



The Impact of Tutors' Perceptions of their Principals'  
Transformational Leadership Practices on their Self-Efficacy Beliefs:  
A Study of the Colleges of Education in Ghana.

**AFAYORI, ROBERT**

A Thesis Presented in Partial Fulfilment  
of the Requirement for the Degree of  
Doctorate in Education

SCHOOL OF EDUCATION COMMUNICATION  
AND LANGUAGE SCIENCE

NEWCASTLE UNIVERSITY

Newcastle-Upon Tyne.

November 2019





## THE ABSTRACT OF THE THESIS

*The Impact of Tutors' Perceptions of their Principals' Transformational Leadership Practices on their Self-Efficacy Beliefs: A Study of the Colleges of Education in Ghana.*

*By: Robert Afayori*

Research studies in educational leadership indicate that principal transformational leadership practices impact directly on school effectiveness and teacher performance. Studies also show that teachers' self-efficacy belief is a strong predictor of teacher performance. Teacher self-efficacy belief asserts that teachers may have the necessary professional knowledge to teach, but their self-efficacy beliefs regulate their ability to plan instructional materials and achieve instructional outcomes.

Since principals' transformational leadership practices directly impact on schools and teachers, research studies have identified this model of principal leadership as a viable means to enhancing teacher performance through their self-efficacy beliefs. In the many studies on the relationships between transformational leadership and teacher self-efficacy beliefs, results indicate positive statistically significant relationships between them. However, what is less studied and very much less researched is the extent to which tutors' perceptions of their principals' transformational leadership practices impact on their sense of efficacies in tertiary institutions.

Consequently, this current study investigated the relationship between tutors' perceptions of their principals' transformational leadership practices and their self-efficacy beliefs. It also examined how these perceptions account for the variations in tutors' sense of efficacies in student engagement, in instructional strategies and in classroom management. The TSES and PLQ instruments were used for the garnering of data in 15 colleges of education in Ghana. Valid responses from 434 tutors were analysed using inferential statistics such as *t-test*, ANOVA, correlational and multiple regression analyses in response to the following areas:

- (1) Tutors' assessments of their self-efficacy beliefs: the impact of gender, academic qualification and experience on variations of tutors' self-efficacy beliefs.
- (2) The extent to which tutors considered the leadership practices of their college principals to be transformational: the extent to which gender, experience and years of work with current principals influence these perceptions.
- (3) The statistical relationships between tutors' perceptions of the transformational leadership practices of their college principals and their self-efficacy beliefs.
- (4) The extent to which tutors' perceptions of their principals' transformational leadership practices impact on their self-efficacy beliefs.

First of all, findings from *t-test* results indicated that the self-efficacy beliefs of male tutors were relatively higher than those of female tutors. However, results of the *ANOVA* indicated that demographic factors such as academic qualification and experience did not account for the variances in tutors' sense of efficacy.

Secondly, there the *t-test* and *ANOVA* revealed no statistically significant differences in tutors' perceptions of the transformational leadership practices of their college principals following their gender, academic qualification and years of experience. However, tutors' years of work with current principals accounted for variations in their perceptions of leadership.

Thirdly, the results of the correlational analyses indicated strong positive statistically significant relationships between tutors' sense of efficacy in *student engagement*, *instructional strategies* and *classroom management* and most of the six factors measuring tutors' perceptions of their principals' transformational leadership practices. These included transformational leadership practices such as *provides vision*, *fosters commitment*, *provides individual support*, *intellectual stimulation* and *holds high performance expectations*. The transformational leadership practice of *modelling best behaviour* displayed weak positive but statistically nonsignificant relationship with all three factors of tutors' sense of efficacy. These findings were consistent with findings of earlier studies in the area (Ryan, 2007); Shumate, 201; Ling et al., 2015; Mehdinezhad and Mansouri, 2016; Gkolia et al., 2018).

Fourthly, following results of the multiple regression analyses, while the transformational leadership practice of *providing vision* impacted strongly on tutors' sense of efficacy in *student engagement*, the leadership practice of *holding high performance expectations* produced the most effect on tutors' sense of efficacy in *instructional strategies*. Furthermore, principals' transformational leadership practice of *providing vision and setting directions* produced the most impact on tutors' sense of efficacy in *classroom management*.

While only few studies in the area conducted multiple regression analysis ( Espinoza, 2013; Ling et al., 2015 and Gkolia et al., 2018) to index the specific transformational leadership practices which significant impact on teachers' sense of efficacy in all three factors, results of this current study were consistent with findings of the above studies. In this way, principals who seek to enhance their tutors' performance efficacy through their leadership practices can find helpful guidance in the findings of this study.

**Keywords:** *Principal Leadership, transformational leadership, teacher performance, teacher self-efficacy belief.*

## DEDICATION

*To My Dad Philip Bartholomew Afayori*

(22 – 07 – 1944 to 26 – 05 – 2019)

## ACKNOWLEDGEMENT

I wish to use this opportunity to express my sincere gratitude and appreciation to all who contributed in many and diverse ways to helping me complete this work. I am particularly grateful to my supervisors; Professor James Tooley and Rene Koglbauer who offered me great support in the writing of the thesis. I am truly grateful to Professor James Tooley who provided the necessary guidance and direction from the preliminary stages to the completion of the thesis. I am also grateful to Mr. Rene Koglbauer for the invaluable help and support in the period leading to the completion of the thesis.

For the garnering of data for the analyses in this study, Dr Megan Tschannen-Moran and Dr Kenneth Leithwood granted me permission to use their teachers' sense of efficacy and principals' leadership questionnaire respectively for this purpose. I want to use this opportunity to thank them for such great kindness. In respect of gaining easy access to the research population of the study, the leadership of the National Council for Tertiary Education (NCTE) prepared the grounds for this purpose. My sincere thanks to them, and to the principals and tutors of all the 15 colleges who supported and participated in the study. Your interest, support and active participation in the research study helped to its successful completion.

I equally want to thank the Parishioners of St Margaret's Parish, Duns for their patience and concern. With them I lived and worked and studied, deriving support and encouragement to push on. Here, I am particularly grateful to Mrs. Patricia Scott for being a strong pillar to lean on. Without Mrs Scott's unquantifiable help, this whole edifice could have come to naught. Many thanks also to all my friends who helped and encouraged me throughout this journey. Thanks to Christine Jobson for proofreading the work, and to Morag Driscoll for same.

Last but not least, I will like to thank my family for their prayers and moral support throughout this period, particularly Mark Afayori who helped in the distribution and retrieval of questionnaire responses. May God richly bless you all.





## TABLE OF CONTENT

|  |      |
|--|------|
| Abstract of the Thesis.....  | i-ii |
| Dedication.....  | iii  |
| Acknowledgement.....   | iv   |
| List of Tables.....  | x-xi |
| List of Figures.....   | xii  |
| CHAPTER ONE: INTRODUCTION.....   | 1    |
| 1.1. Background.....   | 1    |
| 1.2. Statement of the Problem.....   | 4    |
| 1.3. The Purpose of the Study.....   | 5    |
| 1.4. Research Questions .....  | 5    |
| 1.5. Significance of the Study.....  | 6    |
| 1.6. Assumptions of the Study.....   | 7    |
| 1.7. Justification for the Assumption of Cross-Cultural Adaptation .....           | 9    |
| 1.8. Definition of Key Terms.....  | 12   |
| 1.9. Overview of Methodology .....   | 14   |
| CHAPTER TWO: LITERATURE REVIEW .....   | 18   |
| 2.1. Introduction.....   | 18   |
| 2.2. Meaning of Transformational Leadership.....                                   | 19   |
| 2.2.1. Development of Transformational Leadership.....                             | 20   |
| 2.2.2. Introduction of Transformational Leadership in Schools.....                 | 22   |
| 2.2.3. Measuring Perceptions of Transformational Leadership.....                   | 26   |
| 2.2.4. Teachers' Perceptions of their Principals' Transformational Leadership..... | 33   |
| 2.3. Understanding the Concept of 'Perceived Self-Efficacy' .....                  | 43   |

|                                  |  |           |
|----------------------------------|--|-----------|
| 2.3.1.                           | Sources for the Development of Self-Efficacy Beliefs.....                      | 45        |
| 2.3.2.                           | The Meaning of Teacher Self-Efficacy Beliefs.....                              | 47        |
| 2.3.3.                           | Measuring Teachers’ Self-Efficacy Beliefs .....                                | 48        |
| 2.3.4.                           | Factors Influencing Variations in Teachers’ Sense of Efficacy .....            | 54        |
| 2.4.                             | Research Studies on Transformational Leadership and Self-Efficacy Beliefs..... | 62        |
| 2.4.4.                           | Methodology of Literature Search and Review .....                              | 63        |
| 2.4.5.                           | Critical Analysis and Synthesis of Included studies.....                       | 65        |
| 2.4.6.                           | Thematic Analysis of Findings of Selected Studies .....                        | 66        |
| 2.4.7.                           | Synthesis and Conclusion on the Analyses of Reviewed Studies.....              | 74        |
| 2.5.                             | Extrapolating Transformational Leadership in Ghanaian Colleges of Education.   | 76        |
| CHAPTER THREE: METHODOLOGY ..... |  | 81        |
| 3.1.                             | Introduction.....  | 81        |
| 3.2.                             | The Philosophical Position or Assumption.....                                  | 82        |
| 3.3.                             | The Research Questions and Hypotheses .....                                    | <b>84</b> |
| 3.4.                             | Research Design or Strategy.....   | 87        |
| 3.5.                             | Population and Sampling .....  | 89        |
| 3.6.                             | Instrumentation and Data Collection Procedures .....                           | 90        |
| 3.7.                             | The Validity and Reliability of the Instruments.....                           | 99        |
| 3.7.1.                           | Proof of Validity .....  | 100       |
| 3.7.2.                           | Test for Reliability.....  | 101       |
| 3.8.                             | The Analysis of Data .....   | 102       |
| 3.9.                             | Ethical Considerations in the Study .....                                      | 104       |
| 3.9.1.                           | Access and Acceptance.....   | 105       |
| 3.9.2.                           | Participants’ Rights and Informed Consent.....                                 | 105       |
| 3.9.3.                           | Anonymity and Confidentiality .....  | 106       |
| 3.9.4.                           | Research Quality .....   | 107       |

|  |            |
|--|------------|
| 3.10. Summary of Methodology.....  | 108        |
| <b>CHAPTER FOUR: DATA ANALYSES AND RESEARCH FINDINGS .....</b>                       | <b>110</b> |
| 4.1. Introduction.....   | 110        |
| 4.2. Descriptive Statistics on Clusters and Respondents’ Demographics .....          | 111        |
| 4.2.1. The 4 Selected Regions or Clusters .....                                      | 112        |
| 4.2.2. Participants’ Demographic Information .....                                   | 115        |
| 4.3. Answering the Research Questions and Hypotheses .....                           | 117        |
| 4.3.1. Research Question One (RQ1) and Hypotheses .....                              | 118        |
| 4.3.2. Research Question Two (RQ2) and Hypotheses.....                               | 123        |
| 4.3.3. Research Question Three (RQ3) and Hypotheses .....                            | 130        |
| 4.3.4. Research Question Four (RQ4) and Hypotheses .....                             | 134        |
| 4.4. Summary of the Analyses.....  | 141        |
| <b>CHAPTER FIVE: THE DISCUSSION OF RESEARCH FINDINGS .....</b>                       | <b>144</b> |
| 5.1. Introduction.....   | 144        |
| 5.2. Tutors’ Assessments of their Sense of Efficacies.....                           | 146        |
| 5.3. Tutors’ Perceptions of their Principals’ Transformational Leadership .....      | 153        |
| 5.4. Correlations between Tutors’ Self-Efficacy and Principals’ Leadership.....      | 159        |
| 5.5. Transformational Leadership Practices that Impact on Tutors’ Self-Efficacies .. | 167        |
| 5.6. Conclusion on the Discussions on Research Findings .....                        | 175        |
| <b>CHAPTER SIX: CONCLUSION TO THE STUDY.....</b>                                     | <b>177</b> |
| 6.1. Introduction.....   | 177        |
| 6.2. Summary of the Study.....   | 177        |
| 6.3. Conclusion to the Study .....   | 180        |
| 6.4. Implications of the Study.....  | 182        |
| 6.5. Limitations of the Study.....   | 184        |

|   |     |
|---|-----|
| 6.6. Recommendations for Further Study .....  | 187 |
| REFERENCES .....  | 189 |
| APPENDIX I: Flow Chart of the Search for Literature; Summary of Selected Studies..... | 207 |
| APPENDIX II: Letter of Application and Approval for the Use of TSES .....             | 211 |
| APPENDIX III: Letter of Application and Approval for the Use of the PLQ .....         | 213 |
| APPENDIX IV: Ethical Approvals from University and School of Education .....          | 215 |
| APPENDIX V: Permission and Approval for Research to be Conducted.....                 | 217 |
| APPENDIX VI: Participants' Information Sheet and Consent Form.....                    | 220 |
| APPENDIX VII: Survey Instruments for Data Collection .....                            | 222 |

## LISTS OF TABLES

|   |     |
|---|-----|
| Table 1: Criteria for Inclusion and Exclusion of Studies.....                             | 64  |
| Table 2: Means of Tutors' Sense of Efficacy According to the Four Selected Regions.....   | 112 |
| Table 3: Means of Tutors' Perceptions of Leadership Following the Four Regions. ....      | 114 |
| Table 4: Gender of Tutor Respondents.....   | 115 |
| Table 5: Qualifications of Tutor Respondents.....   | 116 |
| Table 6: Years of Experience as Tutors.....   | 116 |
| Table 7: Tutors' Years of Work with Current Principals.....                               | 116 |
| Table 8: Means of Tutors' Assessments of their Sense of Efficacy in Three Factors.....    | 119 |
| Table 9: Mean Scores of Male and Female Tutors' Sense of Efficacy.....                    | 120 |
| Table 10: Independent Sample Test for Male and Female Tutors' Sense of Efficacy.....      | 120 |
| Table 11: Means of Tutors' Efficacy According to their Qualifications.....                | 121 |
| Table 12: ANOVA of Tutor's Sense of Efficacy Following their Qualifications.....          | 121 |
| Table 13: Means of Tutors' Sense of Efficacy Following their Years of Experience.....     | 122 |
| Table 14: ANOVA of Tutors' Efficacy Following their Years of Experience.....              | 123 |
| Table 15: Means of Tutors' Perceptions of their Principals' Leadership Practices.....     | 124 |
| Table 16: Means of Male and Female Tutors' Perceptions of Leadership.....                 | 125 |
| Table 17: T-Test of Male and Female Tutors' Perceptions of Leadership.....                | 125 |
| Table 18: Means of Tutors' Perceptions of Leadership following their Experience.....      | 126 |
| Table 19: ANOVA of Tutors' Perceptions of Leadership following their Experience.....      | 127 |
| Table 20: Means of Tutors' Perceptions of Leadership and their Work with Principals.....  | 127 |
| Table 21: ANOVA of Tutors' Perceptions of Leadership and their Work with Principals... .. | 128 |
| Table 22: Levene's Test on Transformational Leadership.....                               | 129 |
| Table 23: ANOVA of between Groups on Factors of Transformational Leadership.....          | 129 |
| Table 24: Correlations between SE and Six Factors of Transformational Leadership.....     | 131 |
| Table 25: Correlations between IS and Six Factors of Transformational Leadership.....     | 132 |

|   |     |
|---|-----|
| Table 26: Correlations between CM and Six Factors of Transformational Leadership.....     | 134 |
| Table 27: Regression Analysis of Student Engagement and Principals' Leadership. ....      | 136 |
| Table 28: Beta Coefficients of Student Engagement and Five Leadership Practices. ....     | 136 |
| Table 29: Model of Best Fit between Student Engagement and Principals' Leadership.....    | 137 |
| Table 30: Regression Analysis of Instructional Strategies and Principals' Leadership..... | 138 |
| Table 31: Beta Coefficients of Instructional Strategies and three Leadership. ....        | 138 |
| Table 32: Regression Analysis of Instructional Strategies and Principals' Leadership..... | 139 |
| Table 33: Regression Analysis of Classroom Management and Principals' Leadership.....     | 140 |
| Table 34: Beta Coefficients between Classroom Management and Principals' Leadership..     | 140 |
| Table 35: Model of Best Fit for Classroom Management and Leadership Practices.....        | 141 |
| Table 36: Summaries of Responses to Research Questions and Hypotheses.....                | 141 |

## **LISTS OF FIGURES**

|  |    |
|--|----|
| Figure 1: Critical Appraisal Questions Adapted from (CASP (2018)).       | 65 |
| Figure 2: Item Distribution of the Teachers' Sense of Efficacy Scale.    | 93 |
| Figure 3: Item Distribution of the Principals' Leadership Questionnaire. | 96 |

## CHAPTER ONE: INTRODUCTION

### 1.1. Background

Many research studies in school leadership consistently demonstrate that principal leadership is a catalyst to school effectiveness and improvements (Leithwood and Jantzi, 1999; Hallinger, 2003; Marks and Printy, 2003; Leithwood et al., 2006; Robinson et al., 2008; Hallinger and Heck, 2012; Shatzer et al., 2014; Day et al., 2016). Most of these research studies consistently identify principal leadership effectiveness as a significant means to maximising quality education for children within limited resources. Hence, though the last four decades have witnessed consistent changes in the policy landscape of education and school leadership, what appears unchanged is the scholarly consensus that principals' leadership practices have the potential to influence various elements of the school including school culture and climate, teacher attitude and performance, the quality of teaching and learning, and student academic achievements (Urlick and Bowers, 2014; Shatzer et al., 2014; Day et al., 2016).

While students' academic achievement is often seen as a measurable outcome of successful principal leadership (Robinson et al., 2008; Shatzer et al., 2014; Day et al., 2016), significant empirical studies in the area also indicate that principal leadership practices only directly impact on the school culture and organisation as well as teacher attitude and performance (Marks and Printy, 2003; Hallinger, 2003; Hallinger, 2010; Le Fevre et al., 2015; Day et al., 2016). For instance, Hallinger's (2010; cited in Day et al., 2016: 223) review of 30 years of empirical research on school leadership shows that while principal leadership practices impact directly on school culture and organisation and teacher-effect variables (such as: teacher commitment, job satisfaction and teaching performance), it only produces indirect or mediated effects on students' learning and academic achievement.

Among most of the leadership models associated to principal leadership in education (such as *managerial*, *transactional*, *instructional*, *transformational*, *distributed*, *authentic*,



*moral, participative models of leadership*), many scholars indicate that ‘instructional leadership’ and ‘transformational leadership’ are the most commonly researched leadership models associated to school effectiveness and improvements (see, Hallinger, 2003; Hallinger and Heck, 2012; Shatzer et al., 2014; Day et al., 2016). As Shatzer and colleagues (2014) indicated, ‘both have gained support in the literature, and both have been recommended as models of leadership for school principals’ (p.446).

While transformational leadership practices are often associated with providing vision and inspiration, setting directions, developing people, (re)designing the organisation, and establishing structures that enhance the quality of teaching and learning, instructional leadership focuses on establishing clear educational goals, planning the curriculum, and evaluating teachers and teaching (see, Day et al., 2016: 224). In the analytical variations of the effects of transformational and instructional leadership, empirical studies show that whereas instructional leadership directly impacts on student academic achievements, transformational leadership directly impacts on teacher-effect variables and school conditions that facilitate effective teaching and learning (Hallinger, 2003: 338; Shatzer et al., 2014: 446; Day et al., 2016: 224).

Since teacher performance efficacy influences students’ learning and academic achievement, researchers in education continue to investigate how principal leadership practices can be directed at maximising teacher performance efficacies (Bredeson and Johansson, 2000; Ryan, 2007; Espinoza, 2013; Short, 2016; Gkolia et al., 2018). While some scholars indicate that teacher professional and continuous professional development are the reagents to high teacher performance (Bredeson, 2000; Ware and Kitsantas, 2007; Ross and Bruce, 2007; Bell and Bolam, 2010), others identify teacher self-efficacy beliefs as a significant predictor of teacher performance (Hipp, 1996; Tschannen-Moran & Woolfolk Hoy, 2001; Goddard et al., 2004; Ross and Gray, 2006; Walker and Slear, 2011; Versland and Erickson, 2017).

Teacher self-efficacy beliefs asserts that teachers may have the necessary professional knowledge to teach, but their self-efficacy beliefs regulate their ability to plan instructional materials and achieve desired instructional outcomes. The concept originated from Bandura's (1997) social cognitive theory of 'perceived self-efficacy' which he presented as a self-regulatory mechanism which determines people's performance in given contexts. For Bandura (1997), perceived self-efficacy influences a person's thought processes, motivations, feelings and behaviour, and therefore influences their performance levels. Following Bandura's (1997) concept, many research studies in this area discovered that teachers with a higher sense of efficacy are more likely to be resilient, persistent and effective than those with lower sense of efficacy (Tschannen-Moran and Woolfolk Hoy, 2001; Goddard et al., 2004; Ross and Gray, 2006; Ross and Bruce, 2007; Walker and Slear, 2011; Demirdag, 2015; Kirk, 2016). Like Bandura (1997), most of these studies found that teachers' self-efficacy belief is a significant predictor of their performance.

In this way, if empirical research studies consistently demonstrate that principals' transformational leadership practices impact on teacher-effect variables, then to what extent does principal transformational leadership practices impact on teacher self-efficacy beliefs? In response to this question, the past 20 years witnessed findings of research studies which investigated the relationship between principals' transformational leadership practices and teachers' self-efficacy beliefs (Hipp, 1996; Ross and Gray, 2006; Ross and Bruce, 2007; Ryan, 2007; Slear and Walker, 2011; Shumate, 2011; Ling et al., 2015; Short, 2016; Gkolia et al., 2018).

While most of the above studies focus on the correlations between the two key variables, their findings indicate that there are statistically significant relationships between principals' transformational leadership practices and teachers' sense of efficacy. However, most of these studies were only conducted in elementary, middle and/or high schools. There seem to be extremely limited studies which examine the relationship between these two key variables in

tertiary institutions. Consequently, the lack of literature in this area inspired the current research study on the impact of tutors' perceptions of their principals' transformational leadership practices on their sense of efficacy in the colleges of education in Ghana.

## **1.2. Statement of the Problem**

Teachers play significant roles in the education of students for the manpower needs of a country. This enormous responsibility becomes even more critical when they are given the task of educating future educators (that is, training teachers for schools). Such is the case of the tutors of the colleges of education in Ghana. Their primary responsibility is to educate teacher-trainees for all the pre-tertiary institutions in the country. In 2012, these colleges were upgraded from certificate awarding 'Teacher Training Colleges' to diploma awarding 'Colleges of Education' with tertiary status (*Colleges of Education Act 847*, 2012). Quite recently, the colleges were further upgraded to university colleges with degree awarding status in September 2018.

In his earlier study on the transition of these colleges from post-secondary to tertiary status, Newman (2013) indicated that their new status as tertiary institutions triggered corresponding changes in their leadership, management, organisation, function and curriculum. As tertiary institutions, principals and tutors of these colleges are now expected to decide on subjects to be taught based on their relevance to the educational needs of the country (*College of Education Act 847*). This new responsibility triggered the need for new forms of college leadership and management in response to the goals of the new reforms. As Osei and Adu (2016) observed, 'when changes in function and aims are invoked, goals, tools, conditions, resources and practices are subject to change and changes of these kind call for staff development' (p.302).

Staff academic and professional development in these colleges is particularly relevant for the successful implementation of the new reforms. While staff academic and professional development provide the necessary competencies and expertise for undertaking their task as

tutors, principal transformational leadership practices also have the potential to positively impact on tutor performance through their self-efficacy beliefs. As indicated before, while robust empirical studies show that teachers' sense of efficacy is a significant predictor of teacher performance (Goddard et al, 2004; Ross and Gray, 2006; Ross and Bruce, 2007), other studies also show that principals' transformational leadership practices impact on this teacher-effect variable (Ryan, 2007; Espinoza, 2013; Shumate, 2011; Short, 2016; Gkolia et al., 2018). However, what is less known and very much less researched is how tutors' perceptions of their principals' transformational leadership practices impact on this very vital variable of tutor performance in the colleges of education in Ghana. This current study examines the relationship between these two key variables in 15 colleges of education in Ghana.

### **1.3. The Purpose of the Study**

The study seeks to accomplish the following purposes:

- 1.3.1. To examine tutors' assessments of their own self-efficacy beliefs on the one hand, and on the other hand, the extent to which they consider the leadership practices of their college principals to be transformational.
- 1.3.2. To explore the extent to which, if at all, tutors' self-efficacy beliefs relate to their perceptions of the transformational leadership practices of their college principals.
- 1.3.3. To examine the extent to which, if at all, the total variances in tutors' sense of efficacy is accounted for by perceptions of their principals' transformational leadership practices.
- 1.3.4. To identify the specific transformational leadership practices which account for the most variations in tutors' sense of efficacy. In this way, the study is guided by the research questions below.

### **1.4. Research Questions**

This current study is guided by four main research questions which are developed in response to the identified purposes of the study. These four research questions are further developed into

research sub-questions with their associated hypotheses in the research methodology in chapter three. The purpose is to comprehensively attend to the embedded significant issues that the study seeks to address.

- 1.4.1. What are tutors' assessments of their self-efficacy beliefs as leaders of teaching and learning in the colleges of education in Ghana?
- 1.4.2. To what extent do tutors of the colleges of education in Ghana perceive the leadership practices of their principals to be transformational?
- 1.4.3. What is the relationship between tutors' perceptions of their principals' transformational leadership practices and their self-efficacy beliefs?
- 1.4.4. How much of the total variance in tutors' sense of efficacy is explained by their perceptions of the transformational leadership practices of their college principals?

### **1.5. Significance of the Study**

The last two decades or so, has witnessed unprecedented studies on the relationship between principals' transformational leadership practices and teachers' sense of efficacies in schools. Most of the studies in the area are motivated on the one hand, by the growing realisation of the significant impact principals' leadership practices have on teachers' performance, and on the other hand, the evidence of research findings which consistently indicate that teachers' sense of efficacy is a strong predictor of their performance. The evidence of statistically significant relationships between these two key variables set the context for more studies on the relationship between principals' transformational leadership and teachers' sense of efficacy.

As previously indicated, while most of the studies in this area were conducted in elementary, middle and secondary schools, very few studies examine the relationship between tutors' perceptions of the transformational leadership practices of their college principals and their own sense of efficacy within tertiary institutions. It is here that this current study, first of all, makes significant contributions to the limited literature in the area. It affirms that there is a statistically significant relationship between principals' transformational leadership practices

in the colleges of education in Ghana. It identified the transformational leadership practices of providing vision and holding high performance expectations as the specific leadership practices which account for the variations in tutors' sense of efficacy.

Secondly, this current study also provides to principals of the studied colleges, evidence of what tutors make of their leadership practices, and how these practices impact on their self-efficacy beliefs and performance. While the study shows that the leadership practice of *providing vision* impacted on tutors' sense of efficacy in student engagement and classroom management, the practice of *holding high performance expectation* enhanced tutors' sense of efficacy in instructional strategies. With these findings, principals who seek to enhance their tutors' performance efficacies in these areas through their leadership may find useful guidelines in this study. From tutors' perspectives, the study identifies the sort of principals' transformational leadership practices that significantly relate to their sense of efficacies in student engagement, instructional strategies and classroom management.

Thirdly, findings of this study offer helpful guidance to the National Council for Tertiary Education (NTCE) and other education stakeholders who conduct leadership training and development programs for principals as a means of enhancing their leadership effectiveness. The findings show that most of the six factors of principals' transformational leadership practices are significantly related to tutors' sense of efficacy in the studied colleges. They equally demonstrate that the leadership practices of *providing vision* and *holding high performance expectations* account for the most variances in tutors' sense of efficacy in student engagement, instructional strategies and classroom management. Thus, the NTCE can organise training workshops on these practices for principals as a means of enhancing their leadership influence on tutor performance.

### **1.6. Assumptions of the Study**

Assumptions of a study usually define the conditions that are said to be met to support the validity, robustness and relevance of the study. As Nworgu (1991) indicated, assumptions 'are

not subject to empirical test but must be plausible enough to be considered tenable' (p.188).

In consequence, since this study is based on the use of questionnaire for data collection, it assumes the following:

1.6.1. While questionnaire items were explained to tutors during the process of data collection, it was assumed that respondents understood the various items of the questionnaire and thus, provided their honest and candid responses to the survey.

1.6.2. While the researcher met with a significant number of the tutors and explained to them the purpose and significance of the study and their roles within the study, it was also assumed that tutors understood their roles and expectations within the context of the study.

1.6.3. The study used the *Teachers Sense of Efficacy Scale* (TSES) to measure tutors' assessments of their self-efficacy beliefs and the *Principals Leadership Questionnaire* (PLQ) to measure tutors' perceptions of their principals' leadership practices. While results of the analysis of reliabilities of both instruments demonstrated higher values that are consistent with the reliabilities of the original instruments, the study also assumed that both instruments measured what they purported to measure.

1.6.4. The Assumption of cross-cultural adaptation of the use of the TSES and the PLQ). These assumptions were made based on the following: (i) their evidence of reliability and validity; (ii) the links they establish between this current research study and previous studies in the area; (iii) they enable the comparison of results across different studies in different contexts both nationally and internationally, and (iv) they also contribute to increasing the certainty with which such instruments accurately reflect what they are supposed to measure. Yet, the question is: are there justifications for using these Western research instruments in a Ghanaian context

for principals and tutors of the colleges of education? Section 1.7 below seeks to answer this question.

### **1.7. Justification for the Assumption of Cross-Cultural Adaptation**

The value of conducting quantitative research studies using standardised validated questionnaire instruments (such TSES and PLQ) centres on the consistent evidence of their *reliability* and *validity* shown in the analyses of many empirical studies (Shumate, 2011; Espinoza, 2013; Ling et al., 2015). While Korb (2010) indicates that the adoption of such pre-existent instruments is generally preferable because of: (i) their evidence of reliability and validity; (ii) the links they establish between one's research study and previous studies in the area; and (iii) the fact that they are less time and energy consuming, Gjersing and colleagues (2010) also indicate that the use of such instruments (i) enable the comparison of results across different studies both nationally and internationally, and (ii) contribute to increasing the certainty with which such instruments accurately reflect what they are supposed to measure (p.1).

However, both Korb (2010) and Gjersing and colleagues (2010) also caution that adopting previously validated instrument due considerations for cross-cultural adaptations could pose questions on their validity given the passage of time, their cultural and contextual differences. For Gjersing and colleagues (2010), while there is no universal agreement for adapting an instrument for use in another cultural context, it is equally inappropriate to simply translate and use a questionnaire in another linguistic setting. This is because such instruments were validated some time ago, and so, may not be valid with the rapid changes that are taking place in society (p.1). Besides, attitudes are not usually measured directly but indirectly through some set of items in a questionnaire. Where this is the case, the comparison of results across different cultures and groups may pose a challenge (Gjersing et al., 2010: 2).

Consequently, Gjersing and colleagues (2010) proposed the following cross-cultural adaptation processes in the use of validated research instruments. While these proposals involve



the use of a validated instrument in a different linguistic setting, they indicate that this helps to ensure the reduction of the risk of introducing bias into the study. First of all, for instruments that are used within a different linguistic setting, there is need for rigorous and comprehensive translation of the items into the language of the target population by experts. This will also involve ensuring that: (i) concepts in the instrument correlate with underlying concepts in the language of the target setting; and (ii) items in the instrument are relevant and acceptable in the language of the target population.

While the translation of a validated instrument is considered relevant in a different linguistic context, English is the original language of the instrument used in this current study. Ghana was colonised by the British, and so, English language is also the official language of the country. Tutors of the colleges of education use English language as the medium of instruction and communication. Since the TSES and the PLQ were originally developed in English Language, the translation of items in the questionnaire to meet the condition for cross-cultural adaptation was considered unnecessary.

Secondly, Gjersing and colleagues (2010) also indicated that cross-cultural adaptation demand that instruments be pre-tested with between 30 to 40 respondents from the target population after translation. This test enables the researcher to probe respondents for their understanding, acceptability and the emotional impact of the items. The purpose is to detect confusing or misleading items in the instrument (Gjersing et al., 2010: 3).

In this current study, while the researcher took time to conduct a pre-test of the questionnaire items in an informal pilot study involving three tutors from one of the studied colleges, this was very limited in contrast to the scale described by Gjersing and colleagues (2010). Yet, the tutors involved in the said pilot study demonstrated that items within each set of questionnaires were tenable. The weakness here is the limited nature of the pilot study and the failure to make it part of the research process.

Thirdly, Gjersing and colleagues (2010) further advice that after the semantic adjustments of the translated instrument, an operational equivalent of the instrument should be evaluated. This will help ascertain whether or not it is possible to use similar questionnaire format, instructions, mode of administration and measurement methods as used in the original instrument (p.3). Usually, literature reviews provide information concerning the use of the instruments in the target setting. One can also contact experts in the field or members of the target population to obtain this information (Gjersing et al., 2010: 3).

Following Gjersing and colleagues' (2010) method of operational equivalent, literature review in this current study revealed that the TSES and PLQ have been used both nationally and internationally and across different institutional and cultural settings without significant modifications or refinement. For instance, Ryan (2007) and Short (2016) used the two instruments without modification to study elementary, middle and high school teachers in America, while Ling and colleagues (2015) and Gkolia and colleagues (2018) used the same instruments to study elementary and secondary school teachers in Malaysia and Greece respectively. In the study conducted by Dankwa (2013) in the colleges of education in Ghana, there were no modifications to the transformational leadership questionnaire that was used. Furthermore, in the study conducted by Avci (2012) on the perceptions of Graduate Teaching Assistants and Research Teaching Assistants in Midwest universities, modifications were not made to the instruments. In consequence, the evidence of the use of the instruments in America, Ghana, Greece, Iran, and Malaysia without modifications partly contributed to the assumption of cross-cultural adaptation in this current study. Besides, consultations were made to the original developers of the instruments who agreed that the instruments could be validly used in a Ghanaian tertiary educational context (see appendix II). Yet, it is obvious that considerations to cross-cultural adaptations in the use of an instrument is significant.

Finally, Gjersing and colleagues (2010) suggested that the modified instrument should be administered to participants in a formal study where the psychometric properties of the

instrument are tested using appropriate statistical methods (p.3). These methods could include exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). As indicated in chapter three, exploratory factor analysis was not conducted in the study because of the already specified number and pattern of common factors in the TSES and PLQ instruments. This was supported by the scholarly consensus that EFA is mostly used when a researcher wants to identify the underlying dimensions or constructs in a new instrument (Hayton et al., 2004; Costello and Osborne, 2005; Young and Pearce, 2013). Since these were already identified, the researcher considered this analysis unnecessary since the intention was to test how these instruments validated apply in the Ghanaian colleges of education.

In consequence, the researcher assumed the suitability of the standardised and validated research instrument for the study in the colleges of education in Ghana because of the following: (i) their evidence of their reliability and validity; (ii) evidence of their use in other research studies without cross-cultural adaptations; (iii) the links they will establish between this current study and previous studies in the area; (iv) the possibility of making comparisons between results of this current study and those across different studies both nationally and internationally; and (v) the possibility of increasing the certainty with which the TSES and PLQ accurately reflect what they are supposed to measure across cultures. Yet, as Gjersing and colleagues (2010) indicated, the failure to carefully follow cross-cultural adaption processes in the use of standardised and validated instruments in new contexts could open such research studies to some levels of bias.

### **1.8. Definition of Key Terms**

The definitions of key terms provide clarity to the concepts which define and shape the entire study. As Nworgu (1991) indicated, these terms include concepts whose meanings may not be ordinarily known and those which are contextually defined (p.188).

- **Teachers' Sense of Efficacy:** This term was used interchangeably with others such as: 'perceived self-efficacy'; 'teacher self-efficacy beliefs' or the 'judgement of capability'.

In all these usages, the concept conveyed the same meaning as *a teacher's beliefs in his or her capabilities to organise and execute the courses of action required to produce given attainments* (Bandura, 1997: 3).

- **The three Dimensions or Factors of Efficacy:** These are the three efficacy constructs developed by Tschannen-Moran and Woolfolk Hoy (2001) in their survey instruments: efficacies in *student engagement*; *instructional strategies*; and *classroom management*.
  - ***Efficacy in Student Engagement:*** Defines teachers' beliefs in their ability to create the conditions that ensure effective teaching and motivate student learning. It involves the extent to which teachers are able to create in students a degree of curiosity, optimism, and interest to be taught and learn.
  - ***Efficacy in Instructional Strategies:*** Entails teachers' beliefs in their ability to organise the instructional programme to achieve instructional outcomes which leads to learning for all students at their different levels of development.
  - ***Efficacy in Classroom Management:*** Concerns teachers' beliefs in their ability to handle problems and disruptive behaviours in the classroom to ensure that the learning environment supports effective teaching and learning.
- **Principals' Transformational Leadership:** It is a model of leadership which emphasises on vision and inspiration, setting directions, developing people, (re)designing the organisation, and establishing structures that enhance the quality of teaching and learning (Day et al., 2016: 224).
- **The six Principals' Transformational Leadership Practices:** These practices which are equally referred to as dimensions or factors of transformational leadership included: provide vision; model best behaviour; foster commitment; provide individual support; intellectual stimulation; and hold high performance expectations (Jantzi and Leithwood, 1996).

- ***Providing Vision:*** The leader's ability to identify new opportunities for the school, and develop, articulate and inspire others with his or her vision for the future.
- ***Modelling Best Behaviour:*** The leader's professional practices or behaviours that set examples for staff to follow and are consistent with values he or she espouses.
- ***Fostering Commitment:*** Leadership behaviours aimed at promoting cooperation among all staff and assisting them to work together towards common goals.
- ***Providing individual Support:*** Leader's demonstration of respect for staff and showing concern about their personal needs and feelings.
- ***Providing intellectual Stimulation:*** The leader's ability to challenge staff to re-examine their assumptions about their work and to rethink how it can be better performed.
- ***Holding High Performance Expectations:*** Leadership behaviours that demonstrate leader's expectations for excellence, quality and high performance from staff (see, Jantzi and Leithwood, 1996: 514-515).

### **1.9. Overview of Methodology**

The methodology of this current study is both descriptive and analytic. Cohen and colleagues (2016) assert that while descriptive surveys 'set out to describe, compare, contrast, classify and interpret entities and events that constitute their various fields of inquiry', analytic surveys 'operate with hypothesised predictors or explanatory variables that are tested for their influence on dependent variables' (p.257). The purpose is to ascertain the extent to which the independent variable accounts for variations in the dependent.

Thus, this current study embraced the two approaches above, in that, it analyses and describes tutors' assessments of their sense of efficacy (dependent variable) and their

perceptions of the transformational leadership practices of their college principals (independent variable). The study also analysed the extent to which factors of the independent variable may account for variations in factors of the dependent.

The study therefore used quantitative research design with survey methods to examine the relationships between tutors' sense of efficacy and their perceptions of the transformational leadership practices of their college principals. The survey was a paper-to-pencil questionnaire consisting of two developed instruments (Teachers' Sense of Efficacy Scale and Principals' Leadership Questionnaire). Each of these instruments contained 24 questionnaire items. Questionnaires were personally administered by the researcher in all the 15 randomly selected colleges of education for the study.

To comprehensively address the study's stated research questions, research sub-questions and associated hypotheses were further developed. Pearson product moment correlation coefficient was calculated to index the strength and direction of relationship between the three factors of tutors' sense of efficacy and the six factors of principals' transformational leadership practices. To establish the extent to which variations in tutors' sense of efficacies in all three factors are accounted for by their perceptions of the transformational leadership practices of their college principals, multiple regression analyses were used.

#### **1.10. The Organisation of the Study**

This current research study consists of five chapters. Chapter one focuses on the introduction to the study. It contains the following sections: the background to the study; statement of the problem; the purpose of the study; the research questions; the significance of the study; delimitations; assumptions; definitions of key terms; the synopsis of the methodology; and the organisation of the study.

Chapter two focuses on the review of literature. It explores the meanings and developments of the two key concepts of *transformational leadership* and *self-efficacy beliefs*.

It also critically examines and analyses the instruments used for measuring teachers' sense of efficacy and perceptions of their principals' transformational leadership practices over the years. Results of studies dealing with factors accounting for the variations in teachers' perceptions of leadership and self-efficacy beliefs are also critically reviewed. This is followed by the systematic search and selection of relevant studies on the relationship between the two key variables, using inclusion and exclusion criteria. Selected studies are critically analysed and synthesized within a thematic review framework, paving the way to the identification of the research gap which this current study explores.

Chapter three focuses on the methodology of the study. Its content consists of the appropriate descriptions of the methodological approach used. It therefore clearly articulates the following: the researcher's philosophical position; the research questions and hypotheses; the research design; research population and sampling procedures; the instruments and instrumentation; data collection procedures; data analyses and testing of hypotheses; ethical considerations; and the limitations of the study.

Chapter four consists of the presentation of analyses and findings of the study. This chapter is therefore divided into four main sections: the descriptive statistics on respondents' demographics; the reliability and validity of the two instruments used; the analyses in response to the four main research questions, research sub-questions and associated hypotheses; and the summary of the chapter.

Chapter five presents the discussions on the results of the analyses as presented in chapter four. These discussions involve a consistent engagement between findings of this current study and their relations to results of the previous studies as demonstrated in the literature review in chapter two. The purpose is to demonstrate whether or not there is consistency and/or divergence between results of extant studies in the area and those of this current study.

Chapter six focuses on the conclusion of the study. It provides an executive summary of the study and the conclusion to the entire study. It also draws significant implications of the study which provide helpful leadership guidance to principals of the studied colleges and other interested stakeholders of education in the study area. Limitations to the study and recommendations for further study are also delineated.



## CHAPTER TWO: LITERATURE REVIEW

### 2.1. Introduction

This chapter specifically explores relevant literature on the relationship between teachers' perceptions of the transformational leadership practices of their school principals (independent variable) and their sense of efficacies in student engagement, instructional strategies and classroom management (dependent variable). Following the findings of extant studies in the area, it affirms that there is a statistically meaningful relationship between the two key variables. It therefore explores the meanings and developments of 'transformational leadership' and 'self-efficacy beliefs' and critically analyses findings of research studies on the relationship between the two key variables (principal transformational leadership and teachers' sense of efficacies).

To achieve the above purpose, a systematic search and selection of appropriate literature on the relationship between the two key variables was conducted following stated inclusion and exclusion criteria. Selected studies were critically analysed and synthesized within a thematic review framework. Following the inclusion and exclusion criteria, it was first of all, discovered that there are very limited empirical research studies which investigated the relationship between these two key variables at the level of tertiary institutions. All the selected reviewed studies were conducted at elementary, middle and/or secondary schools. Secondly, it was also discovered that some of the selected studies were fraught with methodological and analytical inadequacies. These two factors opened the research gap which provided warrant for this current study. The study was conducted in tertiary institutions. It followed appropriate and clearly defined research methodology and analytical procedures in response to its stated research questions.

In this way, the review of literature in this chapter consists of four main sections: (1) the meaning, developments, measurements, and analysis of factors accounting for variations in

teachers' perceptions of their principals' transformational leadership practices; (2) the conceptual background, measurements, and analysis of factors accounting for variations in teacher sense of efficacy; (3) systematic search and selection of relevant literature; and (4) the critical analysis and synthesis of findings of selected studies. These critical analyses revealed the research gap which this current study explores.

## **2.2. Meaning of Transformational Leadership**

There are many principal leadership models in education such as *managerial*, *transactional*, *instructional*, *transformational*, *distributed*, *moral*, *authentic*, *participative*, *emotional*, *contingent*, and *postmodern*. While most of these leadership styles impact on schools depending on their needs and states, many research studies on school leadership consistently identify 'instructional leadership' and 'transformational leadership' as the most effective leadership models for schools (see, Hallinger, 2003; Hallinger and Heck, 2010; Shatzer et al., 2013; Day et al., 2016). While most of these studies show that transformational leadership directly impacts on school conditions and teacher performance, they also indicate that instructional leadership impacts directly on student learning. If transformational leadership is known to produce direct impact on school conditions and teacher performance, then what essential constitutes this leadership model?

