my fellow group members in order to fulfill the task.	5	4	3	2	1
32. When we work in groups, each member has a task to contribute to.	5	4	3	2	1
33. The lecturer intervenes when we need it in order to ensure that we make progress in our group task.	5	4	3	2	1
34. In most courses, the evaluation system for group work prevents skiving.	5	4	3	2	1
35. In most courses, we exercise our social skills.	5	4	3	2	1
36. When we work in groups, we can't fulfill a task unless everybody contributes.	5	4	3	2	1
37. The lecturer helps us determine the level of efficiency at which the group has performed.	5	4	3	2	1
38. When we work in groups, we need the ideas of all of us in order to achieve success.	5	4	3	2	1
39. The lecturer guides us and helps us with our group task.	5	4	3	2	1
40. When we work in groups, we have to share materials or information in order to complete the task.	5	4	3	2	1
41. The lecturer motivates us to make progress in our group task.	5	4	3	2	1
42. The assessment system for this subject takes into account the individual contributions of each team member to the group work.	5	4	3	2	1
43. In most courses, we communicate and share information with fellow group members through diverse media (face-to-face, online...).	5	4	3	2	1
44. The instructors monitor the tasks fulfilled by the group members,	5	4	3	2	1

APPENDIX - B

Questionnaire to be Filled by Trainers

Addis Ababa University

College of Education and Behavioral Studies

Department of Educational planning and Management

Questionnaire to be filled by Instructors

Background and Consent

Dear trainers,

The main purpose of this questionnaire is to collect data on the nexus between the diversity management and cooperative learning in Technical and Vocational Education and Training Institutions of Southwestern Ethiopia. You are invited to participate in filling the inventory and your participation is greatly appreciated. I trust that your responses reflect your objective view of the issue under consideration. The information collected from you will be treated confidentially. Please read and respond to each item that is applicable to you and feel free to include any suggestions that you believe would make the item/s easier to understand and respond to. No individual will be identified in any report. Participation in this inventory is voluntary. Completing this questionnaire will take approximately 45 minutes. If you agree to fill the questionnaire, Please complete all items that are applicable to you.

Thank you in advance for your cooperation

Part I. General Direction: Encircle the letter of your choice or fill in the blank spaces provided when necessary.

Gender	a. Male	b. Female	
Work Experience	a. 10 years and above	b. 5-9 years	c. 1-5 years
Educational Qualification	i. MA/MSc and above	ii. BA/BSc	iii. Diploma
Academic Rank	i. Rank A	ii. Rank B	iii. Rank A C

Part II. Students' cross group interaction

1. In your view, what frequency of interaction have your trainees had with their peers in the TVET institution?	With other ethnic group	With other linguistic group	With other religious group
	a. Always b. Very often c. Often d. Rarely e. Never	a. Always b. Very often c. Often d. Rarely e. Never	a. Always b. Very often f. Often d. Rarely e. Never

Part II. TVET Instructors' Diversity Management Survey

Directions; Please be sure to answer each item and encircle your choice by checking

Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 Strongly Disagree = 1

A. Ethno- structural diversity Management					
1. I manage the following aspects of my classroom Ethno- structural diversity.					
1.1 Consider the ethnic diversity during the instruction.	5	4	3	2	1
1.2 Explicitly include students from diverse ethnic group in the coursework.	5	4	3	2	1
1.3 Interact with students of diverse ethnicities in an equitable manner inside of the classroom.	5	4	3	2	1
1.4 Interact with students of diverse ethnicities in an equitable manner outside of the classroom.	5	4	3	2	1
1.5 Consider ethnic diversity as an integral component of instruction.	5	4	3	2	1
B. Ethno-cultural diversity Management					
2. I manage the following aspects of my classroom Ethno-cultural diversity.					
2.1 Consider linguistic diversity as an integral component of instructional systems.	5	4	3	2	1
2.2 Understand the unique needs of linguistically diverse learners.	5	4	3	2	1
2.3 Adapt instruction to the needs of linguistically diverse learners.	5	4	3	2	1
2.4 Enable students of different languages work together in of the classroom projects.	5	4	3	2	1

2.5 Enable students of different languages work together out of the classroom projects.					
2.6 Communicate personal tolerance for religious diversity.	5	4	3	2	1
2.7 Consider religious diversity when designing instruction.	5	4	3	2	1
2.8 Understand legal issues regarding the expressions of religion during lecture.	5	4	3	2	1
2.9 Interact with students of all religions in inequitable manner.	5	4	3	2	1
C. Ethno- categorical diversity Management					
3. I manage the following aspects of my classroom Ethno-categorical diversity .					
3.1 I consider myself as cultural being in order to recognize and appreciate the culture of my students.	5	4	3	2	1
3.2 In contrast to the deficit based thinking, I see students and their community's culture as a classroom resource.	5	4	3	2	1
3.3 I believe that all students are capable of success. I expect my students to excel and their circumstances are not used to explain lack of achievement.	5	4	3	2	1
3.4 I feel accountable for the long-term outcomes of students. I possess a commitment that extends beyond the classroom. I am accountable for the long-term outcomes of students see the larger context of their role.	5	4	3	2	1
3.5 I see myself as an agent of change. I feel both responsible for and capable of bringing about educational change that will lead to equitable outcomes and experiences for students.	5	4	3	2	1

Part II. TVET trainers' perceptions of classroom diversity

Directions; Please be sure to answer each item and encircle your choice by checking;

Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 Strongly Disagree = 1

Trainers' Perceptions of classroom diversity	5	4	3	2	1
1.1 I believe it is not a must to identify immediately the ethnicity of the students I teach.	5	4	3	2	1
1.2 I believe I am sometimes surprised when members of certain ethnic groups contribute to particular College activities (e.g. bilingual students on the debate team).	5	4	3	2	1
1.3 I believe that students are responsible for solving communication problems that are caused by ethnic identity.	5	4	3	2	1
1.4 I believe ethnic minority students have equal opportunities as other students to learn equally.	5	4	3	2	1
1.5 I believe that there are times when ethnic statements should be ignored.	5	4	3	2	1
1.6 I believe my interactions with different ethnic groups affect students' learning.	5	4	3	2	1
1.7 I believe the instructional materials should reflect at least some different ethnic groups	5	4	3	2	1
2.1 I believe my religion may be different from my students those who I teach.	5	4	3	2	1
2.2 I believe I would prefer to teach students whose religions are diverse.	5	4	3	2	1
2.3 I believe I am comfortable with students who exhibit values or beliefs different from my own.	5	4	3	2	1
2.4 I believe other than the required College activities, my interactions with my students should include unplanned activities (e.g. social events, meeting in shopping centers) or phone conversations.	5	4	3	2	1
2.5 I believe I would experience happiness when teaching whose religion is different from each other students and my own.	5	4	3	2	1
2.6 I believe that students are responsible for solving communication problems that are caused by religious identity.	5	4	3	2	1
3.1 I believe I would be comfortable in teaching settings where students speak different languages within a classroom.	5	4	3	2	1
3.2 I believe that there are times when the use of non formal language should be accepted.	5	4	3	2	1
3.3 I believe I am aware of linguistic equity issues related to educational access.	5	4	3	2	1

3.4 I believe classroom linguistic diversity is good to provide opportunities for students to learn more languages non-formally.	5	4	3	2	1
3.5 I believe that all students have equal opportunities to use their own language.	5	4	3	2	1
3.6 I believe one's knowledge of a medium of instruction (instructional language) may affect student's performance.	5	4	3	2	1

Application of Cooperative Learning

Part II. Directions; Please be sure to answer each item and encircle your choice by checking;					
Almost always = 5, Most often = 4, often = 3, sometimes = 2 or Never = 1					
1. The members of student group have abilities that complement each other.	5	4	3	2	1
2. I teach or train us to properly manage in-group situations.	5	4	3	2	1
3. In my courses students receive the grades they deserve, no more, no less.	5	4	3	2	1
4. I help students identify and define the difficulties in group work.	5	4	3	2	1
5. During the lessons I give students time to reflect on our ways of working in the group and how to improve.	5	4	3	2	1
6. In my courses, I propose activities which encourage individual reflection on learning.	5	4	3	2	1
7. I provide us with guidelines to solve conflicts that might arise in the group.	5	4	3	2	1
8. In my courses, each group member has to make an effort in order to help the group achieve their results.	5	4	3	2	1
9. Group members have different capabilities that facilitate the completion of the task.	5	4	3	2	1
10. In my courses, one of the goals is to learn how to engage with others.	5	4	3	2	1
11. In my courses, we have the opportunity to share our opinions with group members.	5	4	3	2	1
12. The better each group member carries out their task, the better the group's grades will be.	5	4	3	2	1
13. I provide us with tools for us to reflect on how we are working in the group.	5	4	3	2	1
14. As students work, they receive feedback from the lecturer in order to improve.	5	4	3	2	1
15. In my courses, the evaluation system is fair.	5	4	3	2	1
16. In students group they have a diversity of views, which helps us in our learning.	5	4	3	2	1
17. In my courses, respect in group relationships is encouraged.	5	4	3	2	1
18. My courses allow students to interact with my fellow group members.	5	4	3	2	1
19. In my courses, when students work in groups, they have to make sure that we all learn.	5	4	3	2	1

20. In students group they assess the performance of each one of them.	5	4	3	2	1
21. I oversee group work as students carry it out.	5	4	3	2	1
22. If students work hard in my courses, they can achieve very good grades.	5	4	3	2	1
23. Group members are diverse in a number of ways, which enriches students.	5	4	3	2	1
24. My courses encourage students to freely express student's points of view.	5	4	3	2	1
25. In my courses, interactions among group members is necessary in order to carry out the task.	5	4	3	2	1
26. When students work in groups their grades depend on how much all members have learnt.	5	4	3	2	1
27. All the group members together, students identify which actions help the group and which don't.	5	4	3	2	1
28. During group work, I am available to answer students' questions.	5	4	3	2	1
29. In my courses, all students have the opportunity to achieve good results/grades if they put their minds to it.	5	4	3	2	1
30. My courses create opportunities for students to interact with each others.	5	4	3	2	1
31. In my courses, students need the help of their fellow group members in order to fulfill the task.	5	4	3	2	1
32. When students work in groups, each member has a task to contribute to.	5	4	3	2	1
33. I intervene when students need it in order to ensure that they make progress in their group task.	5	4	3	2	1
34. In my courses, the evaluation system for group work prevents skiving.	5	4	3	2	1
35. In my courses, students exercise their social skills.	5	4	3	2	1
36. When students work in groups, they can't fulfill a task unless everybody contributes.	5	4	3	2	1
37. I help students determine the level of efficiency at which the group has performed.	5	4	3	2	1
38. When students work in groups, they need the ideas of all of them in order to achieve success.	5	4	3	2	1
39. I guide students and help them with their group task.	5	4	3	2	1
40. When students work in groups, they have to share materials or information in order to complete the task.	5	4	3	2	1
41. I motivate students to make progress in their group task.	5	4	3	2	1
42. The assessment system for my courses takes into account the individual contributions of	5	4	3	2	1

each team member to the group work.					
43. In my courses, students communicate and share information with fellow group members through diverse media (face-to-face, online...).	5	4	3	2	1
44. I monitor the tasks fulfilled by the group and each of the group members.	5	4	3	2	1

APPENDIX-C
CONSENT FORM
Addis Ababa University

College of Education and Behavioral Studies

Department of Educational Policy and Leadership

Background and Consent

Dear interviewee,

I'm Getachew Robo, a PhD candidate in the Department of Educational Planning and Management at Addis Ababa University. Currently, I'm working on the title of the dissertation 'The Nexus between Diversity Management and Cooperative Learning in TVETs in the South-West Ethiopian People's Regional State'. This interview's objective is to gather information to support my dissertation. Your college has been chosen as the study site for the research. A formal letter from AAU has been used to tell the relevant management body of your college about the study.

Your participation in the interview and the information you provide will be essential to the success of the study. Your anonymity and privacy will be maintained indefinitely, and your reply to the discussion will only be used for the study. So, feel free and provide your truthful information to the discussion points. You are free to choose not to answer any question about which you do not feel at ease, and you are also free to refrain from participating in the study at any point if you do not find it to your liking.

Thank you for your cooperation and time in advance!

I am willing to participate in the interview and for my interview to be digitally recorded.

Name Sign Date

Interview guiding questions

The guiding questions for educational leaders include personal data, campus diversity experiences and teaching and learning processes.

1.1.1 Bio-data of educational leaders, students

NameDepartment.....Position.....

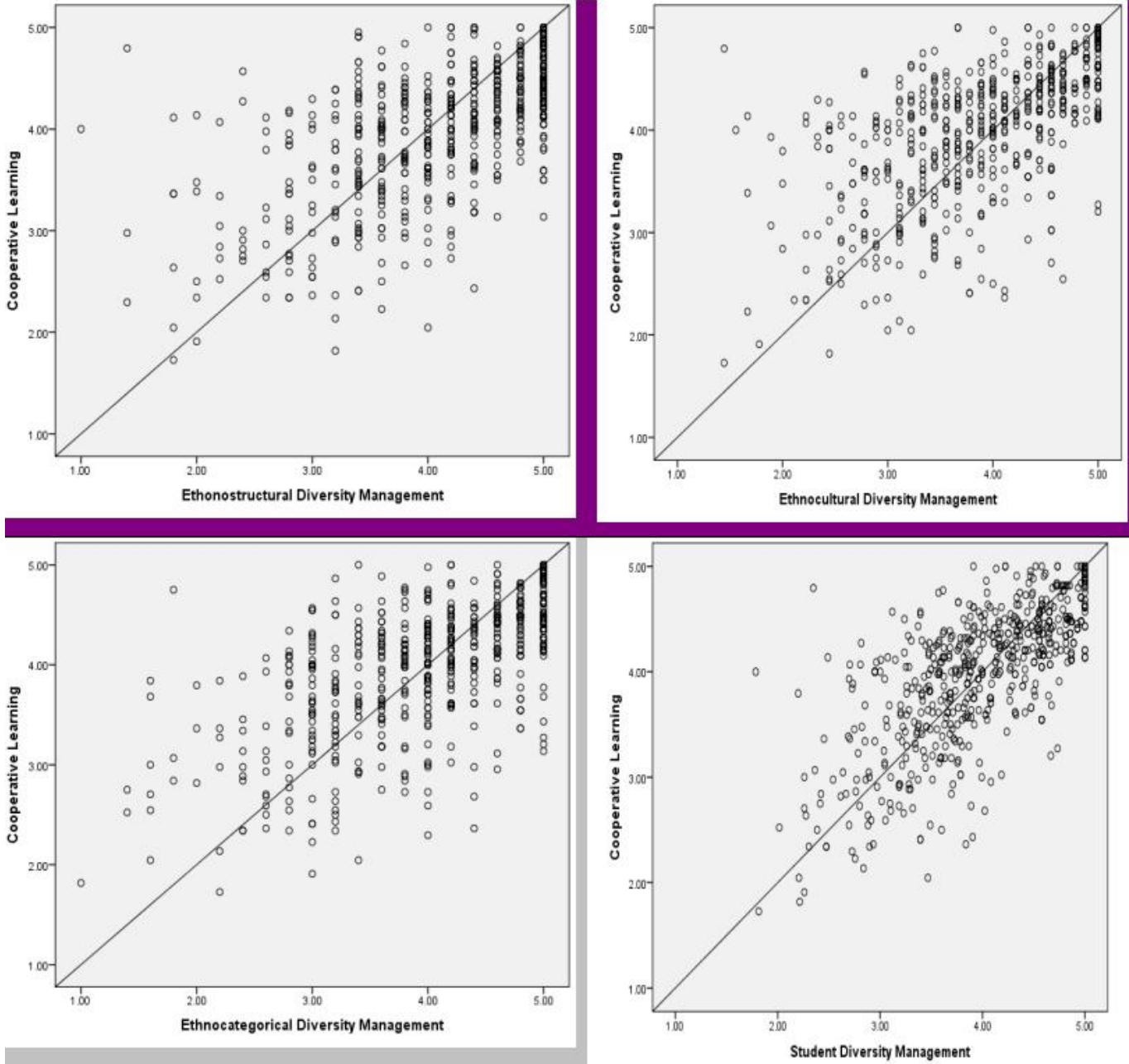
Academic rank.....Ethnic background (optional)..... First language (optional):Religious affiliation (optional)..... work experience in TVETsOther work experiences.....

Guiding questions

1. How do you perceive student diversity management in applying cooperative learning at your Polytechnic College classroom?
2. What are the benefits of students' ethnic diversity management in applying cooperative learning at your Polytechnic College (classroom)?
3. How do you manage trainees' diversity in applying cooperative learning at your Polytechnic College (TVET)?
4. In your opinion, what are the major challenges of students' diversity management in applying cooperative learning at your Polytechnic College classroom?