Literature on transformational leadership indicates that this form of leadership is based on the assumption that when the central focus of leadership is directed to the commitment and capacities of organisational members, it produces in members higher levels of personal commitment to organisational goals and greater capacity to accomplishing these goals (Leithwood et al., 1999; Leithwood and Sun, 2012). Thus, transformational leadership is built on the conception that given the requisite support, members of an organisation 'become highly engaged and motivated by goals that are inspirational because those goals are associated with values which they strongly believe' (Leithwood and Sun, 2012: 388). So, what transformational

leaders need to do is to identify these goals and direct the kind of leadership strategies that motivate followers to work towards the realisation of these goals (Leithwood and Sun, 2012).

In this way, the central focus of transformational leadership practitioners is the development of members and conditions in the organisation as the effective means to accomplishing organisational goals. As a school leadership model, transformational school leaders exercise practices such as: providing vision and inspiration, setting directions, developing teachers, (re)designing the conditions of the school, and establishing structures that enhance the quality of teaching and learning (Day et al., 2016: 224). As we shall see in the succeeding section on the development of transformational leadership, these leadership practices define the actions of transformational leaders.

### *2.2.1. Development of Transformational Leadership*

The concept transformational leadership was first developed by James McGregor Burns in 1978. He used the concept to define the ideal relations between leaders and followers in an organisation. For Burns (1978), it describes the leader's ability to persuade followers to act in response to certain goals that represent the values, needs and motivations of both leader and followers by building in them the commitment to embrace higher levels of work performance in order to achieve the goals of the organisation.

For Burns (1978), transformational leadership is not so much the exercise of one's authority over others but the leader's ability to appeal to the shared values of followers in response to organisational goals. Burns (1978) therefore conceived that transformational leadership is different from transactional forms of leadership. Whereas transactional leaders appeal to the individual's interest on the basis of an exchange process (that is, on the basis of give-and-take), transformational leaders appeal to the values, motivations and commitments of followers in response to organisational goals (see also Bush and Coleman, 2000: 22; Hauserman and Stick, 2013: 187).

Furthermore, while transactional leaders work within and maintain the existing culture, transformational leaders strive for organisational cultural change as a means to achieving organisational goals. By working with members within the existing culture, transactional leaders offer short-term exchange of resources in which job expectations are clarified and appropriate reward given in response to fulfilled expectations. However, transformational leaders work to promote organisational cultural change by emphasising on shared vision and the long-term goals of the organisation. Burns (1978) therefore conceived the two leadership models to be mutually exclusive, in that, transformational leadership is at the opposite end of the spectrum from transactional leadership.

Unlike Burns (1978), Bass (1985) extended this concept of transformational leadership in a two-factor theory of leadership. In this theory, he conceived transformational and transactional leadership as dimensions of leadership that can be found in one person (Bass, 1985). They are viewed as two ends of a leadership continuum. That is, while transactional leadership practices (e.g. salary recognition or offering contingent rewards) are good for maintaining the standards of performance in the organisation and ensuring that normal courses of action operate smoothly in the short-term, transformational leadership practices appeal to the long-term shared goals and interests of both followers and leaders (Bass and Bass, 1985; Bass and Avolio, 1994). In this way, transactional leadership practices foster the continuation of daily routines in the organisation, while transformational leadership practices promote the long-term transformation of the organisation.

Consequently, Bass (1985) identified the following factors as characteristic of leaders who exercise transformational leadership practices: *idealised influence*, *inspirational motivation*, *intellectual stimulation* and *individualised consideration*. These associated-characteristics are what is commonly referred to as the four 'I's (Bass and Avolio, 1994). These leadership practices produce effects on followers such as: the feeling of trust, respect, loyalty, admiration for the leaders and willingness to work harder to achieve organisational goals (Bass,

1985). Thus, Bass (1985) indicated that these effects occur because the leader offers to followers something more than just working for self-gain.

As a two-factor leadership model, Bass and Avolio (1994) indicated that while transactional leadership lies at the other end of the leadership continuum, it is characterised by the following leadership practices: *contingent reward*, *management-by-exception* and *laissez-faire leadership*. As a leadership continuum, Bass and Avolio (1994) used the above dimensions of transformational and transactional leadership practice to develop their ‘Multifactor Leadership Questionnaire’ (MLQ) for measuring this form of leadership. This instrument has two forms: the self-rater (MLQ Form 6) and the follower rater (MLQ Form 5X). While the self-rater (MLQ Form 6) measures leaders’ assessments of their own practices, follower rater (MLQ Form 5X) measures followers’ assessments of the leadership practices of their leaders.

### **2.2.2. Introduction of Transformational Leadership in Schools**

While transformational leadership practices were initially only explored within organisational contexts other than the school, the concept ‘found a receptive audience in education in the 1990s due to the reaction against the top-down policy driven approach to school leadership that predominated the late 1970s and early 1980s’ (Leithwood, 1994: 500; Hallinger, 2003: 335). Studies on effective schools in the 1970s recommended instructional leadership as the model of choice for principals who sought to improve their schools (Hallinger, 2003; Shatzer et al., 2014; Day et al., 2016). Hallinger (2003) for instance indicates that researchers at the time ‘identified *strong, directive leadership focused on curriculum and instruction* as characteristic of effective principals in elementary schools’ (p.329). Here, instructional leadership aimed at curricula control was the focus for successful school leaders.

However, the years after the 1990s saw the shift in attention to leadership models that supported the evolving trends in educational reforms expressed in terms such as ‘empowerment’, ‘shared leadership’, ‘authentic leadership’ and ‘organisational learning’

(Leithwood et al., 1994: 1999; Hallinger, 2003; Hauserman and Stick, 2013; Wilson, 2013). For instance, Leithwood (1994) indicated that the 1990s saw a shift in leadership approaches from 'control' to 'commitment' whereby teachers were led to appreciate the purposes for change, and thus, were dedicated to developing, trying out, and refining new teaching practices to achieve desired goals (p.500).

In this way, the top-down approach of instructional leadership which vested principals with too much power, expertise and authority, began to give way to a bottom-up alternative to principal leadership. This bottom-up alternative paved the way for the introduction of transformational leadership in schools. Thus, Leithwood (1992; 1994) and colleagues therefore substantially modified Burns' (1978) model of transformational leadership and adapted it into the educational leadership environment. For them, transformational leadership provided the solution to school organisations requiring restructuring. Leithwood (1994) identified four significant factors which paved the way for this model of leadership in schools.

The first factor relates to the *uncertainties associated to the means and ends for school restructuring*. During the period of the 'Effective Schools Movement' in the 1970s where the principle of equity was the central goal for reform, instructional leadership practices which focused on classroom curriculum, instruction and supervision led to advances in the learning of basic maths and language skills by socially disadvantaged children (Leithwood, 1994: 499). While the purposes of change and the practices required for accomplishing it were known and agreed upon, principals used the mechanism of strict supervision and control to achieve such purposes. However, with the school restructuring agenda, there seem to be no such clear-cut purposes. Here, the focus is on the development of schools that are more responsive to the demands of the 21<sup>st</sup> century. In this way, Leithwood (1994) indicated that transformational leadership model which inspires teacher *commitment and motivation* rather than *control* was needed.

Secondly, Leithwood (1994) also argues that during the period of the ‘effective school movement’, the strict focus on classroom instructions, curriculum design and teacher supervision was good for poor urban schools whose goals were equity in providing good language and mathematics skills to students (*first-order changes*). However, the instructional leadership model was found to be inadequate for schools needing restructuring because these schools required both *first-order* and *second-order changes*. For Leithwood (1994), ‘second-order changes required a form of leadership that is sensitive to the development of people and the organisation. It therefore required school leadership practices such as: developing shared vision, creating productive work culture, distributing leadership to others and the like’ (p.501). These practices were properly aligned to actions of transformational leaders.

Thirdly, Leithwood (1994) also indicates that during the school restructuring period, reforms no longer applied only to elementary schools, but high schools as well. Here, the exercise of instructional leadership failed to account for the leadership challenges posed by high schools which have relatively *significant school sizes*. In contrast to elementary schools, secondary schools generally have bigger school sizes. Such sizes challenge the envisioned classroom supervisory practices that were characteristic of instructional leaders during the period of the effective school movement. Furthermore, the complexity of the secondary school curriculum and pedagogical content knowledge required expert teaching. But secondary school principals did not possess the sort of comprehensive knowledge that was required for the direct supervisory practices that were characteristic of instructional leaders (Leithwood, 1994: 501).

Fourthly, the school restructuring agenda emphasised on teacher *professional development* as an effective means to enhancing teacher performance (Leithwood, 1994: 502). Three reasons are advanced for such emphasis: (1) that traditional forms of administrative practices failed to contribute to teacher professional development; (2) the reported positive effects of recent teacher professional developments and leadership initiatives; and (3) such professionalism offered to prospective teacher-candidates the incentive to join the teaching

rank. While instructional leadership practices focused on principals' high levels of pedagogical expertise, transformational forms of leadership rather provided teachers with such leadership expertise. (Leithwood, 1994)

Given the above factors, Leithwood (1994) concluded that it was therefore unsurprising that instructional leadership soon gave way to transformational forms of leadership during the school restructuring period. As a school leadership model, Leithwood and colleagues (1992; 1994; 1999) extended aspects of Burns' (1978) and Bass' (1985) model to include other leadership characteristics such as: *building school vision and establishing school goals; providing intellectual stimulation; offering individualized support; modelling best practices and important organizational values; demonstrating high performance expectations; creating a productive school culture; and developing structures to foster participation in school decision-making* (Leithwood, 1994; Leithwood et al., 1999; Leithwood and Sun, 2012: 399-401).

The above leadership practices were later grouped into four major dimensions such as: (1) *setting directions* (i.e. develop shared vision and foster goal consensus; and hold high performance expectations); (2) *developing people* (that is, provides individualised support, provides intellectual stimulation and model best practice and important organisational values); (3) *redesigning the organisation* (that is, creating a productive school culture and building structures to enable collaboration); and (4) *managing the instructional program* (that is, staffing the program, providing instructional support, monitoring instructions and buffering teachers from distractions). Like Bass and Avolio (1994), Leithwood and colleagues used these transformational leadership practices to develop two instruments for measuring perceptions of transformational leadership: that is the *Nature of School Leadership Survey* (NSLS) and the *Principal Leadership Questionnaire* (PLQ).

It must however be said that the introduction of transformational leadership into education catalysed extensive empirical research studies on the concept over decades. This



yielded considerable knowledge about its application in the educational field. In the many studies on the effects of transformational leadership behaviours on schools, teachers and students, the development and maintenance of effective school culture, the fostering of teacher professional development and the promotion of teacher collaboration in the implementation of reforms are seen as gold standard means of ensuring school effectiveness and improvements (Marks and Printy, 2003; Hallinger, 2003; Leithwood and Jantzi, 2006; Shatzer et al., 2014; Day et al., 2016).

### ***2.2.3. Measuring Perceptions of Transformational Leadership***

The emergence of transformational leadership as the model of choice in the early 1980s introduced significant research studies that sought to test the effects of this model of leadership on followers ‘throughout educational, psychological and business management literature’ (Antonakis et al., 2003: 262; Bass and Avolio, 1994; 1997; Jantzi and Leithwood, 1996). These interests inaugurated the development of various transformational leadership instruments, some of which are explored below.

#### ***2.2.3.1. The Multifactor Leadership Questionnaire (MLQ)***

As mentioned earlier, the ‘Multifactor Leadership Questionnaire’ (MLQ) was developed by Bass and Avolio’s (1991). It’s ‘Full Range Leadership Theory’ was made up of three typologies of leadership behaviours: (1) transformational; (2) transactional; (3) and laissez-faire leadership, represented by 9 distinct factors: *5-factors are transformational* (inspirational motivation, idealised influence-attributes, idealised influence-behaviour, individual consideration, and intellectual stimulation); *3-factors are transactional* (contingent reward, management-by-exception-active and management-by-exception-passive); and *1-factor relates to the laissez-faire form of leadership* (see, Bass & Avolio, 2004; Avci, 2012: 54; Rowold, 2005: 5). The instrument is rated on a 5-point Likert scale ranging from ‘*Not at all*’ to ‘*frequently if not always*’ Bass & Avolio, 2004).

The MLQ has been widely used in various organisational contexts to measure followers' perceptions of leaders' behaviours in various organisational settings such as the "military, government, educational, manufacturing, high technology, church, correctional, hospital, and volunteer organizations" (Avolio & Bass, 2004: 12; see also Avci, 2012: 54). Various scholars found that not only did the original MLQ fail to provide good examples of leadership behaviours in its questionnaire items, but most of its items in the charismatic leadership scale also described the outcomes of leadership behaviours instead of the behaviours themselves (see, Yukl, 1999: 287; Hunt, 199; Antonakis et al., 2003: 261). Following these criticisms, Bass and Avolio (1996) revised the MLQ to form the current MLQ (Form 5X). As Avolio and Bass (1999) confirmed, 'the MLQ Form 5X was developed to address concerns with earlier versions of the MLQ survey' (p.442).

Consequently, the current MLQ (Form 5X) contains 6-factor models which merges the attributes of charisma and charismatic behaviours with inspirational motivation because of their reported Intercorrelations of .80 to .90 (Bass and Avolio, 1993; Avolio and Bass, 1999: 444). Additionally, the reported strong correlations between management-by-exception (passive) and laissez-faire leadership has also seen the merger of the two factors (Avolio and Bass, 1999:444). In this way, the MLQ (Form 5X) contains 36 questionnaire items divided into 9 scales with 4 items representing each scale (Bass and Avolio, 1996; Avolio and Bass, 1999; 2003). The validity and reliability of the instrument was ascertained through its application in a wide array of organisational contexts (Bass and Avolio, 1995; 2000; Hauserman; 2005; Antonakis et al., 2003; Hauserman and Stick, 2013; Shatzer et al., 2014). The seven factors of the MLQ are briefly explained below:

*Idealised influence* – measures the degree to which the leader instils pride, gains trust, respect and loyalty from followers, and is a role model to them. This factor is divided into two parts: idealised influence by *attribution* and idealised influence by *behaviour*. While the first refers to the attribution of charisma to the leader because of his or her positive

attributes or good traits, the other refers to the leader's actions in response to the values of the organisation (Rowold, 2005). These combine to build followers' trust and confidence in their leader.

*Inspirational motivation* – measures the degree to which the leader is able to articulate the vision of the organisation in a manner that is appealing to followers. Here, leaders challenge followers with high standards, communicate optimism for future goals, and provide a strong sense of purpose and direction.

*Intellectual stimulation* – measures the degree to which the leader challenges followers' assumptions, takes risks and solicits their ideas. Here, leaders stimulate and encourage followers' creativity and innovation in accomplishing given tasks.

*Individual consideration* – measures the degree to which the leader attends to each follower's needs, acts as a mentor or coach to the follower and listens to the follower's concerns and needs. The leader gives empathy and support to followers, keeps communication between them open (see, Bush and Coleman, 2000; Bush, 2011).

*Contingent Rewards* – the leader rewards staff or followers for successfully completing agreed-on tasks. Failure comes with carefully defined punishment which might take the form of withdrawal of rewards (Leithwood and Sun, 2012: 401)

*Management-by-exception* – here, the leader monitors the performances of the followers and interacts with them when they perform below expectation. The purpose is to boost follower performance in the race to achieve organisational goals (Leithwood and Sun, 2012: 401).

*Laissez-Faire leadership* – here, leaders do not clarify vision and goals of the organisation, and do not set the standards by which followers must follow to achieve organisational goals. It is a form of 'a non-leadership approach towards followers and their performance' (Biggerstaff, 2012: 27).

### 2.2.3.2. *The Nature of School Leadership Survey (NSLS)*

Leithwood (1994) conducted a four-year study on the effects of transformational leadership on schools needing restructuring. The results of the study led to the development of a transformational leadership questionnaire referred to as *The Nature of School Leadership Survey* (NSLS). This instrument has been used in several studies to measure teachers' perceptions of their principals' transformational leadership behaviours following Leithwood's (1994) model of transformational leadership practices (Leithwood, Jantzi, Ryan, & Steinbach, 1997; Leithwood, Jantzi, & Steinbach, 1999; Leithwood & Jantzi, 1999; 2000; 2005).

The NSLS contains 50 questionnaire items with a 6-point Likert scale scoring (1) Strongly Agree, (2) Moderately Agree, (3) Agree Slightly more than disagree, (4) Disagree Slightly More Than Agree, (5) Moderately Disagree, and (6) Strongly Disagree. The Nature of School Leadership Survey (NSLS) contains 8 factors of transformational leadership behaviours which are briefly explained below:

*Develops shared vision and fosters goal consensus* – leaders here identify, develop and articulate a shared vision or purpose for their schools (Leithwood and Sun, 2012: 400).

*Builds consensus about school goals* – leaders build consensus among their teachers about the significance of common purpose and about focusing on achieving specific school goals. They equally motivate staff to achieve these goals and communicate optimism among staff while monitoring progress made in achieving these goals (Leithwood and Sun, 2012: 400).

*Providing intellectual stimulation* – Leaders here challenge teacher assumptions, stimulate and encourage teacher creativity and innovation, and provide staff with the requisite information that enables them to review and refine their practices in order to enhance their performance (Leithwood and Sun, 2012).

*Offering individualized support* – Here, leaders listen and attend to individuals' opinions and needs, treating each teacher as an individual with unique needs and capacities. They

also provide mentoring or coaching to teachers and support their professional developments (Leithwood and Sun, 2012).

*Modelling best practice and important organisational values* – Here, leaders walk-the-talk by providing models of high ethical behaviour, instil pride, respect and trust among teachers. They also symbolise success and demonstrate readiness to change practices in response to new situations (Leithwood and Sun, 2012).

*Demonstrating high performance expectations* – Leaders here have high-performance expectations of teachers. They expect teachers to hold high performance expectations for students and expects staff to be effective innovators (Leithwood and Sun, 2012).

*Creating a productive school culture* – This leadership practice measures the degree to which leaders build a cohesive school culture around a common set of values and promote beliefs that reflect the school vision (Leithwood and Sun, 2012).

*Developing structures to foster participation in school decisions* – This factor measures the degree to which leaders ensure that teachers participate in decisions on school programs, ‘establish working conditions that facilitate teacher collaboration for planning and professional development and distribute leadership broadly among teachers’ (Leithwood and Sun, 2012: 401).

#### *2.2.3.3. The Principal Leadership Questionnaire (PLQ)*

Jantzi and Leithwood (1996) developed the 24-item questionnaire of the *Principal Leadership Questionnaire* (PLQ) to measure teacher perceptions about their principals’ transformational leadership behaviours. For Jantzi and Leithwood (1996), if leadership is understood on the basis of interpersonal influence between leader and followers (Yukl, 1989: 3), then ‘conceptualising leadership in terms of the perceptions of those who experience it is the starting point for many approaches to measuring leadership’ (p.513).

Consequently, the authors adapted the six dimensions of the PLQ based on other studies (like Burns, 1978; Bass, 1985; Yukl, 1989; Leithwood, 1994; Leithwood and Steinbach, 1995) in order to test teachers' perceptions of the transformational leadership effects of their principals. For them, these dimensions provided the most appropriate models for measuring leadership perceptions in schools and non-school contexts (Jantzi and Leithwood, 1996:514). These six dimensions are briefly explained below:

*Identifying and articulating vision:* Here, principal behaviours are directed to identifying new opportunities for the development of school, and develops, articulates and inspires teachers with his/her vision for the future.

*Models behaviour:* The principal's behaviour sets an example for teachers to follow. Such behaviours are to be consistent with the values the principal espouses.

*Fosters acceptance of group goals:* Here, the principal promotes cooperation among teachers and encourages activities that support collaboration in achieving common school goals.

*Provides individual support:* Principal shows respect to teachers and demonstrates concern for their personal feelings and needs.

*Provide intellectual stimulation:* Principal's behaviour challenges teachers to examine their assumptions about their work and helps them rethink on how it can be best performed.

*Provide high performance expectation:* Here, principal demonstrates high expectations for quality and excellence in teacher performance (see, Jantzi and Leithwood, 1996: 514-515).

The reliability and validity of the PLQ was ascertained in a longitudinal study of 423 teachers during the second and third years of a larger 5-year period in the Canadian province of British Columbia (Jantzi and Leithwood, 1996). The instrument contained 75-items which measured three constructs such as: *the six dimensions of transformational leadership; in-school*

*characteristics* and *out-of-school characteristics* (see, Jantzi and Leithwood, 1996: 523). While results indicated overall significant relationship between the independent and dependent variables, it also registered strong reliability and validity values. For instance, in their replication of studies involving teachers of 98 schools in a large Canadian District using this instrument, Leithwood and Jantzi (1999) confirmed that transformational leadership significantly impacted on teacher performance efficacies.

Having considered the three instruments for measuring transformational leadership, it is worth noting that each of the instruments have been criticised for their lack of quality in measuring perceptions of transformational leadership. For instance, Bass and Avolio' (1991; 1996) Multifactor Leadership Questionnaire (MLQ Form 5X) has been criticised for its lack of distinctiveness which separates the four dimensions of transformational leadership (*idealised influence, inspirational motivation, intellectual stimulation and individual consideration*) from transactional leadership and laissez-faire forms of leadership. Yukl (1999) launched the most comprehensive criticisms against this form of leadership showing its conceptual weaknesses in areas such as: ambiguity of constructs, insufficient descriptions of explanatory processes, narrow focus on dyadic processes, bias towards heroic leadership, and insufficient specification of limiting conditions (see, p.286-292).

While attention to the criticisms against these instruments goes beyond the scope of this subsection, it is worth noting that other scholars have tried and tested these instruments and found them useful for assessing perceptions of principals' transformational leadership in schools. For instance, Antonakis and colleagues (2003) found the MLQ a useful model for measuring principals' transformational leadership practices in schools. According to them, 'regardless of the theoretical or measurement shortcomings, the current version of the MLQ (Form 5X) is a valid and reliable instrument that can adequately measure the nine components comprising transformational leadership (Antonakis et al., 2003). For them, 'it represents the

foundation from which to conduct research and to expand our understanding of the “new models of leadership” (Antonakis et al., 2003: 286).

The MLQ (Form 5X) is however suitable for studies focusing on measuring transformational and transactional leadership traits. Additionally, although the NLS instrument is said to score high reliability values (Ling et al., 2015; Short, 2016), Jantzi and Leithwood (1996) indicate that the PLQ is the improved version of the NLS. From a personal point of view, it's 50 questionnaire items appear to be too extensive and embrace other wider factors such as school climate, school culture and conditions which may not directly influence the processes leading to the formation of teachers' perceptions of leadership. But the PLQ was specifically adapted from other empirical studies to suit this purpose – the measuring of teachers' perceptions of the transformational leadership behaviours of their school principals. However, if the formation of perceptions of leadership follows a process as Leithwood (1996) indicated, do other factors account for variations in teachers' perceptions of their principals' transformational leadership practices?

#### ***2.2.4. Teachers' Perceptions of their Principals' Transformational Leadership***

This section explores the literature on factors accounting for variations in teachers' perceptions of the transformational leadership practices of their principals. If leadership is considered a 'social influence process' whereby a leader inspires the actions of followers to achieve intentional outcomes (Yukl, 2002: 3; Bush, 2012: 6), then factors which may influence the way followers interpret and give meaning to actions of their leaders (that is perceptions of leadership) in response to organisational goals are of great significance to the achievement of those very goals. It is for this reason that this section explores literature on whether or not demographic factors account for variations in teachers' perceptions of the transformational leadership practices of their principals.

Teachers' perceptions of the transformational leadership practices of their principals often bother on the meanings and interpretations teachers give to these leadership practices of



their principals. It concerns the way teachers view the actions undertaken by their principals in response to school goals (Flad, 1989; Williams, 2006; Helms, 2012). While the concept 'perception' is often criticised by rationalist researchers as an inferior source of knowledge because of the element of subjectivity associated to it (see, Flad, 1989: 45; Lee et al., 1993: 157), perceptions nonetheless represent people's views about a subject matter. Others also argued that perceived reality is important because it influences the actions of perceivers and evoke certain responses from them (Andrew, 1987: cited in Flad, 1989). As Flad (1989: 46) indicated, 'one's perceptions of his surroundings provide a powerful influence on how he acts and views his environment'. Thus, 'when teachers have a positive perception of the quality of their workplace and the support of their principal, they are more productive, more efficient, and feel better about the job they are able to do for students' (Andrew, 1987: 18; cited in Flad, 1989:45-6).

Variations in teachers' perceptions of their principals' leadership practices may exist within schools due to the differences of meanings each teacher may give to the actions of their principals. Such variations could be the result of certain demographic factors such as age, gender, race, qualification and experience among others. For instance, Lee and colleagues (1993) identify gender as a significant factor that accounts for the within school variations of teachers' perceptions of leadership (p.154). Consequently, the review below explores studies on the impact of some of these factors on variations of teachers' perceptions of leadership (Lee et al., 1993; Jantzi and Leithwood, 1996; Kor, 2010; Helm, 2012; Ontai-Machado, 2016).

#### 2.2.4.1. *Lee, Smith and Cioci (1993)*

Lee and colleagues (1993) conducted a study which explored the effects of teachers' and principals' gender on perceptions of principals' leadership, and how these perceptions also impact on their influence in the organisation, their interpersonal and personal domains. As a descriptive survey, data was drawn from 8,894 high school teachers from about 300 high

schools using the *Administrator and Teacher Survey (ATS)*. The authors acknowledged that the original purpose of the ATS was to ‘collect data relevant to characteristics of effective schools’ (Lee et al., 1993: 160). Lee and colleagues (1993) found that:

(1) In terms of *effective leadership*, while male and female teachers assessed the transformational leadership practices of their principals to be equally effective, there were large statistically significant differences in their perceptions of female principals. Male teachers perceived their female principals as ineffective while female teachers considered the same principals to be above average. (see, Lee et al., 1993: 162, 166).

(2) In respect of *personal power* or *self-efficacy*, results indicated that both male and female teachers who worked with female principals experienced exceptional personal power in contrast to those who worked with male principals; (3) with *interpersonal power* or *collegiality*, women teachers’ interpersonal power was considerably greater than men teachers regardless of the gender of the principals. However, male teachers felt their interpersonal power was curtailed with working with female principals; (4) with *organisational power* or *influence over school policy*, male and female teachers showed the same identical perceptions with working for male principals. However, where female principals are concern, whereas male teachers felt they had less influence on school policy, female teachers felt they had greater influence (Lee et al., 1993:168).

The above findings led Lee and colleagues to conclude that, while there are differences in male and female teachers’ perception of leadership practices, such differences are even more stark when the gender of the principal is concerned. Thus, they identified gender as a significant factor in accounting for variations in teachers’ perceptions of leadership practices and advocated for greater participation of women in the leadership of high schools in America. What Lee and colleagues’ (1993) study failed to demonstrate was ‘how much of the total variance in teacher perceptions were explained by gender’ (Jantzi and Leithwood, 1996: 532).

#### 2.2.4.2. Jantzi and Leithwood (1996)

In contrast, Jantzi and Leithwood's (1996) study on leadership perceptions was developed in two main parts: the first part presents a theoretical account of the formation of leadership perceptions; and the second is a partial test of this account. The review here focuses on the partial test of the model which investigated the extent to which *alterable* and *unalterable variables* contribute to variations in teachers' perceptions of their principals' transformational leadership. The *alterable variables* included: (1) *in-school conditions* (school mission and goals, culture, structure, program and instructions, policies and resources); and (2) *out-of-school condition* (school district, the ministry of education and the local school community). The *unalterable conditions* included: (1) the demographic characteristics of teachers and principals such as *gender, age and length of experience*; and (2) school characteristics such as *school level* (elementary, middle and secondary schools) and *school size* (Jantzi and Leithwood, 1996: 519).

While the study is descriptive by nature, it involved 423 teachers' responses to two surveys which were originally part of two phases of a 5-year longitudinal study conducted in elementary and secondary schools in British Columbia. In respect of the extent to which alterable and unalterable conditions accounted for variations in the six dimensions of transformational leadership, alterable variables accounted for higher proportions of the variations in five dimensions, except for the leadership dimension of holding high performance expectations. The same pattern of relative sensitivity was found with unalterable variables. The impact of unalterable variables (attributed to teacher, leader, or organisational characteristics) on variations in teachers' perceptions was very small.

While school characteristics such as school level and size accounted for the variations in five of the six dimensions of leadership, teacher characteristics such as gender, age and experience explained the least. Furthermore, while *in-school conditions* accounted for about 35% of the total variations in leadership perceptions, 15% was jointly explained by in-school

and out-of-school variables. While five of the dimensions of leadership were sensitive to in-school variables, out-of-school variables did not account for any variance in teachers' perceptions of leadership (see, Jantzi and Leithwood, 1996: 527-530). In this way, Jantzi and Leithwood (1996) drew two significant conclusions from their study:

First of all, they indicated that principals who carefully and diligently perform their leadership task, and are seen to do so, powerfully and positively influence teachers' perceptions of their leadership. As they put it, 'it is what you do, not who you are that matters to teachers' (Jantzi and Leithwood, 1996: 531). Thus, they asserted that when teachers see principals to be visibly contributing to in-school conditions (such as: school mission and goals, culture, structure, program and instructions, policies and resources, decision-making structures) in ways that are helpful to teachers, they are likely to interpret such actions as constituting transformational leadership practices (Jantzi and Leithwood, 1996: 531).

Secondly, Jantzi and Leithwood (1996) also indicated that, when one considers the role of *unalterable variables* (such as: gender, age, experience, school size and level) in the formation of teachers' perceptions of leadership, while the study found female leaders to be more transformational in their leadership practices than their male counterparts, they nonetheless cautioned that other wider array of factors such as age, race, socioeconomic status, academic qualification, experience, school level and size need to be taken into consideration when studying the influence of gender in teacher perceptions of principals' leadership (Jantzi and Leithwood, 1996: 532).

#### *2.2.4.3. Walker and Slear (2011)*

Walker and Slear (2011) examined the relationship between teachers' self-efficacy beliefs and their perceptions of leadership following their years of experience in a study involving 366 middle school teachers' in Mid-Atalanta, USA. Although the study focused on the impact of leadership on teachers' self-efficacy, it nonetheless examined the influence of teachers' years

of experience on variations of their perceptions of leadership. Teachers' years of experience were categorised under the following: 0-3 (new teachers); 4-7 (experienced teachers); 8-14 (very experienced) and 15+ (extensively experienced teachers). Principals' leadership practices were measured using their self-formulated Principals' Behaviour Survey with 11 dimensions: *communication, consideration, discipline, empowerment, flexibility, influence with supervisors, inspiring group purpose, modelling instructional expectations, monitoring and evaluating instruction, providing contingent reward and situational awareness.*

While stepwise linear regression was used for data analysis, findings on the relationship between teachers' experience and perceptions of the 11 dimensions of leadership showed that while *modelling instructional expectations* related significantly to new teachers (0-3 years), experienced teachers (4-7 years) related to the practices of *modelling instructional expectations and communication* (Walker and Slear, 2011: 54). Furthermore, whereas teachers with between 8-14 years of experience related more to leadership practice of *communicating with teachers*, those with over 15 years of experience found the leadership practice of *inspiring group behaviour* to be beneficial (Walker and Slear, 2011).

These variations in teachers' perceptions following their levels of experience led Walker and Slear (2011) to conclude that the more teachers gained experience in their teaching career, the less they depend on their principals' leadership practices to be effective. As experts in their field, experienced teachers look for meaning in their work and value principals who promote a work environment where collaboration and collective decision-making leads to the achievement of school goals (p.56).

#### *2.2.4.4. Joseph K. Biggerstaff (2012)*

Biggerstaff (2012) conducted a study in elementary schools on relationship between teachers' perceptions of their principals' transformational leadership styles and how these impact on their job satisfaction. Here, the study also examined the extent to which different demographic

features such as gender, age and experience influenced variations in teachers' perceptions of leadership. The study was conducted in elementary schools and involved 179 teachers from Kentucky in North America. While the study employed the Multifactor Leadership Questionnaire (MLQ) to measure teachers' perceptions, teachers' job satisfaction was measured by the Minnesota Satisfaction Questionnaire (MSQ). Teachers' age was categorised as: (21-30); (31-40) and (41+) with their years of experience as: group one (0-4); group two (5 to 11); group three (12-19) and group four (20+). Teachers' levels of education were also categorised as: Bachelors; Masters and Rank 1.

The results of the ANOVA indicated the following: (1) in respect of teachers' age, younger teachers (21-30) rated their principals' transformational leadership significantly higher in two transactional leadership practices of 'contingent reward' and 'management-by-exception' than older teachers (31-40); (2) in terms of academic levels, younger teachers with bachelors rated their principals' leadership higher in 'management-by-exception' than teachers with Rank 1; (3) however, there was a lack of statistically significant difference between the various years of experience and teachers' perceptions of leadership (Biggerstaff, 2012: 95-96). This led Biggerstaff (2012) to conclude that younger teachers (21-30 years) view their principals' transactional leadership practices differently from older teachers (31-40). While younger teachers rated their principals to have high transactional leadership practices such as contingent reward and management-by-exception, older teachers provided lower ratings on these practices (p.94).

#### *2.2.4.5. Pamela M. Helms (2012)*

Contrastingly, Helms (2012) also conducted a quantitative study which compared the relationship between principals' perceptions of their leadership behaviours and their teachers' perceptions of their leadership. The study involved 259 teachers and 8 principals from elementary and secondary schools from North Carolina (USA). The study used Kouzes and

Posner's (2003) Leadership Practices Inventory (LPI) for self and observer to assess teachers' and principals' perceptions and the extent to which demographic factors such as (1) gender; (2) years of experience; and (3) whether they were hired by their current principals, impact on these perceptions.

The results of the study indicated that there were little discrepancies in the overall scores between teachers and principals' perceptions of leadership. However, secondary school teachers rated their principals' leadership behaviours as more observed than the principals themselves (Helms, 2012: 81-82). Furthermore, while secondary school teachers viewed their principals to exercise more of *shared vision* with the weakest leadership practice being *challenge the process*, elementary teachers viewed their principals to practice more of *enabling others to act* with the weakest being *encourage the heart*. Secondary school teachers also rated their principals' leadership in more positive light than primary school teachers (Helm, 2012: 128).

However, in terms of the extent to which demographic factors accounted for variation in teachers' perceptions of leadership, the following was found: (1) *gender* did not have significant effect on teachers' perceptions of principals' leadership; (2) in terms of teachers' *years of experience* (which ranged 0-10; 11-15; 16-20; 21-25; and more than 25 years), *model the way* and *encourage the heart* revealed the biggest discrepancies in perceptions based on teachers' levels of experience (Helms, 2012: 126). The differences in perceptions clustered around teachers with between (11-15) and (more than 25) years of experience; (3) whether or not current principals hired the teachers did not impact on variations of teachers' perceptions of their leadership (Helms, 2012: 121).

The study also found that the number of years principals served in the same school, their years in the educational field and age impacted on teachers' perceptions of their leadership. Older principals displayed less exemplary leadership behaviours than their younger counterparts. In this way, Helms (2012) concluded that since the leadership practices of

principals significantly impact on teachers views and performance, it is vital that principals with strong exemplary leadership qualities are selected to lead schools (Helms, 2012: 129).

#### *2.2.4.6. Dyna Ontai-Machado (2016)*

More recently, Ontai-Machado (2016) conducted a similar quantitative study of 124 teachers from 15 elementary schools in the state of Hawaii. The study examined the relationship between teachers' perceptions of their principals' leadership attributes and school effectiveness measured by the Hawaii's Strive HI Index. The 'Strive HI performance system was designed to meet the needs of students and educators by aligning policies and initiatives to strive for school, student, and educator success. Index scores were based on achievement, growth readiness, and achievement gaps between high-needs and non-high needs students' (Ontai-Machado, 2016: 71). Teachers' perceptions were measured using the Teacher Perceptions of Principals' Leadership Questionnaire (TPPLQ) developed by the researcher. Regression analyses was used to ascertain the relationship between teachers' perceptions of leadership and school effectiveness.

While *principals' leadership predictors* of Strive HI Score included: (1) develop and implement a process to analyse data to improve student learning, (2) building a positive school culture, (3) prioritize and structure activities, and (4) create structures for distributive leadership, *four demographic factors*: (1) principals' years of work in current school; (2) teachers length of experience as teachers; (3) teachers' years of work in current school; and (4) teachers' level of education, were also analysed to see the extent to which they predicted the Strive HI Score (Ontai-Machado, 2016: 90). The Strive HI Score were rated from 0-400.

Results of the study showed the following: (1) *negative predictors of Strive HI Scores* included: (a) the number of years principals served in one school. Results indicated that the higher the number of years principals served in a school, the less effective they were. Ontai-Machado (2016) attributed this to the lack of continuous principals' professional development



to match with the rapid changes in the conditions and landscape of education; (b) with *creating structures for distributive leadership*, the higher teachers rated their principals in this area, the lower the Strive HI Scores; (c) in respect of *teachers' years of work in the same school*, it was revealed that every additional unit a teacher taught led to decrease in the Strive HI Scores: (2) *positive predictors of Strive HI Scores* included: (a) teachers' level of education; (b) teachers' years of experience; (c) prioritisation and structuring of school activities; (d) building school culture; and (e) developing and implementing the process to analyse data to support student learning. Teachers' level of education produced the highest positive effects (Ontai-Machado, 2016: 90-94).

The above results led Ontai-Machado (2016) to conclude that 'shorter tenure at a school by both principals and teachers predicts higher school improvements, while 'greater teaching experience' and 'more education' are associated with higher school improvement (p.95). Even though the study experienced some research limitations and did not also demonstrate the extent to which the identified demographic features accounted for variations in teachers' perceptions of leadership, it nonetheless contributed to the understanding of how teachers' views about leadership impact on their performance.

In summary, there is consistency in the findings of research studies that teachers' perceptions of their principals' leadership practices impact on their performance (Lee et al., 1989; Jantzi and Leithwood, 1996; Kor, 2010; Walker and Slear, 2011; Biggerstaff, 2012; Ontai-Machado, 2016). Furthermore, some of these studies also indicate the impact of teacher demographic factors such as gender, qualifications and levels of experience on variations in teachers' perceptions of the leadership practices of their principals. What is however observed in this review is the lack of rigor in the analyses on the relationship between demographic factors and teachers' perceptions. This appears to confirm Tschannen-Moran and Hoy's (2007) view that there is a general presumption that demographic factors do not produce significant

impact on variations in teacher perceptions of leadership. Yet, these studies point to a stark relationship between them, and further suggest the need for more rigorous studies in the area.

### **2.3. Understanding the Concept of ‘Perceived Self-Efficacy’**

Albert Bandura’s (1997) concept of ‘perceived self-efficacy’ is a social cognitive theory developed as a self-regulatory mechanism which determines people’s performances. He defined it as ‘*beliefs in one’s capabilities to organise and execute the courses of action required to produce given attainments*’ (Bandura, 1997: 3). According to Bandura (1997), ‘social cognitive theory posits multifaceted causal structures that address both the development of competence and the regulation of action’ (p.34). While *competence* is developed through the knowledge and skills one acquires, these competencies guide and determine the appropriateness of the actions required to achieve given outcomes within particular circumstances (Bandura, 1997). Bandura (1997) assigned this development of knowledge and skills to *personal capabilities* (p.34).

However, the *regulation of action* is determined by perceived self-efficacy. For Bandura (1997), *perceived self-efficacy* determines the degree to which the knowledge and skills acquired (personal capabilities) leads to expected or desired outcome. It ‘influences the course of action people choose to pursue, how much effort they put forth in given endeavours, how long they will persevere in the face of obstacles and failures, their resilience to adversity... and the level of accomplishment they realised’ (Bandura, 1997: 2). For Bandura (1997:35), ‘a capability is only as good as its execution’, and so, ‘the self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their capabilities. Insidious self-doubt can easily overrule the best of skill’ (Bandura, 1997: 35).

For Bandura (1997), perceived self-efficacy possess such self-regulatory influence because it influences the person’s *cognitive, motivational, affective* and *selection* (decision-making) processes. As Bandura put it, self-efficacy beliefs determine whether people think

productively, pessimistically, or optimistically (*cognitive processes*). They affect how well they motivate themselves and persevere in the face of difficulties (*motivations*). These beliefs influence the quality of the emotional well-being people achieve and their vulnerability to stress and depression (*affective states*). They affect the life choices they make which sets the course of their life paths (*decision-making*) (see, Bandura, 1997:116-161; Bandura, 2008; cited in Versland and Erickson, 2017:3). In other words, self-efficacy beliefs are robust predictors of personal performance.

In this way, Bandura (1997) emphasised on a marked difference between ‘perceived self-efficacy’ and ‘self-esteem’. While *perceived self-efficacy* is concerned with judgements of personal capabilities, *self-esteem* is concerned with judgements of self-worth. *Self-worth* is a judgement of how much one likes or dislikes oneself which is entirely different from the judgement of one’s capabilities. Bandura (1997) indicated that there was no fixed relationship between the two, in that, people can judge themselves to be inefficacious in a given activity without suffering the loss of their self-esteem because they do not relate the task to their self-worth. In the same way, a person may regard himself or herself as highly skilled in a given activity but takes no pride in performing it well (Bandura, 1997:11). So, the judgements of self-esteem and perceived self-efficacy represent judgements of different phenomena in which self-liking does not necessarily begets performance attainments (Bandura, 1997:12).

Bandura (1994; 1997) also indicated that perceived self-efficacy has two components: *efficacy expectation and outcome expectancy*. While ‘efficacy expectation’ connotes the conviction that one has the needed competence (ability, knowledge and skill) to successfully execute the actions required to achieve desired outcomes, ‘outcome expectancy’ relates to the person’s estimation of the likely effects that will be produced by the performance of given tasks. As Gavora (2010) put it, ‘it is the believe that a given behaviour will lead to expected outcomes’ (p.2). As Bandura (1994) put it, a person’s motivation is ‘governed by the expectation that behaviour will produce certain outcomes and the value of those outcomes’ (p128). Thus, they

‘act on their beliefs about what they can do, as well as their beliefs about the likely outcomes of performance’ (p.129-130). In this way, Bandura (1994; 1997) linked success to both components of perceived self-efficacy, because he saw success in task performance to be tied to a high efficacy expectation and high outcome expectancy.

### 2.3.1. *Sources for the Development of Self-Efficacy Beliefs*

According to Bandura (1997), perceived self-efficacy is a major aspect of self-knowledge developed from four primary sources of information: *enactive mastery experiences*, *vicarious experiences*, *verbal persuasion* and *physiological and affective states*. These four areas are the major sources of information that contribute to the development of perceived self-efficacy beliefs. These four sources are briefly elucidated below:

#### 2.3.1.1. *Mastery Experiences*

Bandura (1997) presents ‘mastery experiences’ as the most influential source of self-efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to be successful. It is built on the understanding that successful accomplishment of given task builds robust belief in one’s personal efficacy while ‘failure undermines it, especially if failure occurs before a sense of one’s efficacy is firmly established’ (Bandura, 1997: 80). As Bandura (1997) put it, ‘after people become convinced that they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks’ (p.80)

#### 2.3.1.2. *Vicarious Experience*

Bandura (1997) relates ‘vicarious experiences’ to the experience of *modelling*. Here, people appraise their capabilities in relation to the attainment of others. Vicarious experience is achieved through observing the model with whom one identifies. The model’s successful completion of task builds moderate experiences in the observer, and these experiences

significantly influence the self-efficacy of the observer especially when they have no previous experiences about the performance of the task.

#### *2.3.1.3. Social or Verbal Persuasion*

According to Bandura (1997), ‘verbal or social persuasion’ relates to *feedback*, and it underscores the degree to which a person’s self-efficacy is boosted by the positive and realistic appraisals others make about his or her performance. Here, people struggling with accomplishing specific task can have their self-efficacy beliefs boosted when ‘significant others express faith in one’s ability than if they convey doubts’ (Bandura, 1997:101). Verbal persuasion encourages people never to give up when faced with difficult challenges.

#### *2.3.1.4. Physiological and Affective States*

Physiological and affective state relates to how people cope with stress and tasking situations, especially in domains that involve physical accomplishments, health functioning and coping with stressors (Bandura, 1997). In ‘judging their capabilities, people rely partly on information conveyed by physiological and emotional states’ (Tschannen-Moran and McMaster, 2009: 231; Bandura, 1997). A person’s level of arousals can affect his or her self-efficacy beliefs. For instance, higher arousals which lead to trembling hands may either enable or debilitate performance depending on whether the task to be performed is judged as a challenge or a threat. Thus, moderate arousals may lead to improved performance when the task is perceived as a challenge than higher levels of arousal when the task is perceived as a threat (Tschannen-Moran and McMaster, 2009:231; Bandura, 1997:106).

Since Bandura’s (1994; 1997) conception of ‘perceived self-efficacy’, research in many spheres of life have demonstrated the significant effect the construct has on learning, performance and motivation (Hipp, 1996; Tschannen-Moran et al., 1998; Goddard et al., 2004; Ross and Gray, 2006; Ware and Kitsantas, 2007). While Goddard and colleagues (2004) indicated that the construct is frequently ‘related to smoking cessation, adherence to exercise

and diet programs, performance in sports, political participation and academic achievements' (p.3), the past four decades have also witnessed enormous research studies which linked the concept to the efficacy judgements of school principals, teachers and students (Pajares, 1994; Tschannen-Moran et al., 1998; Goddard et al., 2000; 2004).

### 2.3.2. *The Meaning of Teacher Self-Efficacy Beliefs*

Based on Bandura's (1997) definition of 'perceived self-efficacy', *teacher self-efficacy beliefs* also refer to the teacher's beliefs in his or her ability to plan classroom instructions and accomplish instructional outcomes (Gavora, 2010). According to Tschannen-Moran and Woolfolk Hoy (1998), it is the 'teacher's belief in his or her capacity to organise and execute courses of action required to successfully accomplish a specific teaching task in a particular context' (p.233). For Gavora (2010), it is 'the conviction the teacher has about his or her ability to teach pupils efficiently and effectively' (p.2). Ross and Gray (2006) also conceive it as 'a teacher's expectation that he or she will be able to bring about student learning' (p.182).

In all the above definitions, what remains common to them is the understanding that teachers' self-efficacy beliefs entail the convictions teachers have about their abilities to execute actions that lead to student learning. This element of *conviction* or *confidence* marks a distinct difference between 'perception of confidence' and 'actual confidence' (Goddard et al., 2004). While 'perception of confidence' highlights the teacher's belief in his or her ability to execute actions that lead to student achievements (Goddard et al., 2004: 4), 'actual confidence' pertains to the teacher's professional knowledge and skills. In this way, Goddard and colleagues (2004:4) suggest that teachers' self-efficacy beliefs can be referred to variously as *teacher sense of efficacy*, *teacher self-efficacy beliefs*, *teacher efficacy judgements*, or *teacher perceived efficacy*. In this study, where these terms are used interchangeably in this current study, the maintain the same meaning.

Just as Bandura's (1997) presented *mastery experience, vicarious experience, verbal persuasion* and *affective state* as the four sources of information for the development of perceived self-efficacy, so also, teacher self-efficacy beliefs are enhanced by these four sources. As a self-efficacy belief construct, *teacher self-efficacy beliefs* influence the *thoughts, motivations, emotions* and *decision-making* processes of the teacher, and these regulates their behaviour towards instructional matters. So, the teacher's level of self-efficacy beliefs at a given time, can either inhibits or enables their performance in the classroom. As Ross and Bruce (2007) intimated, teachers with high sense of self-efficacy always believe that they will be successful. So, they 'set high goals for themselves and their students and work harder to achieve those goals. On the other hand, teachers with low self-efficacy beliefs have less confidence in their abilities to be successful. They 'avoid expending efforts since failure is inevitable and repeated failure threatens self-esteem' (Ross and Bruce, 2007: 50). Thus, many empirical studies have consistently demonstrated that teacher sense of efficacy is a significant predictor to teacher performance and student learning (see, Gibson and Dembo, 1984; Pajares, 1996; 1997; Tschannen-Moran et al., 1998; Goddard et al;2004; Caprara et al., 2006; Demirdag, 2015; Versland and Erickson, 2017).

### **2.3.3. *Measuring Teachers' Self-Efficacy Beliefs***

This subsection explored some of the instruments that have been developed and used for measuring teachers' self-efficacy beliefs. While some of these instruments included: the RAND scale, the Gibson and Dembo Scale, Bandura's scale and the Teachers' Sense of Efficacy Scale (TSES), these instruments were examined and critically analysed. The analyses pointed to the TSES as the most hopeful and well-developed instrument for measuring teachers' sense of efficacy. With the understanding that teacher self-efficacy beliefs are significant predictors of teacher and student performances, the use of more reliable instruments in measuring this area of teacher performance was viewed as a necessary condition. While the Rand studies developed

the first instrument for measuring teachers' efficacy, other instruments were subsequently developed to address their limitations.

### *2.3.2.1. Rotter's Learning Theory Strand: The RAND Studies*

Inspired by Rotter's (1966) social learning theory (see, Tschannen-Moran, Woolfolk Hoy and Hoy 1998: 204), the RAND Studies (1976) conceived teacher efficacy as 'the extent to which teachers believed that they could control the reinforcement of their actions; that is, whether control of reinforcement lay within them or in the environment' (Tschannen-Moran and Hoy, 2001). Thus, they developed two questionnaire items with a 5-point Likert scale for measuring teacher efficacy. The questionnaire asked teachers to indicate their level of agreement with the following two statements:

(1) *when it comes right down to it, a teacher can't really do much because most of a student's motivation and performance depends on his or her home environment.*

(2) *if I really try hard, I can get through to most of the most difficult or unmotivated students* (Tschannen-Moran et al., 1998: 2).

The first statement measured the experiences of teachers who expressed strong agreement that external environmental factors (such as race, class, gender, violence, the value placed on education at home; violence; conflicts, physiological, emotional and cognitive needs of particular students) overwhelm their ability to influence student motivation and performance (Tschannen-Moran and Hoy, 2001: 785). The Rand studies referred to teachers' perceptions that these external factors significantly impacted on their teaching efficacy as *general teaching efficacy* (GTE).

The second statement also measured the experience of teachers who expressed confidence in their ability to overcome factors that militate against student learning, student motivation and student academic achievements (Tschannen-Moran, Woolfolk Hoy and Hoy 1998:204). In other words, teachers who express agreement with the second statement



demonstrated that they have the requisite training and expertise to develop strategies that will help overcome obstacles to student learning and academic achievement. As Tschannen-Moran and Hoy (2001) put it, ‘these teachers may well have experienced past successes in boosting student achievements’ (p.785). Thus, the study labelled it *personal teaching efficacy* (PTE). However, the sum of the scores on the two items was referred to as *teacher efficacy* (TE).

While the application of this study to 400 elementary students from 20 schools demonstrated that teacher efficacy is a significant predictor of student academic achievements, the RAND project was criticised for its lack of construct validity and reliability because it failed to focus on teacher self-efficacy beliefs themselves (see, Tschannen-Moran et al., 1998: 205; 785; Klassen et al., 2011: 39). Thus, this lack of reliability led to the development of other instruments such as: Guskey’s (1981; 1982; 1988) *Responsibility for Student Achievement* (RSA) scale; Rose and Medway’s (1981) *Teacher’s Locus of control* (TLC) scale; the *Webb Scale* and *Ashton Vignette* (Tschannen-Moran and Woolfolk Hoy, 2001: 785-787). Most of these instruments were also variations of the Rand Studies, and thus, failed to capture the context-specificity of teacher self-efficacy beliefs (Tschannen-Moran and Woolfolk Hoy, 2001: 787).

#### 2.3.3.2. *Gibson and Dembo Teacher Efficacy Scale (1984)*

In response to the deficiencies of the RAND Studies, Gibson and Dembo (1984: 570) developed a 30-item instrument from the two-item survey of the RAND project with the hope of strengthening the validity and reliability of the data on teacher self-efficacy. Consequently, they developed their instrument based on the integration of the findings of Rand studies and Bandura’s (1986) concept of perceived self-efficacy beliefs. The authors achieved this by teacher interviews and analyses of previous studies of teachers reported to have strong self-efficacy beliefs (Tschannen-Moran and Woolfolk Hoy, 2001: 788). Thus, they developed a 30-

items teacher efficacy scale (TES) with a six-point Likert Scale ranging from *strongly disagree* to *strongly agree*.

Gibson and Dembo's (1984) analysis yielded two main factors: *General Teacher Efficacy* (GTE) which measured teachers' beliefs their teaching efficacy is limited by environmental factors and *Personal Teaching Efficacy* (PTE) which measured teachers' confidence in their teaching effectiveness (see, Tschannen-Moran and Hoy, 2001: 788; Klassen et al., 2011: 22). While the GTE corresponded to the RAND factor one, the PTE corresponded to the RAND factor two. Perplexed to find the same two factor structure of the Rand scale in their analysis, Gibson and Dembo (1984) concluded that the two factors represented Bandura's (1977) two domains of *self-efficacy expectation* and *outcome expectancy*.

Even though the results of the analyses of Gibson and Dembo's (1985) study also confirmed Bandura's (1977; 1994; 1997) findings that, people with a high sense of self-efficacy work harder, perform better and persist longer in their task than those with a low sense of self-efficacy, many scholars raised questions on the reliability of Gibson and Dembo's (1984) subscale of *General Teacher Efficacy*. This was because of its inconsistencies in measuring teachers' general efficacy and its lack of specific focus on teachers' beliefs about their capability (see, Tschannen-Moran, Woolfolk Hoy and Hoy 1998: 213-217; Henson et al., 2001; Klassen et al., 2011: 36).

#### 2.3.3.3. *The Bandura's Social Cognitive theory Strand*

Bandura's (1977; 1984; 1997) social cognitive theory introduced a new strand of measurement for teacher self-efficacy as a 'future-oriented belief about the level of competence a person expects he or she will display in given situations' (Tschannen-Moran et al., 1998: 207, 210). As we saw earlier, he saw perceived self-efficacy as influencing the thought patterns and emotions of teachers which leads to expected behaviour and expected outcomes. Consequently, Bandura (1997) set a distinction between Rotter's internal-external locus of control and his

concept of perceived self-efficacy. Hence, Bandura (1997:42) developed a measuring scale for assessing his concept of self-efficacy. With a 9-point Likert scale, the instrument contained 30-items with 7 subscales on: *efficacy to decision-making, school resources, instructional effectiveness, managing behaviour, parental involvement, community participation, and creating a positive school climate.*

While attempting to traverse the perceived limitations of earlier scales, Bandura's (1997) instrument 'provided a multifaceted picture of teachers' efficacy beliefs without becoming too narrow or specific' (Tschannen-Moran et al., 1998: 219). This is because Bandura (1997) conceived that teacher self-efficacy measures are only useful and generalizable when they tap across a wide range of teachers' assessments of their competencies about tasks they are asked to perform. In this way, Bandura (1997) succeeded in developing an instrument which was so general that it lost its power of assessing the specific skills and competencies that are particular to teachers' sense of efficacy. As Tschannen-Moran and Woolfolk Hoy (1998: 219) indicated, Bandura's 30-item scale only provide a general picture of teacher efficacy beliefs rather than a specific one. As many studies identified, information about the reliability and validity of Bandura's (1997) instrument were not also provided (see, Tschannen-Moran et al., 1998: 219; Tschannen-Moran and Woolfolk Hoy, 2001: 791; Klassen et al., 2011: 39).

#### *2.3.3.4. Tschannen-Moran, Woolfolk Hoy and Hoy (1998; 2001)*

In response to the deficiencies found in previous measuring instruments as outlined above, Tschannen-Moran, Woolfolk Hoy and Hoy (1998; 2001) developed a more refined teacher self-efficacy scale known as *Teacher Sense of Efficacy Scale* (TSES). The purpose was to capture the context-specificity of teachers' self-efficacy beliefs. To achieve this end, a seminar group (which consisted of researchers, graduate and doctoral students, and teacher educators) first examined several Likert scales and other teacher efficacy instrument such as the Gibson and Dembo (1984) and Bandura's (1997) instruments. This led to the selection of Bandura's (1997)

scale. The group subjected this scale to rigorous methodological analyses which eventually led to the selection of 24-items of the TSES.

Seven items in Bandura's (1997) scale which were unrepresentative of the frequent activities of teachers undertake were discarded (see, Tschannen-Moran and Woolfolk Hoy, 2001: 796). Other items which described aspects of teaching such as assessment, adjusting the lesson to individual student needs, dealing with learning difficulties, repairing student misconceptions and motivating student engagement and interest, were added to the new scale (see, Tschannen-Moran and Woolfolk Hoy, 2001: 796). A 9-point Likert scale for each item with anchors at 1-nothing, 3-very little, 5-some influence, 7-quite ab it, and 9-a great deal was developed. As teacher self-efficacy is context-specific and is future oriented, this instrument captured these essential aspects of the efficacy construct.

The new TSES instrument was tested in three separate studies which eventually led to the selection of the longer form which consists of 24-items and a shorter form which consists of 12-items. Its factor structure, reliability and validity were examined and ascertained. The group also tested the instrument to ascertain its appropriateness for preservice and inservice teachers (see, Tschannen-Moran and Woolfolk Hoy, 2001: 796-805). Klassen and colleagues (2011: 40) described it as the best so far, for measuring teacher self-efficacy and collective efficacy beliefs. The instrument measures three areas of teachers' sense of efficacy: *student engagement*, *instructional practices*, and *classroom management* (see, Tschannen-Moran and Woolfolk Hoy, 2001: 783-805).

While *efficacy in student engagement* focused on how teachers' beliefs in their ability to create the conditions that ensure effective teaching and motivate student learning, *efficacy in instructional strategies* entailed teachers' beliefs in their ability to organise the instructional programme to achieve instructional outcomes. However, *efficacy in classroom management* focused on teachers' beliefs in their ability to handle problems and disruptive behaviours in the classroom to ensure effective teaching and learning. While these three factors of teacher sense

of efficacy are taken up as themes and developed in the critical analysis of studies on the impact of principals' transformational leadership behaviours on teachers' sense of efficacy, what is worth noting here is that, unlike the other instruments mentioned above, studies show that the Teacher Sense of Efficacy Scale (TSES) has a high reliability and validity scores in contrast to other scales in the area.

#### ***2.3.4. Factors Influencing Variations in Teachers' Sense of Efficacy***

This sub-section explores the literature on factors that account for variations in teachers' sense of efficacy as a performance predictor. It examines various teacher demographic factors such as: gender, academic qualification and years of experience, and how these impact on teachers' levels of self-efficacy beliefs. Bandura (1997:34) indicates that *personal capabilities* are developed through the knowledge and skills one acquires. These capabilities guide, regulate and determine a person's decisions on the appropriateness of the actions required to achieve desired goals. This implies that personal capabilities are necessary for the accomplishment of these goals.

However, Bandura (1997) also indicates that it is *perceived self-efficacy* which regulates personal capabilities in the accomplishment of defined goals. It determines the degree to which teachers apply their knowledge and skills (personal capabilities) to achieve desired outcomes. Thus, if for instance, teachers' academic qualifications and years of experience build their personal capabilities (defined by the knowledge and skill they acquired through academic learning and years of experience), then to what extent do these underlying factors together with teachers' gender account for variations in teachers' sense of efficacy?

##### ***2.3.4.1. Gender and Teachers' Sense of Efficacy***

In respect of gender, this review explores studies which examine the extent to which gender may influence variations in teachers' sense of efficacy in schools. In many of the studies that are conducted in the area, the number of male and female teachers in schools significantly

differed according to the level of the institutions concerned. Elementary schools tended to have more female teachers than male in contrast to the gender variations in high schools or tertiary institutions (Horn-Turpin, 2009; Dankwa, 2014; Ling et al., 2015; Short, 2016). For instance, in Horn-Turpin's (2009) quantitative study of 121 special education teachers in seven regions of Commonwealth of Virginia, 107 females as compared to 14 males participated in the study. According to Horn-Turpin (2009), the disparity reflected a nationwide phenomenon of the male/female ratio of special education teachers (p.60).

Klassen and Chiu (2010) also found the same male/female disparity in their study of 1,430 elementary school teachers on the effects of teacher self-efficacy and job satisfaction in schools. Their descriptive statistics show that while 69% were female, 31% were male. However, in Dankwa's (2014) quantitative study involving 253 tutors in the colleges of education in Ghana, 156 males as compared to 96 female tutors participated in the study. Dankwa (2014) equally discovered in her study that the gender disparity reflected the nationwide phenomenon where out of the total of 1,528 tutors in the country, 1,158 were males and 370 tutors being female (see, Dankwa, 2014: 190). These findings alongside others (Ling et al., 2015; Short, 2016) support the claim that elementary schools tend to have more female teachers than males as oppose to secondary and tertiary institutions. Thus, could these gender variations be a significant factor accounting for variations in teachers' sense of efficacy?

From the results of the systematic search for literature, it was discovered that few research studies focused on the impact of gender on variations in teachers' sense of efficacy. While results of some studies in the area (Tschannen-Moran and Woolfolk Hoy, 2007; Klassen and Chiu, 2010; Avci, 2012) suggest that demographic factors such as race and gender are not significant predictors of teachers' sense of efficacy, others indicate that female teachers tend to have higher sense of efficacy than male teachers (Anderson et al., 1988; Evans & Tribble, 1986; Klassen and Chiu, 2010; Vaudroz et al., 2015).

For instance, in the study conducted by Tschannen-Moran and Woolfolk Hoy (2007) which involved about 255 novice and career teachers from elementary, middle and high schools, the study explored several potential sources of self-efficacy beliefs (gender, race, mastery experience, verbal persuasion, teaching settings among others) to see the differences between novice and experienced teachers' levels of self-efficacy beliefs. Results indicated that 'demographic variables such as race and gender were not found to be systematically related to the self-efficacy beliefs of either novice or career teachers' (Tschannen-Moran and Woolfolk Hoy, 2007: 952). Klassen and Chiu (2010) also examined the effects of gender, years of experience and job stress on teachers' self-efficacy and job satisfaction using 1,430 elementary school teachers in North America. Teachers' self-efficacy beliefs consisted of three dimensions such as student engagement, instructional strategies and classroom management. While the study used factor analysis, item response modelling, systems of equation and structural equation modelling for data analyses, results indicated that while there were no gender effects on teachers' self-efficacy in student engagement and instructional strategies, male teachers were 5% more efficacious than female tutors in classroom management (Klassen and Chiu, 2010: 746-747).

Avci (2012) also conducted a quantitative study which examined the relationship between transformational leadership behaviours of faculty supervisors and the self-efficacies of 205 Graduate Teaching Assistants and Research Teaching Assistants in Midwest universities in the U.S.A. While findings showed that 28.7% of idealised influence, inspirational motivation, individual consideration and intellectual motivation accounted for the variability in the self-efficacy beliefs of both Graduate Teaching Assistants and Research Teaching Assistants, the gender of participants had no significant effects on the self-efficacy beliefs of Graduate Teaching Assistants (Avci, 2012: 122). However, female Research Teaching Assistants had higher self-efficacy beliefs than their male counterparts (Avci, 2012: 123).

In the quantitative study conducted by Vaudroz and colleagues (2015) on the role of teaching experience and prior education in teachers' self-efficacy beliefs and general pedagogical knowledge, 240 preservice and in-service secondary school teachers in Switzerland participated. While data was analysed using structural equation modelling, results on the effect of gender showed that female teachers recorded higher sense of efficacy in student engagement and instructional strategies than male teachers (p.176). While findings from earlier studies like Anderson and colleagues (1988) and Evans & Tribble (1986) also supported the claim that female teachers generally have higher sense of efficacies than males, Ross and colleagues (1996) explained that female teachers tend to have higher efficacies because teaching is essentially a female occupation.

In consequence, while results from the above studies on the effect of gender on teachers' sense of efficacy presents a mixed picture, the lack of consistency in research findings in the area point to the need for more studies in the area following the different institutional levels (i.e. elementary, middle, secondary and tertiary institutions) on the relationship between this demographic factor and its impact on variations of teachers' sense of efficacy. Such findings will be particularly helpful in contexts where certain cultural or religious influences shape and define efficacy in gender lines.

#### *2.3.4.2. Academic qualification and Teachers' Sense of Efficacy*

Teacher academic qualification forms part of their professional development process in which they 'learn and acquire appropriate knowledge, skills and values' required for effective educational delivery (Bell and Bolam, 2010: 98). Therefore, acquiring the necessary academic qualifications for effective teaching equips teachers with the competencies necessary for attaining high self-efficacy beliefs. Ross and Bruce (2007) among others indicate that teachers with high academic qualifications are more likely to have high self-efficacy beliefs in their fields of endeavour (Ross and Bruce, 2007; Avci, 2012; Vaudroz et al., 2015).



For instance, Ross and Bruce (2007) examined the extent to which a professional development (PD) program impacted on the self-efficacy beliefs of 106 Grade 6 Mathematics teachers in one school district in Canada. The study involved a randomised treatment of teachers who received the PD program for 4 months and controlled teachers who received the same program after the study. Results indicated that treatment teachers outperformed the controlled teachers in the three factors of self-efficacy beliefs (Ross and Bruce, 2007: 56). This led Ross and Bruce (2007) to conclude that professional development programs that address the sources of teacher self-efficacy beliefs contribute to creating more confident and efficacious teachers (p.59).

Avci's (2012) study also investigated the relationship between the academic fields of Graduate Teaching Assistants (GTAs) and Research Teaching Assistants (RTAs) and their teaching self-efficacy beliefs in. While results indicated a lack of statistically significant relationship between the teaching efficacies of GTAs in science and GTAs in non-science subjects, there was a statistically significant difference in the self-efficacy beliefs between RTAs in science and RTAs in non-science subjects. Those in the science field had significantly higher self-efficacy beliefs than their non-science counterparts (Avci, 2012: 161-2). The author explained that the reason for the lack of differences between the self-efficacies of the science and non-science GTAs may be due to the effective teaching preparations they receive. Thus, academic qualifications and training play significant role in the building of the self-efficacy beliefs of teachers.

In Vaudroz and colleagues' (2015) study which examined the impact of gender, prior education and experience on teachers' sense of efficacy, results indicated that while prior education or qualification was found to be negatively related to teachers' sense of efficacy, especially in classroom management, it had a positive relationship with efficacy in instructional strategies (Vaudroz et al., 2015: 176). Vaudroz and colleagues (2015) explained that the

difference may be due to the fact that teachers with higher qualifications ‘feel confident in their content knowledge but worry about handling students’ behaviour’ in the classroom (p.176).

In consequence, even though there are limited research studies which examine the relationship between academic qualification and teachers’ sense of efficacies, findings from the above reviewed studies all support the view that teacher professional development and academic qualification influence teachers’ sense of efficacies. When teachers acquire the professional expertise that are necessary for their teaching tasks, these give them the competencies they need for performing these tasks. As Bandura (1997) understands, self-efficacy beliefs regulate these competencies to achieve desired goals.

#### 2.3.4.3. *Years of Experience and Teachers’ Sense of Efficacy*

Research studies on demographic factors which influence variations in teachers’ sense of efficacy often identify experience as a significant factor (Tschannen-Moran and Woolfolk Hoy, 1998; 2001; 2007; Wolters and Daugherty, 2007; Horn-Turpin, 2009; Klassen and Chiu, 2010; Vaudroz et al., 2015). In most of the studies in the area, while novice teachers tend to have a low sense of efficacy, the self-efficacy beliefs of experienced teachers tend to be higher. For instance, in their study of the variations of the self-efficacy beliefs of novice and experienced teachers, Tschannen-Moran and colleagues (1998) indicated that experienced teachers tended to have higher and stable efficacy beliefs than novice teachers (p.238). This understanding finds expression in Huberman’s (1989) studies on the professional life cycle of teachers.

According to Huberman (1989: cited in Klassen and Chiu, 2010:784), a teacher’s early years of teaching experience is a period of *survival* and *discovery*. 4 to 6 years of experience is marked by a period of *stabilization* defined by commitment to the profession. 7 to 18 years of experience (mid-career years) is marked by a period of *experimentation* or *reassessment*. From 19 to 30 years, teachers experience *serenity* which gradually leads to *loss of energy and enthusiasm* but is compensated by a *greater sense of confidence and self-acceptance*. However,

teachers between 31 to 40 years (later career years) experience a period of *disengagement* marked by either serenity or disappointments and bitterness. Studies in the area following Huberman's (1989) found that teachers self-efficacy increased at the mid-career years (say, between 8-23) and declined from 24 years onward (see, Day and Gu, 2007; Klassen and Chiu, 2010: 784).

In the study conducted by Tschannen-Moran and Woolfolk Hoy (2007) involving 255 novice and career teachers, experienced teachers were found to have significantly higher levels of efficacy than novice teachers. Teachers' years of experience ranged between 1-29 with an average of 8.2 years of experience. Career teachers tended to rate themselves higher in their self-efficacy beliefs in instructional strategies and classroom management than novice teachers. However, there was no significant difference between novice and career teachers' sense of efficacy in student engagement (p.950).

Wolters and Daugherty (2007) also conducted a study which examined the associations between goal structures and teachers' sense of efficacy on the one hand, and teaching experience and academic level on the other. The study which was a quantitative survey involved 1,024 pre-kindergarten through to 12<sup>th</sup> grade teachers from a large suburban school district of Texas. Data was analysed using exploratory and confirmatory factor analyses. Findings indicated: (1) modest effects between teachers' sense of efficacy in instructional strategies and teachers' years of experience. While first year teachers reported relative lower self-efficacy beliefs in instructional strategies than those with 1-5 years of experience, those with 6-10 and 11+ years reported higher efficacy beliefs than those with 1-5 years of experience. However, there was no difference for teachers with 6-10 years of experience and those with 11 or more years; (2) for efficacy in classroom management, first year teachers reported lower efficacies than those with 10 years, while those with 1-5 years tended to show lower efficacies in classroom management than those with more years of experience; (3) however, there was no

difference between teacher's experience and efficacy in student engagement (see, Wolters and Daugherty, 2007: 186-7).

Walker and Slear's (2011) also conducted a study on 366 new and experienced middle school teachers in North America. While their work examined the impact of principals' leadership behaviours on the efficacy beliefs of new and experienced teachers, findings indicated that the higher teachers' years of experience, the higher their sense of efficacy and the less their need for certain principals' leadership practices (Walker and Slear, 2011: 55-56). In Vaudroz and colleagues' (2015) study, similar results were found. Here, experienced teachers had higher efficacy beliefs in instructional strategies and classroom management but scored lower levels of efficacy in student engagement (Vaudroz et al., 2015: 176).

Yet, contrary to the research findings which supported a linear relationship between experience and teachers' self-efficacy beliefs, Klassen and Chiu (2010) indicated that the relationship between the two variables could also be curvilinear. Citing the work of Woolfolk Hoy and Burke Spero (2005) who found that teachers' self-efficacy belief initially rose and then fell after some years of working experience, Klassen and Chiu (2010) conducted their own study to ascertain the form of relationship which exist between teachers' experience and sense of efficacy. The study used a sample size of 1,430 from elementary, middle and high school teachers. Results indicated that 'teachers' self-efficacy showed a nonlinear relationship with years of teaching experience. Here, self-efficacy beliefs increased from 0 to about 23 years of experience and then declined as years of experience increased' (p.748).

Thus, even though there are other studies which do not support a clear positive association between teaching experience and teachers' sense of efficacy (see, Guskey, 1987; Parkay, 1990), it could be said that most of the findings on the relationship between teachers' sense of efficacy and teaching experience supported, to some extent, Huberman's (1989) claim that teachers at their mid-career years are more effective and may have higher self-efficacy

beliefs than those in their early and later career years. Yet, the need for more research studies in this area to support the above claim cannot be discounted.

#### **2.4. Research Studies on Transformational Leadership and Self-Efficacy Beliefs**

This sub-section focuses on the review of literature following the relationships between teachers' perceptions of the transformational leadership practices of their school principals and the effects of these practices on their self-efficacy beliefs. So, this sub-section outlines the methodology of the literature search and selection of relevant studies. It also reviews the selected studies following a thematic framework of literature review.

Many research studies have consistently demonstrated significant link between teacher's sense of efficacy and various school variables such as: *student motivation, and academic achievements* (Chen, 2003; Chen and Zimmerman, 2007; Linnenbrink and Pintrich, 2010); *teachers' effectiveness and efficiency* (McCormick, 2001; Goddard et al., 2001; 2004; Tschannen-Moran and McMaster, 2009; Versland and Erickson, 2017); *teachers professional commitment* (Ross and Gray, 2006; Ware and Kitsantas, 2007) and *teacher job satisfaction* (Caprara et al., 2006; Demirdag, 2015). Most of the above studies indicated that an increase in teachers' sense of efficacy related to increase in positive outcomes for both teachers and students.

Thus, the statistically significant associations between high teachers' sense of efficacy and high teacher performance and student academic achievements initiated scholarly interest in studies which explore the means by which this vital teacher performance variable could be enhanced. Many scholars identify among other factors, principals' transformational leadership as a significant predictor of teachers' sense of efficacy because of its direct impact on teacher-effect variables (Ross and Gray, 2006; Walker and Slear, 2011; Demirdag, 2015; Versland and Erickson, 2017; Short, 2016; Espinoza, 2013; Ryan, 2007; Horn-Turpin, 2009; Gkolia et al., 2018).

In this way, the review of literature under this section focuses on studies which examine the relationship between teachers' perceptions of their principals' transformational leadership practices and their sense of efficacies. This interest was pursued with specific focus on how such studies correlated the various factors of transformational leadership practices (as outlined by Bass and Avolio, 1993 or Leithwood and colleagues, 1994; 1996) with the three dimensions of teacher Sense of Efficacy (TSES) as defined by Tschannen-Moran and colleagues (2001). While selected studies must meet these criteria, the review included all literature that is published following the publication of the TSES instrument (that is, between 2001 and 2018).

#### ***2.4.4. Methodology of Literature Search and Review***

Under this sub-section, the search for relevant literature was conducted using systematic search methods. The thematic method of review was used. This involved searching thoroughly through included studies to extricate relevant themes for analysis. The key focus here was the quality of review which transcends descriptive summaries of literature, to embrace criticality in the analysis of selected studies (Jessen and Lacey, 2006: 142). The purpose was to ascertain the current state of literature on the relationship between teachers' perceptions of their principals' transformational leadership practices and their sense of efficacy, to provide a qualitative synthesis of findings in these studies which show their strengths and weaknesses, and to identify the research gap which this current study explores.

The rigorous and meticulous search procedures that are characteristic of systematic search methods were used for the identification and selection of primary studies for analysis and synthesis. This was achieved through the application of multiple search methods. The first method involved the search for a broad range of published peer-reviewed articles, conference papers and dissertations using different online databases such as: British Educational Index (BEI); Educational Resource Information Centre (ERIC); PsycINFO; Google Scholar; Scopus; Web of Science; *Zetoc*; and Dissertation Abstracts International (ProQuest).

The Boolean search operators such ‘and’, ‘or’ and ‘not’ were used with the following key search terms: *school leadership, principal leadership, transformational leadership, teacher efficacy, self-efficacy beliefs, teacher sense of efficacy* within the span of 18 years (2001 to 2018). These processes of search and sifting yielded about 39 potential studies. Secondly, the reference section of all studies identified for inclusion were also scanned to identify potentially relevant studies for inclusion (Card, 2012). After hand-searching the identified studies, nine potential studies were added to the sample. However, with the application of the inclusion and exclusion criteria in *table 1* below, entries that did not meet the inclusion criteria were excluded. In consequence, nine relevant studies were selected from the forty-eight potential studies for the review. Summaries of the nine selected studies are displayed in appendix I.

*Table 1: Criteria for Inclusion and Exclusion of Studies*

| Inclusion Criteria   | Exclusion Criteria   |
|--|--|
| <b>Correlational studies between the transformational leadership practices of principals and the self-efficacy beliefs or sense of efficacy of their teachers.</b> | All studies within other organizational settings other than educational leadership with specific focus on principal transformational leadership as the predictor variable. |
| <b>Such correlational studies which are independent of each other in their sample sizes and reported results.</b>  | Other models of leadership different from principal transformational leadership.   |
| <b>Studies that are grounded on Bandura’s (1997) concept of self-efficacy beliefs or perceived self-efficacy.</b>  | Studies that focus on collective teacher efficacy other than teacher self-efficacy beliefs or teacher sense of efficacy as the outcome variable.                           |
| <b>Such studies which used the <i>Teacher Sense of Efficacy Scale</i> developed by Tschannen-Moran and Woolfolk Hoy (2001).</b>                                    | Studies that used measuring constructs other than the <i>Teacher Sense of Efficacy Scale</i> (TSES) to measure teacher self-efficacy beliefs.                              |
| <b>Studies that are conducted using English language irrespective of the country where they are conducted.</b>   | Studies in other languages.  |
| <b>All published journal articles and dissertation studies that fulfilled the above criteria within the publication timeframe of 2001 to 2018.</b>                 | Studies before the year 2001   |

*Author’s own table.*

#### ***2.4.5. Critical Analysis and Synthesis of Included studies***

This sub-section focuses on the review of the selected research studies on the relationship between teachers' perceptions of their principals' transformational leadership practices as measured by the MLQ (Bass and Avolio, 2004), the NSLS (Leithwood, 1994) and PLQ (Jantzi and Leithwood, 1996) instruments and teachers' sense of efficacy as measured by Tschannen-Moran and Hoy's (1998; 2001) TSES instrument. Here, findings of the selected studies are critically analysed and synthesized in a thematic way. Since the three factors of teachers' sense of efficacy: *efficacy in student engagement*, *efficacy in instructional strategy* and *efficacy in classroom management* constituted the dependent variables and formed the common denominator to the three instruments of the independent variable (MLQ, NSLS, and PLQ), the analysis used these three domains as themes in the review.

It must be said from the onset that two of the nine selected studies (Riggs, 2016 and Sompongdam, 2016) could not be included in the analysis because of their inaccessibility. The lack of available contact details of the researchers concerned equally made access to the two sources quite daunting. Consequently, seven studies were critically reviewed using the Critical Appraisal Skills Programme (CASP, 2018). The questions for the critical appraisal tool are presented in figure 1 below.

1. Were the aims of the research study clearly stated?
2. Was the chosen methodology appropriate to respond to the research questions?
3. Was the research design appropriate to respond to the research questions?
4. Was the sampling method and procedure in the selection of research participants sufficiently discussed?
5. Was the data collection process discussed in sufficient detail in a way that address the research issues?
6. Has the relationship between researcher and participants been adequately considered to reduce bias?
7. Have ethical issues been adequately addressed?
8. Was the analysis of data sufficiently rigorous?
9. Is there a clear statement of findings?
10. How valuable is the research? Did it contribute to existing literature?

*Figure 1: Critical Appraisal Questions Adapted from (CASP (2018)).*



In using the above appraisal tools, the purpose was to assess the quality of each study in terms of *rigour* and *relevance*. Although the application of the 10 assessment questions found weaknesses in some of the selected studies in areas such as nonexplicit statement of research purpose (Ling et al., 2015), inadequate review of literature (Ling et al., 2015), small sample sizes (Short, 2016), lack of clarity on research design and methods (Ryan, 2007; Shumate, 2013), and limited analysis and discussion of findings (Ling et al., 2015; Mehdinezhad and Mansouri, 2016; Gkolia et al., 2018), the selected studies were still included in the sample because of the limited number of studies in the area.

#### ***2.4.6. Thematic Analysis of Findings of Selected Studies***

The analysis of findings in this section are built on the following themes: *teacher Efficacy in Student Engagement*, *efficacy in instructional strategies* and *efficacy in classroom management*. In varying ways and degrees, each of the seven studies measured the extent to which teachers' perceptions of the transformational leadership practices of their principals related to these three factors of self-efficacy beliefs.

##### *2.4.6.1. Teacher efficacy in student engagement*

Research studies show that that positive teacher-student engagement creates conditions for teachers to attract and motivate students to learn and develop higher levels of expectations and self-belief (Tschannen-Moran and Woolfolk Hoy, 2001:797; Tucker et al., 2002; Linnenbrink and Pintrich, 2010). Ross and Bruce (2007) report that teachers with higher self-efficacy beliefs are more successful because they attend to the needs of both higher and lower ability students. Such teachers have positive attitudes and build friendly relationships with students which motivates them to learn better (Ross and Bruce, 2007: 51).

While teachers' sense of efficacy in student engagement remains a vital factor in teacher performance efficacy, the review under this section seeks to answer the following questions: are there evidence of findings on the statistically significant relationship between principal

transformational leadership practices and teachers' sense of efficacy in student engagement?  
What principals' transformational leadership practices strongly impact on teachers' sense of efficacy in student engagement?

Ryan's (2007) study examined the effects of principals' transformational leadership practices on teachers' sense of efficacy in student engagement in elementary, middle and high schools in Texas, (U.S.A). The study which used mixed methods research design, correlational analyses were used to examine the views of 168 teachers on relationship between transformational leadership and teacher sense of efficacy, the variations in this relationship at different institutional levels, and the leadership behaviour which strongly related to this teacher sense of efficacy subscale at the different institutional levels. While the research design was not given the clarity needed, there were inconsistencies in the survey responses (PLQ = 159 and TSES = 168, see Ryan, 2007:74). Yet, the results indicated that teachers sense of efficacy in student engagement recorded the strongest relationship with all six dimensions of principals' transformational leadership practices (p.84).

While the quantitative findings showed that 'provide intellectual stimulation' recorded the strongest correlation with all three subscales of teacher efficacy, 'provides individual support' and 'holds high expectation' recorded the lowest but positive relationships. In respect of the relationship between teachers' sense of efficacy in student engagement and principals' transformational leadership practices, 'providing intellectual stimulation' recorded the strongest positive and most significant relationship with teachers' efficacy in student engagement (Ryan, 2007: 103). However, results from the qualitative analysis show that teachers identified 'providing high performance expectations' as the leadership practices which influenced their efficacy in student engagement (Ryan, 2007:92). This finding conflicted with the quantitative results. It is here that a clearly stated mixed methods research design could help with reconciling the results into a composite whole.

Yet, Ryan's (2007) findings are consistent with findings of other studies conducted by Espinoza (2013), Mehdinezhad and Mansouri (2016) and Gkolia (2018). For instance, while Mehdinezhad and Mansouri's (2015) study used a sample size of 254 elementary, middle and secondary school teachers in Iran, Espinoza's (2013) study used a sample size of 283 teachers from elementary and secondary schools in South Texas school district in the United States of America. The more recent study conducted by Gkolia and colleagues (2018) also used a sample size of 640 teachers from elementary and secondary school in Greece. The sample sizes of the aforementioned studies are in contrast larger than those of Ryan's (2007) study.

In response to the question on the relationship between principals' transformational leadership practices and teachers' sense of efficacy in student engagement, the results of the three studies fall below expectation. While Espinoza's (2013) confirmatory factor analysis (CFA) led to the elimination of teacher efficacy in student engagement (*ibid*, p68), only three out of the eight factors of the NSLS were included in his analysis (redesign the organisation, setting directions and developing people). Gkolia and colleagues (2018) also provided a comprehensive structural equation model (SEM) analyses which had more tables and figures but little or no interpretations and discussions of the results (see, Gkolia et al., 2018: 186-190). Gkolia and colleagues (2018) however indicated that their four selected factors of transformational leadership behaviours (model behaviour, fosters commitment, provide intellectual stimulation and holds high performance expectations) significantly related to teacher efficacy in student engagement (p.190).

In contrast, Mehdinezhad and Mansouri's (2016) study also offered little statistical analysis of data in respect of tables and figures but indicate that 'idealised influence' and 'intellectual stimulation' accounted for the highest variation in teacher efficacy (predicting 32.1% of teacher sense of efficacy); 'idealised influence' was found to account for the variations in 'teacher efficacy in student engagement' (*ibid*, p54). Even though the researchers took pains to discuss their findings in relation to wider research studies in the area (like Hipp,

1995; Griffin, 2009), most of these studies were merely mentioned without meaningful discussions between these sources and findings of their study.

However, in respect of studies conducted by Shumate (2011) and Short (2016) in elementary schools in North America, each of them used two different transformational leadership scales (Shumate (2011) - MLQ, and Short (2016) – NSLS). Short (2016) used purposive sampling to select 50 out of 126 qualified teachers. This sampling method and the small response rate limited the study's chance of being generalisable. Short's (2016) findings show weaker and negative statistical significance between teachers' perceptions of their principal leadership practices and their sense of efficacy in student engagement (p.62).

In contrast to Short's study, Shumate's (2011) mixed method research which involves a larger sample size of 21 principals and 327 teachers, presents better findings on the relationship between the two variables. Qualitative data was also sourced from open-ended questions included in the survey instrument. This method of collecting qualitative data may have overloaded the questionnaire items and may not have offered the researcher the opportunity to probe deeper and further investigate the concepts. Yet, findings indicated that 'intellectual stimulation' significantly related to teachers' sense of efficacy in 'student engagement'. 'Contingent rewards' also produced moderate but positive effects on student engagement (see, Shumate, 2011: 58 and 63).

In consequence, while higher teachers' sense of efficacy in student engagement facilitates teaching and learning and motivates students to develop higher levels of expectations and self-belief, most of the reviewed studies indicated that various elements of principals' transformational leadership practices significantly related to this subscale of teachers' sense of efficacy (Ryan, 2007; Mehdinezhad and Mansouri, 2016, Shumate, 2011, Gkolia et al., 2018). These practices included *idealised influence*, *intellectual stimulation*, *contingent rewards* and *holding high performance expectation*. However, what was lacking in most of these studies was the establishment of the degree to which these leadership practices impacted on this variable.

#### *2.4.6.2. Teacher sense of efficacy in instructional strategies*

Teachers' sense of Efficacy in Instructional Strategies defines teachers' beliefs in their ability to respond to difficult questions from students, gauge students' comprehension of what has been taught, craft good questions for students, adjust lessons to suit students' abilities, use alternative explanations to enable student understanding, use different assessment strategies, and provide appropriate challenges for very capable students (see, Tschannen-Moran et al., 2001: 800). Ross and Bruce (2007) report that teachers with such higher efficacy measures are 'more likely to try new teaching ideas, particularly techniques that are difficult, involve risk, and require that control is shared with students' (p.50). Thus, the review under this section sought to establish the relationship between principals' transformational leadership practices and teachers' sense of efficacy in instructional strategies. To what extent do principals' transformational leadership practice influence this efficacy variable?

In response to the above question, even though Ryan (2007) indicates that principals' leadership practice of 'providing intellectual stimulation' produced the strongest relationship with all three components of teachers' sense of efficacy, his overall analysis indicated that teachers' sense of efficacy in instructional strategies exhibited the lowest but positive relationship with the six principals' transformational leadership practices (shared vision, model behaviour, fosters acceptance of group's goals, individualised support, intellectual stimulation, and high performance expectation). Contrastingly, Mehdinezhad and Mansouri's (2016) study of elementary, middle and secondary schools in Iran rather found significant relationships between principal transformational leadership practices and teachers' sense of efficacy in instructional strategies (p.54). While the researchers indicate that 'idealised influence; and 'intellectual stimulation' produced overall positive significant relationship to teacher sense of efficacy, the degree of impact between the variables are not indicated.

In the quantitative study conducted by Espinoza (2013), findings indicated that 'model best behaviour' and 'setting directions' were significantly related to teacher 'efficacy in

instructional strategies' – accounting for the overall 8% of the variance (see, *ibid*, p79). This implied that when principals increase their leadership practices of setting directions and modelling best behaviour, teachers' efficacy in instructional strategies also increase correspondingly. Espinoza (2013) used 'Confirmatory Factor Analysis' (CFA) to extract the two leadership practices from the 8 factors of the NSLS. The pitfall here is that although there may have been leadership practices which offered meaningful statistical relationship with teachers' efficacy in instructional strategies as Ryan (2007) and Shumate (2011) discovered, only variables with higher eigenvalues were selected and correlated in Espinoza's (2013) study.

With a much larger sample size of 640 elementary and secondary school teachers in Greece, results in Gkolia and colleagues' (2018) study indicated positive correlations between principals' transformational leadership practices and teachers' sense of efficacy in instructional strategies (p.189). Leadership practices such as: 'model behaviour', 'fosters commitment', 'individual support' and 'holds high performance expectations' correlated positively with teachers' sense of efficacy in instructional strategies. Just like Mehdinezhad and Mansouri (2016), Gkolia and colleagues (2018) too do not analyse the differences in relationship between the two variables at the different institutional levels.