APPENDIX-D

The Scatter Plot Graphs depicting Linear Correlation between the IVs and DVs



APPENDIX- E

GATEKEEPERS' PERMISSION AND CONSENT

በደ/ም/አ/ሀ/ኮ/ም ከሀላጎችና ተከፋሪ ሲር
የተገራ ልማትና ቴክኖሎጂ ቢሮ
S/W/E/P/R/S Skill & Technology Bureau
Teppi Poly Technic College

ቀን: 25/02/2015
ቀን: 22/10/2014

ለክፍለ-ሰው ልማት ሚኒስቴር
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

በደ/ም/አ/ሀ/ኮ/ም ከሀላጎችና ተከፋሪ ሲር
የተገራ ልማትና ቴክኖሎጂ ቢሮ
S/W/E/P/R/S Skill & Technology Bureau
Teppi Poly Technic College

ቀን: 25/02/2015
ቀን: 22/10/2014

ለክፍለ-ሰው ልማት ሚኒስቴር
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

በደ/ም/አ/ሀ/ኮ/ም ከሀላጎችና ተከፋሪ ሲር
የተገራ ልማትና ቴክኖሎጂ ቢሮ
S/W/E/P/R/S Skill & Technology Bureau
Teppi Poly Technic College

ቀን: 25/02/2015
ቀን: 21/10/2014

ለክፍለ-ሰው ልማት ሚኒስቴር
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

ለክፍለ-ሰው ልማት ሚኒስቴር
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

የፌዴራል ስልጠናና ምርመራ ቢሮ
የፌዴራል ስልጠናና ምርመራ ቢሮ

APPENDIX- F

Amharic verisions of research tools

አዲስ አበባ ዩኒቨርሲቲ

የድህረ-ምረቃ ትምህርት መርሃ-ግብር

ስነ-ትምህርት እና የባህሪ ጥናት ኮሌጅ: የትምህርት ፖሊሲና አመራር ትምህርት ክፍል

The Nexus between Diversity Management and Cooperative Learning in Technical and Vocational Education and Training Institutions of Southwest Ethiopia People’s Region (በተማሪዎች መካከል ያለ ብዙሃነት አመራር (diversity Management) እና በሕብረት መማር (cooperative learning) መካከል ያለ ተዛምዶ)

በሠልጣኞች የሚሞላ የፅሁፍ መጠይቅ

ውድ ሠልጣኝ

የዚህ የጽሑፍ መጠይቅ ዋና ዓላማ በተማሪዎች መካከል ያለውን ብዙሃነት አመራር (diversity Management) እና በሕብረት መማር (cooperative learning) መካከል ያለውን ተዛምዶ በተመለከተ መረጃ ለመሰብሰብ ነው። ስለሆነም የርስዎ ተሳትፎ እጅግ ይበረታታል። ለመጠይቁ የሚሰጡት ምላሽ ተዓማኒና እውነተኛ እንደሚሆን እርግጠኛ ነን። ከርስዎ የሚወሰደው መረጃ ምስጢራዊነቱ የተጠበቀ ይሆናል። ስለዚህ እባክዎን የሚከተሉትን መጠይቆች በነጻነት ተጨማሪ ማስተካከያ ሲያስፈልገውም አስተያየትዎን እየጻፉ እንዲሞሉልን በማክበር እንጠይቃለን።

በዚህ ጥናት መሳተፍ በፈቃደኝነት ላይ ይመሰረታል። የተሳታፊዎች ማንነት በምንም መልኩ በሪፖርት ውስጥ አይካተትም። ይህ መጠይቅ ለመመለስ ቢበዛ 45 ደቂቃ ብቻ ይፈጅብዎታል። ስለሆነም በተቻለ መጠን ሁሉንም ጥያቄዎች እንዲመልሱ በድጋሚ እናበረታታለን።

ለትብብርዎ በጣም እናመሰግናለን።

ክፍል 1. የተሳታፊ ተማሪዎች ግለ-ታሪክ መረጃ

አጠቃላይ ትዕዛዝ: ከዚህ በታች የቀረቡ መጠይቆችን እንደየአስፈላጊነታቸው የመልስዎን ምርጫ ፊደል /ቁጥር/ በማክበብ ወይም ባዶ ቦታ በመሙላት ይመልሱ።

1/ የምትሰለጥንበት/የምትሰለጥኝበት/ ቴክኒክ እና ሙያ ተቋም ኮሌጅ ስም _____ 2/ ጾታ

3/ ወንድ ለ/ ሴት

3/ ዕድሜ ሀ/ 18-21 ለ/ 22-25 ሐ/ ከ25 በላይ

4/ የተ.ሙ.ማ ደረጃ ሀ/ ደረጃ 1 ለ/ ደረጃ 2 ሐ/ ደረጃ 3 መ/ ደረጃ 4 ሠ/ ደረጃ 5

5/ ብሔረሰብ ሀ/ ካፈኝ ለ/ ቤንች ሐ/ ሸካኝ መ/ ዳውሮ ሠ/ ዩም

ረ/ ኮንታ ሰ/ መዠንግር ሸ/ ሱርማ ቀ/ ሜኒት በ/ሸኮ

ተ/ ሌላ ከሆነ ይጠቀሱ_____

6/ ብዙ ዕድሜህን ያሳለፍክበት መኖሪያ አካባቢ ሀ/ ገጠር ለ/ ከፊል ከተማ ሐ/ ከተማ

	ሀልጊዜ	በጣም አዘውትራ	ብዙ ጊዜ	አልፎ አልፎ	በጭራሽ
7.1. ከሌሎች ብሔረሰቦች ተማሪዎች ጋር	5	4	3	2	1
7.2 ከሌሎች ቋንቋ ተናጋሪ ተማሪዎች ጋር	5				
7.3 ከሌሎች ኃይማኖት ተከታዮች ተማሪዎች ጋር	5	4	3	2	1

ሀ/ የክፍል ጓደኝነት ለ/ የመስክ ቆይታ ልምድ ሐ/ የአንድ ክፍል ደባልነት /አብሮ ቤት በመከራየት መኖር/ መ/ በጉርብትና ና በመቀራረብ የተመሰረተ የቡድን ሥራ	ሠ/ ከአንድ አካባቢ መምጣት ረ/ ቤተክርስቲያን/መስጊድ/ ሰ/ የቡድን ሥራ ሸ/ ሌላ ካለ ይጠቀሱ
--	---

7/ ከሚከተሉት አካላት ጋር በምን ያህል ጊዜ ግንኙነት ታደርጋለህ/ያለሽ?

8/ ካንተ/ካንቺ ከሚለዩ ተማሪዎች ጋር እንዴት እና ዩት እንደምትግባቡ ጥቀስ/ሽ?

ክፍል 2. ተማሪዎች ስለ ብዙሃነት አመራር ያላቸው እምነት ዳሰሳ

የሚከተሉትን መጠይቆች 5 = ሁሉም በሚባል መልኩ 4 = አብዛኞቹ 3 = በአማካይ

2 = ጥቂቶቹ 1= ማንም አያደርግም በማለት ምን ያህሎቹ

እንደምከውኑ እንደተስማማህ ወይም እንደተስማማሽ የምርጫህን /የምርጫሽን/ መልስ በማክበብ መልስ/ሽ/::

1	የሚከተሉትን በክፍል ውስጥ የሚገኙ ልዩ ልዩ ብሔረሰብ ተማሪዎች ብዝሃነት መምህሮቻችን በአግባቡ ያስተናግዳሉ/ይመራሉ/::							
1.1	በክፍል ውስጥ የተማሪዎች የብሔር ብዝሃነት እንዳለ በመማር ማስተማር ጊዜ ከግንዛቤ ውስጥ ያስገባሉ::	5	4	3	2	1		
1.2	በቡድን ሥራዎች ውስጥ ተማሪዎችን ከተለያዩ ብሔረሰቦች ያሳትፋል::	5	4	3	2	1		
1.3	ከተለያዩ ብሔረሰብ ተማሪዎች ጋር ያለ አድልዎ ክፍል ውስጥ ይግባባሉ::	5	4	3	2	1		