However, in the case of Shumate (2011) and Short (2016) who both conducted their studies in elementary schools in the USA, 'intellectual stimulation' had a strong positive relationship with teacher efficacy in instructional strategies in Shumate's (2011: 63) study, but weaker negative relationship in Short's (2016: 68). Shumate (2011) also found 'contingent rewards' to have moderately strong relationship with teacher efficacy in instructional strategies, while Short (2016: 81) identified 'shared vision', 'building consensus', 'individual support' and 'building collaborative culture' as the leadership practices that had significant effect on teachers' efficacy in instructional strategies. 'Holding high performance expectations' and 'promoting school culture' rather exhibited strong negative relationships.

In the case of Ling and colleagues' (2015) quantitative survey of 137 secondary school teachers in Malaysia, the researchers did not analyse the relationship between domains of the independent and dependent variables. They only indicated that principals' leadership practices such as 'model behaviour' and 'provides individual support' significantly contributed to teacher efficacy in teaching (p.81). It is however unclear whether their reference to 'teacher efficacy in teaching' referred to efficacy in instructional strategies or efficacy in general. What is evident in their study is that their analysis of the two variables is very limited.

In consequence, while teachers' sense of efficacy in instructional strategies point to beliefs in their capability to organise instructional materials and achieve instructional outcomes, the reviewed studies support the view that various transformational leadership practices contribute to enhancing this teacher-efficacy variable. As a vital domain to teacher performance, Ryan's (2007) studies indicate that 'intellectual stimulation' had positive and statistically significant relationship with it. Some of the transformational leadership practices identified in the reviewed studies as significant included: '*intellectual stimulation*', '*contingent reward*', '*modelling behaviour*', '*setting directions*', '*shared vision*', '*building consensus*', '*individual support*' and '*building collaborative culture*' and '*high performance expectations*.'

#### 2.4.6.3. *Teacher efficacy in classroom management*

Teachers' sense of Efficacy in Classroom Management focuses on the extent to which teachers believe they have the capability to create the appropriate classroom conditions which support effective teaching and learning (Leithwood and Jantzi, 1999). This mediatory variable involves how teachers respond to certain problems and disruptive behaviours in the classroom, their ability to get through to the most difficult student, help students think critically, believe in their capability, value learning and assist families to take interest in the education of their children (Tschannen-Moran, Woolfolk Hoy and Hoy, 2001). Leithwood and Jantzi (1999) indicated that

creating the appropriate classroom conditions for teaching and learning ‘makes a substantially greater contribution to student achievements’ (p457).

According to Ross and Bruce (2007), teachers with high sense of efficacy used classroom management strategies that stimulate student learning and student autonomy. Teachers’ sense of efficacy in classroom management lead to high student achievement ‘because those management strategies keep students on task more effectively than custodial management techniques’ (Ross and Bruce, 2007: 50). Since principal transformational leadership practices directly impact on teacher-effect variables, to what extent, if at all, do findings of research studies demonstrate evidence of the statistical relationship between principals’ transformational leadership practices and teachers’ sense of efficacy in classroom management?

Findings from Ryan’s (2007) mixed methods study indicated that the leadership practice of ‘providing intellectual stimulation’ maintained strong positive correlations with efficacy in classroom management (p.84). However, correlations between all factors of the PLQ and teacher efficacy in classroom management recorded the lowest strength both at the quantitative and qualitative levels of the analysis (p.88 and 93). Whereas Ryan (2007) did not provide analyses on the degree of impact between the two variables, findings from Espinoza’s (2013) study indicated a positive statistically significant relationship between principals’ transformational leadership practices and teachers’ efficacy in classroom management. ‘Setting directions’ and ‘redesigning the organisation’ accounted for 10% of the variance in teachers’ sense of efficacy in classroom management (Espinoza, 2013: 77).

Unlike Ryan (2007) and Espinoza (2013), results from Short’s (2016) quantitative study of 43 elementary school teachers indicated weaker negative relationships between teachers’ efficacy in classroom management and all 8 factors of principals’ transformational leadership practices. Short (2016) nonetheless indicated that while this remained the case, teachers who reported high efficacy in classroom management equally rated their principal leadership



practices as transformational in all 8 leadership practices. In contrast to Short's (2016) study, Shumate's (2011) mixed method research provides robust findings. The study's quantitative findings indicated that 'contingent reward' produced strong positive effects on teachers' sense of efficacy in classroom management (p.63). Additionally, other leadership practices such as 'inspirational motivation' and 'management-by-exception' showed moderate but positive relationship with classroom management (Shumate, 2011: 64).

In consequence, the findings of the selected research studies present an overall picture which communicates the understanding that there are statistically significant relationships between certain principals' transformational leadership practices (such as: *intellectual stimulation, setting directions, redesigning the organisation, 'individual support, 'inspirational motivation, management-by-exception*) and teachers' sense of efficacy in classroom management. What is lacking in the literature is the degree of effects these leadership practices have on teachers' sense of efficacy in classroom management. Only the studies conducted by Espinoza (2013) demonstrated this significant dimension.

#### ***2.4.7. Synthesis and Conclusion of the Analyses of Reviewed Studies***

In synthesis, it could be said that all the reviewed studies demonstrated that there are positive and statistically significant relationships between principals' transformational leadership practices and teachers' sense of efficacy. While Ryan's (2007) analyses indicated that principals' transformational leadership practices accounted for 79% of the variance in teachers' sense of efficacy (p.83), Shumate's (2011) studies found overall strong positive relationship between the two key variables (p.63). Mehdinezhad and Mansouri (2016) also reported an overall positive and significant relationship between transformational leadership and teachers' sense of efficacy (p.54), while Ling and colleagues (2015) equally found transformational leadership practices to be significant predictors of teachers' sense of efficacy in secondary schools (Ling et al., 2015: 81).

However, in Espinoza (2013), Short (2016) and Gkolia and colleagues' (2018) studies, there are no overall results of correlations of the two variables because each study focused on the correlations between selected principal leadership practices and selected domains of teachers' sense of efficacy. Yet, each study demonstrated that certain principal leadership practices significantly related to teachers' sense of efficacy in elementary, middle and high schools. In respect of findings on the relationship between domains of transformational leadership practices and the three dimensions of teachers' sense of efficacy, while some selected studies did not conduct statistical analysis between domains of the two variables (e.g. Ling et al., 2015; Mehdinezhad and Mansouri, 2016; Gkolia et al., 2018), they nonetheless presented interesting findings which support the overall claim that teachers' perceptions of their principals' transformational leadership practices influence their sense of efficacy. Yet. the research studies which conducted this form of analysis also indicated that various transformational leadership practices influenced the three domains of teachers' sense of efficacy as evidenced in the analysis above.

It must be said that even though these selected studies offered interesting findings on the relationship between the two key variables, they were nonetheless fraught with varying degrees of limitations. There are numerical discrepancies in the sample size produced in Ryan's (2007) mixed methods research (168 for TSES and 159 for PLQ). While his research design was not clarified, the analyses also failed to produce the degree of influence between factors of the dependent and the independent variables in his study. In the studies conducted by Mehdinezhad and Mansouri (2016) on the one hand, and Gkolia and colleagues (2018) on the other, while both examined the effects of transformational leadership practices on the three domains of teachers' sense of efficacy in elementary, middle and high schools, none of them also statistically analysed the relationships between all domains of the two key variables. In respect of Espinoza (2013) and Shumate's (2011) studies, the elimination of some dimensions of transformational leadership instruments (NSLS and PLQ respectively) and some domains of

teachers' sense of efficacy because of their lower eigenvalues did not offer comprehensive findings on the relationship between the two key variables. These could have offered meaningful statistical readings on the relationship between them.

In consequence, the reviewed research studies on the relationship between principals' transformational leadership practices and teacher self-efficacy beliefs show that there are fewer studies in the area which focus on the relationship between transformational leadership and teachers' sense of efficacy using the following instruments: the NSLS, or PLQ or the MLQ and the TSES. As shown in the rigorous systematic search processes, only nine studies in the area were found. Secondly, most of the selected studies were only conducted in elementary, middle and/or high schools. There were no studies conducted in tertiary institutions which examined the relationship between the two identified key variables. This points to the lack of literature in the area. Besides, most of the selected studies did not examine the degree of effect principals/ leadership practices produced on teachers' sense of efficacy following the three efficacy subscales. It is on the backdrop of the above research gaps, that this current study sought to investigate the relationship between principals' transformational leadership practices and tutors' sense of efficacy in the tertiary teacher colleges of education in Ghana.

## **2.5. Extrapolating Transformational Leadership in Ghanaian Colleges of Education**

From the review of literature so far, it is evident that both the transformational leadership and the teacher self-efficacy belief constructs are predominantly Western concepts. Not only are they developed by western scholars (Burns, 1978; Bass, 1985; Leithwood, 1994; Bandura, 1996; Tschannen-Moran and Hoy, 2001), but most of the reviewed studies in the area concerning the variables of interest were also conducted within Western societies and by Western scholars (Ryan, 2007; Shumate, 2011; Espinoza, 2013; Short, 2016). Consequently, to use these concepts and research tools in non-Western educational contexts raise questions on the justification for extrapolation.

The adoption and use of the above key concepts raise questions such as: to extent what do tutors of the colleges of education in Ghana understand these concepts the same way as they are understood in the West? In other words, what is the justification for the extrapolation of evidence drawn from school-based research to college-based research? While the need for these justifications are often made against the interpretivist's view that 'reality is socially and culturally constructed' and that the development of concepts and terms carry their cultural overtones (Briggs et al., 2012: 20), some scholars indicate that African cultural practices, beliefs, attitudes, values and modes of communication uniquely influence the meanings and attributions they give to concepts and structures that are predominantly Western (Dixion et al., 2016). Consequently, a case for the justification of extrapolation is always necessary when using Western concepts in an African context.

While it is true that Africa has unique cultural practices, beliefs, values and modes of communication which influence people's perceptions of reality, it is also true that the introduction of formal education (which is predominantly Western) and the accessibility to internet have contributed to changing and defining people's perceptions and understanding of reality, albeit their source of origin. Today, the use of Western concepts and programmes in schools in Africa is particularly observed by Dixion and colleagues (2016) in their study when they said that, 'school programmes in sub-Saharan African generally conform to Western cognitive values' (p.232). This is particularly so when these relate to teaching and learning in higher educational contexts like the colleges of education and universities in Africa/Ghana. In these institutions, courses and teaching and learning methods that are invariably adopted from the West. A good example here is the introduction of the T-Tel programme in the colleges of colleges of education in Ghana.

Whereas 'T-Tel' stands for 'Transforming Teacher Education and Learning', the programme was a UK-Ghana governments initiative intended to 'transform the delivery of teacher education in all the public colleges of education in Ghana in their transitional stages

(see, *section 1.2* of the T-Tel Programme). The programme which was organised by the University of Cambridge through the auspices of the UK Department for International Development (DFID) sought to achieve the following goals: to promote tutor performance efficacy through the provision of good training and support to tutors; to provide leadership and management development training programmes for college principals; to build a coherent teacher education sector through improved national and institutional coordination, research and policy; to support curriculum reform for better teaching, assessment and learning outcomes; and to promote female teacher excellence (T-TEL, 2015).

Since the introduction of this programme in colleges of education over 5 years ago, significant improvements in college principals' leadership and tutors' performances through the workshops and professional development programmes can be seen. From its objectives above, the focus of the T-TEL programme has partly been to ensure that there are improvement in the colleges of education through the leadership performance of college principals (see, T-Tel, 2016: Unit 3: 'Leadership Programme Resource for College Leaders'). At the heart of these principal leadership training programmes are the adoption of western transformational leadership and managements models.

While all the principals in these colleges participated in these leadership workshops and professional development programmes, none of these leadership models are particularly African or Ghanaian. They were all adopted from models of leadership that have been tried and tested in the UK and other Western countries. This explains why Dankwa's (2013) study found overwhelming evidence of transformational leadership practices in these colleges when she examined the extent to which 253 tutors considered their principals' leadership practices to be transformational (p.191-193). While her study used Bass and Avolio's (2004) Multifactor Leadership Questionnaire (MLQ Form 5X) without modifications, results indicated that tutors considered their principals to exercise leadership practices such as: *intellectual stimulation*, *individual consideration*, *inspirational motivation*, and *idealised influence* (see, Dankwa, 2013:

191). Using the TSES questionnaire to measure tutors' sense of efficacy, the study also found that tutors rated themselves to have relatively higher sense of efficacy in general (see, Dankwa, 2013: 192).

While acknowledging that Western tools and concepts like 'transformational leadership' and 'teacher sense of efficacy' are non-African, these concepts together with resource material are commonly used and applied in African/Ghana through formal education. In Africa in general and Ghana in particular, most of the higher educational institutions rely on Western textbooks and resource materials for teaching and learning. The use of these Western concepts and educational resources in Africa is not only because of the lack of resources, but also because of the desire to produce an African/Ghanaian human resource that are relevant to a globalised world.

In consequence, the justification for the extrapolation of 'transformational leadership' models and 'perceived self-efficacy' in the colleges of education in Ghana was based on the evidence of the application of the concepts in these colleges. This evidence is drawn from the use of Western educational models in higher educational institutions in Ghana, the introduction of the T-Tel programme (which also focuses on developing principals' leadership practices based on transformational leadership models) in these colleges and Dankwa's (2013) research findings which show strong evidence of the application of these model in these colleges.

However, in respect of the justification for the extrapolation of evidence drawn from school-based research to college-based research, the literature review in the chapter two of this current study (see, section 2.2.1; 2.2.2; and 2.2.3) shows that there are different models of transformational leadership practices proposed by different scholars (i.e. MLQ; NSLS; and PLQ). Each of these models have different styles which define them. However, each model maintains its distinctiveness despite the institutional level in which it is applied. Research studies show that where they are applied (whether in primary, middle, high schools or colleges), they maintain their distinctiveness despite the institutional context within which they are

applied (see, Ryan, 2007; Dankwa, 2013; Espinoza, 2013; Mehdinezhad and Mansouri, 2016 and Gkolia et al., 2018). In most of these studies, evidences were drawn from different institutional levels to support their research findings.

For instance, while Dankwa (2013) drew evidence from school-based research findings to support her studies in the colleges of education in Ghana, Avci (2012) equally used the same model in a similar study in universities in America. The two studies showed that extrapolation was possible. Besides, the developers of the concepts and the instruments for measuring it also supported the use of the instruments in this current study. Besides, since there was evidence of these Western constructs in the colleges of education, the researcher chose to use these Western research tools to measure the constructs because they were designed to actually measure constructs of that nature.

In this way, (i) the evidence of the reliability and validity of these tools; and (ii) the evidence of their use in other research studies without cross-cultural adaption; (iii) links they establish between this current study and previous studies in the area; and (iv) the possibility of making comparisons between results of this current study and those across different studies both nationally and internationally encouraged the use of the tools. Yet it is true that cross-cultural adaptation helps to reduce instrument bias in a study (Gjersing et al., 2010).

## CHAPTER THREE: METHODOLOGY

### 3.1. Introduction

This study examines the extent to which, if at all, tutors' perceptions of their principals' transformational leadership practices impact on their self-efficacy beliefs. The study which was conducted in the colleges of education in Ghana measured tutors' perceptions of their principals' transformational leadership practices using Jantzi and Leithwood's (1996) 6 factors of the Principals' Leadership Questionnaire (PLQ). These factors include leadership practices such as: *provides vision, models best behaviour, fosters commitment, provides individualised support, provides intellectual stimulation and holds high performance expectation*. Tutors' assessments of their own sense of efficacy was also measured by Tschannen-Moran and Woolfolk Hoy's (2001) three dimensions of the Teachers' Sense of Efficacy Scale (TSES). These three dimensions are: *efficacy in student engagement, efficacy in instructional strategies and efficacy in classroom management*.

The study determined the correlations between the two constructs (TSES and PLQ) and ascertained the extent to which the variances in tutors' sense of efficacy was explained by their perceptions of their principals' transformational leadership practices. The analyses were conducted using SPSS version 24.0 (Mac). This chapter therefore provides descriptions of the methodological approach used to accomplish this task. It clearly articulates the researcher's philosophical position, the research strategy or design of the study, the population of the study, the sampling procedure and selection of sample size, the description of the instruments and instrumentation, data collection procedures, the validity and reliability of research instruments, the overview of data analysis and ethical considerations . In other words, this chapter provides the lens through which the researcher perceives reality, the methods through which it is measured and the rationale for doing so.



### 3.2. The Philosophical Position or Assumption

While the philosophical position of a researcher deals with the underlying ontological, epistemological, methodological and axiological issues which define and shape the research study, Coe (2017) indicates that these fundamental issues in research need to be clearly and unambiguously articulated at the start of one's research investigation (p.5). Hitchcock (1995:21; as cited in Cohen et al., 2016:3) also emphasised that the necessity for clarifying these assumptions is because researchers' ontological assumptions give rise to their epistemological positions, and these in turn, point to the methodological considerations of the research, which in turn, shape the instrumentation and data collection procedures of the study.

While an *ontological* assumption focuses on the researcher's views or perspectives about the nature of reality, these assumptions normally present the researcher's response to the question; 'what is the nature of the social world?'. Responses to the above question in the past have given rise to two traditional ontological positions such as: positivism/realism and interpretivism or constructivism. While the realist position considers that there is objective reality out there, independent of the researcher's perceptions of it, the constructivist position holds that reality is defined by the researcher's interpretations of it (Cohen et al., 2016; Coe, 2017).

This current study therefore took on a quasi-realist ontological position. It asserts that tutors' assessments of their self-efficacy beliefs and their perceptions of the transformational leadership practices of their college principals are objective and independent of the researcher's views about them. Even though it is admitted that these assessments and perceptions involve a process of social construction through which tutors interpret and give meanings to the observed practices and leadership behaviours of their principals, it also asserts that once formed (*what is*), perceptions become, so to speak, the observed views of tutors and are thus, independent of the researcher investigating them. Hence, they can be measured and analysed.

*Epistemological* assumptions also relate to knowledge, its nature and form, and how it can be acquired (Cohen et al., 2016:6). Here, while the realist position considers that knowledge can be obtained through observation and measurements of the reality under study, the constructivist position holds that knowledge is obtained through a process of interpretation. From an epistemological perspective, this study considers tutors' assessments of their self-efficacy beliefs and their perceptions of the transformational leadership practices of their principals' to be measurable and analysable through the use of descriptive and analytic surveys. As Nworgu (1991) indicated, descriptive surveys enable researchers to systematically collect and describe data on facts or features about a given population. For Cohen and colleagues (2016) too, analytic surveys allow for the testing of hypothesized predictors.

*Methodologically*, this current study is nomothetic. It identifies and describes tutors' assessments of their self-efficacy beliefs (dependent variable) and their perceptions of the transformational leadership practices of their college principals (independent variable) as the two main variables in the study. It then analyses and describes the statistical relationships between them by indicating the extent to which variations in the dependent variable may be accounted for by those of the independent variable. In this way, this research study is *quantitative* in nature. This is because it seeks to measure, analyse and describe tutors' perceptions using quantitative methods of research such as probability sampling, questionnaires and inferential statistics. These methods allow the researcher to obtain dispassionate knowledge about the research population under consideration.

This current study is also a *cross-sectional survey* which uses standardised questionnaires to measure tutors' assessments of their self-efficacy (dependent variable) and perceptions of their principals' transformational leadership practices (independent variable). Statistical relationships between variables are explored. Once obtained, such knowledge can be generalised from observed samples to wider population (Muijs, 2012; Coe, 2017: 6). The notion

that findings of this study can be built on the edifice of previously established findings showcase its inductivism (Morrison, 2012: 17).

### **3.3. The Research Questions and Hypotheses**

The study first of all, sought to uncover tutors' assessment of their self-efficacy beliefs and their perceptions of the extent to which they consider their principals' leadership practices to be transformational. Secondly, it also examines the correlations between tutors' sense of efficacy and their perceptions of the transformational leadership practices of their college principals. Thirdly, it examines the extent to which the total variances of tutors' sense of efficacies may be functions of the transformational leadership practices of their college principals. In this way, the study focused on the following research questions, research sub-questions and hypotheses:

3.3.1. *What are tutors' assessments of their self-efficacy beliefs as leaders of teaching and learning in the colleges of education in Ghana?*

#### **Research Sub-question 1a and Hypothesis**

Is there a statistically significant difference between male and female tutors' sense of efficacy in the colleges of education in Ghana?

**Ho1:** There is no statistically significant difference between male and female tutors' sense of efficacy in the colleges of education in Ghana.

#### **Research Sub-question 1b and Hypothesis**

Are there statistically significant differences between the mean scores of tutors' sense of efficacy following their levels of academic qualification?

**Ho2:** There are no statistically significant differences in the mean scores of tutors' sense of efficacy following their levels of academic qualifications.

#### **Research Sub-question 1c and hypothesis**

Are there statistically significant differences in tutors' sense of efficacy following their 'years of work as tutors'?

**Ho3:** There are no statistically significant differences in tutors' sense of efficacy following their 'years of work as tutors'.

3.3.2. *To what extent do tutors of the colleges of education in Ghana perceive the leadership practices of their principals to be transformational?*

**Research Sub-question 2a and Hypothesis**

Is there a statistically significant difference between male and female tutors' perceptions of their Principals' transformational leadership practices?

**Ho4:** There is no statistically significant difference between male and female tutors' perceptions of their principals' transformational leadership practices.

**Research Sub-question 2b and Hypothesis**

To what extent do tutors' 'years of work as tutors' account for variations in the perceptions of their principals' transformational leadership practices?

**Ho5:** There are no statistically significant differences in tutors' perceptions of their principals' transformational leadership practices following their 'years of work as tutors.'

**Research Sub-question 2c and Hypothesis**

Do tutors' 'years of work with current principal' account for any statistically significant differences in their perceptions of the transformational leadership practices of these principals?

**Ho6:** There are no statistically significant difference in tutors' perceptions of their principals' transformational leadership practices following their 'years of work with these principals'.

3.3.3. *What is the relationship between tutors' perceptions of their principals' transformational leadership practices and their self-efficacy beliefs?*

**Research Sub-question 3a and hypothesis**

What are the relationship between tutors' sense of efficacy in student engagement and

their perceptions of the six transformational leadership practices of their college principals?

**Ho7:** There are no statistically significant relationships between tutors' sense of efficacy in student engagement and their perceptions of the six transformational leadership practices of their college principals.

#### **Research Sub-question 3b and Hypothesis**

What are the relationship between tutors' efficacy in instructional strategies and their perceptions of the six transformational leadership practices of their college principals?

**Ho8:** There are no statistically significant relationship between tutors' sense of efficacy in instructional strategies and their perceptions of the six factors of the transformational leadership practices of their college principals.

#### **Research Sub-question 3c and hypothesis**

What are the relationship between tutors' sense of efficacy in classroom management and their perceptions of the six transformational leadership practices of their principals?

**Ho9:** There are no statistically significant relationship between tutors' sense of efficacy in classroom management and their perceptions of the six factors of the transformational leadership practices of their college principals.

3.3.4. *How much of the total variance in tutors' sense of efficacy is explained by perceptions of their principals' transformational leadership practices?*

#### **Research Sub-question 4a and Hypothesis**

How much of the total variance of tutors' sense of efficacy in student engagement (SE) is explained by their perceptions of the six transformational leadership practices of their college principals?

**Ho10:** Tutors' sense of efficacy in student engagement (SE) is not a function of their perceptions of the transformational leadership practices of their college principals.

### **Research Sub-question 4b and Hypothesis**

How much of the total variance in tutors' sense of efficacy in instructional strategies (IS) is accounted for by their perceptions of the six transformational leadership practices of their college principals?

**Ho11:** Tutors' sense of efficacy in instructional strategies (IS) is not a function of their perceptions of the six transformational leadership practices of their college principals.

### **Research Sub-question 4c and hypothesis**

How much of the total variance of tutors' sense of efficacy in classroom management (CM) is explained by their perceptions of the six transformational leadership practices of their college principals?

**Ho12:** Tutors' sense of efficacy in classroom management is not a function of perceptions of their principals' transformational leadership practices.

The study used both research questions and hypotheses because while the research questions provided guidance to the purpose of the study, the hypotheses help to specifically test the relationship between variables to ascertain their statistical differences or significance.

### **3.4. Research Design or Strategy**

This current study is a descriptive survey. Cohen and colleagues (2016) asserted that descriptive surveys 'set out to describe, compare, contrast, classify and interpret entities and events that constitute their various fields of inquiry' (p.257). According to Best and Kahn (1995; cited in Dankwa, 2014:189), such surveys also deal with determining the nature of prevailing conditions, practices, attitudes, perceptions and opinions that are held, processes that are ongoing or trends that are developed. While descriptive surveys simply describe data on variables of interest, Cohen and colleagues (2016) further indicated that analytic surveys 'operate with hypothesised predictors or explanatory variables that are tested for their influence on dependent

variables' (p.257). These tests are conducted to ascertain the extent to which the independent variable accounts for variations in the dependent.

Thus, this current study embraces the two approaches above, in that, it analyses and describes current tutors' assessments of their sense of efficacy (dependent variable), their perceptions of the transformational leadership practices of their college principals (independent variable). The study also analyses the extent to which factors of the independent variables may account for variations in factors of the dependent. As was demonstrated in the literature review in chapter two, studies in this area (see, Ross and Gray, 2006; Ryan, 2007; Espinoza, 2013; Shumate, 2013; Short, 2016) have consistently demonstrated that there are correlations of significant degrees between principals' transformational leadership practices and teachers' sense of efficacy. This current study therefore analysed and described the extent to which principals' transformational leadership practices accounted for variations in tutors' sense of efficacy in the colleges of education in Ghana.

To achieve this end, the study used standardised questionnaires for data collection on tutors' assessments of their sense of efficacy and perceptions of their principals' transformational leadership practices. Here, Tschannen-Moran and Woolfolk Hoy's (2001) Teachers' Sense of Efficacy Scale (TSES) was used to garner data on tutors' sense of efficacy and Jantzi and Leithwood's (1996) Principals Leadership Questionnaire (PLQ) was used for data collection on tutors' perceptions of their principals' leadership. Correlation analyses between dimensions of the PLQ and the TSES were also conducted to establish the statistical relationships between these dimensions. Multiple regression analyses were conducted to ascertain the extent to which variations in dimensions of the dependent variable are a function of factors of the independent variable.

### **3.5. Population and Sampling**

This section provides descriptions of the research settings, the research participants and the sampling procedures that are followed in the selection of the research participants. Since the study was conducted in Ghana and focused on tutors' perceptions of the impact of their principals' transformational leadership practices on their sense of efficacy, its target population was all tutors in the forty-three public Colleges of Education in the ten regions of Ghana. The total number of tutors in these colleges was estimated to be about 1,800 at the time of the study. Since all the tutors could not be studied because of the immensity of the size of the population, the huge geographical area to be covered, the limited research timeframe and the cost involved, a representative sample of the target population was selected using appropriate sampling procedures.

Denscombe (2014) indicated that 'a representative sample involves a cross-section of the population. It matches the population in terms of its mix of ingredients [by] using a selection procedure that: (1) includes all relevant factors; (2) matches the proportions in the overall population' (p.32). To ensure that the sample was representative and generalizable, the current study used probability sampling methods, focusing specifically on cluster sampling methods and procedures to select the studied colleges. Cluster sampling is normally useful when the population is large and widely dispersed (Cohen et al., 2016). In such large and widely dispersed populations, Cohen and colleagues (2016) indicated that 'gathering a simple random sample poses administrative problems' (p.154). So, by using cluster sampling, the researcher can select a specified number of schools and test for instance, all students in the selected schools i.e. a geographically close cluster is sampled' (Cohen et al., 2016: 154).

Ghana covers a geographical area of about 238,540 square kilometres. At the time the study was conducted, the country was divided into ten political and administrative regions such as: Upper East, Upper West, Northern, Brong Ahafo, Ashanti, Eastern, Western, Central, Volta, and Greater Accra regions. The forty-three public colleges of education were widely distributed



in these ten political and administrative regions, with each region having at least two or more colleges. Gathering a simple random sample from this geographical area was surely going to pose logistic problems as indicated earlier. So, cluster sampling was used with each region considered as a cluster.

Denscombe (2014) indicates that the advantage for using cluster sampling technique is that each cluster contains items that are closely grouped together and can therefore save a great deal of time and resources. So, the purpose for using the cluster sampling method in this study was because the study area fulfilled the conditions for using clusters. Some of these conditions include the following: (i) clusters must be pre-existent – the 10 regions; (ii) each cluster must reflect the heterogeneity of total population – the different tutors in the different Colleges of Education; (iii) the population must be large – forty-three public colleges of education with over 1,800 tutors distributed within a geographical area of about 238,540 square kilometres.

Thus, to save time and resources, four clusters (regions) were selected for the study using random sampling procedures. Here, the name of each region/cluster was written on a piece of paper and placed in a box. The box was then shuffled, and each region selected after each shuffle until the four clusters/regions were obtained. Every college and tutor in each selected region/cluster constituted the study population. In this way, all the ten regions/clusters together with all forty-three public colleges with each tutor in them had an equal chance of being selected. Consequently, an estimated representative sample size of 629 tutors from fifteen selected colleges in the four regions was anticipated for the study.

### **3.6. Instrumentation and Data Collection Procedures**

This section provides descriptions of how the instruments for data collection were administered. It also describes the appropriate contacts that were made, the permissions that were granted by various administrative bodies concerned and the processes that were followed in the distribution and collection of questionnaire responses. It also provides information on the target population

and actual population of the study, the response rate, the number of valid responses and rejected ones. A careful description of the instruments used is also provided.

Paper-pencil questionnaire were personally distributed to about 629 tutors from the fifteen colleges of education in the four selected regions/clusters (that is, Central, Eastern, Northern and Upper East Regions). In each of the colleges visited, personal contacts were made to the principals of the selected colleges who were already informed by the National Council for Tertiary Education (NCTE – the statutory body responsible for all tertiary institutions in the country) about the impending research and its purpose. These prior contacts by the NCTE facilitated the data collection process as most of the principals were already aware of the impending research study, and thus were very supportive in organising the tutors for easy access. In each of the colleges, a tutor was chosen as the contact person for both the researcher and for tutor participants to facilitate the easy distribution and collection of the survey responses.

In most of the colleges, the required number of questionnaire and consent forms were given to the contact persons who later distributed them to the tutors and collected the responses after one week. However, in seven colleges, the researcher met most of the tutors after their staff meetings and explained both the purpose of the research and how the questionnaire were to be answered. The tutors then responded to the survey items and returned their responses to the researcher the same day. This form of data collection procedure yielded a high response rate in contrast to using the contact person. To ensure a high response rate, telephone contacts were made to contact persons prior to the stated deadlines. Out of the 629 questionnaire that were distributed, 444 were completed and returned representing a response rate of 70.5%. However, about 10 responses were rejected due to the incompleteness of some items (six different respondents) and incorrect responses involving the provision of two answers in response to the same item (4 different respondents). Thus, with all the efforts put in, an overall valid response rate 68.9% (434 responses) was obtained for the analysis.

Raw survey data which consisted of item-by-item responses by tutors in both the TSES and PLQ instruments were first entered into Excel spreadsheet and then exported to SPSS version MAC 24 to establish descriptive and inferential statistics. SPSS was used to analyse survey response in order to establish the reliability of the instruments, correlational and regression analyses. Descriptive statistics were generated and organised according to survey instrument and constructs and for each college. Univariate and bivariate analyses were conducted to establish the descriptive statistics, the correlations between variables and multiple regression analyses in response to the stated research questions and hypotheses of the study.

### 3.6.1. *The Teacher Sense of Efficacy Scale (TSES)*

Also known as the Ohio State University Teacher Self-Efficacy Scale (OSTES), the TSES is the work of participants in a seminar on self-efficacy in *teaching and learning* in the College of Education at the Ohio State University. Unlike earlier instruments which inadequately measured this variable as indicated in the literature review in chapter two, the participants in this seminar wanted to develop an instrument which measured the specific but detailed subject of teachers' self-efficacy beliefs within acceptable levels of reliability and validity (see, Tschannen-Moran and Woolfolk Hoy, 2001: 795). Participants of the seminar therefore used Bandura's (1997) 30-item teachers' self-efficacy scale as their starting point. They also included other aspects of the teaching and learning tasks which were unrepresented in Bandura's 30 items: (1) assessment; (2) adjusting lessons to meet each student's needs; (3) dealing with learning difficulties; (4) dealing with student misconceptions; (5) motivating student engagement (see, Tschannen-Moran and Woolfolk Hoy, 2001: 796).

Put together, the group examined 52 items of the TSES in three separate studies to determine the number of items, the scale, the factors, and their reliability and validity. These three studies led to the formation of the current TSES which is in two forms: the long form with twenty-four items and the short form with twelve items. Each of these forms were measured

using three efficacy subscales (that is, efficacy in student engagement, in instructional strategies and in classroom management). These were obtained through factor analysis (principal axis factoring with varimax rotation). The Alpha reliabilities for each subscale were: 0.90 for *efficacy in student engagement*; 0.91 for *efficacy in instructional strategies*; and 0.87 for *efficacy in classroom management* (see, Tschannen-Moran and Woolfolk Hoy, 2001:799).

While the two forms (long and short form) are considered to be reliable, the total efficacy score for each subscale is considered to be the reliable means of gauging teachers' sense of efficacy. Construct validity was examined by assessing the correlations of the TSES with other existing measures such as the Rand Studies (1976), the Gibson and Dembo (1984) items and Woolfolk and Hoy (1993) as shown in the literature review in chapter two. Here, it was observed that the 24 items of the TSES were positively related to the Rand items and the Gibson and Dembo teacher efficacy instrument. The developers then concluded that 'positive correlations with other measures of personal teaching efficacy provided evidence of construct validity' (see, Tschannen-Moran and Woolfolk Hoy, 2001: 801).

| <b>TSES factors or subscales</b>                 | <b>Items</b>                  |
|--|-------------------------------|
| <b>Efficacy in Student Engagement (SE)</b>       | 1, 2, 4, 6, 9, 12, 14, 22     |
| <b>Efficacy in Instructional Strategies (IS)</b> | 7, 10, 11, 17, 18, 20, 23, 24 |
| <b>Efficacy in Classroom Management (CM)</b>     | 3, 5, 8, 13, 15, 16, 19, 21   |

*Figure 2: Item Distribution of the Teachers' Sense of Efficacy Scale (Tschannen-Moran and Woolfolk Hoy, 2001).*

In this study, the long form which contained the twenty-four items of Teacher Sense of Efficacy Scale (TSES) was used to measure tutors' assessment of their sense of efficacy in three factors: *efficacy in student engagement*, *efficacy in instructional strategies* and *efficacy in classroom management*. The instrument's 9-point Likert scale ranged from: (1) *Nothing*; (3) *Very Little*; (5) *Some Influence*; (7) *Quite a Bit*; and (9) *A Great Deal* was used in this study.

As it were, the eight items that are assigned to each of the three efficacy subscales are demonstrated in figure 2 above.

As indicated in the literature review in the chapter two of this current study, what distinguishes the TSES from other instruments (like the Rand and the Gibson and Dembo instruments) is its focus on the specific but detailed factors relating to the teaching task. That is, while the Rand and Gibson and Dembo instruments focused on aspects of the teaching task such as: coping with student difficulties and disruptions and overcoming challenges posed by unsupportive learning environment, the TSES captures these with other aspects of the teaching task such as: ‘assessment of teaching in support of student thinking, effectiveness with capable students, creativity in teaching and the flexible application of alternative assessment and teaching strategies’ (see, Tschannen-Moran and Woolfolk Hoy, 2001:801). This rendered the TSES as the most reliable and appropriate instrument for collecting data on teachers’ sense of efficacy.

Hence, while the purpose for using the TSES in this current study was because of its focus on measuring specific aspects of teachers’ sense of efficacy, its high validity and reliability scores also reinforced this interest. It was therefore unsurprising in the literature review that this instrument was highly referenced and appeared to be the benchmark in the literature on research in teacher sense of efficacy. In this study, the original instrument was used without significant modifications. Written permission was obtained from the developers before use (see, appendix II).

### 3.6.2. *The Principal Leadership Questionnaire (PLQ)*

Jantzi and Leithwood’s (1996) *Principal Leadership Questionnaire* (PLQ) was used in this current study to garner data on tutors’ perceptions of their principals’ transformational leadership practices. Here, tutors were asked to rate the leadership practices of their principals in relation to the following six leadership practices: *provides vision* (PV), *fosters commitment*

(FC), *provides individual support* (IS), *provides intellectual stimulation* (NS), *models behaviour* (MB), and *holds high performance expectation* (HE). The PLQ contains twenty-four questionnaire items designed on the six dimensions of transformational leadership practices with a 4-point Likert scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (4). See figure three for the item distribution of the instrument.

Jantzi and Leithwood (1996) developed this instrument to measure teachers' perceptions of the transformational leadership practices of school principals. For Jantzi and Leithwood (1996), the significance of studying teachers' perceptions is based on the fact that much of what is known within the large-scale empirical research studies on school leadership is based on teachers' views about school leadership practices. Thus, their study had two objectives: '(a) to develop a theoretical account of how teacher perceptions of transformational leadership are formed; and (b) to provide an empirical test of this account (Jantzi and Leithwood, 1996: 513).

According to the developers, the challenges posed by the school restructuring agenda following the 1980s precipitated the move from instructional to transformational forms of leadership. They identified some of these challenges at the time as: (1) the high degree of uncertainties about educational ends and means; (2) the changes in the core technology of schooling; (3) the redesign of schools in response to these changes; (4) the focus on relatively large and pedagogically complex secondary schools; and (5) the introduction of teachers as professionals with the responsibility of providing instructional leadership to their peers. For them, transformational leadership was found to be more suitable for meeting such challenges because of its potential for building levels of commitment and fostering teacher growth and professional development in response to the school restructuring agenda (Jantzi and Leithwood, 1996: 514).

Thus, in their study, Jantzi and Leithwood (1996) developed their conception of transformational leadership practices based on their analyses of results of empirical research

studies in both school and non-school contexts (see, Leithwood, 1994; Leithwood & Steinbach, 1995; Bass, 1985; Burns, 1978; Yukl, 1989). From the findings of these empirical studies, Jantzi and Leithwood (1996: 514) identified the six dimensions of principal leadership practices such as: *providing vision (PV)*, *fostering commitment (FC)*, *modelling best behaviour (MB)*, *providing individual support (IS)*, *providing intellectual stimulation (NS)* and *holding high performance expectations (HE)*.

These six dimensions or factors encompassed their conception of transformational leadership practices. Jantzi and Leithwood (1996) then designed twenty-four questionnaire items as a means of measuring teacher perceptions of the transformational leadership practices of their school leaders. They referred to the instrument as *Principal Leadership Questionnaire (PLQ)*. The model was successfully tested through a combination of teacher responses in two surveys in a 5-year longitudinal study involving 423 teachers from elementary and secondary schools in British Columbia (see, Jantzi and Leithwood, 1996: 528-531). In relation to the validity and reliability of the instrument, Cronbach Alpha yielded strong reliability coefficient of 0.91, with a range of 0.73 to 0.88 for all six dimensions of transformational leadership behaviours (see, Jantzi and Leithwood, 1996: 524).

| <b>PLQ Dimensions</b>                          | <b>Items</b>       |
|--|--------------------|
| <b>Provides Vision (PV)</b>                    | 1, 2, 3, 4, 5      |
| <b>Models Behaviour (MB)</b>                   | 6, 7, 8            |
| <b>Fosters Commitment (FC)</b>                 | 9, 10, 11, 12, 13  |
| <b>Provides Individual Support (IS)</b>        | 14, 15, 16, 17, 18 |
| <b>Provides Intellectual Stimulation (NS)</b>  | 19, 20, 21         |
| <b>Holds High Performance Expectation (HE)</b> | 22, 23, 24         |

*Figure 3: Item Distribution of the Six Factors of the Principals' Leadership Questionnaire (Jantzi and Leithwood, 1996).*

Jantzi and Leithwood (1996) used this instrument to also examine the extent to which variations in teachers' perceptions of their principals' transformational leadership practices were accounted for by *unalterable conditions* of leaders, teachers and schools, and *alterable conditions* inside and outside of schools. The *unalterable conditions* included both teacher and principal behaviours and other variables such as: demographic factors of both teachers and principals (that is, gender, age and experience) and school size and level (see, Jantzi and Leithwood, 1996: 519). However, the *alterable conditions* found *within the school* environment included: school mission and goals, culture, structure, program and instruction. Those found *out-of-school environment* included: The Ministry or State Departments of Education and local school community. These were examined to see how they account for differences in the formation of teacher perceptions of transformational school leadership. Results of aspects of this study were reported in chapter two of the literature review.

Consequently, this current study used the twenty-four questionnaire items of the PLQ to assess tutors' perceptions of the extent to which they considered their principals' leadership practices to be transformational. Permission was sought and obtained from the developers of the instrument through Dr Kenneth Leithwood (see, appendix III). The instrument's original Likert scale of 1 to 4 (representing: 1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree) is maintained. As indicated in the literature review in chapter two on measurements of teachers' perceptions of transformational leadership, while other instruments such as Bass and Avolio's (1994) MLQ Form 5X and Leithwood (1994) Nature of School Leadership Survey (NSLS) have been used for this form of study, the purpose for using the PLQ in this current study is not only because of its proven high levels of reliability and validity, but also because of its specific focus on the subject of transformational leadership practices.

### **3.6.3. *Justification for using Likert Scales as Interval Scales in the Study***

In research studies, scales of measurement such as *nominal, ordinal, interval and ratio scales* are often used by language researchers to numerically measure constructs or variables of



interest (Brown, 2011). While *nominal scales* are often used to measure natural categories like gender (male and female), *ordinal scales* are used to classify or rank variables in an orderly manner. For instance, in a Likert scale of 1 to 5 where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly, while ‘strongly agree’ might be stronger than ‘agree’, one cannot assume that the distance between each scale is equal (Cohen et al., 2016:605). However, *interval scales* show the order of things and the distance (interval) between each point on the scale. In this way, the distance between 1, 2, 3, 4, and 5 are assumed to be the same along the scale (Brown, 2011: 10). Whereas a ratio scale embraces all the features of the three scales above (classify, order, equal interval metric), it also has a true zero to enable the determination of proportions (such as: ‘twice as many as’ or ‘three times the amount of’).

Understanding the differences between these scales of measurement is very significant because of their implications for making decision on appropriate statistical analyses in quantitative research studies (Brown, 2011). While nominal scales are quite straightforward, Brown (2011) reports that some scholars assume that Likert items do not form an interval scale and thus, should be considered an ordinal scale (see, Jamieson, 2004: cited in Brown, 2011: 11). The above assumption raises a problem for this current study since ordinal scales do not provide clarity on the distance along the ordering. However, Brown (2011) asserts that in language testing statistics, most of the research based on Likert items and scales treat them as interval scales, and analyse them as such with descriptive statistics like means, and standard deviations and inferential statistics like correlation coefficients, regression analysis, factor analysis, analysis of variance and so on (p.11).

According Brown (2011) the Likert scale/interval scale debate among scholars is due to a confusion in the distinctions between *Likert items* and a *Likert Scale*. While Likert items constitute the following: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree* and 5 = *strongly*, Likert scales constitute the sum or averages of the results of sets of Likert items. That is, ‘a questionnaire might have a total of 120 Likert items, divided into 12 Likert scales of 10

items each' (Brown, 2011: 11). Here, Allen and Seaman (1997: cited in Brown, 2011: 11) indicate that their 'intervalness' is not an attribute of the labels but of the data itself. In consequence, Brown (2011) indicated that because people confuse Likert items and Likert scales, they conclude that Likert scales must be analysed as though they were ordinal.

In respect of the effects of the differences between a 5-point and a 9-point Likert scale on the research data, some scholars indicate that scale format does not only affect the reliability and validity of the data but it also influences data characteristics such as means and variances (Finn, 1972; Dawes, 2008). It is said that the reliability and validity of data is improved by using 5-point, 7-point and 9-point scales than when one uses coarser scales (Dawes, 2008: 63). By definition, a 9-point Likert scales provide an elaborate data and more options for respondents than 5-point scale, even though 5-point Likert scale is relatively easier for respondents to understand and tends to produce better distribution of the data (Dawes, 2008). In the study conducted by Finn (1972) regarding the mean scores and variances of 3-, 5-, 7-, and 9-point Likert scales, results of the coefficients of variation revealed that the 9-point Likert Scale produced the highest comparative variance.