1.4	ከተለያዩ ብሔረሰብ ተማሪዎች ጋር ያለ አድልዎ ከክፍል ውጭ ይግባባሉ።	5	4	3	2	1
1.5	የተማሪዎችን የብሔረሰብ ብዙሃነት ለትምህርት እንደመልካም አጋጣሚ ይቆጥራሉ።	5	4	3	2	1
2	የሚከተሉትን የብሔረሰብ እና ባህል ብዝሃነት መምህሮቻችን በአግባቡ ያስተናግዳሉ/ይመራሉ/።					
2.1	የቋንቋን ብዙሃነት የመማር ማስተማር አካል በማድረግ ይወስዳሉ።	5	4	3	2	1
2.2	በቋንቋ የሚለያዩ ተማሪዎችን ፍላጎት ይገነዘባሉ።	5	4	3	2	1
2.3	የመማር ማስተማሩን ሂደት ከተማሪዎች ቋንቋ ብዝሃነት ጋር በማጣጣም ያስተምራሉ።	5	4	3	2	1
2.4	ከልዩ ልዩ ቋንቋ ተናጋሪዎች የመጡ ተማሪዎች ክፍል ውስጥ አብሮ እንዲሰሩ ይረዳሉ።	5	4	3	2	1
2.5	ከልዩ ልዩ ቋንቋ ተናጋሪዎች የመጡ ተማሪዎች ከክፍል ውጭ አብሮ እንዲሰሩ ይረዳሉ።	5	4	3	2	1
2.6	የኃይማኖት መቻቻልን በተማሪዎች መካከል ያስገነዝባል።	5	4	3	2	1
2.7	የመማር ማስተማር ሥራ ዕቅድ ስነድፉ የተማሪዎችን የኃይማኖት ብዝሃነት ከግንዛቤ ውስጥ ያስገባሉ።	5	4	3	2	1
2.8	የኃይማኖትን ጉዳይ ስገልጹ ስለእምነት የሕግ አሠራሮችን በቅድሚያ ያወቁ ናቸው።	5	4	3	2	1
2.9	ከሁሉም የኃይማኖት ተከታይ ተማሪዎች ጋር ያለ አድልዎ ይግባባሉ።ያገለግላሉ።	5	4	3	2	1
3	የሚከተሉትን የብሔር ማንነት መሰረት ያደረገ ልዩነቶቻችንን አብዛኞቹ መምህሮቻችን በአግባቡ ይመራሉ።					
3.1	ራሳቸውን የባህሉ አካል አድርገው በመቁጠር የተማሪዎቻቸውን ባህል ያከብራሉ።	5	4	3	2	1
3.2	ጉድለትን መሰረት ካደረገ አስተሳሰብ በተቃራኒ፣ የባህል ብዝሃነት ደጋፊ አስተማሪዎቻችን የተማሪዎችን ባህል እንደ ትምህርት ግብአት ይመለከታሉ።	5	4	3	2	1
3.3	ሁሉም ተማሪዎቻቸው የላቀ ውጤት እንዲኖራቸው ይጠብቃሉ። ያበረታታሉም።	5	4	3	2	1
3.4	ለተማሪዎች የረዥም ጊዜ ውጤቶች ተጠያቂነት ይሰማቸዋል። የባህል ብዝሃነት ደጋፊ አስተማሪዎች ከክፍል ውስጥ ያለፈ የሚዘልቅ ቁርጠኝነት አላቸው።	5	4	3	2	1
3.5	እራሳቸውን እንደ ለውጥ ወኪሎች አድርገው ይመለከታሉ። የባህል ብዝሃነት ደጋፊ አስተማሪዎች ለተማሪዎች ፍትሃዊ ውጤቶችን እና ልምዶችን የሚያመጣ ትምህርታዊ ለውጥ ለማምጣት ሃላፊነት እና ችሎታ ይሰማቸዋል።	5	4	3	2	1

ክፍል 3. በዚህ ክፍል የቀረቡትን ጥያቄዎች በተማሪዎች መካከል ስላለ የብሄር፣ የቋንቋ እና የኃይማኖት ልዩነቶችን በተመለከተ ስላለዎት አመለካከት የስምምነትዎን ሁኔታ እንድጠቁሙ ነው።

5 = በጣም እስማማለሁ **4 =** እስማማለሁ **3 =** አልወሰንኩም **2 =** አልስማማም **1 =** በጣም አልስማማም

4.1	የክፍል ጓደኞቻችን ብሔር ቶሎ መለየት እንዳለብኝ አላምንም።	5	4	3	2	1
4.2	ከተለያዩ ብሔር የተውጣጡ ተማሪዎች በኮሌጁ የትምህርት ሥራዎች ውስጥ አስተዋጽኦ ስያበረክቱ አደንቃለሁ።	5	4	3	2	1
4.3	በብሔር ጉዳይ የሚነሱ አለመግባባቶችን ተማሪዎች ራሳቸው መፍታት እንደሚገባቸው አምናለሁ።	5	4	3	2	1
4.4	በቁጥር አናሳ የሆኑ ብሔር ተወላጅ ተማሪዎች እኩል የመማር ዕድል እንዳላቸው አምናለሁ።	5	4	3	2	1
4.5	የብሔር ጉዳይ መነሳት የሌለባቸው ጊዜያት እንዳሉ አምናለሁ።	5	4	3	2	1
4.6	ከሌሎች ብሔር ተማሪዎች ጋር መግባባቴ በትምህርቴ ላይ ተጽዕኖ እንዳለው አምናለሁ።	5	4	3	2	1
4.7	የመማሪያ ማቴሪያሎች የልዩ ልዩ ብሔሮችን ባህል ማንፀባረቅ እንዳለበት አምናለሁ።	5	4	3	2	1
5.1	የኔ ኃይማኖት /አምነት/ ከሌሎች የክፍል ጓደኞቼ ልለይ እንደሚችል አምናለሁ።	5	4	3	2	1
5.2	ከልዩ ልዩ ኃይማኖት ተከታይ ተማሪዎች ጋር አብሮ መሥራት ደስ ይለኛል።	5	4	3	2	1
5.3	ከኔ እምነትና አመለካከት ውጭ ከሆኑ ተማሪዎች ጋር ተመቻችቴ መሥራት እችላለሁ።	5	4	3	2	1
5.4	በኮሌጁ ከሚሰጡ ተግባራት ባለፈ፣ በማህበራዊ ሕይወትም ጭምር ከሌሎች ኃይማኖት ተከታዮች ጋር መተባበር እንዳለብኝ አምናለሁ።	5	4	3	2	1
5.5	የመማሪያ ማቴሪያሎች የልዩ ልዩ ማህበረሰብ የእምነት አመለካከትን ማንፀባረቅ እንዳለበት አምናለሁ።	5	4	3	2	1
5.6	በተማሪዎች መካከል በኃይማኖት ሰበብ የሚነሱ አለመግባባቶችን ራሳቸው ተማሪዎች መፍታት እንዳለባቸው አምናለሁ።	5	4	3	2	1
6.1	እኔ ከማውቀው ቋንቋ ውጭ ከሚያወሩ ተማሪዎች ጋር አብሮ መስራት ደስ ይለኛል።	5	4	3	2	1
6.2	አንዳንድ ጊዜ ኢ-መደበኛ ቋንቋ ማለትም ከትምህርት ቋንቋ ውጭ መጠቀም እንደሚገባ አምናለሁ።	5	4	3	2	1
6.3	ፍትሐዊ የትምህርት ዕድልን አስመልክቶ በቋንቋ እኩልነት አምናለሁ።	5	4	3	2	1
6.4	በክፍል ውስጥ የሚገኝ የቋንቋ ልዩነት ለተማሪዎች የተለያዩ ቋንቋ መማሪያ ዕድል እንደሚሰጣቸው አምናለሁ።	5	4	3	2	1
6.5	ሁሉም ተማሪዎች የራሳቸውን ቋንቋ የመጠቀም እኩል ዕድል አሏቸው።	5	4	3	2	1
6.6	የትምህርትን ቋንቋ (medium of instruction) ማወቅ የተማሪዎች የትምህርት አፈጻጸም ላይ ተጽዕኖ አለው።	5	4	3	2	1