Relating the above findings to the choice of Likert scales for this study, it is worth noting that the Likert scales of the PLQ and TESE as used in this study were developed by the original developers of the instruments to specifically measure principals' transformational leadership practices and teachers' sense of efficacy respectively. As indicated in sections 3.6.1 and 3.6.2, the validity and reliability of both instruments were tested and proven. In the test for the reliabilities of both instruments in this study, the measures were above the cut-off point of 0.70. This confirmed their suitability for the study.

### **3.7. The Validity and Reliability of the Instruments**

First of all, exploratory factor analysis (EFA) was not conducted in this study because the instruments used in this study already have their specified number and pattern of common factors. Exploratory factor analysis is mostly used to identify the underlying dimensions or

constructs in new instruments (Hayton et al., 2004; Costello and Osborne, 2005; Young and Pearce, 2013; Espinoza, 2013). As Hurley and colleagues (1997; cited in Hayton et al., 2004: 192) indicated, EFA is particularly appropriate for scale development and for contexts where there is little theoretical basis for specifying *a priori* the number and pattern of common factors. The instruments used for this study are already developed with their respective scales and patterns of common factors.

However, case and variable screening was conducted to identify missing data. The test for normality of the distribution was also conducted. Most of the factors were normally distributed but those of the dependent variables were negatively skewed. Thus, to satisfy the assumption of normality for parametric data analysis, log10 linear transformation procedures were applied to factors of both variables in SPSS to ensure that the data was normally distributed. This procedure reduced the skewness of the data to ensure that parametric data analyses could be conducted.

### 3.7.1. *Proof of Validity*

Denscombe (2014) indicated that issues relating to validity normally involve the accuracy of the data collected. It concerns 'the appropriateness of the data in terms of the research questions being investigated' (p.271). While *content validity* is present when the instrument measures what it is intended to measure, *construct validity* is reached through a statistical process which determines the discreteness of constructs and the intercorrelation of descriptors identified within each construct. This is mostly achieved through exploratory factor analysis (EFA).

This current study employed two instruments for data collection: the TSES and the PLQ. While the TSES was developed by Tschannen-Moran and Woolfolk Hoy (2001) and tested in a number of studies, construct and discriminant validity were tested and found to be tenable (Tschannen-Moran and Woolfolk Hoy, 2001: 798). Since the study used this instrument without modifications, content and construct validities were presumed on the basis of the above. In

respect of the PLQ instrument, Jantzi and Leithwood (1996) also developed this instrument and tested it in a five-year longitudinal study in British Columbia. The twenty-four questionnaire items together with the 4-point Likert scale were developed as a result of these studies. Other studies equally used the instrument and found it to be valid (e.g. Ryan, 2007; Simmons, 2013; Gkolia et al., 2018). Since the six leadership factors were already determined, exploratory factor analysis was not conducted, and hence, content and construct validity were equally presumed.

While the researcher took care to ensure that items in the instruments were carefully explained to respondents to facilitate easy understanding and correct responses to the questionnaire, Denscombe (2014) indicates that the validity of data also depends on whether or not the researcher took time to ensure that data did not contain errors arising from mistakes in data entry (p.271). While data was carefully entered into Excel spreadsheet and exported into SPSS, it was also carefully screened to remove missing values. In this way, the validity of the data was ensured.

### 3.7.2. *Test for Reliability*

Denscombe (2014) indicates that reliability ‘refers to whether a research instrument is neutral in its effects and consistent across multiple occasions of its use’ (p.271). Thus, the analysis of reliability helps to determine the extent to which a scale produces the consistency of results. Cohen and colleagues (2016) assert that establishing the reliability of an instrument for data collection is very significant for validating the outcome of research studies. As there are different approaches to testing the reliability of an instrument (*test-retest, split-half reliability, inter rater, internal consistency*), this study used the method of internal consistency in order to measure the consistency of the set of items forming the scales in the TSES and PLQ instruments using Cronbach Alpha. Cohen and colleagues (2016) indicate that the purpose for checking the reliability of instruments used in data collection is to provide statistical confidence for the researcher to employ the instruments in answering and testing formulated hypotheses. The

*Cronbach Alpha* provides a measure of the internal consistency of a test or scale. It is expressed as a number between 0 and 1 (Cohen et al., 2016). According to Gall and colleagues (2003), reliability measures of 0.70 or higher are sufficient for research purposes.

While the reliability of the TSES as measured by Tschannen-Moran and Woolfolk Hoy (2001: 799) ranged from 0.87 to 0.91, the reliabilities of the PLQ as found by Jantzi and Leithwood (1996: 524) ranged from 0.73 to 0.91. In this study, the results of the Cronbach Alpha reliability analyses for the three factors of the TSES were between 0.85 to 0.92 (see table 8). Furthermore, the results of the test for reliability for the six factors of the PLQ also revealed values ranging between 0.75 to 0.87 (see table 14). In this way, all the factors met the threshold of 0.70 and above (Hair et al., 2010). It was therefore concluded that there was internal consistency among the items employed for the study.

### **3.8. The Analysis of Data**

This section provides a bird's eye-view of the analyses of data which is comprehensively addressed in chapter four. Here, it indicates that SPSS as an analytical software was used for descriptive and inferential statistics in response to the study's stated research questions and hypotheses.

Quantitative data were sought from two survey instruments: the PLQ and the TSES. These data were entered into SPSS version 24 (MAC) for descriptive and inferential analyses. While elements of descriptive analysis such as means, and standard deviations were used to examine univariate variables in the study, inferential statistics such as correlational analysis and multiple regression analysis were used to examine the relationships between factors of the PLQ and domains of the TSES. These analyses also examined the extent to which tutors' perceptions of their principals' transformational leadership practiced impacted on their sense of efficacy in student engagement, instructional strategies and classroom management. The analyses were conducted in response to each research question.

In response to research question one which examined tutors' assessments of their sense of efficacy, three other research sub-questions and hypotheses were developed based on the following: (a) the statistical difference between male and female tutors' sense of efficacies; (b) the extent to which academic qualification; and (c) tutors' experience accounted for differences in their sense of efficacy. Thus, overall mean scores and standard deviations were calculated in order to estimate tutors' levels of efficacy in student engagement, instructional strategies and classroom management. Independent sample test (*t-test*) was used to determine whether or not there is statistically significant difference between male and female tutors' sense of efficacies. Analyses of variance (ANOVA) was also conducted to determine the extent to which, if at all, tutors' academic qualification and experience accounted for differences in their self-efficacy beliefs.

Under research question two which examined the extent to which tutors considered the leadership practices of their principals to be transformational, various analyses were conducted in response to four research sub-questions and some hypotheses based on the following: (a) ascertaining tutors' perceptions on whether or not their principals' leadership practices are transformational; (b) determining the statistically significant difference between male and female tutors' perceptions of leadership; (c) establishing whether or not tutors' experience; and (d) years of work with their current principals, accounted for any statistically significant differences in their perceptions of leadership. In this way, while tutors' perceptions were measured using descriptive statistics (mean scores and standard deviations) following the six factors of transformational leadership, independent sample test (*t-test*) was used to determine the statistically significant difference between male and female tutors' perceptions of leadership. ANOVA was used to determine the statistically significant differences in tutors' perceptions following their experience and years of work with current principals.

Research question three focused on the correlations between the six factors of the PLQ and the three factors of the TSES. Thus, three research sub-questions and hypotheses were

developed to establish the relationship between all factors of the PLQ and each of the three factors of the TSES. In response to each of the hypotheses, the Pearson product-moment correlation coefficient was conducted to index the strength and direction of relationship between the six factors of transformational leadership practices and each of the three factors of tutors' sense of efficacy.

Research question four established the extent to which the total variances in tutors' sense of efficacy in student engagement, instructional strategies and classroom management may be explained by their perceptions of the six transformational leadership practices of their college principals. Three research sub-questions and hypotheses were developed based on the three factors of tutors' sense of efficacy and their relationships with the six factors of principals' transformational leadership practices. The purpose was to ascertain the extent to which total variances in each of the three factors of tutors' sense of efficacy is accounted for by the six factors of transformational leadership practice. It also sought to determine the leadership factor which accounted for the most variance in tutors' sense of efficacy in all three dimensions. To achieve this end, multiple regression analysis was used to test the hypothesized differences in factors of the dependent and independent variables. As Cohen and colleagues (2016: 664) indicated, multiple regression enables researchers to take in a range of independent variables and calculate their relative effects or weightings on the dependent variable.

### **3.9. Ethical Considerations in the Study**

This section provides seriatim descriptions of the ethical issues that were considered in conducting the research study. Some of these ethical issues related to access and acceptance, informed consent, anonymity and confidentiality. As Cohen and colleagues (2016) indicated, these issues also involve the kind of problem investigated and the methods used to obtain valid and reliable data. Each stage of the research process always raises ethical issues which need to

be carefully addressed in order that research findings may meet the quality of validity, rigour, and practical relevance (see, Carr, 2007: 271).

### 3.9.1. *Access and Acceptance*

Since any research undertaken with human subjects requires ethical approval from the University's Ethics Committee before it can be conducted, ethical approval for this research study was first sought and obtained from the Newcastle University Research Ethics Committees; both at the university level and at the level of the School of Communication and Language Science (see appendix IV for letters of approval from the university). The purpose was to ensure that the research study did not pose risks to human subjects.

Before the commencement of the research study, approval was also sought and obtained from the National Council for Tertiary Education (NCTE). This council is the statutory body responsible for the colleges of education in Ghana. Prior to the granting of the approval, two letters were submitted to the NCTE (one by the researcher and the other from the researcher's supervisor). The letters provided detailed information on the research interest, purpose and significance. In response, the researcher received letters of approval from the NCTE prior to the commencement of fieldwork (see appendix V for letters). Although letters requesting permission were also sent to principals of the selected colleges, the contacts made by the NCTE to the principals of the selected colleges facilitated the research data collection process in each college.

### 3.9.2. *Participants' Rights and Informed Consent*

The decision to participate in any research study must always be made against the background that respondents are provided with full knowledge of the nature of research, its purpose and significance and the duty to protect the rights of research participants. Participants' informed consent is rightly achieved when they fully understand what the research study entails (the background and what it involves), how it will be undertaken (methods), how data will be used



and stored, and the benefits and risks of the study. These elements of the study need to be clearly explained to and understood by participants in order that consent can be fully informed (see, BERA, 2018).

Before the commencement of the study, tutors were helped to know and understand the interest, purpose and significance of the study, how collected data will be processed and stored, and their rights to withdraw from the study at any time without the burden of providing any form of explanation. They were also helped to understand that such withdrawals could be done before, during or after the study, and that data concerning them would be thereupon deleted. The provision of these detailed explanations was achieved through the meetings between the researcher and the tutors before the commencement of the research. These meetings were organised by the principals, and in some cases, their assistants.

Furthermore, a participant's information sheet which further reiterated the above ethical issues was also provided to each participant. Attached to this sheet was also the participant's informed consent form. To demonstrate consent, tutors were required to check and sign an '*I have read and understand*' box in this consent form before the start of the survey. The form contained the researcher's telephone numbers and email addresses for participants to make contacts should they have questions or concerns. Only tutors who signed this form participated in the study. A copy of the signed form was provided to the participants for their records and another copy was retained by the researcher.

### 3.9.3. *Anonymity and Confidentiality*

While the anonymity principle indicates that 'information provided by the participant should in no way reveal their identities', the promise of confidentiality is intended to ensure that anonymity is preserved (Cohen et al., 2016: 92). To protect college and tutor identities, code numbers were assigned to them. Data obtained from participants was also carefully stored in a password protected computer and will be erased after five years. These issues were carefully

explained to participants before the commencement of the research study. The information regarding data anonymization and the assurance of confidentiality was also included in the participant's information sheet.

In all, the necessary elements of *access and acceptance*, the *rights of participants*, *informed consent* and the guarantee of *confidentiality* through data anonymization were clearly catered for and explained to research participants before the start of the data collection process. A sampled copy of participants' information sheet and the informed consent forms can be found in appendix VI. While the NTCE requested for summaries of the research findings, some of the principals also asked for copies after completion of the research studies. Consequently, summaries of the results will be made available to the National Council for Tertiary Education and all the selected colleges.

#### 3.9.4. *Research Quality*

According to Carr (2007: 271), questions about research quality often tend to cluster into two separate areas: on the one hand, 'there are questions asked by the academic community about the extent to which educational research meets the epistemic criteria of validity and rigour'. Yet on the other hand, others ask questions about the extent to which educational research meets the criteria of practical relevance (p.271). Holligan, Wilson and Hume (2011) identified the same problematic in their study of the research cultures in English and Scottish university department. They intimated that the debate on what constitutes quality in research have largely resulted in the diversification of educational research in terms of its scope, methodology and purpose. This diversification has given rise to questions on whether research quality can be seen in terms of its contribution to professional development or enhancing knowledge in particular research fields (Holligan et al., 2011: 715).

While these debates continue to vex the educational research context, this current study considers the appropriate application of research methods and analyses in response to relevant

research question to be part of the issues relating to the quality and ethics of educational research. Here, Groundwater-Smith and Mockler (2007) draw attention to the fact that within practitioner research, research quality should fulfil ethical principles that are embedded in the structure and process of the inquiry. Thus, they assert that ethicality is not a series of boxes to be ticked as a fulfilment of the procedural conditions usually demanded by university human research ethics committee (Groundwater-smith and Mockler, 2007). Ethicality for them, also involves an orientation to research practice that is deeply embedded in those working in the field' (Groundwater-smith and Mockler, 2007: 205). Such orientations involve identifying a relevant research problem and using the appropriate methods and analyses to answer pertinent research questions and hypotheses (see, Groundwater and Mockler, 2007:206-209). This sense of duty to properly conduct relevant research studies that contribute to knowledge and praxis is an ethical one.

The above ethical agenda guided this current study's interest to provide descriptive analyses of the relationships between tutors' perceptions of their principals' transformational leadership practices and their sense of efficacy in the colleges of education in Ghana. As a quantitative study with descriptive and analytic surveys as its research design, relevant research questions which speak to the purpose of the study are clearly stated. In response to these questions, descriptive and inferential statistical analyses are used to answer the stated research questions and hypotheses. Research findings are subsequently discussed – pointing out their practical relevance to principals who seek to improve their colleges through the performance of their tutors. The study also demonstrated the extent to which its findings contributes to the limited literature in the area.

### **3.10. Summary of Methodology**

This chapter provides the detailed description of the methodology which guided the entire research study on the relationship between tutors' perceptions of their principals'

transformational leadership and their sense of efficacy. While four key research questions were developed to guide the study, these key research questions were further divided into research sub-questions with their accompanying hypotheses so as to provide a comprehensive approach to the study. The research design was predominantly descriptive and analytical.

As a descriptive survey, the study used two survey instruments for data collection: it used Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001) to collect data on tutors' assessment about their own self-efficacy beliefs; it also used the Principals' Leadership Questionnaire (PLQ) developed by Jantzi and Leithwood (1996) for garnering data on tutors' perceptions of the transformational leadership practices of their principals. Each of these instruments facilitated the collection of data on the two key variables of the study.

While the study's target population was tutors of the colleges of education in Ghana, cluster sampling procedures were used to select fifteen out of forty-three public colleges of education in the country. The procedures leading to the selection of the required sample were clearly described. The instrumentation, collection of data, and analysis of collected data in response to the four research questions were equally described. Quantitative data calculations and analyses were conducted using SPSS version 24 (MAC). Descriptive, correlational and multiple regression analyses were conducted in response to the study's stated research questions and hypotheses. Chapter four provides details of these analyses.

## CHAPTER FOUR: DATA ANALYSES AND RESEARCH FINDINGS

### 4.1. Introduction

This chapter presents results of the analyses on the relationship between tutors' sense of efficacies and their perceptions of the transformational leadership practices of their college principals. It also presents results of the analyses on the extent to which tutors' sense of efficacy are accounted for by perceptions of their principals' leadership practices. In this way, this chapter focuses on responding to the four main research questions of the study using statistical analyses in SPSS. The four main research questions of the study included:

- 4.1.1. What are tutors' assessments of their sense of efficacy as leaders of teaching and learning in the Colleges of Education in Ghana?
- 4.1.2. To what extent do tutors of the colleges of education in Ghana perceive the leadership practices of their principals to be transformational?
- 4.1.3. What is the relationship between tutors' perceptions of their principals' transformational leadership practices and their self-efficacy beliefs?
- 4.1.4. How much of the total variance in tutors' sense of efficacy is explained by tutors' perceptions of their principals' transformational leadership practices?

The above research questions were further divided into research sub-questions and hypotheses in order to comprehensively address the substantive issues which are central to the purpose this current study. While these research questions, research sub-questions and hypotheses were presented in chapter three on the research methodology of the study, these questions and hypotheses are equally addressed in this chapter in the section on responses to the research questions and hypotheses.

Tutors' sense of efficacy was measured using Tschannen-Moran and Woolfolk Hoy's (2001) *Teacher Sense of Efficacy Scale* (TSES). The instrument specifically focused on three efficacy constructs or factors: (1) *efficacy in student engagement* (SE); (2) *efficacy in*

*instructional strategies (IS)*; and (3) *efficacy in classroom management (CM)*. The TSES instrument contained twenty-four questionnaire items which measure the above constructs on a 9-point Likert scale ranging from 1(nothing) to 9(a great deal).

To measure tutors' perceptions of the transformational leadership practices of their college principals, Jantzi and Leithwood's (1996) *Principal Leadership Questionnaire (PLQ)* was used. This instrument measured the following six transformational leadership constructs or factors: (1) *provides vision (PV)*; (2) *models behaviour (MB)*; (3) *fosters commitment (FC)*; (4) *provides individual support (IS)*; (5) *provides intellectual stimulation (NS)*; and (6) *provides high performance expectations (HE)*. Each of these constructs were assessed following a twenty-four questionnaire items with a Likert scale of 1(strongly disagree) to 4(strongly agree).

In consequence, this study is quantitative in nature. SPSS is used to conduct quantitative analytic procedures such as: descriptive statistics, *t-test*, ANOVA, correlation and multiple regression analyses. In this way, the findings of the study are presented in four sections in this chapter. The first section provides the proof of validity and test of reliability of the instruments used. The second section focuses on descriptive statistics on the clusters (study area) and respondents' demographics. The third section presents the analyses in response to the research questions, research sub-questions and hypotheses. The fourth section presents the summary of the chapter.

#### **4.2. Descriptive Statistics on Clusters and Respondents' Demographics**

This section focuses on the information on the four selected clusters (four regions of Ghana) which constituted the study area. It also provides the demographic information about the tutors who participated in the survey. While the purpose for conducting these analyses was to first of all, determine the extent to which tutors' sense of efficacy and perceptions of leadership may be different following the four selected regions (clusters), the analyses also sought to ascertain the extent to which respondents' demographic factors such as; gender, qualification and experience may account for such differences.

#### 4.2.1. The 4 Selected Regions or Clusters

As indicated in the chapter three of the study, the study was conducted in four of the ten regions of Ghana: *Central Region, Eastern Regions, Northern Region and Upper East Region*. The ten regions constitute the first level of subnational government administration in the country. Each of these regions are endowed differently. For instance, the Central Region occupies a land area of about 9,826 square kilometres with a population of about 2.3 million inhabitants. It is renowned for its many elite higher educational institutions in the country with an economy based on tourism and industrial minerals. It is often described as the educational hub of the country because it has some of the best schools and universities in the country. Three public colleges of education which are located in this region participated in the study.

The Eastern Region however occupies a land area of about 19,323 square kilometres with a population of about 2.7 million inhabitants. The economy of the Eastern Region is one of the richest in the country. It is basically ‘agrarian, with subsistent and commercial production of food and cash crops’ (Population and Housing Census: Eastern Region, 2010: 2). The region is also rich with industrial minerals such as gold and bauxite, and a vibrant fishing and tourist industry and rich infrastructure. As a result of its developed infrastructure, the region has many basic schools and tertiary institutions. Six colleges from this region participated in the study.

*Table 2: Mean Scores of Tutors' Sense of Efficacy According to the Four Selected Regions.*

|                   | N   | Mean | Std. Deviation | Std. Error |
|-------------------|-----|------|----------------|------------|
| Central Region    | 91  | 7.19 | 1.11           | 0.12       |
| Eastern Region    | 165 | 7.35 | .94            | 0.07       |
| Northern Region   | 113 | 7.07 | 1.19           | 0.11       |
| Upper East Region | 65  | 7.16 | 1.06           | 0.13       |
| Total             | 434 | 7.21 | 1.07           | 0.05       |

*Author's own data.*

Northern Region which has a land area of 70,384 square kilometres also has a population of about 2.5 million people. Majority of the people in this region are subsistent farmers. Its rainfall patterns are better in contrast to the Upper East Region, and so, food

production in this area is contrastingly higher. There are also many basic schools and some tertiary institutions in this region. The four colleges of education which are located in this region participated in the study.

The Upper East Region also occupies a land area of about 8,847 square kilometres with a population of about 1.1 million. This region is the second smallest region in the country in terms of land area after Greater Accra Region. Subsistent farming remains the dominant economic activity in the region, employing 80% of the population. With the lack of food production in the region due to irregular rainfall patterns, the region is known to be one of the poorest in the country. Contrastingly, the region has many basic schools but fewer tertiary institutions. Two colleges located in this region participated in the study.

Consequently, while the Central and Eastern Regions are richer with good infrastructure and educational institutions, the Northern and Upper East Regions are much poorer with limited infrastructure. Yet, the emphasis on education as a mean to bridging the poverty gap between the rich and poor in the country has seen significant improvements in the regions and in the lifestyles of the inhabitants. The education system in Ghana is more centralised, and so, there seem to be equity in the distribution of resources for teaching and learning. So, could the differences in the socio-economic status of the regions account for any statistically significant differences in tutors' sense of efficacy and perceptions of leadership? Here, the following null hypothesis is tested: there are no statistically significant differences in the mean scores of tutors' sense of efficacy and perceptions of leadership.

In response, a one-way analysis of variance (ANOVA) was conducted to determine whether or not *the four regions* account for any statistically significant differences in tutors' sense of efficacy. The mean scores of tutors' sense of efficacy is shown in table 2. The assumption of normality was evaluated and found tenable for all the four regions. The assumption of homogeneity of variance was also evaluated and found acceptable using Levene's Test,  $F(3, 430) = 1.909, p = 0.127$ . However, the ANOVA was found to be



statistically not significant  $F(3, 430) = 1.1650, p = 0.177$ . Thus, the null hypothesis under tutors' sense of efficacy was supported ( $p = 0.173$ ) in the analysis.

*Table 3: Mean Scores of Tutors' Perceptions of Leadership Following the Four Regions.*

| Regions           | N   | Mean | Std. Deviation | Std. Error |
|-------------------|-----|------|----------------|------------|
| Central Region    | 91  | 2.92 | 0.42           | 0.04       |
| Eastern Region    | 165 | 3.04 | 0.50           | 0.04       |
| Northern Region   | 113 | 3.15 | 0.53           | 0.05       |
| Upper East Region | 65  | 2.88 | 0.54           | 0.07       |
| Total             | 434 | 3.02 | 0.51           | 0.02       |

*Author's own data.*

However, in the analysis of variance in respect of whether or not there is statistically significant difference in tutors' perceptions of their principals' leadership practices following the four regions of the study area, the mean scores are presented in table 3. The assumption of homogeneity of variance was evaluated and found to be untenable using the Levene's test  $F(3, 430) = 3,975, p = 0.008$ . Consequently, the Welch robust test of the equality of means was used:  $F(3, 196.419) = 5.410, p = 0.001$ . In this way, the ANOVA was found to be statistically significant  $F(3, 5430) = 5.517, p = 0.001, \eta^2 = 0.037$ . Thus, the null hypothesis on tutors' perceptions of leadership was not supported. The effect size ( $\eta^2 = 0.037$ ) was however small following Cohen's (1988) rule of thumb.

To evaluate the pairwise differences among group (regions) mean scores, the Post Hoc multiple comparisons using Tukey test was employed. The test revealed statistically significant differences ( $p = 0.006$ ) in perceptions of leadership with tutors from Central Region ( $M = 2.92, SD = 0.42$ ) and Northern Region ( $M = 3.15, SD = 0.53$ ). Furthermore, there was found to be statistically significant difference ( $p = 0.003$ ) between the perceptions of tutors from Northern region ( $M = 3.15, SD = 0.53$ ) and those from Upper East Region ( $M = 2.88, SD = 0.54$ ).

Consequently, the homogeneity subset calculated by the Tukey test revealed two subsets in respect to the variable tutor 'perceptions of transformational leadership': (a) Tutors from the Upper East and Central Regions; and (b) Tutors' from the Eastern and Northern Regions. The

two subsets revealed that these two groups are distinctly and statistically significantly different from each other in respect of their tutors' perceptions of principal transformational leadership practices. As table 3 shows, the mean scores of the second group (Northern and Eastern Regions) are higher than the mean scores of the first group (Upper East and Central Regions).

#### ***4.2.2. Participants' Demographic Information***

The first part of the survey instrument contained five items which sought to elicit information from tutors concerning: (1) the identity of their institution; (2) gender; (3) qualifications; (4) number of years of working as a tutor (length of experience); and (5) number of years of working with current principal. Apart from the first item which was left out for reasons of anonymity and confidentiality, tables 4, 5 and 6 show the equity of distribution of the study extracted from the responses of tutor participants on the demographic items of the survey. As the tables indicate, a total of 434 tutors participated in the survey. Out of this number, 318 (73.3%) were male and 116 (26.7%) were female. This implied that more male tutors participated in the survey as compared to females.

*Table 4: Gender of Tutor Respondents.*

| Gender | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|-----------|---------|---------------|--------------------|
| Male   | 318       | 73.3    | 73.3          | 73.3               |
| Female | 116       | 26.7    | 26.7          | 100.0              |
| Total  | 434       | 100.0   | 100.0         |                    |

*Author's own data.*

In table 5 which shows the qualifications of the 434 tutors who participated in the survey, while 3 tutors (0.7%) obtained diploma degrees, 29 (6.7%) obtained first degrees. However, a considerable number of 399 (91.9%) tutors obtained masters or MPhil degrees which is the recommended minimum level of qualification for tutors in these colleges. Whereas this implies that most of the tutors in the studied colleges of education met the minimum qualification for teaching in the studied colleges, 32 (7.4%) of these tutors are unqualified.

Table 5: *Qualifications of Tutor Respondents.*

| Qualifications | Frequency | Percent | Valid Percent |
|----------------|-----------|---------|---------------|
| Diploma        | 3         | 0.7     | 0.7           |
| First Degree   | 29        | 6.7     | 6.7           |
| Masters/MPhil  | 399       | 91.9    | 91.9          |
| PhD            | 3         | 0.7     | 0.7           |
| Total          | 434       | 100.0   | 100.0         |

*Author's own data.*

Tables 6 and 7 show the descriptive statistics of tutors' work experience as tutors and the number of years with which they worked with their current principals. The results indicate that the minimum number of years of work as a tutor is 1 while maximum is 35. The results also indicate that while the minimum number of years with which tutors worked with their current principals is 1, the maximum number is 22 years. So, while the average years of experience as a tutor is recorded as 9, the average work experience with current principal is 4.

Table 6: *Years of Experience as Tutors*

| Year Range   | Frequency | Percent | Valid Percent |
|--------------|-----------|---------|---------------|
| Valid 1 to 5 | 147       | 33.9    | 33.9          |
| 6 to 10      | 132       | 30.4    | 30.4          |
| 11 to 15     | 92        | 21.2    | 21.2          |
| 16 to 20     | 40        | 9.2     | 9.2           |
| 21 to 25     | 11        | 2.5     | 2.5           |
| 26 to 30     | 7         | 1.6     | 1.6           |
| 31 to 35     | 5         | 1.2     | 1.2           |
| Total        | 434       | 100.0   | 100.0         |

*Author's own data.*

Table 7: *Tutors' Years of Work with Current Principals.*

| Year Range   | Frequency | Percent | Valid Percent |
|--------------|-----------|---------|---------------|
| Valid 1 to 5 | 325       | 74.9    | 74.9          |
| 6 to 10      | 78        | 17.97   | 17.97         |
| 11 to 15     | 21        | 4.8     | 4.8           |
| 16 to 20     | 9         | 2.1     | 2.1           |
| 21 to 25     | 1         | 0.2     | 0.2           |
| Total        | 434       | 100.0   | 100.0         |

*Author's own data.*

Furthermore, while 279 (64.3%) of the total number of tutors have between 1 to 10 *years of experience as tutors*, about 403 (92.9%) of tutors had between 1 to 10 years of *work with their current principals*. Within the context of teacher self-efficacy, it was observed in the literature review chapter that experienced teachers are more likely to develop stable sets of core beliefs about their abilities than less experienced teachers. Could this reflect the case of the tutors in these studied colleges since their average teaching experience is 9? Considering the fact that their average years of work with current principal is 4, and that about 92.9% of them have worked with their current principals for between 1 to 10 years, could this account for variations in their perceptions of transformational leadership practices of their college principals? These are some of the issues that this study seeks to uncover.

### **4.3. Answering the Research Questions and Hypotheses**

To respond to the research questions, quantitative data from a sample size of 434 tutors of the selected colleges of education in Ghana was obtained and analysed using SPSS version 24 for MAC. The analyses consisted of descriptive and inferential statistics. Descriptive statistics like mean scores and standard deviations were used in response to aspects of the research questions which sought to measure the overall assessments of tutors' sense of efficacy on the one hand, and on the other, their perceptions of whether or not the leadership practices of their college principals are transformational.

Inferential statistics such as independent sample test, analysis of variance (ANOVA), correlations and multiple regression analyses were equally conducted. While Pearson product moment coefficient of correlation is used to establish the relationship between the independent and dependent variables, *t*-test and ANOVA analysis were used to establish whether or not there is statistically significant differences between observed variables. Multiple regression analyses were used to determine the extent to which the independent variables accounted for variances in the dependent.

#### 4.3.1. *Research Question One (RQ1) and Hypotheses*

*What are tutors' assessments of their sense of efficacy as leaders of teaching and learning in the colleges of education in Ghana?*

This first research question sought to measure the following: (a) tutors' overall sense of efficacies in the colleges of education in Ghana; (b) determine whether or not there is statistically significant differences in the sense of efficacies between male and female tutors; (c) establish whether or not academic qualification and (d) years of experience account for any statistically significant differences in their sense of efficacy. In this way, research question one was divided into four research sub-questions with some null hypotheses.

##### **Research sub-question 1a**

*What are tutors' assessments of their sense of efficacies in student engagement, instructional strategies and classroom management?*

In all the fifteen colleges of education, tutors were asked to rate their self-efficacy beliefs or sense of efficacies using the twenty-four items of the TSES developed by Tschannen-Moran and Hoy (2001). These items measured tutors' self-efficacy beliefs in three areas: *efficacies in student engagement, instructional strategies and classroom management*. Tutors responded to each of the twenty-four items on a 9-point Likert scale ranging from 1(*nothing*) to 9(*a great deal*). In this way, the higher the ratings, the greater the self-efficacy beliefs of tutors. The reliability of the three factors of tutors' self-efficacy beliefs were calculated and proved to be above the cut-off point of 0.70 (see table 8).

While ratings from 1 to 5 (meaning 'nothing' to 'very little') demonstrate lower self-efficacy belief, ratings from 6 to 9 (meaning 'quite a bit' to 'a great deal') show higher tutor scores in their self-efficacy beliefs. As table 8 shows, the overall mean of the self-efficacy beliefs of tutors in the 15 colleges is ( $M = 7.21, SD = 1.13$ ). This showed that tutors in the colleges of education in Ghana have a high sense of efficacy. Furthermore, each of the three

factors of tutors' sense of efficacy beliefs equally recorded high mean scores ( $M > 7.0$ ) with *efficacy in instructional strategies* (IS) recording the highest value ( $M = 7.37$ ,  $SD = 1.18$ ).

Table 8: Mean Scores of Tutors' Assessments of their Sense of Efficacy in Three Factors.

|                        | N   | Minimum | Maximum | Mean        | Std. Deviation |
|------------------------|-----|---------|---------|-------------|----------------|
| <b>TSES</b>            |     |         |         | <b>7.21</b> | <b>1.13</b>    |
| Student Engagement     | 434 | 3.25    | 9.00    | 7.07        | 1.07           |
| Instructional Strategy | 434 | 2.25    | 9.00    | 7.37        | 1.18           |
| Classroom Management   | 434 | 2.75    | 9.00    | 7.19        | 1.14           |
| Valid N (listwise)     | 434 |         |         |             |                |

Author's own data.

### Research sub-question 1b

*Is there a statistically significant difference between male and female tutors' sense of efficacies in the colleges of education in Ghana?*

*Ho1: There is no statistically significant difference between male and female tutors' sense of efficacy in the colleges of education in Ghana.*

In response to the null hypothesis, an independent sample test (*t-test*) was conducted to determine whether there is statistically significant difference between the mean scores of male and female tutors in the fifteen colleges. Independent sample test was used because of the unrelated nature of the groups. In interpreting the output of *t-test* (independent sample test) results, Cohen and colleagues (2016) indicated that when the *p-value* for the Levene test for the equality of variance is statistically significant ( $p < 0.05$ ), then variances are *unequal*, and the researcher needs to use the row on 'equal variances not assumed'. However, if the *p-value* is not significant ( $p > 0.05$ ), then equal variances are assumed and so, the first row is used (see, Cohen et al., 2016: 342).

In the independent sample test conducted between male and female tutors' sense of efficacy in the fifteen Colleges of Education (N = 434), the probability value for tutors' sense of efficacy was not significant ( $p = 0.203$ ), and thus, equal variance was assumed. As tables 9

and 10 show, the mean score of male tutors' sense of efficacy ( $M = 7.43$ ,  $SD = 0.16$ ) is statistically significantly higher ( $t = 1.978$ ,  $df = 432$ ), two-tailed ( $p = 0.049$ ) than the mean scores of female tutors' sense of efficacy ( $M = 7.39$ ,  $SD = 0.15$ ). Hence, the null hypothesis ( $H_0$ ) that 'there is no statistically significant difference between male and female tutors' sense of efficacy was not supported at the significant level of  $p = 0.049$ .

Table 9: Mean Scores of Male and Female Tutors' Sense of Efficacy.

|      | GENDER | N   | Mean | Std. Deviation | Std. Error Mean |
|------|--------|-----|------|----------------|-----------------|
| TSES | Male   | 318 | 7.42 | 0.16           | .008            |
|      | Female | 116 | 7.39 | 0.15           | .014            |

Author's own data.

Table 10: Independent Sample T-Test for Male and Female Tutors' Sense of Efficacy

|          |                                | Levene's Test<br>for Equality of<br>Variances |      | t-test for Equality of Means |         |                     |                    |                          |   |       |
|----------|--------------------------------|---|------|------------------------------|---------|---------------------|--------------------|--------------------------|---|-------|
|          |                                | F   | Sig. | t                            | df      | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | 95% Confidence<br>Interval of the<br>Difference |       |
|          |                                |   |      |                              |         |                     |                    |                          | Lower   | Upper |
| TSE<br>S | Equal variances<br>assumed     | 1.114   | .203 | 1.978                        | 432     | .049                | .03                | .017                     | .003  | .069  |
|          | Equal variances<br>not assumed |   |      | 2.221                        | 215.635 | .027                | .03                | .016                     | .004  | .068  |

Author's own data.

### Research sub-question 1c

*Are there statistically significant differences between the mean scores of tutors' sense of efficacy following their different levels of academic qualification?*

*H<sub>0</sub>2: There are no statistically significant differences in the mean scores of tutors' sense of efficacy following their different levels of academic qualification.*

In this third research sub-question, one-way analysis of variance (ANOVA) was used to determine whether or not there are statistically significant differences between the four mean

scores of tutors' academic qualifications (diploma, first degree, masters and PhD) where  $\alpha = 0.050$ . The *post hoc* Tukey test was used to identify the exact locus of the differences (Cohen and colleagues, 2016: 646).

*Table 11: Means of Tutors' Efficacy According to their Qualifications.*

| Qualifications | N   | Mean | Std. Deviation | Std. Error |
|----------------|-----|------|----------------|------------|
| Diploma        | 3   | 7.29 | .140           | .080       |
| First degree   | 29  | 7.48 | .163           | .030       |
| Masters        | 399 | 7.41 | .156           | .007       |
| PhD            | 3   | 7.43 | .071           | .041       |
| Total          | 434 | 7.42 | .157           | .007       |

*Author's own data.*

Thus, the mean scores of tutors' academic qualifications are displayed in table 11. The assumption of normality was evaluated and found tenable for all categories of academic qualification. The assumption of homogeneity of variance was also evaluated and found acceptable using Levene's Test,  $F(3, 430) = .911, p = 0.436$ . The ANOVA was found to be statistically not significant  $F(3, 430) = 2.568, p = 0.054$ . Thus, the null hypothesis (Ho2) was supported (see table 12).

The lack of statistically significant differences between groups as shown in table 11, also implied a lack of statistically significant pairwise difference of among groups in the post hoc test. In this way, the analysis showed that despite the differences in tutors' academic qualifications, this factor did not account for variances in their sense of efficacy.

*Table 12: ANOVA of Tutor's Sense of Efficacy Following their Qualifications.*

|                | Sum of Squares | df  | Mean Square | F     | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | .189           | 3   | .063        | 2.568 | .054 |
| Within Groups  | 10.530         | 430 | .024        |       |      |
| Total          | 10.718         | 433 |             |       |      |

*Author's own data.*



### Research sub-question 1d

*Are there statistically significant differences between tutors' sense of efficacies following their 'years of work as tutors' or years of experience?*

*Ho3: There are no statistically significant differences in tutors' sense of efficacy following their 'years of work as tutors' or years of experience.*

In response to the above question and null hypothesis, a one-way analysis of variance (ANOVA) was used to determine whether or not there were statistically significant differences in tutors' sense of efficacy following their years of experience. The mean scores of tutors' sense of efficacy according to their years of experience are shown in table 13. The assumption of homogeneity of variance was evaluated and found tenable using Levene's Test,  $F(6, 427) = 0.520, p = 0.793$ .

*Table 13: Mean Scores of Tutors' Sense of Efficacy Following their Years of Experience.*

---

---

| Years of Experience | N   | Mean | Std. Deviation | Std. Error |
|---------------------|-----|------|----------------|------------|
| 1 to 5              | 147 | 7.41 | 0.15           | 0.01       |
| 6 to 10             | 132 | 7.41 | 0.15           | 0.01       |
| 11 to 15            | 92  | 7.40 | 0.15           | 0.02       |
| 16 to 20            | 40  | 7.41 | 0.15           | 0.02       |
| 21 to 25            | 11  | 7.45 | 0.17           | 0.05       |
| 26 to 30            | 7   | 7.44 | 0.18           | 0.06       |
| 31 to 35            | 5   | 7.41 | 0.07           | 0.03       |
| Total               | 434 | 7.41 | 0.15           | 0.01       |

---

---

*Author's own data.*

The ANOVA showed that there were no statistically significant differences in tutors' sense of efficacy following their years of experience  $F(6, 427) = .286, p = 0.944$  (see table 14). Consequently, the null hypothesis (Ho3) was supported in the study. This implied that variations in tutors' 'years of work as tutors' or experience did not account for any statistically significant differences in their sense of efficacy.

Table 14: ANOVA of Tutors' Efficacy Following their Years of Experience.

|                | Sum of Squares | df  | Mean Square | F    | Sig. |
|----------------|----------------|-----|-------------|------|------|
| Between Groups | 1.970          | 6   | .328        | .286 | .944 |
| Within Groups  | 490.719        | 427 | 1.149       |      |      |
| Total          | 492.689        | 433 |             |      |      |

*Author's own data.*

#### 4.3.2. Research Question Two (RQ2) and Hypotheses

*To what extent do tutors' in the Colleges of Education in Ghana perceive the leadership practices of their principals to be transformational?*

The second research question focuses on tutors' perceptions of the leadership practices of their college principals. It thus attends to the following: (a) the overall tutors' perceptions of whether or not their principals' leaderships practices are transformational; (b) the difference in statistical significance between male and female tutors' perceptions of their principals' leadership; (c) the impact of 'years of work with current principal' on variances in tutors' perceptions of their principals' leadership. Hence, research question two was divided into three research sub-questions and hypotheses.

The Principal Leadership Questionnaire (PLQ) developed by Jantzi and Leithwood (1996) was used to measure tutors' perceptions. The instrument contained twenty-four items which assessed six factors of transformational leadership practices on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The reliability of the instrument was tested using tutors' responses and this recorded values above the cut-off point of 0.70 (see table 15). Tutors' perceptions were measured against the backdrop of the following six factors of the PLQ: *provides vision (PV)*, *models behaviour (MB)*, *foster commitment (FC)*, *provides individual support (ISL)*, *provides intellectual stimulation (NS)* and *holds high performance expectations (HE)*.

Following the 4-point Likert scale, the higher the ratings, the more tutors considered their principals' leadership practices to be transformational. Table 15 shows the results of the analysis. The overall average score of tutors' perceptions of leadership was ( $M = 3.02$ ,  $SD = 0.57$ ); indicating that tutors *agreed* that their principals' leadership practices are transformational. The mean score for each of the six factors of principal leadership practices obtained the following: *provides vision* ( $M = 3.03$ ,  $SD = 0.59$ ), *modelling best behaviour* ( $M = 3.05$ ,  $SD = 0.64$ ), *fosters commitment* ( $M = 3.05$ ,  $SD = 0.57$ ), *providing individual support* ( $M = 2.87$ ,  $SD = 0.57$ ), *intellectual stimulation* ( $M = 2.92$ ,  $SD = 0.57$ ) and *holds high performance expectations* ( $M = 3.24$ ,  $SD = 0.54$ ).

The analysis further showed that apart from the fact that principals' transformational leadership practices such as *providing individual support* (ISL) and *intellectual stimulation* (NS) recorded lower values, the rest of the factors recorded higher mean scores. The above scores therefore imply that tutors of the colleges of education in Ghana agreed that their principals' leadership practices are transformational.

*Table 15: Mean Scores of Tutors' Perceptions of their Principals' Transformational Leadership Practices.*

|                       | N   | Minimum | Maximum | Mean        | Std. Deviation |
|-----------------------|-----|---------|---------|-------------|----------------|
| <b>PLQ</b>            |     |         |         | <b>3.02</b> | <b>0.57</b>    |
| PV                    | 434 | 1.00    | 4.00    | 3.03        | 0.59           |
| MB                    | 434 | 1.00    | 4.00    | 3.05        | 0.64           |
| FC                    | 434 | 1.00    | 4.00    | 3.05        | 0.57           |
| ISL                   | 434 | 1.00    | 4.00    | 2.87        | 0.57           |
| NS                    | 434 | 1.00    | 4.00    | 2.92        | 0.57           |
| HE                    | 434 | 1.00    | 4.00    | 3.24        | 0.52           |
| Valid N<br>(listwise) | 434 |         |         |             |                |

*Author's own data.*

### ***Research sub-question 2a***

*Is there a statistically significant difference between male and female tutors' perceptions of their Principals' transformational leadership practices?*

*Ho4: There is no statistically significant difference between male and female tutors' perceptions of their principals' transformational leadership practices.*

The overall mean scores of male and female tutors' perceptions of their principals' transformational leadership practices are presented in table 15. To evaluate the null hypothesis, an independent sample test (*t-test*) was conducted based on the understanding that the two groups were unrelated. Levene's test for the equality of variance proved to be nonsignificant ( $p = 0.158$ ).

Thus, the result of the independent sample *t-test* in table 17 indicated that the mean score for male tutors ( $M = 3.28$ ,  $SD = 0.12$ ) did not differ in statistical significance ( $t = -0.105$ ,  $df = 432$ , two-tailed  $p = 0.917$ ) in contrast to the mean scores of female tutors ( $M = 3.28$ ,  $SD = 0.11$ ). In this way, the null hypothesis (Ho4) was supported in the analysis. The above result therefore implied that male and female tutors share similar perceptions about the transformational leadership practices of their college principals.

*Table 16: Mean Scores of Male and Female Tutors' Perceptions of Leadership.*

| GENDER | N   | Mean | Std. Deviation | Std. Error Mean |
|--------|-----|------|----------------|-----------------|
| Male   | 318 | 3.28 | 0.12           | 0.01            |
| Female | 116 | 3.28 | 0.11           | 0.01            |

*Author's own data.*

*Table 17: T-Test of Male and Female Tutors' Perceptions of Leadership*

|                                | Levene's Test<br>for Equality<br>of Variances |      | t-test for Equality of Means |         |                     |                    |                          |  |       |
|--------------------------------|---|------|------------------------------|---------|---------------------|--------------------|--------------------------|--|-------|
|                                | F   | Sig. | t                            | df      | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | 95% Confidence Interval<br>of the Difference |       |
|                                |   |      |                              |         |                     |                    |                          | Lower  | Upper |
| PTL Equal variances<br>assumed | 2.004   | .158 | -.0105                       | 432     | .917                | -.00               | .013                     | -.025  | .024  |
| Equal variances<br>not assumed |   |      | -.039                        | 216.302 | .969                | -.00               | .012                     | -.024  | .023  |

*PTL: Principals' Transformational Leadership.*

*Authors' own data.*

### **Research sub-question 2b**

*To what extent do tutors' experience or 'years of work as tutors' account for the variances in their perceptions of principals' transformational leadership practices?*

*Ho5: There are no statistically significant differences in tutors' perceptions of their principals' transformational leadership following tutors' experience or 'years of work as tutors'.*

Tutors 'years of work as tutors' or experience ranged from: (1 to 5); (6 to 10); (11 to 15); (16 to 20); (21 to 25); (26 to 30); and (31 to 35). A one-way analysis of variance (ANOVA) was conducted to determine whether or not *years of work as tutor* or *experience* accounted for any statistically significant difference in their perceptions of their principals' transformational leadership practices. The mean scores of tutors' years of experience are shown in table 18.

*Table 18: Means of Tutors' Perceptions of Leadership Following their Years of Experience.*

| Years of Experience | N   | Mean | Std. Deviation | Std. Error |
|---------------------|-----|------|----------------|------------|
| 1 to 5              | 147 | .257 | .120           | .009       |
| 6 to 10             | 132 | .293 | .108           | .009       |
| 11 to 15            | 92  | .299 | .118           | .012       |
| 16 to 20            | 40  | .290 | .104           | .017       |
| 21 to 25            | 11  | .309 | .109           | .033       |
| 26 to 30            | 7   | .299 | .067           | .025       |
| 31 to 35            | 5   | .295 | .072           | .032       |
| Total               | 434 | .282 | .114           | .005       |

*Author's own data.*

The assumption of homogeneity of variance was evaluated and found tenable using Levene's Test,  $F(6, 427) = 1.200, p = 0.305$ . The analysis of variance (ANOVA) was not found to be statistically significant  $F(6, 427) = 1.937, p = 0.074$ . Thus, the null hypothesis (Ho5) is supported ( $p > 0.05$ ). This implied that tutors shared similar perceptions of their principals' transformational leadership practices despite differences in their years of experience (see table 19 below).

Table 19: ANOVA of Tutors' Perceptions of Leadership Following their Years of Experience.

|                | Sum of Squares | df  | Mean Square | F     | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | .150           | 6   | .025        | 1.937 | .074 |
| Within Groups  | 5.502          | 427 | .013        |       |      |
| Total          | 5.651          | 433 |             |       |      |

*Author's own data.*

### **Research sub-question 2c**

*Do tutors' 'years of work with current principal' account for any statistically significant differences in their perceptions of the leadership practices of these principals?*

*Ho6: There are no statistically significant difference in tutors' perceptions of their principals' transformational leadership practices following their years of work with these principals.*

Tutors 'years of work with their current principals' ranged from: (1 to 5); (6 to 10); (11 to 15); (16 to 20); and (21 to 25). The mean scores of their perceptions of their current principals' transformational leadership practices following the different year-range are presented in table 20. A one-way ANOVA was used to compare these mean scores of tutors' perceptions of their principals' transformational leadership practices. The assumption of normality was evaluated and found tenable for all categories of years. The assumption of homogeneity of variance was also evaluated and found acceptable using Levene's Test,  $F(4, 429) = 1.674, p = 0.167$ .

Table 20: Means of Tutors' Perceptions of Leadership Following their Work with Principals.

| Years of work with principals | N   | Mean | Std. Deviation | Std. Error |
|-------------------------------|-----|------|----------------|------------|
| 1 to 5                        | 323 | .275 | .115           | .006       |
| 6 to 10                       | 78  | .290 | .110           | .012       |
| 11 to 15                      | 21  | .328 | .113           | .025       |
| 16 to 20                      | 9   | .365 | .085           | .029       |
| 21 to 25                      | 3   | .290 | .043           | .025       |
| Total                         | 434 | .282 | .114           | .005       |

*Author's own data.*

The ANOVA found statistically significant differences in tutors perceptions following their years of work with current principals  $F(4, 429) = 2.539, p = 0.039, \eta^2 = 0.023$  (see table 21). Thus, the null hypothesis (Ho6) that there are no statistically significant difference in

tutors' perceptions of leadership following their 'years of work with their current principals' was not supported ( $p = 0.039$ ). Following Cohen's (1988) convention for determining effect sizes, the actual difference in the mean scores of between groups was small ( $\eta^2 = 0.023$ ).

*Table 21: ANOVA of Means of Tutors' Perceptions of Transformational Leadership Practices Following their Years of Work with Current Principals.*

|                | Sum of Squares | df  | Mean Square | F     | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | .131           | 4   | .033        | 2.539 | .039 |
| Within Groups  | 5.521          | 429 | .013        |       |      |
| Total          | 5.651          | 433 |             |       |      |

*Author's own data.*

Post hoc multiple comparisons test which determines the statistically significant pairwise differences among group mean scores was used to identify the locus of the statistical difference since equal variances were tenable. The test did not reveal statistically significant differences in the mean scores among the different range of years with which tutors worked with their current principals ( $p > 0.05$ ). Consequently, a second test (one-way ANOVA) was conducted using the six factors of transformational leadership practices. The purpose was to identify the locus of the difference. The assumption of homogeneity of variance was evaluated using Levene's Test. This found acceptable values with only FC, ISL, NS and HE (see table 22). Welch's robust test of the equality of means was used for the other factors:  $F(4, 13.207) = 4.211, p = 0.021$ .

Table 23 shows that the ANOVA was statistically significant only in three of the six factors such as: *provides vision* ( $p = 0.019$ ); *models best behaviour* ( $p = 0.004$ ); and *provides individual support* ( $p = 0.038$ ). Post Hoc multiple comparisons test revealed that under the leadership practice of *modelling best behaviour*, only the mean scores of tutors with between 1 to 5 years of work ( $M = .249, SD = .156$ ) differed in statistical significance ( $p = 0.038$ ) with the mean scores of tutors with between 16 to 20 years of work with their current principals ( $M = .393, SD = .117$ ).

Table 22: Levene's Test for the Homogeneity of Variance on Transformational Leadership.

|     | Levene Statistic | df1 | df2 | Sig. |
|-----|------------------|-----|-----|------|
| PV  | 2.517            | 4   | 429 | .041 |
| MB  | 3.174            | 4   | 429 | .014 |
| FC  | 1.719            | 4   | 429 | .145 |
| ISL | .989             | 4   | 429 | .413 |
| NS  | .953             | 4   | 429 | .433 |
| HE  | 1.929            | 4   | 429 | .105 |

*Author's own data.*

Table 23: One-Way Analysis of Variance of between Groups on the Six Factors of Transformational Leadership.

|     |                | Sum of Squares | df  | Mean Square | F     | Sig. |
|-----|----------------|----------------|-----|-------------|-------|------|
| PV  | Between Groups | .216           | 4   | .054        | 2.977 | .019 |
|     | Within Groups  | 7.785          | 429 | .018        |       |      |
|     | Total          | 8.001          | 433 |             |       |      |
| MB  | Between Groups | .346           | 4   | .086        | 3.853 | .004 |
|     | Within Groups  | 9.632          | 429 | .022        |       |      |
|     | Total          | 9.978          | 433 |             |       |      |
| FC  | Between Groups | .141           | 4   | .035        | 2.013 | .092 |
|     | Within Groups  | 7.490          | 429 | .017        |       |      |
|     | Total          | 7.631          | 433 |             |       |      |
| ISL | Between Groups | .154           | 4   | .039        | 2.564 | .038 |
|     | Within Groups  | 6.453          | 429 | .015        |       |      |
|     | Total          | 6.607          | 433 |             |       |      |
| NS  | Between Groups | .045           | 4   | .011        | .674  | .611 |
|     | Within Groups  | 7.184          | 429 | .017        |       |      |
|     | Total          | 7.229          | 433 |             |       |      |
| HE  | Between Groups | .030           | 4   | .007        | .408  | .803 |
|     | Within Groups  | 7.819          | 429 | .018        |       |      |
|     | Total          | 7.849          | 433 |             |       |      |

*Author's own data.*

The Post Hoc Test for the rest of the leadership practices revealed no statistically significant pairwise differences in mean scores. This implied that apart from the practice of *modelling best behaviour*, tutors shared common perceptions of their principals' transformational leadership practices such as: *provide vision, foster commitment, individual support, intellectual stimulation and holds high performance expectations* despite differences in their 'years of work with current principals'.



### 4.3.3. *Research Question Three (RQ3) and Hypotheses*

*What is the relationship between tutors' sense of efficacy and their perceptions of the transformational leadership practices of their college principals?*

Research question three (RQ3) sought to ascertain the magnitude and direction and the statistical significance between the three factors of tutors' sense of efficacy (*efficacy in student engagement, instructional strategies, and classroom management*) and their perceptions of the six factors of principals' transformational leadership practices (*provides vision, models behaviour, fosters commitment, provides individual support, intellectual stimulation and holds high performance expectations*).

In this way, the third research question (RQ3) was divided into three research sub-questions and hypotheses which focused on establishing the following correlations: (a) the correlations between tutors' sense of efficacy in *student engagement* and the six factors of their principals' transformational leadership practices; (b) the correlations between tutors' sense of efficacy in *instructional strategies* and the six factors of their principals' transformational leadership practices; and (c) the correlations between tutors' sense of efficacy in *classroom management* and the six factors of their principals' transformational leadership practices.

Pearson's product moment coefficient of correlation with measures of association which range from -1.0 to 1.0 was used. Cohen's (1988; cited in Pallant, 2010) indicates that the magnitude of correlations ranges from:  $r = -1.0$  to  $0.29$  (small);  $r = 0.30$  to  $0.49$  (medium);  $r = 0.50$  to  $1.0$  (large). Thus, while the correlation coefficient (the *R-value*) demonstrates the strength or magnitude of the relationship, statistical significance (the *p-value*) is distinguished by an asterisk at 0.05 levels and a double asterisk at 0.01 levels. As Cohen and colleagues (2016) indicated, 'the greater the sample size, the lower the correlation coefficient has to be in order to be statistically significant' (p.634).

### **Research sub-question 3a**

*What is the relationship between tutors' sense of efficacy in student engagement and their perceptions of the six transformational leadership practices of their college principals?*

*Ho7: There is no statistically significant relationship between tutors' sense of efficacy in student engagement and their perceptions of the six factors of the transformational leadership practices of their college principals.*

Table 24 shows the results of the correlational analysis between tutors' sense of efficacy in student engagement (SE) and the six principals' transformational leadership practices such as: *provides vision* (PV); *models best behaviour* (MB); *fosters commitment* (FC); *provides individual support* (ISL); *provides intellectual stimulation* (NS); and *hold high performance expectations* (HE).

Using the Pearson product moment correlation coefficient, a statistically significant correlation was found between tutors' sense of efficacy in student engagement (SE) and five principal leadership practices such as: *provides vision* ( $r = .188, p = 0.000$ ); *foster commitment* ( $r = .128, p = .008$ ); *provides individual support* ( $r = .152, p = .001$ ); *intellectual stimulation* ( $r = .112, p = .020$ ); and *holds high performance expectations* ( $r = .160, p = .001$ ). These results did not support the null hypothesis (Ho7).

*Table 24: Correlations between SE and Six Factors of Transformational Leadership*

|                    |                 | SE  | PV     | MB   | FC     | ISL    | NS    | HE     |
|--------------------|-----------------|-----|--------|------|--------|--------|-------|--------|
| <b>Efficacy in</b> |                 | 1   | .188** | .083 | .128** | .152** | .112* | .160** |
| <b>Student</b>     | Sig. (2-tailed) |     | .000   | .085 | .008   | .001   | .020  | .001   |
| <b>Engagement</b>  | N               | 434 | 434    | 434  | 434    | 434    | 434   | 434    |
| <b>(SE)</b>        |                 |     |        |      |        |        |       |        |

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

\* . Correlation is significant at the 0.05 level (2-tailed).

Following Cohen's rule of thumb, the magnitude of the relationships was considered to be small for all four factors possibly because of the large sample size. The direction of the relationships between factors was positive (see table 24). Without the implications of causality, the results implied that the more principals exercised the transformational leadership practices

of *providing vision, fostering commitment, providing individual support, intellectual stimulation and holding high performance expectations*, the increase in tutors' sense of efficacy in student engagement and vice versa. However, the results did not find statistically significant relationship between tutors' sense of efficacy in student engagement and principals' transformational leadership practice of *modelling best behaviour* ( $r = .083, p = .085$ ). Here, the null hypothesis (Ho7) was supported. Although tutors rated their self-efficacy in student engagement to be high, and also agreed that their principals exercised the leadership practice of *modelling best behaviour*, the relationships between the two factors was not statistically significant.

### **Research sub-question 3b**

*What is the relationship between tutors' sense of efficacy in instructional strategies and their perceptions of the six factors of the transformational leadership practices of their college principals?*

*Ho8: There is no statistically significant relationship between tutors' sense of efficacy in instructional strategies and their perceptions of the six factors of the transformational leadership practices of their college principals.*

Table 25 shows the results of the Pearson moment coefficient of correlation between tutors' sense of efficacy in instructional strategies (IS) and their perceptions of the following transformational leadership practices of their college principals: (*provides vision* (PV); *models best behaviour* (MB); *fosters commitment* (FC); *provides individual support* (ISL); *provides intellectual stimulation* (NS); and *hold high performance expectations* (HE)).

*Table 25: Correlations between IS and Six Factors of Transformational Leadership*

|  |   | IS  | PV    | MB   | FC   | ISL   | NS   | HE     |
|--|---|-----|-------|------|------|-------|------|--------|
| <b>Efficacy in Instructional Strategies (IS)</b> |   | 1   | .112* | .043 | .063 | .101* | .037 | .130** |
|  |   |     | .020  | .369 | .188 | .035  | .436 | .007   |
|  | N | 434 | 434   | 434  | 434  | 434   | 434  | 434    |

\*. Correlation is significant at the 0.05 level (2-tailed).

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

The results found statistically significant correlations between tutors' sense of efficacy in *instructional strategies* and three principals' transformational leadership practices such as: *provides vision* ( $r = .112, p = .020$ ); *provides individual support* ( $r = .101, p = .035$ ); and *holds high performance expectations* ( $r = .130, p = .007$ ). Consequently, the null hypothesis (Ho8) was not supported on the basis of these three factors. While the direction of relationship was positive, the magnitude of relationship is small following Cohen's (1988) rule of thumb. These results thus implied that principals' transformational leadership practices such as *provide vision, provide individual support* and *hold high performance expectations*, positively related to tutors' sense of efficacy in *instructional strategies*.

However, principals' transformational leadership practices such as: *model best behaviour* ( $r = .043, p = .369$ ); *fosters commitment* ( $r = .063, p = .118$ ); and *provides intellectual stimulation* ( $r = .037, p = .436$ ) did not find statistically significant relationship with tutors' sense of efficacy in *instructional strategies*. In this way, the null hypothesis (Ho8) was supported on the basis of these three factors (see table 25). Even though tutors obtained high mean scores in their sense of efficacy in instructional strategies and also rated their principals to be practicing such transformational leadership practices, the relationship between the above factors was not statistically significant.

### ***Research sub-question 3c***

*What is the relationship between tutors' sense of efficacy in classroom management and their perceptions of the six factors of the transformational leadership practices of their college principals?*

*Ho9: There is no statistically significant relationship between tutors' sense of efficacy in classroom management and their perceptions of the six factors of the transformational leadership practices of their college principals.*

Table 26 shows the results of the correlation analysis between tutors' sense of efficacy in *classroom management* (CM) and the six transformational leadership practices of their college principals: (*provides vision* (PV); *models best behaviour* (MB); *fosters commitment* (FC); *provides individual support* (ISL); *provides intellectual stimulation* (NS); and *hold high performance expectations* (HE).

Using Pearson product moment correlation coefficient, statistically significant correlations were found between tutors' sense of efficacy in classroom management and four principal leadership practices such as: *provides vision* ( $r = .166, p = .001$ ); *fosters commitment* ( $r = .127, p = .008$ ); *provides individual support* ( $r = .148, p = .002$ ); and *holds high performance expectation* ( $r = .135, p = .005$ ). Hence, on the basis of these four factors, the null hypothesis (Ho9) was not supported. Whereas the relationship was positive, the magnitude was small following Cohen's (1988) rule of thumb.

Table 26: Correlations between CM and Six Factors of Transformational Leadership

|  | CM  | PV     | MB   | FC     | ISL    | NS   | HE     |
|--|-----|--------|------|--------|--------|------|--------|
| <b>Efficacy in Classroom Management (CM)</b> | 1   | .166** | .077 | .127** | .148** | .093 | .135** |
|  |     | .001   | .111 | .008   | .002   | .053 | .005   |
| N  | 434 | 434    | 434  | 434    | 434    | 434  | 434    |

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

However, tutors' perceptions of their principals' transformational leadership practices such as *modelling best behaviour* ( $r = .077, p = .111$ ) and *provides intellectual stimulation* ( $r = .093, p = .053$ ) did not find statistically significant relationships with their sense of efficacy in classroom management. Hence, the null hypothesis (Ho9) was supported on the basis of these two factors.

#### 4.3.4. Research Question Four (RQ4) and Hypotheses

*How much of the total variance in tutors' sense of efficacy is explained by their perceptions of the transformational leadership practices of their college principals?*

This research question focused on establishing how much of the total variances of tutors' self-efficacy beliefs may be accounted for or explained by perceptions of their principals' transformational leadership practices. Multiple regression analyses were used here because the researcher could take in a range of independent variables and calculate their relative effects or weightings on the dependent variable (Cohen et al., 2016:664). Under this research question (RQ4), multiple regression analysis was conducted to test three hypothesized relationship between tutors' sense of efficacies in *student engagement*, *instructional strategies* and *classroom management* and their perceptions of the transformational leadership practices of their college principals. In this way, the fourth research question (RQ4) was divided into three research sub-questions and three null hypothetical constructions.

The principals' transformational leadership practices that were found to have statistically significant relationships with each of the three factors of tutors' sense of efficacy were used in these analyses. This was to ensure that there are linear relationships between factors of the dependent and the independent variables. Ensuring such linearity is part of the fundamental assumptions for conducting multiple regression analysis (Gorard, 2001: 213; Pallant 2007: 148; Cohen et al., 2016:668-9). The demographic factors of gender, experience and qualifications were not considered in the analyses under this section because of their lack of statistically significant effects on the variables of interests. Besides, the interest under this research question (RQ4) was to ascertain the relative weightings of the identified independent variables on the dependent (see, Cohen et al., 2016: 664-665).

#### ***Research sub-question 4a***

*How much of the total variance of tutors' self-efficacy in student engagement (SE) is explained by perceptions of their principals' transformational leadership practices of: providing vision (PV), fostering commitment (FC), providing individual support (ISL), intellectual stimulation (NS) and holding high performance expectations (HE)?*

*Ho10: Tutors' sense of efficacy in student engagement (SE) is not a function of the identified principals' transformational leadership practices.*

In response to research sub-question 4a and the null hypothesis (Ho10), multiple regression analysis was conducted using the above dependent variable (SE) and independent variable (PV, FC, ISL, NS, and HE). The obtained values between the dependent variable (SE) and the independent variables ( $R = 0.24$ ) as shown in table 27 was statistically significant  $F(55, 427) = 4.237, P < .001$ . The data therefore did not support the null hypothesis (Ho10) on the basis of the leadership practice of *providing vision* ( $p = .002$ ).

This implied that tutors' sense of efficacy in student engagement is a function of their principals' transformational leadership practices. The derived  $R^2$  in the analysis showed that principals' transformational leadership practices accounted for 5.6% of the total variance in tutors' sense of efficacy in student engagement. However, the value of the adjusted  $R^2$  which is more accurate is 4.3%.

*Table 27: Regression Analysis of Full Model between Efficacy in Student Engagement and the identified Principals' Leadership Practices.*

| Model                     | R    | R <sup>2</sup> | Adjusted R <sup>2</sup> | df     | F     | P                 |
|---------------------------|------|----------------|-------------------------|--------|-------|-------------------|
| <b>Student Engagement</b> | .237 | .056           | .043                    | 5, 427 | 4.237 | .000 <sup>b</sup> |

Predictors: (Constant), PV, FC, ISL, NS, and HE. b. Dependent Variable: SE.  $P < .05$ .

*Table 28: Beta Coefficients between Student Engagement and Five Leadership Practices.*

| Model                    | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|--------------------------|-----------------------------|------------|---------------------------|--------|------|
|                          | Beta                        | Std. Error | Beta                      |        |      |
| 1 (Constant)             | .369                        | .021       |                           | 17.598 | .000 |
| Provides Vision (PV)     | .341                        | .111       | .293                      | 3.061  | .002 |
| Fosters Commitment       | -.084                       | .113       | -.071                     | -.745  | .457 |
| Individual Support       | .114                        | .105       | .089                      | 1.092  | .275 |
| Intellectual Stimulation | -.021                       | .090       | -.018                     | -.238  | .812 |
| High Performance Exp.    | .111                        | .075       | .095                      | 1.488  | .137 |

$P < .05$ . Adjusted  $R^2 = 0.43, F(55, 427) = 4.237, P < .001$ . adjusted R square = 4.3

Table 28 shows the unstandardized and standardized beta coefficients of each component variable. Using the unstandardized beta coefficients, it was observed that relative to each other, *provides vision* ( $\beta = .341, \rho = .002$ ) exerted the greatest influence on tutors' sense of efficacy in student engagement.

Whereas *providing individual support* and *holding high performance expectations* exerted small but statistically nonsignificant effects ( $\beta = .114, \rho = .275$  and  $\beta = .111, \rho = .137$  respectively), *fosters commitment* and *intellectual stimulation* exerted negative but statistically nonsignificant effects on tutors' sense of efficacy in student engagement ( $\beta = -.084, \rho = .457$  and  $\beta = -.021, \rho = .812$ ). The derived multiple regression value for the model of best fit and tutors' sense of efficacy in student engagement  $R = .188$  as shown in table 29 is considered to be statistically significant  $F(1, 432) = 15.865, P < .01$ . The adjusted  $R^2 .033$  demonstrated that principals' leadership practices of *providing vision* was the most parsimonious factor as it accounted for about 3.3% of the variability in the full model 4.3%. In this way, principals' leadership practice of *providing vision* impacted more on tutors' sense of efficacy in student engagement.

Table 29: Regression Analysis of Model of Best Fit between Student Engagement and Principals' Leadership Practices.

| Model                     | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | df     | F      | P    |
|---------------------------|-------------------|----------------|-------------------------|--------|--------|------|
| <b>Student Engagement</b> | .188 <sup>a</sup> | .035           | .033                    | 1, 432 | 15.865 | .000 |

a. Predictors: (Constant), PV b. Dependent Variable: SE.  
P < .05.

#### **Research sub-question 4b**

*How much of the total variance in tutors' sense of efficacy in instructional strategies is accounted for by their perceptions of their principals' transformational leadership practices of providing vision, individual support and holding high performance expectation*

*Ho11: Tutors' sense of efficacy in instructional strategies is not a function of the identified principals' transformational leadership practices.*



The derived multiple regression value between tutors' sense of efficacy in *instructional strategies* (IS) and principals' transformational leadership practices of *providing vision*, *providing individual support and holding high performance expectation*  $R = .186$  as shown in table 30 was viewed to be statistically significant  $F(22, 43332) = 2.563, P = .019$ . The null hypothesis (ho11) was therefore not supported.

*Table 30: Regression Analysis of Full Model between Efficacy in Instructional Strategies and Principals' Leadership Practices.*

| Model                           | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | df     | F     | P                 |
|---------------------------------|-------------------|----------------|-------------------------|--------|-------|-------------------|
| <b>Instructional Strategies</b> | .186 <sup>a</sup> | .035           | .021                    | 2, 431 | 2.563 | .019 <sup>b</sup> |

a. Predictors: (Constant), PV, ISL, and HE. b. Dependent Variable: IS.  $P < .05$ .

*Table 31: Beta Coefficients between Instructional Strategies and three Leadership Practices.*

| Model                              | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                    | Beta                        | Std. Error | Beta                      |        |      |
| 1 (Constant)                       | .334                        | .024       |                           | 13.953 | .000 |
| Provides Vision                    | .228                        | .127       | .173                      | 1.794  | .074 |
| Individual Support                 | .181                        | .120       | .125                      | 1.515  | .130 |
| Holds High Performance Expectation | .180                        | .085       | .136                      | 2.108  | .036 |

$P < 0.05$ . Adjusted = 0.21,  $F(22, 43332) = 2.563, P = .019$ .

This implied that tutors' sense of efficacy in instructional strategies was a function of their principals' transformational leadership practices. The value of *adjusted R<sup>2</sup>* 0.021 showed that principals' leadership practices accounted for about 2.1% of the total variance in tutors' sense of efficacy in instructional strategies. Table 31 shows the unstandardized and standardized beta coefficients of each component variable. Using the unstandardized beta coefficients, it was observed that relative to each other, the only variable which impacted on tutors' sense of efficacy in instructional strategies was the leadership practice of *holding high performance expectation* ( $\beta = .180, \rho = .036$ ). The leadership practices of *providing vision* and *individual support* exerted small but statistically insignificant effects on the dependent variable ( $\beta = .228, \rho = .074$  and  $\beta = .181, \rho = .130$  respectively).

However, the value for the model of best fit and tutors' sense of efficacy in instructional strategies ( $R = .130$ ) as shown in table 32 was considered to be statistically significant  $F(1, 432) = 7.398, P = .007$ . The adjusted  $R^2$  (.015) demonstrated that principals' leadership practices of *holding high performance expectations* accounted for 1.5% of the variability in the full model (2.1%). In this way, it impacted the most on tutors' sense of efficacy in instructional strategies.

*Table 32: Regression Analysis of Model of Best Fit between Instructional Strategies and Principals' Leadership Practices.*

| Model                           | R                 | $R^2$ | Adjusted $R^2$ | df    | F     | P                 |
|---------------------------------|-------------------|-------|----------------|-------|-------|-------------------|
| <b>Instructional Strategies</b> | .130 <sup>a</sup> | .017  | .015           | 1.432 | 7.398 | .007 <sup>b</sup> |

a. Predictors: (Constant), HE. b. Dependent Variable: IS.  $P < .05$

#### ***Research sub-question 4c***

*How much of the total variance in tutors' self-efficacy in classroom management (CM) is explained by perceptions of their principals' transformational leadership practices of 'providing vision (PV), fostering commitment' (FC), providing individual support (ISL) and holding high performance expectations (HE)?*

*Ho12: Tutors' sense of efficacy in classroom management is not a function of the identified principals' transformational leadership practices.*

The results of multiple regression analysis between tutors' sense of efficacy in classroom management (CM) and principals' transformational leadership practices  $R = .208$  as shown in table 33 is significant  $F(6,427) = 3.225, p = .004$ . This implied that the null hypothesis (Ho12) that 'tutors' sense of efficacy in classroom management is not a function of their principals' transformational leadership practices' was not supported. The value of adjusted  $R^2$  (.030) in the analysis indicated that principals' transformational leadership practices accounted for about 3.0% of the total variance in tutors' sense of efficacy in classroom management.

Table 33: Regression Analysis between Efficacy in Classroom Management and Transformational Leadership Practices.

| Model                       | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | df    | F      | P                 |
|-----------------------------|-------------------|----------------|-------------------------|-------|--------|-------------------|
| <b>Classroom Management</b> | .208 <sup>a</sup> | .043           | .030                    | 6,427 | 63.225 | .004 <sup>b</sup> |

a. Predictors: (Constant), PV, FC, ISL and HE. b. Dependent Variable: CM. P < .05.

Table 34: Beta Coefficients between Classroom Management and Four Transformational Leadership Practices.

| Model                              | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                    | Beta                        | Std. Error | Beta                      |        |      |
| (Constant)                         | .347                        | .023       |                           | 15.344 | .000 |
| Provides Vision                    | .276                        | .120       | .222                      | 2.303  | .022 |
| Fosters Commitment                 | -.013                       | .122       | -.010                     | -.108  | .914 |
| Individual Support                 | .158                        | .113       | .115                      | 1.404  | .161 |
| Holds High Performance Expectation | .087                        | .081       | .069                      | 1.078  | .282 |

P < 0.05. Adjusted R<sup>2</sup> = 0.030, F(6,427) = 3.225, p = .004.

Table 34 shows the unstandardized and standardized beta coefficients of each component variable. Using the unstandardized beta coefficients, it was observed that, relative to each leadership factor, the practice of *providing vision* positively impacted on tutors' sense of efficacy in classroom management ( $\beta = .276, \rho = .022$ ). The leadership practices of *providing individual support* and *holding high performance expectations* exerted small but statistically nonsignificant effects on the dependent variable ( $\beta = .158, \rho = .161$ ). However, as can be seen in table 34, the transformational leadership practice of *fostering commitment* exerted negative but statistically nonsignificant effects on tutors' sense of efficacy in classroom management.

The derived multiple regression value for the model of best fit and tutors' sense of efficacy in classroom management ( $R = .166$ ) as shown in table 35 was considered statistically significant  $F(1, 432) = 12.184, P = .001$ . The adjusted R<sup>2</sup> .025 demonstrated that principals' transformational leadership practices of *providing vision* (PV) accounted for 2.5% of the variability in the full model (3.0%). In this way, transformational leadership practice of providing vision (PV) impacted the most on tutors' sense of efficacy in classroom management.

Table 35: Regression Analysis of Model of Best Fit between Classroom Management and Transformational Leadership Practices.

| Model                       | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | df    | F      | P                 |
|-----------------------------|-------------------|----------------|-------------------------|-------|--------|-------------------|
| <b>Classroom Management</b> | .166 <sup>a</sup> | .027           | .025                    | 1,432 | 12.184 | .001 <sup>b</sup> |

a. Predictors: (Constant), PV

b. Dependent Variable: CM P < .05.

#### 4.4. Summary of the Analyses

This chapter presented analyses and findings from a quantitative study of 434 tutors from 15 University Colleges of Education in Ghana. The analyses were conducted in response to four main research questions based on the following areas: (1) tutors' assessments of their sense of efficacy in student engagement, instructional strategies and classroom managements; (2) tutors' perceptions of whether or not their principals' leadership practices were transformational; (3) the correlations between tutors' sense of efficacies and their perceptions of the transformational leadership practices of their college principals; and (4) the extent to which the total variance in tutors' sense of efficacy is explained by their perceptions of the transformational leadership practices of their college principals. Each of the four research questions were further divided into research sub-questions with their corresponding null hypotheses. The summaries of these analyses are presented in table 34 below.

Table 36: Summaries of Responses to Research Questions and Hypotheses.

| Research Questions and Hypotheses   | Responses and Decisions   |
|---|---|
| <b>RQ1a:</b> What are tutors' perceptions of their sense of efficacy as leaders of teaching and learning in the Colleges of Education in Ghana?   | In all, tutors perceived their sense of efficacies to be high ( $M = 7.21, SD = 1.13$ ).  |
| <b>RQ1b:</b> Is there a statistically significant difference between male and female tutors' sense of efficacies in the colleges of Education in Ghana?<br><b>Ho1:</b> There is no statistically significant difference between male and female tutors' sense of efficacy in the Colleges of Education in Ghana.                          | The <b>null hypothesis Ho1 is rejected</b> . Male tutors' sense of efficacy ( $M = 0.43, SD = 0.16$ ) is statistically significantly higher ( $t = 1.978, df = 432$ ), two-tailed ( $p = 0.049$ ) compared to female tutors' sense of efficacy ( $M = 0.39, SD = 0.15$ ). |
| <b>RQ1c:</b> Are there statistically significant differences between the mean scores of tutors' sefficacy following their different levels of academic qualification?<br><b>Ho2:</b> There is no statistically significant differences in the mean scores of tutors' sense of efficacy following their levels of academic qualifications. | The ANOVA found no statistical significance $F(3, 430) = 2.568, p = 0.054$ .<br>Thus, <b>the null hypothesis (Ho2) is confirmed</b> .   |

|   |   |
|---|---|
| <p><b>RQ1d:</b> Are there statistically significant differences between tutors' sense of efficacies following their 'years of work as tutors'?</p> <p><b>Ho3:</b> There are no statistically significant differences in tutors' efficacy following their 'years of work as tutors'.</p>   | <p>The ANOVA found no statistical significance <math>F(6, 427) = 0.169, p = 0.985</math>.</p> <p>So, <b>the null hypothesis (Ho3) is confirmed.</b></p>   |
| <p><b>RQ2a:</b> To what extent do tutors' in the Colleges of Education in Ghana perceive the leadership practices of their principals to be transformational?</p>   | <p>Tutors perceived the leadership practices of their principals to be transformational with a mean score of (<math>M = 3.02, SD = 0.57</math>).</p>  |
| <p><b>RQ2b:</b> Is there statistically significant difference between male and female tutors' perceptions of their principals' transformational leadership practices?</p> <p><b>Ho4:</b> There is no statistically significant difference between male and female tutors' perceptions of their principals' transformational leadership practices.</p>   | <p>The independent sample <i>t</i>-test found no statistically significant differences (<math>t = -0.105, df = 432, two-tailed p = 0.917</math>) between the mean scores of male (<math>M = .282, SD = .116</math>) and female tutors (<math>M = .283, SD = .109</math>).</p> <p><b>The null hypothesis (Ho4) is supported.</b></p>   |
| <p><b>RQ2c:</b> To what extent do tutors' 'years of work as tutors' account for the variances in their perceptions of principals' transformational leadership practices?</p> <p><b>Ho5:</b> There is no statistically significant differences in tutors' perceptions of their principals' transformational leadership practices and their years of experience</p>   | <p>ANOVA found no statistical significance <math>F(6, 427) = 1.937, p = 0.074</math>.</p> <p>Thus, <b>the null hypothesis (Ho5) is confirmed</b> (<math>p &gt; 0.05</math>).</p>  |
| <p><b>RQ2d:</b> Do tutors' 'years of work with current principal' account for any statistically significant differences in their perceptions of the leadership practices of their principals?</p> <p><b>Ho6:</b> There is no statistically significant differences in tutors' perceptions of leadership following their 'years of work with their current principals'.</p>  | <p>The ANOVA found statistical significant <math>F(4, 429) = 2.539, p = 0.039, \eta^2 = 0.023</math>.</p> <p>So, <b>the null hypothesis (Ho6) is not supported.</b></p>   |
| <p><b>RQ3a:</b> What is the relationship between tutors' sense of efficacy in student engagement and their perceptions of the six transformational leadership practices of their college principals?</p> <p><b>Ho7:</b> There is no statistically significant relationship between tutors' sense of efficacy in student engagement and their perceptions of the six factors of the transformational leadership practices of their principals.</p> | <p>Correlations analysis found statistically significant relationships with leadership practices such as: <i>provides vision; foster commitment; provides individual support; intellectual stimulation; and holds high performance expectations.</i></p> <p>Thus, <b>the null hypothesis (Ho7) is rejected</b>, but supported in the case of <i>model best behaviour.</i></p> |
| <p><b>RQ3b:</b> What is the relationship between tutors' efficacy in instructional strategies and the perceptions of the six factors of the leadership practices of their college principals?</p> <p><b>Ho8:</b> There is no statistically significant relationship between tutors' sense of efficacy in instructional strategies and their perceptions of the six factors of the leadership practices of their principals.</p>                   | <p>Correlations analysis found statistically significant relationships with leadership practices such as: <i>provides vision; provides individual support; and holds high performance expectations.</i></p> <p>Thus, <b>the null hypothesis (Ho8) is rejected</b> on the basis of these three practices.</p>  |
| <p><b>RQ3c:</b> What is the relationship between tutors' sense of efficacy in classroom management and their perceptions of the six factors of the transformational leadership practices of their principals?</p> <p><b>Ho9:</b> There is no statistically significant relationship between tutors' sense of efficacy in classroom management and their perceptions of the transformational leadership practices of their principals.</p>         | <p>Correlation analysis found statistically significant relationship with leadership practices such as: <i>provides vision; fosters commitment; provides individual support; and holds high performance expectation.</i></p> <p>Hence, <b>the null hypothesis (Ho9) is not supported here.</b></p>  |

|   |   |
|---|---|
| <p><b>RQ4a:</b> How much of the total variance of tutors' sense of efficacy in student engagement is explained by the identified principals' transformational leadership practices?</p> <p><b>Ho10:</b> Tutors' sense of efficacy in student engagement (SE) is not a function of their principals' transformational leadership practices.</p>            | <p>The <b>null hypothesis (Ho10) is rejected</b> on the basis of <math>F(6, 427) = 4.237, p &lt; .001</math>. Principals' transformational leadership practices accounted for <b>4.3%</b> of the total variance in tutors' sense of efficacy in student engagement.</p>             |
| <p><b>RQ4b:</b> How much of the total variance in tutors' sense of efficacy in instructional strategies is accounted for by the identified principals' transformational leadership practices?</p> <p><b>Ho11:</b> Tutors' sense of efficacy in instructional strategies is not a function of their principals' transformational leadership practices.</p> | <p>The <b>null hypothesis (Ho11) is rejected on the basis of the following:</b> <math>F(6, 427) = 2.563, P = .019</math>. Principals' leadership practices accounted for about <b>2.1%</b> of the total variance in tutors' sense of efficacy in instructional strategies.</p>      |
| <p><b>RQ4c:</b> How much of the total variance in tutors' sense of efficacy in classroom management is accounted for by the identified principals' transformational leadership practices?</p> <p><b>Ho12:</b> Tutors' sense of efficacy in classroom management is not a function of their principals' transformational leadership practices.</p>         | <p>The <b>null hypothesis is rejected on the basis of the following:</b> <math>F(6,427) = 3.225, p = .004</math>. Principals' transformational leadership practices accounted for about <b>3.0%</b> of the total variance in tutors' sense of efficacy in classroom management.</p> |

## CHAPTER FIVE: THE DISCUSSION OF RESEARCH FINDINGS

### 5.1. Introduction

This chapter presents discussions of the results in the chapter four of this current study. Chapter four focused on analyses which examined the relationship between tutors' perceptions of the transformational leadership practices of their college principals and their self-efficacy beliefs. To put it succinctly, while the analyses found positive statistically significant relationships between factors of the two key variables, the analyses also found that the total variances in tutors' sense of efficacies were functions of their perceptions of certain transformational leadership practices of their college principals. The discussions in this chapter are therefore a consistent and critical engagement between findings of this current study and those of the reviewed studies in chapter two. This is followed by the conclusion, the summary, the implications and recommendations for further study.

From the review of literature in chapter two, it was observed that many empirical research studies consistently demonstrated that teachers' sense of efficacy is a significant predictor of their performance as instructional leaders (Tschannen-Moran and Hoy, 2001; 2006; Ross and Gray, 2006; Wolters and Daugherty, 2007; Klassen and Chiu, 2010; Vaudroz et al., 2015). For instance, Tschannen-Moran and Hoy (2001: 783) found that teachers with a high sense of efficacy exhibit greater levels of planning and organisation. Such teachers were more open to and willing to implement new ideas and methods and were resilient in the face of setbacks. Ross and Bruce (2007: 50) also found that while teachers with high sense of self-efficacy always believe that they will be successful, and so set high goals for themselves and their students, those with a low sense of efficacy show little belief in their successes, and so, avoid expending efforts since repeated failures threatens their self-esteem.

Consequently, the realisation of the effects of teachers' sense of efficacy on their levels of performance, whipped up more interest in research studies which explore factors that

positively influence this psychometric construct. As discovered in the literature review in chapter two, scholars identified principals' transformational leadership practices as significant predictors of teachers sense of efficacy (Ross and Gray, 2006; Ryan, 2007; Horn-Turpin, 2009; Walker and Slear, 2011; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Short, 2016; Versland and Erickson, 2017). For instance, Ryan's (2007) study found that principals' transformational leadership practices accounted for about 79% of the variances in teachers' self- efficacy beliefs (p.83). In Ling and colleagues' (2015) study too, principals' transformational leadership accounted for about 17%.

Thus, if principals' transformational leadership practices produce such magnitudes of effects on teachers' sense of efficacy, then there is need for more research studies which explore the specific principals' transformational leadership practices which directly impact on this self- efficacy variable. This chapter discusses findings of this current study which examined the extent to which tutors' perceptions of their principals' transformational leadership practices impacted on their sense of efficacy in student engagement, instructional strategies and classroom management. The analyses explored the correlations between the two key variables and examined the extent to which factors in the independent variable accounted for the variances in factors in the dependent variable.

The discussions on findings of this current study follows the pattern of the responses to the research questions and hypotheses. The responses to the four main research questions and sub-questions are compared and contrasted to findings of the reviewed studies in chapter two. The purpose is to ascertain the extent to which findings of this current study are consistent and/or divergent from findings of extant research studies as presented in chapter two. In this way, the discussions are presented under different sub-headings which essentially capture the questions raised in the four main research questions and sub-questions.



## 5.2. Tutors' Assessments of their Sense of Efficacies

Even though the analysis of the first main research question in chapter four examined tutors' assessments of their sense of efficacy in the colleges of education in Ghana (see, table 8), the analyses also examined the extent to which demographic factors such as *gender*, *qualification* and *years of experience* and how they account for the statistically significant differences in tutors' sense of efficacy (see, tables 9 to 14) . These factors were considered in the analysis because the review of literature in chapter two showed that qualification and experience have potential influence on variations of teachers' sense of efficacy (see, Tschannen-Moran and Woolfolk Hoy, 2006; Wolters and Daugherty, 2007; Klassen and Chiu, 2010; Avci, 2012; Vaudroz et al., 2015). Whereas most of the above reviewed studies were conducted in elementary, middle and secondary schools, it was necessary that in measuring tutors' sense of efficacies in the colleges of education in Ghana, the study also ascertained whether or not gender, qualification and experience influenced variations of tutors' sense of efficacies at this level.

In respect of the levels of tutors' assessments of their sense of efficacies, the results of the analysis in chapter four (see, table 8) showed an average mean score of 7.21 and standard deviation of 1.13. Following the results of extant studies in the area which indicated that teachers with a high sense of efficacy are likely to be effective (Tschannen-Moran and Woolfolk Hoy, 2001; Ross and Bruce, 2007), one could say that the high mean score obtained in this study may suggest that tutors of the studied colleges are performing very well in their tasks.

In considering the mean scores of each of the three factors of tutors' sense of efficacy (*efficacy in student engagement, instructional strategies and classroom management*) as displayed in table 8, while each factor recorded a high mean score (7.07, SD =1.07; 7.37, SD = 1.18; and 7.19, SD = 1.14 respectively), tutors rated themselves to have high sense of efficacy in instructional strategies (see table 8). This implied that as leaders of teaching and learning,

tutors in the studied colleges of education believed that they have the capabilities to undertake the following: respond to difficult questions posed by students; assess students' comprehension of taught courses; craft good questions for students; adjust lessons to suit diverse student levels of comprehension; provide alternative explanations to aid student understanding; and use varieties of instructional strategies and assessment methods in teaching and learning (Tschannen-Moran and Hoy, 2001).

It is worth noting that about 93.6% of the sampled tutors in this current study met the minimum qualification (that is, a master's degree) for teaching in these colleges. This minimum qualification set the required standard within which tutors are said to acquire the requisite professional competencies for teaching in these colleges. With 93% of the 434 tutors meeting this requirement, it was unsurprising that their overall sense of efficacies was above average. So, following the results of the analysis as displayed in table 8, and contrasting them with the findings of extant studies in the area (Ross and Gray, 2006; Ross and Bruce, 2007; Walker and Slear, 2011; Dankwa, 2014), it could be said that tutors of the studied colleges of education are generally effective in their teaching performances, in their classroom management and in their ability to effectively engage with their students.

However, in response to the research sub-questions on the extent to which gender, qualification and experience accounted for the statistically significant differences in tutors' sense of efficacy, the analyses in chapter four reveal interesting findings when compared to results of other studies in the area. What follows below is therefore the discussions of these findings in the light of their consistency or divergence with findings of earlier studies that were reviewed in chapter two (Tschannen-Moran and Woolfolk Hoy, 1998; 2007; Wolters and Daugherty, 2007; Klassen and Chiu, 2010; Walker and Slear, 2011; Avci, 2012; Dankwa, 2013; Vaudroz et al., 2015).