ክፍል 4/ በህብረት የመማር አተገባበር አስመልክተው የቀረቡ መጠይቆች

ትዕዛዝ 4/ የመልስዎን ምርጫ በማክበብ ስምምነትዎን ይግለጹ።

5 = ሁል ጊዜ 4 = አብዛኛውን ጊዜ 3 = በመጠኑ 2 = አልፎ አልፎ 1 = በጭራሽ

1	የቡድኔ ተማሪዎች አንዱ የሌላውን ክፍተት በመሙላት አብሮ የመስራት ክህሎትም ብቃትም አላቸው።	5	4	3	2	1
2	መምህሮቻችን በቡድን /በህብረት/ እንዴት መማር እንደሚቻል ይመሩናል።	5	4	3	2	1
3	በተለያዩ ኮርሶች ተማሪዎች የሚጠበቅባቸውን ያህል ውጤት ያገኛሉ።	5	4	3	2	1
4	መምህሮቻችን በቡድን ሥራ ውስጥ የሚገጥሙንን ችግሮች ለይተን እንድንገልጽ ይረዱናል።	5	4	3	2	1
5	በክፍለ ትምህርቶች ወቅት የራሳችንን ሃሳብ እንድናፀባርቅ ጊዜ ይሰጠናል።	5	4	3	2	1
6	በየኮርሶች መምህራን ተማሪዎችን የቡድን ስራዎቻቸውን በግልም እንድያፀባርቁ ይረዳሉ።	5	4	3	2	1
7	መምህራን የቡድን ሥራ ውስጥ የሚከሰቱ ችግሮችን እንድንፈታ ይረዱናል።	5	4	3	2	1
8	በየኮርሶች የቡድን አባላት የተግባራትን ዓላማ በግል መተግበር መቻል አለባቸው።	5	4	3	2	1
9	የቡድናችን አባላት የተሰጠንን ተግባራት ለመፈጸም የሚያበቃ ልዩ ልዩ እውቀት፣ ክህሎት እና ብቃት አላቸው።	5	4	3	2	1
10	በየኮርሶች ውስጥ የቡድን ሥራ አንዱ ዓላማ እንዴት በህብረት መማር እንደሚቻል ማስተማር ነው።	5	4	3	2	1
11	በየኮርሶች ውስጥ በቡድናችን ውስጥ እርስ በርሳችን ሃሳብ እንድንከፋፈል ዕድሎች ይሰጠናል።	5	4	3	2	1
12	እያንዳንዱ የቡድን አባል የተሻለ በሰራ ቁጥር በቡድናችን የተሻለ ውጤት እናስመዘግባለን።	5	4	3	2	1
13	መምህራን የሠራናቸውን ሥራዎች እንድናቀርብ ሁኔታዎችን ያመቻቹልናል።	5	4	3	2	1
14	የህብረት ሥራዎቻችንን ካቀረብን በኋላ መምህራን እንድናሻሻል ግብረ-መልስ ይሰጠናል።	5	4	3	2	1
15	በኮሌጃችን በሚሰጡ ኮርሶች ላይ የግምገማ ሥርዓት ፍትሐዊ ነው።	5	4	3	2	1
16	በቡድናችን ውስጥ ለመማራችን የሚጠቅሙ የአመለካከት ልዩነቶች አሉ።	5	4	3	2	1
17	በህብረት መማር በተማሪዎች ግንኙነት ውስጥም መከባበርን ያበረታታል።	5	4	3	2	1
18	በየኮርሶቹ የቡድን ሥራ ውስጥ ከአባሎቹ ጋር እንድንገባ አስችሎናል።	5	4	3	2	1
19	በምሰጡን ኮርሶች ውስጥ በህብረት ሲንማር ሁላችንም መማራችንን እናረጋግጣለን።	5	4	3	2	1
20	በቡድናችን ውስጥ የእያንዳንዳችንን ብቃት ተገምግሞ ግብረ-መልስ ለማሻሻያ ይሰጣል።	5	4	3	2	1
21	የቡድን ሥራ በምንሰራበት ጊዜ መምህራን በአግባቡ ይከታተላሉ።	5	4	3	2	1
22	በሁሉም ኮርሶች በቡድን በትጋት ከሰራን ጥሩ /ግሬድ/ ውጤት እናገኛለን።	5	4	3	2	1
23	ቡድናችን ከተለያዩ መደብ የተሰጠሩ አባላት መኖራቸው ለትምህርታችን ይጠቅማል።	5	4	3	2	1

24	የየኮርሶች መምህራን ሃሳቦችን እንድንገልጽ ያበረታታሉ።	5	4	3	2	1
25	በየኮርሶች ከቡድኔ ተማሪዎች ጋር ያለኝ ተግባቦት ሥራዬን በአግባቡ እንዲፈጸም ይረዳኛል።	5	4	3	2	1
26	በህብረት ስንሰራ የእያንዳንዱ ተማሪ /አባል/ የትምህርት አቀባበል ግሬዳችን ወይም ዉጤታችን ላይ ተጽዕኖ አለው።	5	4	3	2	1
27	በቡድናችን ስንሰራ ለቡድኑ የሚጠቅመውንና የማይጠቅመውን እየለየን ነው።	5	4	3	2	1
28	መምህራን ጥያቄዎች ስኖሩን ለመመለስ በተፈለገ ሰዓት ይገኛሉ።	5	4	3	2	1
29	በየኮርሶቹ በቡድን ሥራ ውስጥ በአግባቡ ከሠራን ጥሩ ግሬድ ወይም ዉጤት እንደሚናገኝ እናምናለን።	5	4	3	2	1
30	በኮሌጁ የሚሰጡ ኮርሶች እርስ በርሳችን እንድንግባባ ያስችሉናል።	5	4	3	2	1
31	ሥራዎቻችን በተሳካ ሁኔታ ለማጠናቀቅ የጓደኞቼ እርዳታ እንደሚያስፈልገኝ አምናለሁ።	5	4	3	2	1
32	በህብረት መማር ውስጥ ሁሉም ተማሪዎች ድርሻ ልኖራቸው ይገባል።	5	4	3	2	1
33	በቡድን ሥራዎቻችን ላይ መምህራን ስንፈልጋቸው ድጋፍ ያደርጉልናል።	5	4	3	2	1
34	በየኮርሶች ውስጥ የቡድን ሥራዎች የግምገማ ሂደቶች አባላትን ሥራ ፈት እንዳይሆኑ ያደርጋል።	5	4	3	2	1
35	ብዙ ኮርሶች ውስጥ በህብረት ስንሰራ ማህበራዊ ክህሎታችንን እናዳብራለን።	5	4	3	2	1
36	በህብረት በምንሰራበት ጊዜ እያንዳንዱ አባል ድርሻውን ካልተወጣ ሥራችን የተሟላ አይሆንም ብለን እናምናለን።	5	4	3	2	1
37	መምህሮቻችን በህብረት ውጤታማነታችንን እንድናረጋግጥ ያበረታቱናል።	5	4	3	2	1
38	በቡድን ስንሰራ ስኬታማ ለመሆን የእያንዳንዳችን ሃሳብ መዋጣት አለበት።	5	4	3	2	1
39	መምህራን በህብረት ሥራዎቻችን ጣልቃ እየገቡ ይረዱናል።	5	4	3	2	1
40	በህብረት በምንሰራበት ጊዜ እርስ በርሳችን ያገኘናቸውን ማጣቀሻዎችና መረጃዎችን በመጋራት መስራት እና ማጠናቀቅ አለብን።	5	4	3	2	1
41	መምህራን በቡድን ሥራ ውጤት እንድናሻሽል ያነቃቁናል /ያበረታቱናል/።	5	4	3	2	1
42	የምዘና ሥርዓቶች የእያንዳንዱን የቡድን አባል ጥረት ከግንዛቤ ያስገባ ነው።	5	4	3	2	1
43	በየኮርሶች ውስጥ የተለያዩ መገናኛ ዘዴዎችን ተጠቅመን መረጃዎችን እርስ በርሳችን እንለዋወጣለን።	5	4	3	2	1
44	መምህራን የቡድን ሥራዎችንና የእያንዳንዱን አባል ጥረት ይከታተላሉ።	5	4	3	2	1

ክፍል 2 የተማሪዎች ከራስ ቡድን ውጭ የሚደረግ የተግባቦት መስተጋብር

6/ ባንተ/ባንቺ እይታተሜዎችህ/ሽ ከሚከተሉት አቻቸው ጋር በምን ያህል ደግግሻ ግንኙነት ያደርጋሉ

ብለህሽ ታስባለህ /ታስቢያለሽ?

	ሀልጊዜ	በጣም አዘውትሮ	ብዙ ጊዜ	አልፎ አልፎ	በጭራሽ
6.1. ከሌሎች ብሔረሰቦች ተማሪዎች ጋር	5	4	3	2	1
6.2 ከሌሎች ቋንቋ ተናጋሪ ተማሪዎች ጋር	5				
6.3 ከሌሎች ኃይማኖት ተከታዮች ተማሪዎች ጋር	5	4	3	2	1

ክፍል 3 የተ.ሙ.ሥ.ት.ተ መምህራን የብዝሃነት አመራር ዳሰሳ

ትዕዛዝ 2፤ የመልስዎን ምርጫ ፊደል በማክበብ መልስ።

5 =በጣም እስማማለሁ 4=እስማማለሁ 3=አልወሰንኩም 2=አልስማማም 1=በጣም አልስማማም

1	የሚከተሉትን በክፍል ውስጥ የሚገኙ ልዩ ልዩ ብሔረሰብ ስብጥር ብዝሃነት በአግባቡ እመራለሁ።	5	4	3	2	1
1.1	በክፍል ውስጥ የተማሪዎች የብሔር ብዝሃነት እንዳለ በመማር ማስተማር ጊዜ ከግንዛቤ ውስጥ አስገባለሁ።	5	4	3	2	1
1.2	በቡድን ሥራዎች ውስጥ ተማሪዎችን ከተለያዩ ብሔረሰቦች አሳትፋለሁ።	5	4	3	2	1
1.3	ከተለያዩ ብሔረሰብ ተማሪዎች ጋር ያለ አድልዎ ክፍል ውስጥ እግባባለሁ።	5	4	3	2	1
1.4	ከተለያዩ ብሔረሰብ ተማሪዎች ጋር ያለ አድልዎ ከክፍል ውጭ እግባባለሁ።	5	4	3	2	1
1.5	የተማሪዎችን የብሔረሰብ ብዝሃነት ለትምህርት እንደመልካም አጋጣሚ እቆጥራለሁ።	5	4	3	2	1
2	የሚከተሉትን የብሔረሰብ እና ባህል ብዝሃነት መምህሮቻችን በአግባቡ እመራለሁ።					
2.1	የቋንቋን ብዝሃነት የመማር ማስተማር አካል በማድረግ እወስዳለሁ።	5	4	3	2	1
2.2	በቋንቋ የሚለያዩ ተማሪዎችን ፍላጎት እገነዘባለሁ።	5	4	3	2	1
2.3	የመማር ማስተማሩን ሂደት ከተማሪዎች ቋንቋ ብዝሃነት ጋር በማጣጣም አስተምራለሁ።	5	4	3	2	1
2.4	ልዩ ልዩ አፍ መፍቻ ቋንቋ ተናጋሪ ተማሪዎች ክፍል ውስጥ አብሮ እንዲሰሩ እረዳለሁ።	5	4	3	2	1
2.5	ልዩ ልዩ አፍ መፍቻ ቋንቋ ተናጋሪ ተማሪዎች ከክፍል ውጭ አብሮ እንዲሰሩ እረዳለሁ።	5	4	3	2	1
2.6	የኃይማኖት መቻቻልን በተማሪዎች መካከል አስገነዝባለሁ።	5	4	3	2	1