### ***5.2.1. Gender and Tutors' Sense of Efficacy***

Under this factor as analysed in chapter four (see, table 9), the study showed that more male tutors participated in the study than female tutors (318 male and 116 female tutors). This result was unsurprising because Dankwa (2013) also found similar results in her study of 252 tutors in the same colleges of education in Ghana. While 156 were male participants, 96 were female tutors (p.190). Other research studies also showed that this gender disparity is characteristic of the gender differences in all the colleges of education in the country. The nationwide statistics of the gender of tutors in these colleges showed that out of the total of 1,736 tutors in the 45 public colleges of education in the country in 2017, 1,326 were male and 410 females (National Council for Tertiary Education, 'Summary of Basic Statistics on the Colleges of Education', 2017). So, it was therefore unsurprising that more male tutors participated in the current study. The same gender disparities are found in the studies conducted by Klassen and Chiu (2010) and Horn-Turpin (2012) although their study was undertaken in nontertiary educational settings in North America and Commonwealth Virginia respectively.

However, in respect of whether or not gender accounted for any statistically significant difference in male and female tutors' sense of efficacy, the findings of the study indicated that the mean score of male tutors were statistically significantly higher than those of female tutors (see, table 9 and 10). This is consistent with findings of Klassen and Chiu's (2010) study. While they examined the relationship between gender and the three factors of teachers' efficacy, results indicated that male teachers were more efficacious than female tutors in classroom management. However, there were no gender effects on instructional strategies and student engagement (Klassen and Chiu, 2010: 746-747).

In the review of literature in the chapter two of this current study, the lack of gender effects on variations in teachers' sense of efficacy is consistent among findings of some studies in the area. For instance, Avci (2012) examined the relationship between transformational leadership behaviours of faculty supervisors and the self-efficacies of 205 Graduate Teaching

Assistants and Research Teaching Assistants. When the factor of gender was analysed, results showed no statistically significant differences between the self-efficacy beliefs of male and female Graduate Teaching Assistants. But female Research Teaching Assistants had higher self-efficacy beliefs than their male counterparts (Avci, 2012: 123).

In the study conducted by Tschannen-Moran and Hoy's (2007) which explored several potential sources of self-efficacy beliefs (gender, race, mastery experience, verbal persuasion, teaching settings among others) to see the differences between novice and experienced teachers' levels of self-efficacy beliefs, results indicated that demographic variables such as race and gender had no significant effect on variations in teachers' sense of efficacy. Yet, findings from earlier studies like those of Anderson and colleagues (1988) and Evans & Tribble (1986) indicate that female teachers generally had higher sense of efficacy than males. And more recently, Vaudroz and colleagues' (2015) study which examined the place of gender in variations of teachers' sense of efficacy, found that female teachers recorded higher sense of efficacy in student engagement and instructional strategies than male teachers (p.176).

In this way, while this current study found male tutors to have higher sense of efficacy than their female counterparts in the studied colleges of education, it is difficult to draw definitive conclusions on the effect of gender on variations in teachers' sense of efficacy. This is because results from extant research studies in the area are not consistent conclusions on the matter. The apparent divergences in research findings only give a mixed picture in respect of whether or not gender is a significant factor to variations in teachers' sense of efficacy. In this way, the results of this current study serve as a contribution to this mixed picture.

### ***5.2.2. Academic Qualification and Tutors' Sense of Efficacy***

Here, the study examined the extent to which tutors' academic qualifications may have accounted for statistically significant differences in their self-efficacy beliefs. The study elicited the following statistics of tutor qualifications: 3 had PhDs, 399 had masters, 29 had first degrees, and 3 diplomas (see table 11). While masters' degree constituted the minimum

requirement for tutoring in these colleges (see, Newman, 2013), about 93% of the total number of tutors who participated in the study met this minimum requirement. Meeting this minimum requirement implied that tutors with at least a masters' degree in relevant fields will have the capability to help students acquire the necessary professional and academic competencies as teacher trainees (see, Colleges of Education Act 847). Since tutors' sense of efficacy defines beliefs in their ability to execute the courses of action required to achieve student learning, does the presence of about 7% (32 tutors) non-qualified tutors in the studied colleges suggests statistically significant variations in their sense of efficacies?

In response to the above question, the analysis found no statistically significant differences between the mean scores of tutors despite the differences in their qualifications (see table 11 and 12). This finding was surprising as it is inconsistent with findings of studies in the area. Research studies show that the knowledge and skills teachers acquire through academic learning, professional training and continuous professional development enhance their professional expertise and contribute to build their self-efficacy beliefs (see, Bandura, 1997; Ross and Bruce, 2007; Vaudroz et al., 2015). For instance, in the study conducted by Ross and Bruce (2007), results indicated that professional development (PD) impacted on the self-efficacy beliefs of Mathematics teachers in one school district in Canada (p.56). This led them to conclude that professional development programs that address the sources of teachers' sense of efficacies contribute to creating more confident and efficacious teachers (Ross and Bruce, 2007: 59).

In the same way, tutor qualifications define the sort of academic training and development tutors acquire. These contribute to equipping them with the necessary knowledge and skills to effectively execute their tasks as leaders of teaching and learning. In the study conducted by Vaudroz and colleagues (2015) in this area, results indicated that while prior education or qualification was found to be negatively related to teachers' sense of efficacy in classroom management, it found positive statistically significant relationship with teachers'

efficacy in instructional strategies (p.176). Vaudroz and colleagues (2015) however explained that the negative relationship between academic qualification and teachers' sense of efficacy in classroom management was as a result of the fact that teachers with higher qualifications felt more 'confident in their content knowledge but worried about managing student behaviour' (p.176).

Although the review of literature only found fewer studies which explored the relationship between academic qualification and teachers' sense of efficacy, it is common understanding that teacher qualifications provide them with the requisite skills and expertise to execute their instructional plans and achieve instructional outcomes. As Bandura (1997) understood, personal competencies define the knowledge and skills a person acquires through learning, and self-efficacy regulate these skills to achieved expected outcomes. In the case of tutors of the studied colleges of education in Ghana in this study, this factor revealed no statistically significant difference. It is observed from the study that the 93% of tutors in these studied colleges met the qualification mark of teaching. This factor explains for the lack of statistically significant difference among them.

### ***5.2.3. Years of Experience and Tutors Sense of Efficacy***

Under this factor, the analysis examined the extent to which tutors' years of experience in the studied colleges might account for variations in their self-efficacy beliefs. As displayed in table 13, the following range of years of experience were identified in the study: (a) 1 to 5 (147 tutors); (b) 6 to 10 (132 tutors); (c) 11 to 15 (92 tutors); (d) 16 to 20 (40 tutors); (e) 21 to 25 (11 tutors); (f) 26 to 30 (7 tutors); and (g) 30 to 35 (5 tutors). Results from the analysis of variance found no statistically significant differences in the mean scores of tutors' sense of efficacy following their years of experience (see table 13 and 14). This finding was inconsistent with findings of earlier studies as demonstrated in the literature review chapter of this current study (Ross et al., 1996; Tschannen-Moran and Woolfolk Hoy, 1998; 2007; Wolters and Daugherty, 2007; Walker and Slear, 2011; Vaudroz et al., 2015).

For instance, in the study conducted by Tschannen-Moran and colleagues (1998), results indicate that experienced teachers tended to have stable self-efficacy beliefs even when exposed to new teaching methods (p.236). Novice teachers exhibit initial high sense of teaching efficacy, but these efficacy beliefs began to diminish when they are confronted by the realities and complexities of the actual teaching task. (Tschannen-Moran et al., 1998:235-236). Ross and colleagues (1996) equally indicated in their study that greater teaching experience is significantly related to higher levels of teachers' sense of efficacy. In Walker and Slear's (2011) study, findings also indicated that the higher teachers' years of experience, the higher their sense of efficacy (Walker and Slear, 2011: 55-56).

However, what each of the above studies did not show was the point at which a teacher's years of experience produced the greatest impact on their sense of efficacies. Wolters and Daugherty's (2007) study provided a response to the above question when they found that teachers' sense of efficacy becomes more stable from 6 to 7 years of working experience. If 6 to 7 years of experience is the point at which a teacher's sense of efficacy increases, then could it be concluded that there is a linear relationship between experience and teachers' sense of efficacy? That is, does more years of experience in teaching imply higher teachers' sense of efficacy? In response to this question, Klassen and Chiu's (2010) study indicated that the relationship between the two variables does not necessarily imply a linear one but could be curvilinear. This was evidenced in their own study which found that 'teachers' self-efficacy showed a nonlinear relationship, with self-efficacy increasing from 0 to about 23 years of experience and then declining as years of experience increased (Klassen and Chiu, 2010: 748).

As observed earlier in the analyses and results of this current study, while the minimum number of years of tutors' years of experience was 1, the maximum was 35. However, the average number of years of experience of tutors was 9. Following Wolters and Daugherty's (2007) finding on the one hand, and Klassen and Chiu's (2010) results on the other, could it be that the average 9 years of tutors' working experience in the studied colleges accounted for

their overall high sense of efficacy and the lack of statistically difference between them? An average of 9 years of working experience as Klassen and Chiu (2010) indicated, is sufficient for gaining the kind of knowledge and skills that are necessary for accomplishing their tasks as tutors.

### **5.3. Tutors' Perceptions of their Principals' Transformational Leadership**

The analyses in chapter four in response to the second main research question, examined the extent to which tutors perceived the leadership practices of their college principals to be transformational. It then explored whether or not there was statistically significant difference between *male and female* tutor perceptions of leadership and how *tutors' years of experience* and *years of work with their current principals* might account for variances in their perceptions of their principals' transformational leadership practices (see, tables 15 to 23). Understanding tutors' perceptions of leadership in this way was particularly important because such findings offer feedbacks to principals what tutors make of their leadership behaviours and their impact on tutor performance. As Jantzi and Leithwood (1996) noted, 'knowledge generated by such a focus will be of direct use in improving school leader effects' (p.512).

As shown in table 15, the overall average mean score of tutors' perceptions ( $M = 3.02$ ,  $SD = 0.57$ ) showed that they generally *agreed* that their principals' leadership practices were transformational. This was consistent with results in Dankwa's (2013) study which also examined tutors' views on the leadership practices of their principals in some of those colleges of education. Although Dankwa (2013) used the Multifactor Leadership Questionnaire (MLQ) to measure tutor perceptions, her findings also showed that tutors generally agreed that their principals exercise in varying degrees, transformational leadership practices such as: idealised influence, inspirational motivation, intellectual stimulation and individual consideration (Dankwa, 2013: 191).

From the findings of this study (see table 15), while leadership practices such as *provides vision (PV)*, *models best behaviour (MB)*, *fosters commitment (FC)* and *holds high*



*performance expectation* (HE) obtained high mean scores, *holding high performance expectation* (HE) recorded the highest mean score ( $M = 3.24$ ,  $SD = 0.54$ ). Holding high performance expectations involve actions such as: ‘insisting on best performance from tutors; demonstrating to tutors that there are higher performance expectations of them as professionals; and not settling for second best in tutor performance’. This study’s findings were consistent with findings of the review of studies in chapter two (Ryan, 2007; Shumate, 2011; Ling et al., 2015; Gkolia et al., 2018).

For instance, Ling and colleagues (2015) investigated the influence of transformational leadership behaviours on teacher efficacy beliefs in Malaysian secondary schools. Although they used the 8 factors of the Nature of School Leadership Scale (NSLS) to measure teachers’ perceptions of their principals’ leadership, their findings nonetheless demonstrated that teachers viewed their principals to exercise leadership practices such as: *promoting vision, shared goals, modelling best behaviour* and *holding higher performance expectations* (Ling et al., 2015: 79). While holding high performance expectations recorded the highest mean score in their study, the rest of the 8 factors also obtained relatively high scores.

In consequence, what these varied studies on leadership perceptions offer to principals is an understanding of what teachers and tutors make of their leadership practices. Principals’ knowledge of these perceptions and their impact on teachers could help them craft their leadership in ways that enhance teacher performance. As Jantzi and Leithwood (1996) put it, when principals carefully and diligently perform their leadership task, and are seen by teachers to do so, it positively impacts on teachers’ perceptions and performance. Within the colleges of education in Ghana, principals’ knowledge of how tutors perceive their leadership practices is vital to their leadership effectiveness.

Even though in this study, tutors generally agreed that the leadership practices of their college principals are transformational, could demographic factors such as *gender, length of experience* and *years of work with current principal* account for variations in tutors’

perceptions? The findings of this current study are compared and contrasted with findings of earlier research studies in the literature review (Lee et al., 1993; Jantzi and Leithwood, 1996; Kor, 2010; Helm, 2012; Ontai-Machado, 2016).

### ***5.3.1. Gender and Perceptions of Transformational Leadership***

The research sub-question under this section focused on ascertaining the statistically significant difference between male and female tutors' perceptions of their principals' transformational leadership practices. As table 16 shows, results of the independent sample *t-test* indicated that there was no statistically significant difference in the mean scores of male and female tutors' perceptions of their principals' transformational leadership practices. This may imply that male and female tutors shared common perceptions about their principals' transformational leadership practices. This finding was consistent and divergent with results of some of the research studies that were reviewed in chapter two (Jantzi and Leithwood, 1996; Helm, 2012; Lee and colleagues, 1993).

For instance, in Jantzi and Leithwood's (1996) examination of various factors that may account for variations in teachers' perceptions of their principals' transformational leadership practices, results indicated that teacher gender as an unalterable factor did not account for variations in their perceptions of leadership. Similarly, results from Helm's (2012) study also found that the gender of both teachers and principals did not account for variations in their respective perceptions of leadership. Despite the differences in institutional context, the sample size, the instruments used, and nature of analyses, one finds consistency between these findings and those of this current study.

Contrastingly, Lee and colleagues' (1993) earlier study found different results. Their study explored the effects of teachers' and principals' gender on their perceptions of leadership in high schools in America. Here, the scholars explored how male and female participants' gender influenced perceptions of their power in *organisational* (school policy), *interpersonal* and *personal domains*. Findings indicated that while both male and female teachers perceived

their principals in the same way, male teachers considered female principals to be less effective in contrast to female teachers. Furthermore, both male and female teachers experienced exceptional *personal power* in working with female principals than with male principals, and female teachers experienced more *interpersonal power* than male teachers irrespective of the gender of the principal. In this way, Lee and colleagues (1993) concluded that gender is a significant factor accounting for variations in teachers' perceptions of leadership.

Thus, findings on the influence of gender on perceptions of principals' transformational leadership practices present a mix picture. The finding in this current study only contributed to these divergences of results. Yet, what is significant is the understanding that both male and female tutors share common perceptions about their principals' transformational leadership practices. Expressing such shared perceptions suggest that the application of a common leadership policy among these tutors will produce common effects on both males and female tutors in these colleges.

### ***5.3.2. Tutors' Experience and Perceptions of Transformational Leadership***

Under this subsection, the analysis in chapter four was conducted to determine the extent to which *tutors' years of work* (experience) might account for variations in their perceptions of the transformational leadership practices of their principals. As displayed in table 18, tutors' years of experience were categorised according to the following: (a) 1 to 5 (147 tutors); (b) 6 to 10 (132 tutors); (c) 11 to 15 (92 tutors); (d) 16 to 20 (40 tutors); (e) 21 to 25 (11 tutors); (f) 26 to 30 (7 tutors); and (g) 30 to 35 (5 tutors). Using the analysis of variance (ANOVA) as shown in table 19, the results found no statistically significant differences. This implied that tutors in the studied colleges shared common perceptions about the transformational leadership practices of their college principals despite the differences in their years of experience as tutors.

In comparing this finding with results of earlier research studies reviewed in chapter two (such as Jantzi and Leithwood, 1996; Walker and Slear, 2011; Biggerstaff, 2012; Helm, 2012; Ontai-Machado, 2016), there is no consensus in the literature on the relationships

between these variables. For instance, findings from Jantzi and Leithwood's (1996) study indicated that teachers' experiences did not significantly influence variations in their perceptions of leadership (p.527-528). Biggerstaff's (2012) study also indicated a lack of statistically significant differences between the various years of experience and teachers' perceptions of leadership. Despite the differences in context, methods and study population, one finds consistency in the results of the above studies and findings of this current study.

However, the studies conducted by Walker and Slear (2011); Helm (2012) and Ontai-Machado (2016) found different results. Walker and Slear's (2011) study found statistically significant variations in teachers' perceptions of leadership across their different years of experience. Their results led them to conclude that experienced teachers become experts in their field, and thus, need less of certain leadership models of their principals than less experienced teachers. In Helm's (2012) study too, results indicated statistically significant differences in teachers' perceptions of leadership. Experienced teachers needed less of their principals' leadership practices to be effective in contrast to less experienced teachers. More so, results from Ontai-Machado's (2016) study also indicated that teachers' levels of experience influenced the variations in their perceptions of leadership.

In consequence, while some studies found a lack of statistically significant difference between teachers' years of experience and variations in their perceptions of leadership, others found statistically significant differences between them. This current study contributed to this wealth of knowledge in the area. While it found no statistically significant differences between tutors' years of experience and variations in their perceptions, this lack of statistically significant difference imply that tutors share the same perceptions about their principals' transformational leadership practices despite the differences in their years of experience.

### ***5.3.3. Years of Work with Current Principal and Perceptions of Leadership***

The analysis under this research sub-question sought to ascertain the extent to which tutors' years of work with their current principals account for statistically significant differences in

their perceptions of the transformational leadership practices of their principals. As demonstrated in table 20, the identified categories of tutors' years of work with their current principal were: (a) 1 to 5 (323 tutors); (b) 6 to 10 (78 tutors); (c) 11 to 15 (21 tutors); (d) 16 to 20 (9 tutors); (e) 21 to 25 (3 tutors). While the analysis of variance as shown in table 21 revealed that there were statistically significant differences in the mean scores of tutors, the post hoc multiple comparison test did not reveal their pairwise differences.

Hence, a second ANOVA was conducted using the six factors of transformational leadership practices (see, table 21 and 23). The analysis revealed statistically significant relationships between tutors' years of work with current principal and two leadership factors: *provide vision* and *model behaviour*. However, the post hoc multiple comparison test indicated that under the leadership practice of *modelling best behaviour*, tutors with between 1 to 5 years of work recorded lower mean scores in contrast to the mean scores of tutors with between 16 to 20 years of work with current principals (see table 23).

Contrasting these finding with studies in the area as demonstrated in the literature review in chapter two, it was discovered that few studies focused on analyses of this nature. Only the study conducted by Helm (2012) examined the relationship between the two variables. However, unlike the finding of this current study, Helm (2012: 121) found no statistically significant differences between them. Ontai-Machado (2016) also investigated variables along the same line. However, his analysis was conducted to see the extent to which teachers' years of work in current school (not years of work with current principals) predicted Strive HI Scores. The result of this current study therefore makes significant contributions to the limited literature in this area.

Following the results of this current study on tutors' perceptions of the transformational leadership practices of their college principals, the results showed that tutors in the studied colleges of education share similar perceptions of their principals' transformational leadership practices despite the differences in their gender and years of experience. As indicated before,

these shared perceptions offer a good starting points for the possibility of a successful application of a transformational leadership policy among tutors of these colleges. Tutors encounter and evaluate the actions of their principals in terms of how they facilitate their teaching performance. When college principals understand that their actions impact on tutors' perceptions and performance, they may be encouraged to strategize their leadership practices in ways that positively influence tutors' views and increase their performance efficacies.

#### **5.4. Correlations between Tutors' Self-Efficacy and Principals' Leadership**

The analysis in chapter four in response to the third research question sought to establish the correlations between the three factors of tutors' sense of efficacy and the six factors that measured tutors' perceptions of their principals' transformational leadership practices. So, each factor of tutors' sense of efficacy was correlated to the six factors of principals' transformational leadership to determine their strength, direction and significance of relationships. Thus, the analyses were conducted in response to three research sub-questions and hypotheses (see, tables 24 to 26).

The discussions of results under this section are therefore made in light of their consistencies with or difference from findings of the relevant reviewed studies in chapter two of this current study (Ryan, 2007; Espinoza, 2013; Mehdinezhad and Mansouri, 2015; Ling et al., 2015; Short, 2016; Gkolia et al., 2018). In most of these reviewed studies, results showed significant correlations between most of the factors of teachers' sense of efficacy and teachers' perceptions of their principals' transformational leadership practices. It was noted in the analyses that the presence of statistically significant relationships between factors did not imply cause-and-effect relations.

##### ***5.4.1. Tutors' Efficacy in Student Engagement and Perceptions of Leadership***

The research sub-question under this factor examined the statistical relationships between tutors' sense of efficacy in *student engagement* and their perceptions of the six transformational

leadership practices of their college principals. The Pearson's product moment correlation coefficient revealed strong positive statistically significant relationships between tutors' sense of efficacy in *student engagement* and five principals' transformational leadership practices: that is, *provides vision; fosters commitment; provides individual support; intellectual stimulation; and holds high performance expectations* (see table 22). These factors showed coefficients ranging between 0.112 and 0.188 at significant levels ranging between 0.000 and 0.020. The leadership practices of *providing vision* (PV) and *holding high performance expectations* (HE) recorded the strongest *r and p* values: PV = ( $r = .188, p = 0.000$ ) and HE = ( $r = .160, p = .001$ ).

These positive statistically significant relationships between factors implied linear variations between them. However, there was no statistically significant correlation between tutors' sense of efficacy in student engagement and the leadership practices of *modelling best behaviour* ( $r = 0.083, p = 0.085$ ). These results were, to some extent, consistent with findings of relevant studies in the area as demonstrated in the literature review in chapter two (Ryan, 2007; Shumate, 2011; Espinoza, 2013; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Gkolia et al., 2018).

For instance, Ryan's (2007) study found statistically significant correlations between teachers' sense of efficacy in student engagement and all six factors of principals' transformational leadership practices, except the practice of providing individual support (Ryan, 2007: 84). Although these correlations only pointed to the measures of association between the two main variables, they nonetheless demonstrated the linear variations between them, which is significant for regression analysis. The study conducted by Gkolia and colleagues' (2018) also revealed statistically significant relationships between the general factors of principals' transformational leadership practices and teachers' sense of efficacy in student engagement.

In the study conducted by Mehdinezhad and Mansouri (2015), results indicated strong positive and statistically significant correlations between principals' leadership practices such as: *idealised influence, inspirational motivation, intellectual stimulation and individual consideration* and teachers' sense of efficacy in student engagement. Although they used the MLQ to measure teachers' perceptions of leadership, their findings were nonetheless consistent with findings of this current study. Shumate (2011) also found results indicating strong positive and statistically significant relationships between student engagement and *intellectual stimulation* and *contingent reward*.

Findings from other research studies with large enough sample sizes equally showed statistically significant relationships between teacher efficacy in student engagement and some factors of principals' leadership practices (Elliot, 2000; Demir, 2008; Griffins, 2009; Clune, 2013; Fitzgerald, 2015; Rigg, 2016). Most of these studies were not reviewed in chapter two of this current study because while some were relevant but inaccessible (Rigg, 2016), others failed to meet the inclusion and exclusion criteria. Yet, the fact that their results indicated positive statistically significant correlations between teachers' efficacy and their perceptions of leadership was worth noting.

However, results from the study conducted by Short (2016) rather indicated that all the 8 factors of principals' transformational leadership practices (*shared vision, builds consensus, high performance expectations, model professional behaviour, provides individualised support, intellectual stimulation, strengthens school culture and builds collaborative structures*) revealed weak but negative relationship with teachers' sense of efficacy in student engagement (see, Short, 2016: 60-65). Although teachers rated themselves to have high self-efficacy beliefs in student engagement and agreed that their principals exercised transformational leadership practices, the relationships between factors of the two variables were not statistically meaningful (Short, 2016). While Short used a small sample size of 43 teachers for her study,



Cohen and colleagues (2016: 636) indicated that small sample sizes affect the results of correlational analysis.

Yet, following the results of this current study and their consistency with results of the included studies (Ryan, 2007; Shumate, 2011; Mehdinezhad and Mansouri, 2015; Gkolia et al., 2018), while tutors' sense of efficacy in student engagement defines beliefs in their ability to create the appropriate conditions which lead to effective teaching and learning, these beliefs bear associations with certain principals' leadership practices of *providing vision*, *fostering commitment*, *providing individual support*, *providing intellectual stimulation* and *holding higher performance expectations*. This is significant for undertaking multiple regression analyses which determine the particular leadership practices which account for the most effects on tutors' sense of efficacy in student engagement.

#### **5.4.2. Tutors' Efficacy in Instructional Strategies and Perceptions of Leadership**

Tutors' sense of efficacy in instructional strategies defines their ability to organise instructional plans and achieve instructional outcomes. It therefore involves tutors' beliefs in their ability to: adequately respond to difficult questions from students; gauge their levels of comprehension; craft good questions for students; adjust lessons to suit student abilities; use alternative explanations or examples to facilitate student understanding; use different assessment strategies; and provide appropriate challenge for very capable students (Tschannen-Moran and Woolfolk Hoy, 2001).

While tutors' efficacy in instructional strategies recorded the highest mean score in the analysis as shown in table 8, the results of the Pearson product correlation coefficient showed positive statistically significant relationship between this factor and three principals' transformational leadership practices such as: *providing vision*, *providing individual support*, and *holding high performance expectations* (see table 25). The leadership practice of *holding high performance expectations* produced the strongest positive statistically significant relationship ( $r = .130$ ,  $p = .007$ ). There were however no statistically significant associations

between the leadership practices of *modelling best behaviour, fostering commitment and intellectual stimulation*.

The above findings were consistent with findings of some of the reviewed studies in the area (Ryan, 2007; Shumate, 2011; Mehdinezhad and Mansouri, 2015; Gkolia, 2018) For instance, while Ryan's (2007) study found positive statistically significant relationship between efficacy in instructional strategies and principals' leadership practices of *providing vision, modelling best behaviour, fostering commitment and intellectual stimulation* (p.84), Gkolia and colleagues' (2018) study also found positive statistically significant relationship between efficacy in instructional strategies and the leadership practices of *modelling best behaviour, fostering commitment, providing individual support and holding high performance expectations* (p.189). In the study conducted by Mehdinezhad and Mansouri (2015), efficacy in instructional strategies found statistically significant relationship to all four factors of principals' leadership practices (*idealised inspiration, individual consideration, inspirational motivation and intellectual stimulation*).

It is worth-noting that while some of the reviewed research studies (Ryan, 2007; Mehdinezhad and Mansouri, 2015; Gkolia et al., 2018) found positive statistically significant relationship between efficacy in instructional strategies and leadership practices such as modelling behaviour, providing intellectual stimulation, this current study did not find statistically significant relationships between these leadership practices and tutors' sense of efficacy in instructional strategies. Could this be due to the differences in institutional contexts where leadership is practiced?

While tutors in the colleges of education in Ghana are mostly experts in their fields of study, principals with administrative competencies, may not necessarily have the requisite expertise to intellectually stimulate tutors in their professional fields of endeavour. This situation is however different in nontertiary institutions where principals are likely to possess the same instructional expertise as their teachers and can stimulate them intellectually where

necessary. Yet, the understanding that principals' transformational leadership practices such as: *providing vision; providing individual support; and holding high performance expectations* significantly related to tutors' sense of efficacy in instructional strategies is worth noting. Hence, principals who are aware of these measures of association might exercise the identified leadership practices in ways which may enhance their tutors' instructional performances.

#### **5.4.3. Tutors' Efficacy in Classroom Management and Perceptions of Leadership**

Tutors' sense of efficacy in *classroom management* defines beliefs in their abilities to create the appropriate classroom conditions which support effective teaching and learning. Thus, efficacy in classroom management involves teachers' beliefs in their ability to: control disruptive behaviours in the classroom; make their expectations about good classroom behaviour clearer to students; get students to follow classroom regulations; and establish routines that ensure the smooth running of classroom activities (Tschannen-Moran and Woolfolk Hoy, 2001). This efficacy construct obtained the second highest mean score in the analysis under research question one (see, table 8).

Consequently, the analysis under this section as shown in table 26 examined the associations between tutors' perceptions of the transformational leadership practices of their college principals and their sense of efficacy in classroom management. Using Pearson's product moment correlation coefficient, the analysis demonstrated strong positive statistically significant relationships between efficacy in classroom management and four principals' transformational leadership practices such as: *provides vision, fosters commitment, provides individual support, and holds high performance expectation* (see table 26). While the practice of *providing vision* revealed the strongest association ( $r = .166, p = 0.001$ ), leadership practices such as; *models best behaviour and intellectual stimulation* did not show statistically significant relationships.

The above findings were to some consistent with results of earlier studies reviewed in chapter two. For instance, Ryan's (2007) study found strong positive statistically significant

relationships between teachers' sense of efficacy in classroom management and principals' leadership practices such as: *provides vision* and *fosters commitment*. Unlike this current study, Ryan's (2007) study also found statistically significant relationship between efficacy in classroom management and *model best behaviour* and *intellectual stimulation* but not *individual support*. The results of this part of Ryan's (2007) study is inconsistent with findings of this current study.

In the study conducted by Shumate (2011), the results of the correlational analysis found statistically significant relationship between classroom management and principals' leadership practices such as: *inspirational motivation*, *intellectual stimulation* and *management-by-exception*. Although 'contingent reward' and 'management-by-exception' are factors of transactional leadership behaviours, the understanding that such practices had associations to teachers sense of efficacy in classroom management was relevant. Mehdinezhad and Mansouri (2015) also used the same leadership construct for their analysis of association between the two variables. Their results revealed a positive and statistically significant relationship between efficacy in classroom management and leadership practices such as *idealised influence*, *inspirational motivation*, *intellectual stimulation* and *individual consideration*.

However, Short's (2016) study found weak but negative statistically significant relationships between efficacy in classroom management and all 8 factors of the NSLS (p.70-73). Unlike Short's (2016) findings, most of the results from the above reviewed studies indicated positive statistically significant associations between teachers' perceptions of their principals' transformational leadership practices and their sense of efficacy in classroom management. These results imply that the transformational leadership practices of principals' influence to some extent, teachers' ability to create the appropriate classroom conditions that support effective teaching and learning. In the case of the studied colleges of education in Ghana, transformational leadership practices like *provides vision*, *fosters commitment*, *provides*

*individual support*, and *holds high performance expectations* were found to be statistically significant.

In summary, the results of the correlation analyses demonstrated that while five principals' leadership practices (*provides vision, fosters commitment, individual support, intellectual stimulation and high performance expectations*) correlated strongly with tutors' *efficacy in student engagement*, the efficacy in classroom management correlated with only four principals' transformational leadership practices (*provides vision, fosters commitment, individual support and high performance expectations*). However, tutors' sense of efficacy in instructional strategies showed fewer and weaker statistically significant relationship with principals' transformational leadership practices (*provides vision, individual support and holds high performance expectations*).

While the leadership practice of *providing vision* obtained the strongest correlations with all three factors of tutors' sense of efficacy, *providing individual support and holding high performance expectations* produced equally strong positive statistically significant relationship and are common to all three factors of tutors' sense of efficacy. The only leadership practice which did not correlate with all three factors of tutors' sense of efficacy is the practice of *modelling best behaviour*. Even though tutors perceived that their principals exercised the transformational leadership practice of *modelling best behaviour*, the absence of statistically significant relationship between this leadership practice and all three factors of tutors' sense of efficacy shows a disconnect in this area. Could this disconnection be as the result of the character of tertiary institutions where tutors are experts or professionals in their respective fields of endeavour? Although principals of the colleges of education in Ghana are the administrative heads of these institutions, they may not necessarily possess the professionalism that is akin to tutor classroom management expertise. Hence, they may not be able to model best behaviours for tutors in respect of their performance.

Again, it is worth noting that the establishment of statistically significant correlations between the factors under consideration only demonstrate the measures of association between them. The analyses were not intended to establish the relationships of *cause-and-effect*. The findings under this section only show that there are actual statistically significant associations between tutors' perceptions of certain transformational leadership practices of their college principals and their own self-efficacy beliefs. As Cohen and colleagues (2016) indicated, 'a statistically significant correlation is indicative of an actual relationship rather than one due entirely to chance' (p.636).

### **5.5. Transformational Leadership Practices that Impact on Tutors' Self-Efficacies**

As displayed in chapter four, the analyses under this section were conducted in response to the fourth research question which examined the extent to which factors of principals' transformational leadership practices accounted for or explained the total variances in tutors' sense of efficacies in *student engagement, instructional strategies and classroom management*. Multiple regression analyses were used in response to three formulated research sub-questions and hypotheses. The statistically significant positive relationships between the constructs (see tables 24 to 26) established the grounds for performing the multiple regression analyses as a means of ascertaining the predictability of the independent variable over the dependent.

This section therefore discusses findings of these analyses in light of their relationship with findings of previous studies in the area as demonstrated in the literature review in chapter two. Following the application of the inclusion and exclusion criteria for the selection of relevant studies for the review, 7 studies were obtained in chapter two for the literature review (Ryan, 2007; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Short, 2016; and Gkolia et al., 2018). The discussions here therefore involve the contrasting of findings of some of the above selected studies with findings of this current study. The purpose is to determine their consistency and/or divergence on the one hand, and on the

other, to demonstrate the significant contributions this current study make to knowledge and practice in the area.

### ***5.5.1. Leadership Practices that Impact on tutors' efficacy in student engagement***

Under tutors' sense of efficacy in *student engagement*, the analyses in chapter four ascertained the extent to which the total variance in tutors' efficacy in this area was explained by their perceptions of the transformational leadership practices of their college principals. As displayed in tables 27 to 29, results indicated that principals' transformational leadership practices accounted for about 4.3% of the total variance in tutors' sense of efficacy in student engagement. The analysis of the model of best fit indicated that the leadership practice of *providing vision* accounted for 3.3% of the total variance (see table 29). This finding therefore implied that the more principals exercised the transformational leadership practice of *providing vision*, the better they enhance their tutors' sense of efficacy in student engagement.

In contrast to findings of the reviewed studies in chapter two (Ryan, 2007; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Short, 2016; and Gkolia et al., 2018), whereas most of these studies did not conduct regression analyses on the relationship between the two variables, some of the studies also deselected teachers' sense of efficacy in student engagement on the basis of factorial extractions. For instance, while Ryan (2007) did not conduct regression analysis to ascertain the predictability of principals' leadership practices on teachers' sense of efficacy in student engagement, Shumate (2011) too did not conduct such analyses, and so did Short (2016).

Espinoza's (2013) study used regression analyses to examine the extent to which the total variance in teachers' sense of efficacy is accounted for by their principals' transformational leadership practices. However, Espinoza's (2013) study used of exploratory factor analysis (EFA) deselected certain factors of principals' transformational leadership practices and teachers' efficacy in student engagement. Hence, the relationship was not examined in the study. Ling and colleagues (2015) also performed multiple regression analyses

in their study. But their analyses were limited because they only focused on the relationship between teachers' sense of efficacy in general and factors of principals' transformational leadership practices.

Similarly, Mehdinezhad and Mansouri (2015) also conducted a stepwise regression analyses which only identified idealised influence and intellectual stimulation as principals' leadership practices which predicted 32.1% of the total variance in teachers' sense of efficacy in general (p.54). Teachers' sense of efficacy in student engagement was not considered in the analyses. In Gkolia and colleagues' (2018) study of elementary and secondary school teachers in Greece, their analyses also indicated that the general factors of principals' transformational leadership practices predicted 9.0% of the variance in teachers' efficacy in student engagement (Gkolia et al., 2018: 189).

While the result of this current study is consistent with those of Gkolia and colleagues' (2018) on the basis of the understanding that principals' leadership practices impacted on teachers' sense of efficacy in student engagement, the percentages of variances between the two studies differed significantly. This may have been due to the fact that this current study analysed the predictability of tutors' sense of efficacy in student engagement based on the individual factors of principals' transformational leadership practices. Gkolia and colleagues (2018) however performed their analysis on the basis of how the general factors of principals' transformational leadership practices predicted teachers' efficacy in student engagement.

Consequently, the findings of this study is unique and relevant in that: (1) within the wealth of extant literature in the area (as reviewed in chapter two of this current study), only this current study demonstrated that principals' transformational leadership practice of *providing vision* impacts on tutors' sense of efficacy in student engagement in the studied colleges of education in Ghana. The scarcity of studies in this area defines its distinctiveness and relevance to the literature in this area. In this way, principals who know that the practice of providing vision positively influences tutors' efficacy in student engagement, can exercise this



leadership practice as a means of enhancing their tutors' abilities to create the sort of tutor-student relationships which support effective teaching and motivate student learning.

### ***5.5.2. Leadership Practices that Impact on tutors' efficacy in instructional strategies***

This subsection discusses the results of the analysis in chapter four which examined the extent to which principals' transformational leadership practices accounted for the total variance in tutors' sense of *efficacy in instructional strategies* (see table 30 to 32). The discussions here compare and contrast the findings of this current study to results of extant research studies in the area as reviewed in chapter two. By so doing, the discussions tease out the consistencies or divergences of findings between the reviewed studies and those of this current study in order to establish the uniqueness and significance of the findings of this current study.

It must be said that whereas tutors' sense of efficacy in instructional strategies refers to tutors' beliefs in their ability to organise appropriate instructional programmes and achieve desired instructional outcomes, this efficacy factor obtained the highest mean score in the analysis on tutors' assessments of their sense of efficacy (see table 8). Following the review of literature in chapter two, studies showed that teachers with high sense of efficacies are more likely to be effective than those with low sense of efficacy (Tschannen-Moran and Woolfolk Hoy, 2001; Ross and Bruce, 2007: 50; Ross and Gray, 2006). Consequently, if tutors in this study rated themselves to have high sense of efficacy in instructional strategies and rated their principals to practice transformational leadership, then how much of the total variance in their sense of efficacy in instructional strategies is explained by their principals' transformational leadership practices?

Findings indicated that while the identified principals' transformational leadership practices (as demonstrated in the correlational analysis) explain about 2.1% of the variability in tutors' sense of efficacy in instructional strategies (see table 30), the specific leadership practice of *holding higher performance expectations* accounted for 1.5% of the total variance (see table 32). This result suggested that the more principals exercised the leadership style of

*holding higher performance expectations* in the studied colleges of education, the more tutors were likely to develop their sense of efficacies in instructional strategies. The leadership practice of *holding higher performance expectations* involves principals' actions such as: insistence on best performance from tutors; reminding tutors of the higher expectations that are expected of them as professionals; and letting tutors know that second best performance will not be tolerated (Jantzi and Leithwood, 1996: 534).

Within the wider context of research studies in the area as reviewed in chapter two (Ryan, 2007; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Short, 2016; and Gkolia et al., 2018), it was observed that none of the selected reviewed studies examined the relationship between these variables except the studies conducted by Espinoza (2013) and Gkolia and colleagues (2018). In Espinoza's (2013) study, while findings indicated that principals influenced their teachers' sense of efficacy through leadership practices such as setting directions, holding high performance expectations and providing individual support, the practice of *setting directions* (also referred to as providing vision) accounted for about 8.0% of the total variance in teachers' efficacy in instructional strategies (see, Espinoza, 2013: 90-91). In Gkolia and colleagues, (2018) study, the general factors of principals' transformational leadership accounted for 8.0% of the total variance in teachers' sense of efficacy in instructional strategies (p.189).

Although consistent with the findings of this current study, the degrees of impact (8%) as found in Espinoza's (2013) and Gkolia and colleagues' (2018) are by contrast larger than the finding of this current study (1.5%). Whereas the magnitude of impact from the result of Gkolia and colleagues' (2018) study may be explained by the fact that all the factors of transformational leadership were used to predict teachers' efficacy in instructional strategies, it is also important to note that in Espinoza's (2013) study, the leadership practices of *setting directions and providing individual support* other than 'holding high performance expectations' predicted 7.0% of the variance in teachers' sense of efficacy in instructional strategies. What

could be the reason for the stark differences in the percentage of impact in the findings of this current study and Espinoza's (2013)?

First of all, it is worth reiterating that the leadership practices of principals in elementary and secondary schools are more likely to have direct effects on their teachers' instructional strategies because of the relatively small sizes of these schools. The small size of a school (in terms of its population) allow for direct daily encounters between students, teachers and principals. Such direct daily encounters create opportunities for principals to influence teachers in their respective tasks. Secondly, principals of basic schools also have relatively shared expertise in the curriculum of the school, and hence, can provide instructional support and leadership to teachers through instructional supervision, the provision of feedback and the resources teachers need for effective teaching. This explained why Jantzi and Leithwood (1996: 522) observed that small schools offer greater opportunities for teachers and school leaders to work together closely and thus, provide teachers with the evidence necessary to form perceptions of leadership.

The situation is however different in tertiary institutions which are relatively bigger with complex administrative systems. Within tertiary institutions like the colleges of education in Ghana, principals may not possess the sort of tutor professional expertise that support effective and efficient delivery of instructional tasks. Principals in these colleges only play administrative roles as heads of institutions, and do not have direct daily classroom encounters with tutors. In this way, the degree of their leadership effects on tutors' efficacy in instructional strategies is limited in contrast to those in elementary, middle and secondary schools. So, the institutional contexts may account for the significant differences in the percentage of variances between findings of Espinoza's (2013) study and those of this current study.

Yet, the understanding that principals' leadership practice of *holding high performance expectations* impacted on tutors' sense of efficacy in instructional strategies in the studied colleges of education, albeit the degree, was in itself unique and significant. Its distinctiveness

is supported by the scarcity of research studies in the area; and its pertinency is found in how it contributes to the already limited literature in the area. Thus, principals who know that their leadership practice of *holding high performance expectations* contributes about 1.5% in enhancing their tutors' efficacy in instructional strategies, may align their leadership practices in such ways to facilitate tutor efficacy in this area.

### **5.5.3. Leadership Practices that Impact on tutors' efficacy in classroom management**

This subsection also discusses the results of the analysis in chapter four which examined the extent to which principals' transformational leadership practices accounted for the total variances in tutors' sense of *efficacy in classroom management* (see table 33 to 35). The discussions therefore compare and contrast findings of this current study with results of extant research studies in the area as reviewed in chapter two. In this way, similarities or differences in findings are teased out, paving the way for establishing the uniqueness and significance of the findings of this current study.

While tutors' sense of efficacy in classroom management concerns the extent to which they believe in their ability to create the appropriate classroom environment that support effective teaching and learning, this efficacy factor involves tutors' beliefs such as: 'their ability to control disruptive behaviours in the classroom; make known to students expectations of good classroom behaviour; establish routines to ensure smooth running of classroom activities; get students to follow classroom regulations; keep problem students from ruining class activities; and effectively responding to defiant students' (Tschannen-Moran and Hoy, 2001).

In the analysis on tutors' assessments of their sense of efficacy in this current study (see table 8), efficacy in classroom management obtained the second highest mean score. By implication, this high mean score suggested that tutors in the colleges of education in Ghana believed in their ability to create the classroom environment which support and sustain effective teaching and learning. This is vital because Leithwood and Jantzi (1999: 457) indicated that teachers make substantial contribution to student learning and academic achievements through

their ability to create the appropriate classroom conditions that support effective teaching and learning. If tutors in these studied colleges rated themselves to be above average in their sense of efficacy in classroom management, then could their principals' transformational leadership practices account for the variances in their sense of efficacy in classroom management?

Findings of the multiple regression analyses are displayed in tables 33 and 35. The results indicated that principals' transformational leadership practices accounted for 3% of the total variance in tutors' sense of efficacy in classroom management. Out of this percentage, the practice of *providing vision* accounted for 2.5% of the variance (see table 35). Situating these findings within the context of extant research studies in the area (Ryan, 2007; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Short, 2016; and Gkolia et al., 2018), none of the studies performed analyses of this nature except the studies conducted by Espinoza (2013). Findings from Espinoza's (2013) study indicated that 10% of the total variance in teachers' efficacy in classroom management was explained by their principals' transformational leadership practices of *setting direction and redesigning the organisation* (Espinoza, 2013: 77). The practice of setting directions/providing vision however accounted for 9.0% of the total variance.