2.7	የመማር ማስተማር ሥራ ዕቅድ ስነ-ምግባር የተማሪዎችን የኃይማኖት ብዝሃነት ከግንዛቤ ውስጥ አስገባለሁ።	5	4	3	2	1
2.8	የኃይማኖትን ጉዳይ ስገልጹ ስለእምነት የሕግ አሠራሮችን በቅድሚያ ተረድቻለሁ።	5	4	3	2	1
2.9	ከሁሉም የኃይማኖት ተከታይ ተማሪዎች ጋር ያለ አድልዎ ይግባባሉ።ያገለግላሉ።	5	4	3	2	1
3	የሚከተሉትን የብሔር ማንነት መሰረት ያደረገ ልዩነቶችን አብዛኛውን ጊዜ በአግባቡ እመራለሁ።					
3.1	ራሴን የባህሉ አካል አድርጌ በመቁጠር የተማሪዎቼን ባህል አክብራለሁ።	5	4	3	2	1
3.2	ጉድለትን መሰረት ካደረገ አስተሳሰብ በተቃራኒ፣ እንደ ባህል ብዝሃነት ደጋፊ አስተማሪ የተማሪዎቼን ባህል እንደ ትምህርት ግብአት እመለከታለሁ።	5	4	3	2	1
3.3	ሁሉም ተማሪዎቼ የላቀ ውጤት እንዲኖራቸው እጠብቃለሁ። አበረታታለሁ።	5	4	3	2	1
3.4	ለተማሪዎች የረዥም ጊዜ ውጤቶች ተጠያቂነት ይሰማኛል። እንደባህል ብዝሃነት ደጋፊ አስተማሪ ከክፍል ውስጥ ያለፈ የሚዘልቅ ቁርጠኝነት አለኝ።	5	4	3	2	1
3.5	እራሴን እንደ ለውጥ ወኪሎች አድርጌ እመለከታለሁ። እንደባህል ብዝሃነት ደጋፊ አስተማሪ ለተማሪዎቼ ፍትሃዊ ውጤቶችን እና ልምዶችን የሚያመጣ ትምህርታዊ ለውጥ ለማምጣት ሃላፊነት እና ችሎታ ይሰማኛል።	5	4	3	2	1

ክፍል 3፤ የተ.ሙ.ት.ሥ.መምህራን የክፍል ውስጥ ብዝሃነት አመለካከት

ትዕዛዝ 3፤ የመልስዎትን ምርጫ በማክበብ ይመልሱ።

5 = በጣም እስማማለሁ 4 = እስማማለሁ 3 = አልወሰንኩም 2 = አልስማማም 1 = በጣም አልስማማም

የመምህራን እምነት		5	4	3	2	1
1.1	የተማሪዎቼን ብሔር ወዲያው ማወቅ እንዳለብኝ አምናለሁ።	5	4	3	2	1
1.2	የተለያዩ ብሔር ተማሪዎች በቡድን ሥራ ውስጥ የሚያደርጉት አስተዋጽኦ አደንቃለሁ።	5	4	3	2	1
1.3	በብሔር ምክንያት በተማሪዎች መካከል የሚቀሰቀሱ አለመግባባቶች በራሳቸው በተማሪዎች መፈታት እንዳለባቸው አምናለሁ።	5	4	3	2	1
1.4	በቁጥር አናሳ የሆኑ ብሔር ተወላጅ ተማሪዎች እኩል የመማር ዕድል ልሰጣቸው እንደሚገባ አምናለሁ።	5	4	3	2	1
1.5	አንዳንድ ጊዜ የብሔር ጉዳይ መነሳት የሌለበት ሁኔታ እንዳለ አምናለሁ።	5	4	3	2	1
1.6	ከተለያዩ ብሔር ተወላጅ ተማሪዎች ጋር የማደርገው ተግባብ ትምህርታቸው ላይ ተጽዕኖ	5	4	3	2	1

	እንዳለው አምናለሁ።					
1.7	የትምህርት መሣሪያዎቻችን የልዩ ልዩ ብሔረሰብ ክብር በጥቂቱም ቢሆን ማንፀባረቅ ይገባቸዋል ብዬ አምናለሁ።	5	4	3	2	1
2.1	የሚከተለው ኃይማኖት ከተማሪዎቹ ኃይማኖት ጋር ልለያይ እንደሚችል አምናለሁ።	5	4	3	2	1
2.2	ከኔ ኃይማኖት ጋር የሚመሳሰል ኃይማኖት የሚከተሉ ተማሪዎቻችን ብቻ ባስተምር ደስ ይለኛል።	5	4	3	2	1
2.3	የተለየ እምነት ወይም ኃይማኖት የሚያንፀባርቅ ተማሪ ደስ አይለኝም።	5	4	3	2	1
2.4	ከኮሌጁ ኮርስ ተግባራት ውጭ ከተማሪዎቹ ጋር በልዩ ልዩ ማህበራዊ እና ኢኮኖሚያዊ ጉዳዮች ላይ ተግባቦት መፍጠር አለብኝ።	5	4	3	2	1
2.5	በኮሌጁ የተማሪዎች ቀን ክብረ-በዓላት ላይ የልዩ ልዩ የኃይማኖት እሴቶች መንፀባረቅ እንዳለበት አምናለሁ።	5	4	3	2	1
2.6	የተለያዩ ኃይማኖት ተከታይ ተማሪዎችና ከኔ እምነት ጋር የሚለያይ ኃይማኖት ያላቸው ተማሪዎች ያሉበት ክፍል ማስተማር አይመቻኝም።	5	4	3	2	1
2.7	በኃይማኖት ብዙሃነት ምክንያት የሚነሱ አለመግባባቶችን ተማሪዎች በራሳቸው መፍታት እንደሚገባቸው አምናለሁ።	5	4	3	2	1
3.1	የተለያዩ ቋንቋዎችን የሚያወሩ ተማሪዎች ያሉበት ክፍል ማስተማር ይመቻኛል።	5	4	3	2	1
3.2	አንዳንድ ጊዜ ከትምህርት ቋንቋ ውጭ ያሉ ቋንቋዎችን ክፍል ወስጥ መጠቀም እንደሚገባ አምናለሁ።	5	4	3	2	1
3.3	የትምህርት ዕድልን አስመልክተው የተለያዩ ቋንቋ ተናጋሪ ሰዎች ፍትሐዊ የቋንቋ ስብጥር ከግንዛቤ መግባት እንዳለበት እንደሚገባለሁ።	5	4	3	2	1
3.4	የተለያዩ ቋንቋ ተናጋሪ ተማሪዎች ያሉበት ክፍል የበለጠ ቋንቋዎችን የመማር ዕድል ይሰጣል።	5	4	3	2	1
3.5	ሁሉም ተማሪዎች የራሳቸውን ቋንቋ የመጠቀም መብት እንዳላቸው አምናለሁ።	5	4	3	2	1
3.6	የትምህርት ቋንቋ መቻል ወይም አለመቻል በተማሪዎች ላይ ተጽዕኖ እንዳለው አምናለሁ።	5	4	3	2	1

ክፍል 4፤ በሕብረት የመማር አተገባበር

ትዕዛዝ 4፤ የመልስዎን ምርጫ ልኬት በማክበብ ይመልሱ።

5 = በጣም እስማማለሁ 4 = እስማማለሁ 3 = አልወሰንኩም 2 = አልስማማም 1 = በጣም አልስማማም

1	ተማሪዎቹ አንዱ የሌላውን ክፍተት በመሙላት አብሮ የመሰራት ክህሎትም ብቃትም አላቸው።	5	4	3	2	1
2	ተማሪዎቹ በሕብረት እንዴት መማር እንደሚችሉ እመራቸዋለሁ።	5	4	3	2	1
3	በኔ ኮርሶች ተማሪዎች የሚጠበቅባቸውን ያህል ውጤት ያገኛሉ።	5	4	3	2	1

4	ተማሪዎች በቡድን ሥራ ውስጥ የሚገጥሟቸውን ችግሮች ለይተው እንድንገልጹ እረዳቸዋለሁ።	5	4	3	2	1
5	በክፍል ትምህርቶች ወቅት ተማሪዎች የራሳቸውን ሃሳብ እንድያንጸባርቁ ጊዜ እሰጣቸዋለሁ።	5	4	3	2	1
6	በኔ ኮርሶች ተማሪዎችን የቡድን ስራዎቻቸውን በግልም እንድያጸባርቁ እረዳቸዋለሁ።	5	4	3	2	1
7	ተማሪዎች የቡድን ሥራ ውስጥ የሚከሰቱ ችግሮችን እንድፈቱ እረዳቸዋለሁ።	5	4	3	2	1
8	በኔ ኮርሶች የቡድን አባላት የተግባራትን ዓላማ በግል መተግበር መቻል እንዳለባቸው አሰራለሁ።	5	4	3	2	1
9	ተማሪዎች የተሰጣቸውን ተግባራት ለመፈጸም የሚያበቃ ልዩ ልዩ እውቀት፣ ክህሎት እና ብቃት አላቸው።	5	4	3	2	1
10	በኔ ኮርሶች ውስጥ የቡድን ሥራ አንዱ ዓላማ እንዴት በሕብረት መማር እንደሚቻል ማስተማር ነው።	5	4	3	2	1
11	በኔ ኮርሶች ተማሪዎች በቡድናቸው ውስጥ እርስ በርሳቸው ሃሳብ እንድከፋፈሉ ዕድሎችን እሰጣቸዋለሁ።	5	4	3	2	1
12	እያንዳንዱ የቡድን አባል የተሻለ በሰራ ቁጥር በቡድናቸው የተሻለ ውጤት ያስመዘገባሉ።	5	4	3	2	1
13	ተማሪዎች የሠሩትን ሥራዎች እንድያቀርቡ ሁኔታዎች ይመቻቹላቸዋል።	5	4	3	2	1
14	ተማሪዎች የህብረት ሥራዎቻቸውን ካቀረቡ በኋላ እንድያሻሽሉ ግብረ-መልስ ይሰጣቸዋል።	5	4	3	2	1
15	በኮሌጃችን በሚሰጡ ኮርሶች ላይ የግምገማ ሥርዓት ፍትሐዊ ነው።	5	4	3	2	1
16	በተማሪዎች ህብረት ውስጥ ለመማራቸው የሚጠቅሙ የአመለካከት ልዩነቶች አሉ።	5	4	3	2	1
17	በህብረት መማር በተማሪዎች ግንኙነት ውስጥም መከባበርን ያበረታታል።	5	4	3	2	1
18	በኔ ኮርሶች የቡድን ሥራ ውስጥ ተማሪዎች እርስበርሳቸው እንድግቡ ያስችላቸዋል።	5	4	3	2	1
19	በሚሰጡ ኮርሶች ውስጥ ተማሪዎች በህብረት ስማሩ ሁሉም መማራቸውን አረጋግጣለሁ።	5	4	3	2	1
20	ተማሪዎች በቡድናቸው ውስጥ የእያንዳንዳቸው ብቃት ተገምግሞ ግብረ-መልስ ለማሻሻያ እሰጣቸዋለሁ።	5	4	3	2	1
21	ተማሪዎች የቡድን ሥራ በሚሰሩበት ጊዜ በአግባቡ እከታተላቸዋለሁ።	5	4	3	2	1
22	በኔ ኮርሶች ተማሪዎች በቡድን በትጋት ከሰሩ ጥሩ /ግሬድ/ ውጤት ያገኛሉ።	5	4	3	2	1
23	የተማሪዎች ቡድን ከተለያዩ መደብ የተሰጠሩ አባላት መኖራቸው ለትምህርታቸው ይጠቅማቸዋል።	5	4	3	2	1
24	በኔ ኮርሶች ተማሪዎች ሃሳባቸውን እንድንገልጹ አበረታታለሁ።	5	4	3	2	1
25	በኔ ኮርሶች ተማሪዎች ከቡድናቸው አባላት ጋር ያለቸው ተግባቦት ሥራቸውን በአግባቡ እንዲፈጽሙ እረዳቸዋለሁ።	5	4	3	2	1
26	ተማሪዎች በህብረት ሲሰሩ የእያንዳንዱ ተማሪ /አባል/ የትምህርት አቀባበል ግሬዳቸው ወይም	5	4	3	2	1

	ወጤታቸው ላይ ተጽዕኖ አለው።					
27	ተማሪዎች በቡድን ሲሰሩ ለቡድኑ የሚጠቅመውንና የማይጠቅመውን እየለዩ ይሰራሉ።	5	4	3	2	1
28	ተማሪዎች ጥያቄዎች ስኖሯቸው ለመመለስ በተፈለገ ሰዓት እገኛለሁ።	5	4	3	2	1
29	በኔ ኮርሶች ተማሪዎች በቡድን ሥራ ውስጥ በአግባቡ ከሠሩ ጥሩ ግሬድ ወይም ወጤት እንደያገኙ አግዛቸዋለሁ።	5	4	3	2	1
30	በኮሌጁ የሚሰጡ ኮርሶች ተማሪዎች እርስ በርሳቸው እንድግባቡ ያስችላቸዋል።	5	4	3	2	1
31	ተማሪዎች ሥራዎቻቸውን በተሳካ ሁኔታ ለማጠናቀቅ የጓደኞቻቸው እርዳታ እንደሚያስፈልጋቸው አግዛቸዋለሁ።	5	4	3	2	1
32	በህብረት መማር ውስጥ ሁሉም ተማሪዎች ድርሻ አላቸው።	5	4	3	2	1
33	ተማሪዎች በቡድን ሥራዎቻቸው ላይ ድጋፍ ስያስፈልግ እደግፋቸዋለሁ።	5	4	3	2	1
34	በኔ ኮርሶች ውስጥ የተማሪዎች የቡድን ሥራዎች የግምገማ ሂደቶች አባላትን ሥራ ፈት እንዳይሆኑ ያደርጋል።	5	4	3	2	1
35	በኔ ኮርሶች ውስጥ ተማሪዎች በህብረት ሲሰሩ ማህበራዊ ክህሎታቸውንም ያዳብራሉ።	5	4	3	2	1
36	ተማሪዎች በህብረት በምሥሩበት ጊዜ እያንዳንዱ አባል ድርሻውን ካልተወጣ ሥራቸው የተሟላ ስለማይሆን አስተባብራቸዋለሁ።	5	4	3	2	1
37	ተማሪዎች በህብረት ውጤታማነታቸውን እንዲያረጋግጡ አበረታታለሁ።	5	4	3	2	1
38	ተማሪዎች በቡድን በሚሰሩበት ጊዜ ስኬታማ ለመሆን የእያንዳንዳቸው ሃሳብ መዋጣት አለበት።	5	4	3	2	1
39	ተማሪዎችን በህብረት ሥራዎቻቸው ጣልቃ እየገባሁ እረዳቸዋለሁ።	5	4	3	2	1
40	ተማሪዎች በህብረት በሚሰሩበት ጊዜ እርስ በርሳቸው ያገኙትን ማጣቀሻዎችና መረጃዎችን በመጋራት መስራት እና ማጠናቀቅ አለባቸው።	5	4	3	2	1
41	ተማሪዎች በቡድን ሥራ ውጤት እንዲያሻሽሉ አነቃቃቸዋለሁ/አበረታታቸዋለሁ	5	4	3	2	1
42	የምዘና ሥርዓቶቼ የእያንዳንዱን የቡድን አባል ጥረት ከግንዛቤ ያስገባ ነው።	5	4	3	2	1
43	በኔ ኮርሶች ውስጥ ተማሪዎች የተለያዩ መገናኛ ዘዴዎችን ተጠቅመው መረጃዎችን እርስ በርሳቸው ይለዋወጣሉ።	5	4	3	2	1
44	ተማሪዎች የቡድን ሥራዎቻቸው ና የእያንዳንዱን አባል ጥረት እከታተላለሁ።	5	4	3	2	1

Nexus between Diversity Management and Cooperative Learning in Technical and Vocational Education and Training Institutions of Southwestern Ethiopia (በተማሪዎች መካከል ያለ ብዙሃነት አመራር (diversity Management) እና በሕብረት መማር (cooperative learning) መካከል ያለ ተዛምዶ)

ውድ ተሳታፊ

የዚህ መጠይቅ ዋና ዓላማ በተማሪዎች መካከል ያለውን ብዙሃነት በመምራት (diversity Management) እና በሕብረት መማር (cooperative learning) መካከል ያለውን ተዛምዶ በተመለከተ መረጃ ለመሰብሰብ ነው። ስለሆነም የርስዎ ተሳትፎ እጅግ ይበረታታል። ለመጠይቁ የሚሰጡት ምላሽ ተዓማኒና እውነተኛ እንደሚሆን እርግጠኛ ነን። ከርስዎ የሚወሰደው መረጃ ሚስጢራዊነቱ የተጠበቀ ይሆናል። ስለዚህ እባክዎን የሚከተሉትን መጠይቆች በነጻነት ተጨማሪ ማስተካከያ ሲያስፈልገውም አስተያየትዎን እየጻፉ እንዲሞሉልን በማክበር እንጠይቃለን።

በዚህ ጥናት መሳተፍ በፈቃደኝነት ላይ ይመሰረታል። የተሳታፊዎች ማንነት በምንም መልኩ በሪፖርት ውስጥ አይካተትም። ይህ መጠይቅ ለመመለስ ቢበዛ 40 ደቂቃ ብቻ ይፈጅብዎታል። ስለሆነም በተቻለ መጠን ሁሉንም ጥያቄዎች እንዲመልሱ በድጋሚ እናበረታታለን።

ለትብብርዎ በጣም እናመሰግናለን።

የተሳታፊ ግለ ህይወት መረጃ

ስምየትምህርት ደረጃ

ብሔረሰብ ሃይማኖት

የቃለ መጠይቅ መመሪያ ጥያቄዎች

1.1 በእርስዎ ፖሊ ቱክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) ክፍል ውስጥ የተማሪዎችን የብሔረሰብ-ማንነት ልዩነት አመራር እንዴት ይመለከቱታል?

1.2 በእርስዎ ፖሊ ቱክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) ክፍል ውስጥ የተማሪዎችን የብሔረ-ባህል ብዝሃነት አመራር እንዴት ይመለከቱታል?

1.3 በእርስዎ ፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) ክፍል ውስጥ የተማሪዎችን ብሔር ተኮር ልዩነት ብዝሃነት አመራር እንዴት ይመለከቱታል?

1.4 በእርስዎ ፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) የመማሪያ ክፍል ውስጥ የብሔረሰብ ማንነት ብዝሃነት ጥቅሞች ምንድን ናቸው?

1.5 በፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) (ክፍል) የብሔረ-ባህል ብዝሃነት ጥቅሞች ምንድን ናቸው?

1.6 በእርስዎ ፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) (የመማሪያ ክፍል) የብሔረሰብ ተኮር ልዩነት ብዝሃነት ጥቅሞች ምንድን ናቸው?

1.7 በእርስዎ አስተያየት፣ በፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) በክፍል ውስጥ ባለው የተማሪዎች የብሔር እና ባህል ብዝሃነት ዋና ዋና ተግዳሮቶች ምንድን ናቸው?



1.8 በእርስዎ ፖሊ ቴክኒክ ኮሌጅ (ቴክኒክና ሙያ ትምህርትና ሥልጠና ተቋም) በክፍል ውስጥ የተማሪዎች ብዝሃነት አመራር ዋና ዋና ተግዳሮቶች ምንድን ናቸው?

APPENDIX- G

Publication (Article 1)

Article

The Influence of Student Diversity on Applying Cooperative Learning in Ethiopian Polytechnic Colleges

Getachew Robo Gebremariam ^{1,*}, Befekadu Zeleke Kidane ¹ and Robyn M. Gillies ²

¹ Department of Educational Policy and Leadership, College of Education and Behavioral Studies, Addis Ababa University, Addis Ababa 1000, Ethiopia; befekaduzk@gmail.com

² School of Education, The University of Queensland, Brisbane, QLD 4072, Australia; r.gillies@uq.edu.au

* Correspondence: grehobot@gmail.com

Abstract: Cooperative learning is more effective in a well-managed classroom with diverse ethnic, linguistic, and religious backgrounds. To that end, this study examined the state of applications of cooperative learning and student diversity in polytechnic colleges in southwest Ethiopia. A qualitative research methodology, specifically grounded theory design was employed to achieve the research purpose. The empirical data was gathered from 20 educational officials through in-depth interviews at sample polytechnic colleges. Student diversity found to have a significant influence on how cooperative learning is implemented. It has also been found that the perception of department heads towards diversity has a significant influence on the application of cooperative learning. The study's findings also showed that managing diversity among students and interacting with peers within groups and from other groups has a positive influence on cooperative learning. In conclusion, the application of cooperative learning is affected by perceptual and structural factors of student diversity. Thus, this research recommends further study to be conducted on the relationship between diversity management and cooperative learning.

Keywords: diversity; cross-group interaction; cooperative learning; grounded theory



Citation: Gebremariam, G.R.; Kidane, B.Z.; Gillies, R.M. The Influence of Student Diversity on Applying Cooperative Learning in Ethiopian Polytechnic Colleges. *Educ. Sci.* **2023**, *13*, 1048. <https://doi.org/10.3390/educsci13101048>

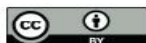
Academic Editors: Francisco Manuel Morales Rodríguez and Juan Pedro Martínez-Ramón

Received: 17 August 2023

Revised: 3 October 2023

Accepted: 7 October 2023

Published: 19 October 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Diversity management is a field that uses applied behavioral science methodology, studies, and theory to manage institutional change and stability processes, supporting diversity in organizations and opposing discrimination based on ethnicity, language, religion, gender, culture, and other human differences. It promotes values of respect for human differences, social justice, and participation. The concept has been broadened beyond the US and Western experiences throughout the world [1,2].

Studies have shown that the development of educational and social relationships among students of different ethnic and linguistic groups reduces prejudice among school children. Student diversity management has a positive influence on students' academic and intellectual skills development, but the direct relationship between the two is not universally accepted [3].

Ethnically diverse classrooms offer students cooperative learning and teachers in flexible teaching strategies to manage varied backgrounds and create an interactive and nurturing learning environment. Teachers can recognize the importance of students' diversity in affecting cooperative learning (CL) by learning about their students' ethnic, linguistic, and religious diversity and integrating CL methods and strategies into their teaching repertoire. Ordu [1] demonstrated that students' diversity affect their performance positively when properly managed, but may cause alliances and affect students negatively when not managed well.

Adamu [4] states that the presence of a diverse student population is perceived as an advantage, as it provides an ideal opportunity to learn from each other's culture, languages,

APPENDIX- H

Diversity Management and Learning in Multiethnic Classrooms in College of Teacher Education in Southern Ethiopia: Special Focus at Bonga CTE

Getachew Robo Gebremariam^{1*}

Befekadu Zeleke Kidane²

Robyn M. Gillies³

¹College of Education and Behavioral Studies

Addis Ababa University

²Associate Professor, Addis Ababa University, Ethiopia

Addis Ababa, Ethiopia

³Professor, School of Education

The University of Queensland,

Brisbane Australia, Australia

Abstract

This study examined the state of diversity management and learning at Bonga College of Teachers' Education. The mixed research approach was employed in the collection, analysis and interpretation of data. The participants of this study were 373 students and 150 instructors which were selected through proportional stratified sampling, comprehensive sampling and purposive sampling techniques. Instruments of data collection included questionnaires, focus group discussion, in-depth interview, and document analysis methods. Quantitative data were analyzed by employing both descriptive and inferential statistics. Qualitative data were analyzed and interpreted by incorporating personal reflections and insights separate from descriptive notes and excerpts from subjects. This paper asserts that diversity has a bearing on instruction. The results suggest that effective classroom diversity management is one of the facilitating factors for effective college instruction. We recommend that stakeholders of the Teachers' Education College may well consider learners' diversity in planning, implementing and evaluating instruction in higher education institutions.

Keywords: *Diversity; Diversity management; Diversity Awareness Inventory (DAI)*

Introduction

Diverse student population refers to the presence of students from different ethnic, cultural or learning backgrounds regardless of their proportional representation. This means that the presence of even one student from a different ethnic or cultural group contributes to increased diversity on campus, and the presence of a diverse student population does not necessarily indicate the ethnic and

religious composition on campus. The presence of a diverse student population is perceived as an advantage by most students because a diverse student population provides students with an ideal opportunity to learn from each other's culture, languages, religions and experiences and also to develop skills that are important for their social lives (Abebaw, 2014).

Managing diversity relates to all the processes addressing attitudes, methods and skills in dealing with a diverse group

*Correspondence: qrebot@gmail.com

APPENDIX- I

International Conference participation (Paper 1)



National Conference participation (Paper 2)