In this way, the result of this current study was to some extent consistent with that of Espinoza's (2013) study, albeit the differences in the degrees of impact and different institutional contexts within which each study is conducted. The consistency of findings lay in the fact that both studies identified the leadership practice of setting directions/providing vision as consequential. In respect of the differences in the percentage of variance, it is unsurprising that the percentage of variance in both studies is significantly different. As mentioned before, factors such as the location of the study, the institutional size and context sometimes determine the extent to which principals' transformational leadership practices influence teachers' performance (see, Jantzi and Leithwood, 1996: 520). Tertiary institutions always operate within complex administrative structures in contrast to elementary and high schools.

For instance, the organogram of leadership in the studied colleges of education is a complex one. It has the principal of the college, followed by two vice principals (academic and administration), the Deans, different faculty or departmental heads. Within the teaching staff, there are different ranks as well: chief tutor, principal tutor, senior tutor and tutor (see, The Harmonised Scheme of Service for Colleges of Education in Ghana, 2013). This different administrative structure reflects a chain of leadership which rarely support direct principal-tutor leadership relationships at the classroom level. Besides, tutors of these colleges are also professionals who hold unique expertise in their respective fields. So, while the principals of these colleges may not have the expertise to influence tutors' classroom management practices, the complex administrative character of these colleges do not also support direct principal leadership interventions in classroom management. Hence, the understanding that their leadership practice of *providing vision* accounted for 2.5% of the variance in tutors' efficacy in classroom management was significant.

#### **5.6. Conclusion on the Discussions on Research Findings**

Based on the results of this current study as demonstrated in chapter four and the findings evinced by previous research studies as shown in chapter two, it could be said that there is overall unanimity among scholars that principals' transformational leadership practices are predictive of teachers' sense of efficacy (Ross and Bruce, 2006; Ryan, 2007; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Mehdinezhad and Mansouri, 2015; Short, 2016; Gkolia et al., 2018). For instance, while Ryan's (2007) findings indicated that 79% of the overall teachers' sense of efficacy is accounted for by their principals' transformational leadership practices in elementary, middle and secondary schools in North America (p.83), Ling and colleagues (2015) also found that principals' transformational leadership practices accounted for 17.7% of the total variance in teacher self-efficacy beliefs in secondary schools in Malaysia (p.81).

In this current study, while principals' leadership practices accounted for 4.3% of the total variance in tutors' sense of efficacy in student engagement, the leadership practice of

*providing vision* accounted for 3.3% of this variance. With tutors' efficacy in instructional strategies, whereas principals' transformational leadership practices accounted for 2.1% of the total variance, the leadership practice of *holding high performance expectations* explained 1.5% of this variance. In respect of tutors' sense of efficacy in classroom management, while principals' transformational leadership practices explained 3% of the total variance, the practice of *providing vision* accounted for 2.5% of this variance. These findings were found to be consistent with relevant research studies in the area (Espinoza, 2013; Gkolia et al., 2018).

Although the degrees of leadership effects in this current study were smaller in contrast to Espinoza (2013) and Gkolia and colleagues' (2018) studies, factors such as the locations of the studies and the tertiary institutional context within which this current study was conducted may account for the differences. Yet, college principals who seek to employ diverse leadership strategies to enhance the teaching performances of their tutors can find leadership guidance from the findings of this study.

## **CHAPTER SIX: CONCLUSION TO THE STUDY**

### **6.1. Introduction**

This chapter provides the conclusion of the study. As was noted in chapter two on the literature review of the study, comprehensive and large-scale empirical studies consistently indicate that teachers' self-efficacy beliefs or sense of efficacy is a significant predictor of their performance (Bandura, 1997; Tschannen-Moran et al., 2001; Ross and Bruce, 2007; Ryan, 2007; Espinoza, 2013; Gkolia et al., 2018). Research studies on transformational leadership practices also provided evidence of the statistically significant relationship between this form of leadership and teacher-effect variables such as job satisfaction, commitment to school goals, and teacher performance (Ross and Gray, 2006; Ware and Kitsantas, 2007; Horn-Turpin, 2009).

So, this current study sought to ascertain the extent to which principals' transformational leadership practices impacted on tutors' sense of efficacy in the colleges of education in Ghana. It also ascertained the extent to which tutor's demographic factors impacted on variations of their sense of efficacy and perceptions of leadership. In this way, this chapter presents the conclusion to the research study. It is constituted by the following: The summary of the study, the conclusion to the study, the implications, limitations and recommendations for further research study.

### **6.2. Summary of the Study**

The study essentially focused on the relationship between tutors' perceptions of their principals' transformational leadership practices and their sense of efficacy in student engagement, instructional strategies and classroom management. The review of literature in chapter two provided an overview of research studies which examined the relationship between principals' transformational leadership practices and teachers' sense of efficacy (Ryan, 2007; Demir, 2008; Espinoza, 2013; Shumate, 2011; Ling et al., 2015; Short, 2016; Gkolia et al., 2018). It was observed in the review that most of the studies in the area were first of all, conducted within elementary, middle and/or secondary schools. There was no relevant study which examined the



influence of principals' transformational leadership practices on tutors' sense of efficacy in tertiary institutions. Secondly, fewer studies also focused on eliciting the specific transformational leadership practices which accounted for the most variances in teachers' sense of efficacy in all three factors.

Consequently, it was observed that there was need for studies which explore the relationship between these two key variables within a tertiary institutional context. This explained why this current study investigated the relationship between tutors' sense of efficacy and their perceptions of the transformational leadership practices of their principals in the colleges of education in Ghana.

To achieve this purpose, quantitative methods of research were used. Here, tutors' assessments of their sense of efficacy in student engagement, instructional strategies and classroom management were measured using Tschannen-Moran and Hoy's (2001) Teachers' Sense of Efficacy Scale (TSES) instrument. Tutors' perceptions of the transformational leadership practices of their college principals were also measured using Jantzi and Leithwood's (1996) Principals' Leadership Questionnaire (PLQ). These two instruments were used because of their high reliabilities and their particular focus on measuring the specific factors that relate to the two key variables. The two instruments were used without significant modifications to them.

To obtain the data for the study, questionnaires items of the two instruments were administered by the researcher in 15 Colleges of Education in Ghana. The 15 colleges were selected through cluster sampling methods. A sample size of 434 valid responses was obtained and data was analysed using SPSS version 24 (MAC) for descriptive and inferential statistics. The results of descriptive statistics in response to the first main research question showed that tutors of the studied colleges of education had high sense of efficacy in student engagement, instructional strategies and classroom management. This was demonstrated by the high mean scores obtained in the analysis. Tutors' sense of efficacy in instructional strategies however

obtained the highest mean score. While male tutors were found to have higher sense of efficacies than female tutors, other demographic factors such as qualification and experience did not account for variances in tutors' sense of efficacy.

The second key research question focused on tutors' perceptions of the transformational leadership practices of their college principals. Here, tutors agreed that their principals exercised transformational leadership practices such as: provides vision; models best behaviour; fosters commitment; provides individual support; intellectual stimulation; and holds high performance expectations. While the practice of 'providing high-performance expectations' recorded the highest mean score, the leadership practice of 'providing individual support' and 'intellectual stimulation' recorded the lowest scores. Furthermore, whereas demographic factors such as gender and experience did not account for variances in tutors' perceptions of their principals' transformational leadership practices, the factor on tutors' years of work with their current principals demonstrated some variations in perceptions.

The correlation analyses in response to the third main research question indicated the following: (i) principals' transformational leadership practices of 'providing vision', 'fostering commitment', 'providing individual support', 'intellectual stimulation', and 'holding high performance expectations' displayed positive statistically significant relationship with tutors' sense of efficacy in *student engagement*. The leadership practice of modelling best behaviour was statistically non-significant; (ii) there were positive statistically significant relationships between tutors' sense of efficacy in *instructional strategies* and principals' transformational leadership practices such as: 'provides vision; provides individual support; and holds high performance expectations.' The leadership practices of 'modelling best behaviour', 'fostering commitment' and 'providing intellectual stimulation' obtained no statistically significant relationship; (iii) The relationships between tutors' sense of *efficacy in classroom management* and leadership practices such as: 'provides vision, fosters commitment, provides individual support and holds high performance expectations' were positive and statistically significant.

The practice of ‘modelling best behaviour’ and ‘providing intellectual stimulation’ produced no statistically significant relationship. From the correlation analyses, it was observed that the leadership practice of ‘modelling best behaviour’ found no statistically significant relationship with all three factors of tutors’ sense of efficacy.

To ascertain the specific leadership practices that explained for the relative weightings on tutors’ sense of efficacy, multiple regression analyses were used in response to the fourth main research question. Findings indicated that while principals’ transformational leadership practices accounted for 4.3% of the total variance in tutors’ sense of efficacy in *student engagement*, the practice of *providing vision* explained 3.3% of this variance. In respect of the total variance in tutors’ sense of efficacy *instructional strategies*, whereas principals’ transformational leadership practices accounted for 2.1% of the total variance, the practice of *holding high performance expectations* explained 1.5% of this variance. While principals’ transformational leadership practices accounted for 3% of the total variance in tutors’ sense of efficacy in classroom management, the practice of *providing vision* explained 2.5% of this variance. It was noted that even though the observed degrees of impact were considerably smaller in contrast to findings of earlier studies in the area (Espinoza, 2013; Ling et al., 2015; Gkolia et al., 2018), these results were nonetheless significant within the context of tertiary institutions where complex administrative structures offer less direct principal-tutor leadership encounters.

### **6.3. Conclusion to the Study**

In conclusion, this current study first of all, examined tutors’ self-assessments of their sense of efficacies in three areas: efficacy in student engagement; efficacy in instructional strategies; and in classroom management. Findings indicated that tutors’ sense of efficacy in these areas were above average. The study also examined the extent to which tutors considered their principals leadership practices to be transformational. Using Jantzi and Leithwood’s (1996) six factors of principals’ transformational leadership, results indicated that tutors rated their

principals' leadership practices to be transformational. Only the leadership practices of 'providing individual support' and 'intellectual stimulation' obtained the lowest mean scores in the study.

From the correlational analyses between the three factors of tutors' sense of efficacy and the six factors of principals' transformational leadership, the analyses revealed strong positive statistically significant relationships between tutors' sense of efficacy and many of the factors of principals' transformational leadership. The only leadership factor which did not produce positive statistically significant relationship with all three factors of tutors' sense of efficacy was the practice of 'modelling best behaviour'.

Following the correlational analyses, multiple regression analyses were conducted to index the specific leadership practices which accounted for the most variance in tutors' sense of efficacy in all three factors. The analyses revealed that while principals' transformational leadership practice of *providing vision* accounted for the most variances in tutors' sense of efficacies in 'student engagement' and 'classroom management', the practice of *holding high performance expectations* explained for the most variance in tutors' sense of efficacy in 'instructional strategies.' In this way, it was observed that principals of the colleges of education in Ghana who seek to improve their tutors' performance through their leadership practices can find helpful guidance in this study.

If leadership is generally defined as an influence process in which followers perceive the qualities their leaders have, and thus consent to being led by them in response to defined goals (Yukl, 1989: 3), then leadership perceptions are crucial to a leader's effectiveness (Jantzi and Leithwood, 1996: 530). As Jantzi and Leithwood (1996) put it, 'doing good work for one's school and being seen to do such work, is likely to be the most powerful strategy for positively influencing teachers' perceptions of one's leadership' (p.531). As observed in the succeeding section on the implications of the study, not only does this study offer to principals, what tutors' make of their leadership practices, the results also identify the specific leadership practices

which significantly impact on their sense of efficacy in student engagement, instructional strategies and classroom management.

#### **6.4. Implications of the Study**

First of all, the perceptions principals have about their own leadership practices and how these influence tutors' performance and contribute to achieving college goals may not always be coterminous with the perceptions of tutors. Where this state affair exists, it could create the principal-tutor disengagements which impede the development of the sort of productive relationships that support collaborative efforts in response to college goals.

Exercising one's leadership in response to college goals and being seen to do so provides the most powerful strategy for positively influencing tutors' perceptions and performance (Jantzi and Leithwood, 1996). This study therefore offers to principals of the colleges of education in Ghana, tutors' views about their transformational leadership practices and how these impacts on their performances. These views therefore offer principals the opportunity to re-evaluate and strategize or re-strategize their leadership in ways that enhance the self-efficacy beliefs of their tutors. The results of this study can therefore help principals foster better leadership relationships with their tutors.

Secondly, the establishment of strong positive statistically significant relationships between all three factors of tutors' sense of efficacy and most of the factors of principals' transformational leadership practices implied linear variations between them. Thus, this study together with extant research findings showed that there are positive statistically relationships between principals' transformational leadership practices of *providing vision, fostering commitment, providing individual support, intellectual stimulation and holding high performance expectations* and tutors'/teachers' sense of efficacy in *student engagement, instructional strategies and classroom management*. Since high students' performance and academic achievement are the ultimate goals of every school or college, it is important that principals know the extent to which their leadership practices potentially influence tutors'

performance and student learning. Hence, principals' knowledge of these six factors of transformational leadership and how they influence their tutors' sense of efficacy, could consciously exercise them to enhance tutor performance.

Thirdly, the study also demonstrated that principals' transformational leadership practices such as: *providing vision* and *holding high performance expectations* predominantly produced the most effects on tutors' sense of efficacy in student engagement, instructional strategies and classroom management. Whereas the leadership practice of *providing vision* involves practices such as: 'setting directions and establishing goals, identifying new opportunities for the school, developing, articulating and inspiring teachers to share in the vision for the school, principals who actively exercise this leadership practice may enable tutors to see the clear direction they want their colleges to go. In this way, principals who engage in the leadership practice of providing vision may enable tutors to see the corporate way forward and the commitments that are needed for achieving shared college goals.

Having a clearer college vision and sense of direction also sets the standards for best performance. Consequently, this study could also help practitioners and stakeholders in education to channel resources towards workshops and professional development programs that focus on transformational leadership practices. Such professional development programs and workshops could be geared toward enabling school leaders and principals to acquire the requisite skills and knowledge on how to clearly define the visions of their schools and colleges. This is because principals with such knowledge will be able to work with their tutors to clearly develop and articulate their college vision in ways that inspire, motivate and galvanise tutors to work towards the achievement of such goals with enthusiasm.

Last but not least, the findings of this study contribute to advancing the literature on educational leadership and the effects of transformational leadership as a multidimension model of leadership in the administration of colleges and schools. Even though the results of this study are to some extent consistent with findings of previous research studies in the area, there is

scarcity in research studies which particularly focus on the impact of principals' transformational leadership practices on tutors' sense of efficacy in tertiary institutions. Findings of this current study therefore contribute to the literature in this area.

### **6.5. Limitations of the Study**

Several limiting factors that are associated to the research methodology may affect the generalisability of the findings.

The first limitation deals with the sampling used for the study. Denscombe (2014) indicates that 'reliance on findings from a sub-section of the total research population inevitably opens up the prospects that another sample from the same population might produce slightly different findings' (p.52). Even though cluster sampling procedures were carefully followed to select the representative sample of 434 tutors for the study, sampling brings with it some levels of uncertainty when it comes to generalising findings on whole populations.

Secondly, the study also used questionnaires for data collection. This brings with it some potential limitations. While the study used the 24 items of the TSES and the 24 items of the PLQ to garner data on tutors' assessments of their self-efficacy beliefs and perceptions of their principals' leadership practices respectively, such pre-coded questions always bring with them a structure. As Denscombe (2014) put it, questionnaires by their very nature impose a structure 'on responses in a way that reflects the researcher's thinking rather than the respondents' (p.181). Although good and carefully constructed questionnaire may minimise the prospects of this problem, there is always the danger that options open to respondents may represent more of the researcher's perspectives (Denscombe, 2014).

The third limitation is related to the second in the area of the assumption of cross-cultural adaptation. Even though the PLQ and TSES were used in this study without cross-cultural adaptation because of: the evidence of their reliability and validity; the evidence of their use in other research studies without cross-cultural adaptations; the potential links they establish between this current study and previous studies in the area; the possibility of making

comparisons between results across different studies both nationally and internationally; and the possibility of increasing the certainty with which the instruments accurately reflect what they are supposed to measure across cultures, Gjersing and colleagues (2010) indicate that the failure to carefully follow cross-cultural adaptation processes in the use of standardised and validated instruments in new contexts could open such research studies to some levels of biases. This is because ‘a previously validated instrument does not necessarily mean it is valid in another time, culture and context’ (Gjersing et al., 2010: 9).

The PLQ and TSES are instruments developed in the West and are mainly used within western school-based research contexts. So, the use of these instruments in the colleges of education in Ghana without cross-cultural adaptations posed a challenge. Besides, attitudes are culturally defined and are measured indirectly through some set of items in a questionnaire. Where this is the case, comparison of results with different cultures and groups may pose a challenge to the study. It is therefore important that these set of questionnaire items that indirectly measure attitudes are adapted appropriately before use. This can be done through exploratory and confirmatory factor analysis.

Exploratory factor analysis (EFA) and confirmatory factors analysis (CFA) were not used in the study. Factor analysis helps to identify the underlying dimensions or constructs in the instrument. Generally, it is used for data reduction or structural detection. Hayton and colleagues (2004) indicate that exploratory factor analysis (EFA) employs ‘a set of multivariate statistical methods for data reduction and for reaching a more parsimonious understanding of measured variables by determining the number and nature of common factors needed to account for the patterns of observed correlations’ (p.192). Using these methods help the researcher to determine the sampling adequacy of the study, the common factors which constitute the pattern of observed correlations, and to determine the convergent validity, discriminant validity and reliability of the instruments used. Confirmatory factor analysis helps to test how well the measured variables represent the number of constructs. Although both methods are similar to



some extent, CFA is mostly used to confirm or reject a measurement theory. Using these methods could help with the testing validity measures for cross-cultural adaptations in the study. Thus, the researcher's decision to use the PLQ and TESE instruments without cross-cultural adaptation posed a limitation to the study. The use of non-refined methods tend to limit the rigour and explanatory power of research findings.

Last but not least, the study examined tutors' perceptions of their principals' transformational leadership practices using only the six factors of the principal leadership questionnaire (PLQ): that is, *providing vision, fostering commitment, modelling best behaviour, providing individual support, intellectual stimulation and holding high performance expectations*. Results of the correlational analyses revealed a disconnect between tutors' sense of efficacy in all three factors and the leadership model of modelling best behaviour. Other leadership factors which did not correlate with one or the other efficacy factors were *fosters commitment, provides intellectual stimulation and individual support*. These disconnections could be due to the nature and context of the tertiary institutions in which the study was conducted. The tutors of the colleges of education in Ghana are experts in their own fields of endeavour. They do not need principals' exemplary professional life to be successful tutors. Besides, principals are administrators and may not necessarily possess the professional expertise that are akin to tutor tasks. Thus, the content and context within which these research tools were applied needed the assurance of ecological validity through the methods of cross-cultural adaption. Furthermore, the principals of the studied colleges may also exercise other transformational leadership behaviours that are not covered by the PLQ construct.

There are other instruments for measuring transformational leadership practices such as the MLQ and NSLS among others. These instruments measure other aspects of transformational leadership that are not constitutive of the PLQ. Consequently, limiting tutors' perceptions of their principals' transformational leadership practices to the six factors of the PLQ may have excluded other leadership practices that are worthy of note and analysis.

## **6.6. Recommendations for Further Study**

This current study is quantitative in nature. It involved the use of self-administered questionnaire for garnering data from 434 tutors in 15 colleges of education in Ghana. Data was analysed using descriptive and inferential statistics.

First of all, even though self-administered questionnaires are reliable and elicit the requisite information needed for data analysis, they are also generally known for imposing a structure on answers and shape the nature of responses (Denscombe, 2014: 181). Good research practice and good questions may minimise these effects, but as to whether or not tutors' perceptions of the transformational leadership practices of their colleges (as measured by the six factors of the PLQ) are ubiquitous or apparent is uncertain. By using the six factors of the PLQ to measure tutors' perceptions of their principals' transformational leadership practices, it is possible that these principals exercised other forms of leadership behaviours that enhanced their tutors' sense of efficacy. So, a follow-up study that uses qualitative methods such as interviews and focus groups may help uncover other leadership practices in this direction. This could also be done with the use of mixed methods research designs which allow for the triangulation of research findings.

Secondly, the study used the PLQ and TSES instruments without cross-cultural adaptation. The failure to carefully follow cross-cultural adaptation processes in the use of standardised and validated instruments in new contexts and cultures open such research studies to some levels of instrument bias. Consequently, it is recommended that further studies in this area should pay more attention to cross-cultural adaptations of research instruments and tools. This could be done through the use of refined methods of analyses such as EFA, CFA and SEM. The use of refined methods such as EFA and CFA support the testing of sampling adequacy, common factors which constitute the pattern of observed correlations, and to determine the convergent validity, discriminant validity and reliability. These refined methods could allow for the testing of cross-cultural differences and differences among the regions within which the

research is conducted. The attention to context and culture will ensure the reduction of instrument bias and make a stronger case for ecological validity and the justification for the extrapolations of research findings across contexts and cultures.

Thirdly, a study which further investigates the perceptions of principals on their own leadership practices and self-efficacy beliefs is recommended. It is true that tutors form their perceptions of the leadership practices of their college principals through their experience of leadership. It is also true that these perceptions influence tutors' belief in their capability to organise instructional programmes and achieve intended outcomes. However, since perceptions are subjective in nature, a study that measures the way principals perceive their own leadership practices on the one hand and compares these perceptions with those of their tutors on the other, may offer a deeper and holistic picture on the subject on perceptions of principals' transformational leadership practices.

## REFERENCES

- Akyeampong, K. (2003). *Teacher Training in Ghana—Does it Count? (MUSTER Country Report One)*. Sussex, UK: DFID.
- Allix, N. M. (2000). Transformational Leadership: Democratic or Despotic? *Educational Management and Administration*, 28(1), 7-20.
- Antonakis, J., Avolio, B. J., and Sivasubramaniam, N. (2003). Context and leadership: An Examination of the Nine-Factor Full-Range Leadership Theory Using the Multifactor Leadership Questionnaire. *The Leadership Quarterly*, 14(3), 261-295.
- Artiles, D. (2013). *The Rise of American Urbanized Suburban High Schools: Teachers' Perceptions of Leadership*. (Ed.D., Fordham University). ProQuest Dissertations and Theses, Retrieved from <https://search.proquest.com/docview/1431455832?accountid=12753> (02/03/2018)
- Avolio, B. J., Bass, B. M. & Jung, D. I. (1999). Re-Examining the Components of Transformational and Transactional Leadership Using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organisational*, 72, 441-462.
- Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire, manual and sample set* (3rd ed.). Menlo Park, CA; Mind Garden Inc.
- Avalos, B. J. (2011). *Teacher Professional Development in Teaching and Teacher Education Over Ten Years*. *Journal of Teaching and Teacher Education*, 27, 10-20.
- Avci, O. (2012). *The Relationship Between Transformational Leadership Behaviours of Faculty Supervisors and Self-Efficacies of Graduate Assistants*. (Ed.D., Northern Illinois University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1024732976?accountid=12753> (02/02/2018)
- Azodi, D. S. (2006). *Principal Leadership, Trust, And Teacher Efficacy*. (Ed.D., Sam Houston State University). ProQuest Dissertations and Theses, Retrieved from <https://search.proquest.com/docview/304961845?accountid=12753> (02/03/2018).

- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 28(2), 117-148.
- ..... (1997). *Self-Efficacy: The Existence of Control*. New York: W. H. Freeman and Company.
- Bass, B, M. (1985). *Leadership and Performance Beyond Expectations*. New York: The Free Press.
- ..... (1990). *Leader March: A Handbook of Leadership*. New York: The Free Press.
- ..... (1998). *Transformational Leadership: Industrial, Military, and Educational Impact*. Mahwah, NJ: Erlbaum.
- Bass, B. M. and Avolio, B. J. (1990). The Implications of transactional and Transformational leadership for Individual, team, and Organizational development. *Research in Organizational Change and Development*, 4, 231-272.
- ..... (1993). 'Transformational leadership: A response to cri ques', in Chemers, M, M. & Ayman, R. (eds.), *Leadership Theory and Research: Perspectives and Directions*: Academic Press, New York. 49-80.
- ..... (Eds.). (1994). *Improving Organizational Effectiveness Through Transformational Leadership*. Thousand Oaks, CA: Sage Publications.
- ..... (1999). Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32.
- Bass, B, M., Avolio, B.J., Jung, D.I., & Bergson, Y. (2003). Predicting Unit Performance by Assessing Transformational and Transactional Leadership. *Journal of Applied Psychology*, 88(2), 207-218.
- Bell, L. and Bolam, R. (2010). Chapter 6: Teacher professionalism and continuing professional development: contested concepts and their implication for school leaders. In: Bush, T., Bell, L. & Bolam, R., ed., *The Principles of Educational Leadership and Management*. London: SAGE, 89-111.

- Bell, J. and Woolner, P. (2012). Chapter 18: Development and using questionnaires. in: Briggs, R, A., Coleman, M. & Morrison, M., ed., *Research Methods in Educational Leadership and Management*, 266-280.
- Bennardo, D, P. (2007). The Transformational Leadership Characteristics of The Building Principal as A Predictor of High School Teacher Efficacy. (Ed.D., St. John's University (New York), School of Education and Human Services). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1896629610?accountid=12753>
- Biggerstaff, J, K. (2012). The Relationship Between Teacher Perceptions of Elementary School Principal Leadership Style and Teacher Job Satisfaction. *Dissertations*. Paper 22. <http://digitalcommons.wku.edu/diss/22> (02/03/2018).
- Boadu, K., & Acquah, B. Y. S. (2013). Training Needs Assessments of Colleges of Education Tutors in Central Region, Ghana. *International Journal of Humanities and Social Science*, 3(10), 247-254.
- Boberg, J, E. (2013). High School Principal Transformational Leadership Behaviours and Teacher Extra Effort During Educational Reform: The Mediating Role of Teacher Agency Beliefs. (Ph.D., The University of Texas At Arlington). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1449841530?accountid=12753> (02/03/2018).
- Boote, D, N., & Beile, P. (2005). Scholars Before Researchers: On the Centrality of the Dissertation Literature Review in Research Preparation. *Educational Research*, 34(6), 3-15.
- Borko, H. (2004). Professional Development and Teacher Learning: Mapping the Terrain. *Educational Research*, 33(8), 3-15.
- Bredeson, P. V. and Johansson, O. (2000). The School Principal's Role in Teacher Professional Development. *Journal of In-Service Education*, 26(2), 385-401.

- Briggs, A. R. J., Coleman, M. & Morrison, M. (2012). *Research Methods in Educational Leadership and Management*. SAGE: London: Delhi: Washington DC.
- Brown, J. D. (2011). Likert Items and Scales of Measurements? *SIKEN: JALT Testing and Evaluation SIG Newsletter*, 15(1), 10-14.
- Bush, T., and Coleman, M. (2000). *Leadership and Strategic Management in Education*. SAGE Publication Ltd, London.
- Burns, J. M. (1978). *Leadership*. New York, NY: Harper & Row.
- Caprara, G. V., Barbaranelli, C., Stecca, P. and Malone, P. S. (2006) Teacher's Self-Efficacy Beliefs as Determinants of Job Satisfaction and Student Academic Achievement: A Study at the School Level. *Journal of School Psychology*, 44, 473-490.
- Card, N. A. (2012). *Applied Met-Analysis for Social Science*. New York: The Guilford Press.
- Chen, P. P. (2003). Exploring the Accuracy and Predictability of the Self-Efficacy Beliefs of Seventh-grade Mathematics Students. *Journal of Learning and Individual Difference*, 14, 79-92.
- Chen, P. P. and Zimmerman, B. (2007). A Cross-National Comparison Study on the Accuracy of Self-Efficacy Beliefs of Middle-School Mathematics Students. *The Journal of Experimental Education*, 75(3), 221-244.
- Colton, C. C. (2016). Exploration of Transformational Leadership and Teacher Self-Efficacy in Integrated Arts Schools. (Ed.D., Grand Canyon University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1800533823?accountid=12753> (02/03/2018).
- Cooper, H. and Hedges, L. V. (eds.), (1994). *The Handbook of Research Synthesis*. New York: Russell SAGE Foundation.
- Cooper, H. M., Hedges, L. V., & Valentine, J. C. (eds.), (2008). *The Handbook of Research Synthesis and Meta- Analysis* (2nd Ed.). New York: Russell Sage Foundation.

- Costello, A., B. and Osborne, J, W. (2005). Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis. *Practical Assessment, Research & Evaluation*, 10(7), 1-9.
- Clune, M. S. (2013). Transformational Leadership, Teacher Self-Efficacy and Effective use of Instructional Technology Within Online Communities of Practice. (Ph.D., Eastern University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1787842734?accountid=12753> (02/03/2018).
- Critical Appraisal Skills Programme* (2006). CASP (Public Health Resource Unit, England) Checklist. [Online] Available at: <http://www.efkr.dk/images/file/CASP%20instrumentet.pdf> (19/04/2018)
- Critical Appraisal Skills Programme* (2018). CASP (Qualitative Review) Checklist. [online] Available at: <https://casp-uk.net/wp-content/uploads/2018/03/CASP-Qualitative-Checklist-Download.pdf> (19/04/2018).
- Crooks, T, J., Kane, M, T. & Cohen, A, S. (1996) Threats to the Valid Use of Assessments. *Assessment in Education: Principles, Policy & Practice* 3(3), 265-286
- Dale, J. C., Jr. (2012). The Correlation of The Perceived Leadership Style of Middle School Principals to Teacher Job Satisfaction and Efficacy. (Ed.D., Liberty University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1238003178?accountid=12753> (02/03/2018).
- Dankwa, J. A. (2013). Transformational Leadership in Colleges of Education in Ghana: Teachers' Perspectives. *Journal of Education and Practice*, 4(16), 187-195.
- Dawes, J. (2007). Do Data Characteristics Change According to the Number of Scale Points Used? An Experiment Using 5-Point, 7-Point and 10-Point Scales. *International Journey of Market Research*, 50(1), 61-77.
- Day, C., Gu, Q. and Sammons, P. (2016). The Impact of Leadership on Student Outcomes:



- How Successful Leaders Use Transformational and Instructional Strategies to Make a Difference. *Educational Administration Quarterly*, 52(2), 221-258.
- Demir, K. (2008). Transformational Leadership and Collective Efficacy: The Moderating Roles of Collaborative Culture and Teachers' Self-Efficacy. *Eurasian Journal of Educational Research*, 33, 93-112.
- Demirdag, S. (2015). Assessing Teacher Self-Efficacy and Job Satisfaction: Middle School Teachers. *Journal of Educational and Instructional Studies*, 3(5), 35-43.
- Denscombe, M. (2014). *The Research Guide for Small Scale School Research Projects*. Berkshire: England: Open University press.
- Dixon P., Humble S., and Chan D.W. (2016). How children living in poor areas of Dar Es Salaam, Tanzania perceive their own multiple intelligences, *Oxford Review of Education*, 42 (2) 230-248.
- Elliott, S. E. (2000). The Relationship Between Teacher Efficacy and Principal Leadership Behaviours and Teacher Background Variables in Elementary Schools. (Ph.D., University of Connecticut). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/304595453?accountid=12753> (02/03/2018).
- Elliot , A., & Woodward, W. (2007). *Statistical analysis quick reference guidebook with SPSS examples* (1st ed.). London: Sage Publication .
- Espinoza, S. (2013). The Effects of Principal's Transformational Leadership Behaviours On Teacher Leadership Development and Teacher Self-Efficacy. (Doctoral Dissertation, University of Texas Pan-American, 2013. UMI No. 3565648).
- Field , A. (2009). *Discovering Statistics using SPSS* (3rd ed.). London: Sage publication.
- Field, A. P. & Gillett, R. (2010). How to do Meta-Analysis. *British Journal of Mathematical and Statistical Psychology*, 63 (3), 665-694.
- Finn, R.H. (1972). Effects of Some Variations in Rating Scale Characteristics on the Means and Reliabilities of Ratings. *Educational and Psychological Measurement*, 32(7),

255–265.

- Fitzgerald, T. T. (2015). A Study Exploring Transformational Leadership and its Impact on Teacher Efficacy, Teacher Trust, And Change Readiness. (Ed.D., Concordia University Chicago). ProQuest Dissertations and Theses, Retrieved from <https://search.proquest.com/docview/1705816534?accountid=12753> (02/03/2018).
- Flad, B. H. (1989). Relationships Between Teacher Perceptions of Principal Support and Teacher Allocation of Time. Dissertations and Theses. Paper 1340. (23/01/2019).
- Garet, M. S., Porter, A. C., DeSimone, L., Birman, B. F. and Suk. Y. K. (2001). What Makes Professional Development Effective? Results from a National Sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Gavora, P. (2010). Slovak Pre-service Teacher Self-Efficacy: Theoretical and research Considerations. *The New Educational Review*, 21(2), 17-30.
- Ghasemi, A. & Zahediasl, S. (2012). Normality Test for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology Metabolism*, 10(2), 486-489.
- Gjersing, L., Caplehorn, J. R. & Clausen, T. (2010). Cross-Cultural Adaptation of Research Instruments: Language, Setting, Time and Statistical Considerations. *BMC Medical Research Technology*, 10(13), 1-10.
- Gkolia, A., Koustelios, A. and Belias, D. (2018). Exploring the Association Between Transformational Leadership and Teacher's Self-Efficacy in Greek Education System: A Multilevel SEM Model. *International Journal of leadership in Education*, 21(2), 179-196.
- Goddard, R. (2002). A Theoretical and Empirical Analysis of the Measurements of Collective Efficacy: The Development of a Short Form. *Educational and Psychological Measurement*, 62(1), 97-110.
- Goddard, R. D. and Goddard, Y. L. (2001). A Multilevel Analysis of the Relationship between Teacher and Collective Efficacy in Urban Schools. *Teaching and Teacher*

*Education*, 17, 807-818.

- Goddard, R. D., Hoy, W. K. and Hoy, A. W. (2004). Collective Efficacy Beliefs: Theoretical Developments, Empirical Evidence, and Future Direction. *Educational Research*, 33(3), 3-13.
- Green, B. N., Johnson, C. D. and Adam, A. (2006). Writing Narrative Reviews for Peer-Reviewed Journals: Secrets of the Trade. *Journal of Chiropractic Medicine*, 5(3), 101-117.
- Griffin, K. L. (2009). The Relationship Between Self-Efficacy of Teachers and Their Perception of The School Principal's Leadership Style. (Ph.D., Mercer University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/305157061?accountid=12753> (02/03/2018).
- Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate Data Analysis: with readings*. New Jersey: Prentice-Hall.
- Hair, J., Black, B., Babin, B., Anderson, R., & Tatham, R. (2010). *Multivariate Data Analysis*. London: London Prentice Hall.
- Hallinger, P. (2003). Leading Educational Change: Reflections on the Practice of Instructional and Transformational Leadership. *Cambridge Journal of Education*, 33(3), 329-351.
- Hallinger, P. and Heck, R. H. (2010). Leadership for Learning: Does Collaborative Leadership Make a Difference in School Improvement? *Educational Management Administration and Leadership*, 38(6), 654-678.
- Hardman, B. K. (2011). Teacher's Perception of their Principal's Leadership Style and the Effects on Student Achievement in Improving and non-improving schools. Graduate Theses and Dissertations. <http://scholarcommons.usf.edu/etd/3726> (23/01/2019).
- Hartley, D. (2004). Management, Leadership and the Emotional Order of the School. *Journal of Education Policy*, 19 (5), 583-594.

- Hayton, J. C., Allen, D. G. & Scarpello, V. (2004). Factor Retention Decisions in Exploratory Factor Analysis. *Organisational Research Methods*, 7(2), 191-205.
- Hauserman, C, P. and Stick, S. (2013). The Leadership Teachers Want from Principals: Transformational. *Canadian Journal of Education*, 36(3), 184-203.
- Hedges, L, V., Shymansky, J, A. and Woodworth, G. (1989). *A Practical Guide to Modern Methods of Meta-Analysis*. Washington DC: National Science Teachers Association.
- Helms, P. M. (2012). Effective Leadership: Perceptions of Principals and the Teachers they Lead. Education Dissertations and Projects.  
[https://digitalcommons.gardner-webb.edu/education\\_etd/56](https://digitalcommons.gardner-webb.edu/education_etd/56) (02/03/2018).
- Hipp, K. A. (1995). Exploring the Relationship Between Principals' Leadership Behaviours and Teachers' Sense of Efficacy in Wisconsin Middle Schools. (Ph.D., The University of Wisconsin - Madison). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/304269796?accountid=12753> (02/03/2018).
- Holligan, C., Wilson, M. & Humes, W. (2011). Research cultures in English and Scottish University Education Departments: An Exploratory Study of Academic Staff Perceptions. *British Educational Research Journal*. 37(4), pp. 713-734.
- Holligan, C. & Wilson, M. (2015). Critical Incidents as Formative Influences on Educational Researchers: Understanding an Insider Perspective Through Narrative Enquiry. *British Journal of Sociology of Education*, 36(3), 453-473.
- Horn-Turpin, F. D. (2009). A Study Examining the Effects of Transformational Leadership Behaviours on the Factors of Teaching Efficacy, Job Satisfaction and Organizational Commitment as Perceived by Special Education Teachers. (Ph.D., Virginia Polytechnic Institute and State University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1021372639?accountid=12753> (02/03/2018).
- Hoxha, L. and Hyseni-Duraku, Z. (2017). The Relationship Between Educational Leadership

- and Teachers' self-efficacy. *The European Journal of Social and Behavioural Science*, 20, 2301-2218.
- Hoy, W, K., & Woolfolk, A. E. (1993). Teachers' Sense of Efficacy and the Organisational Health of the School. *The Elementary School Journal*, 93, 356-372.
- Huberman, M. (1989). The Professional Life Cycle of Teachers. *Teachers College Record*, 91, 31-57.
- Jantzi, D. and Leithwood, K. (1996). Towards an Explanation of the Variations in Teachers' Perceptions of Transformational School Leadership. *Educational Administration Quarterly*, 32(4), 512-538.
- Jesson, J. and Lacey, F. (2006). How to do (or not to do) Critical Literature Review. *Journal of Pharmacy Education*, 6(2), 139-148.
- Kaminski, J. L. (2014). High School Principals. Leadership Styles and Their Impact on Teacher Efficacy. (Ed.D., Michigan University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1629464489?accountid=12753> (02/03/2018).
- Klassen, R. M., & Chiu, M. M. (2010). Effects on Teachers' Self-Efficacy and Job Satisfaction: Teacher Gender, Years of Experience, and Job Stress. *Journal of Educational Psychology*, 102(3), 741-756.
- Klassen, R. M., Tze, V. M. C., Betts, S. M. and Gordon, K. A. (2011). Teacher Efficacy Research 1998-2009: Signs of Progress or Unfulfilled Promised? *Educational Psychology Review*, 24, 21-43.
- Kor, R. (2010). Teachers' and Principals' Perceptions of Leadership Characteristics and the Relationship of these Perceptions to School Climate. *Education Dissertations*. <http://repository.wcsu.edu/educationdis/76> (23/01/2019).
- Korb, K. A. (2010). Conducting Educational Research: Adopting or Adapting an Instrument.

<http://korbedpsych.com/R09aAdopt.html> (16/10/2019)

- Lee, V. E., Smith, J. B., and Cioci, M. (1993). Teachers and Principals: Gender-Related Perceptions and Power in Secondary Schools. *Educational Evaluation and Policy Analysis*, 15(2), 153-180.
- Le Fevre, D, M. and Robinson, V, M. (2015). The Interpersonal Challenges of Instructional Leadership: Principal Effectiveness in Conversations About Performance Issues. *Educational Administration Quarterly*, 51(1), 58-91.
- Leithwood, K. (1992). The Move Toward Transformational Leadership. *Educational Leadership*, 49(5), 8-12.
- Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly*, 30(4), 498-518.
- Leithwood, K. and Beatty, B. (2008). *Leading with Teacher Emotions in Mind*. United States of America: Corwin Press: A Sage Company.
- Leithwood, K. and Jantzi, D. (1999). Transformational Leadership Effects: Replication. *Journal of School Effectiveness and School Improvement*, 10(4), 451-479.
- ..... (2000). The Effects of Transformational Leadership on Organizational Conditions and Student Engagement. *Journal of Educational Administration*, 38(2), 112- 129.
- ..... (2005). A Review of Transformation School Leadership Research 1996- 2005. *Leadership and Policy in Schools*, 4, 177-199.
- ..... (2006). Transformational School Leadership for Large-Scale Reforms: Effects on Students, Teachers and their Classroom Practices. *School Effectiveness and School Improvements*, 17(2), 201-227.
- Leithwood, K., Jantzi, D. & Steinbach, R. (1999). *Changing Leadership for Changing times*. Buckingham, Philadelphia: Open University Press.
- Leithwood, K., Day, C., Sammons, P., Harris, A. and Hopkins, D. (2006). *Seven Strong Claims about Successful School Leaders*. London: DfES.

- Leithwood, K., Anderson, E. S., Mascall, B. & Strauss, T. (2010). Chapter 2: School leaders' influence on student Learning: the Four paths. In: Bush, T., Bell, L. & Bolam, R., ed., *The Principles of Educational Leadership and Management*. 13-30.
- Leithwood, K. and Sun, J. (2012). The Nature and Effects of Transformational Leadership: A Meta-Analytic Review of Unpublished Research. *Educational Administration Quarterly*, 48(3), 387-423.
- Lewandowski, K. . L. (2005). A Study of The Relationship of Teachers' Self-Efficacy and The Impact of Leadership and Professional Development. (D.Ed., Indiana University of Pennsylvania). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/305409690?accountid=12753> (02/03/2018).
- Lilla, D. (2013). Principal Transformational Leadership Behaviours, Teachers' Sense of Efficacy, And Student Graduation Rates in High Needs High Schools. (Ed.D., Dowling College). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1448692760?accountid=12753> (02/03/2018).
- Ling, T, P., Pihie, Z, A, L., Asimirin, S. and Fooi, F, S. (2015). The Influence of Transformational Leadership on Teacher Efficacy in Malaysian Secondary School Teachers. *International Journal of School Science Research*, 3(2), 73-85.
- Linnenbrink, E. A. and Pintrich, P. R. (2010). The role of Self-Efficacy Beliefs in Student Engagement and Learning in the Classroom. *Reading and Writing Quarterly*, 19, 119-137.
- Lussiez, Y. (2009). The Empathic Principal: The Relationship Between Empathy, Transformational Leadership, And Teacher Self-Efficacy. (Doctoral Dissertation, University of New Mexico, 2009. UMI No. 3368094).
- Maguire, S. J. (2016). Comparing Transformational and Transactional Leadership Styles of Principals and their Impact on School Climate, Teacher Efficacy and Student Academic Achievement. (Ph.D., Trident University International). *ProQuest*

- Dissertations and Theses*, Retrieved from  
<https://search.proquest.com/docview/1824687058?accountid=12753> (02/03/2018).
- Marks, H. M. and Printy, S. M. (2003). Principal Leadership and School Performance: An Integration of Transformational and Instructional leadership. *Educational Administration Quarterly*, 39(3), 370-397.
- Mascall, M. B. (2003). Leaders Helping Teachers Helping Students: The Role of Transformational Leaders in Building Teacher Efficacy. (Ph.D., University of Toronto (Canada)). *ProQuest Dissertations and Theses*, Retrieved from  
<https://search.proquest.com/docview/305258796?accountid=12753> (02/03/2018).
- McCormick, M. J. (2001). Self-Efficacy and Leadership Effectiveness: Applying Social Cognitive Theory to Leadership. *The Journal of Leadership Studies*, 8(1), 22-33.
- McWilliam, H. O. A., and Kwamena-Poh, M. A. (1978). *The Development of Education in Ghana: An Online Third Edition*. London: Longman Group Ltd.
- Mehdinezhad, V. and Mansouri, M. (2016). School Principals Leadership Behaviours and its Relation with Teachers' Sense of Efficacy. *International Journal of Instruction*, 9(2), 51-60.
- Middlewood, D. (2010). Chapter 8: Managing people and performance. In: Bush, T., Bell, L. & Bolam, R., ed., *The Principles of Educational Leadership and Management*. 132-150.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta- Analyses: *The PRISMA Statement PLoS Med* 6(7), 1-6.
- Nelson, A. (2012). The Relationship Between Middle School Teachers' Perceptions of Principals' Transformational Leadership Practices, Teachers' Sense of Efficacy and Student Achievement. (Doctoral Dissertation, University of Southern Mississippi, 2012. UMI No. 3530736).
- Newman, E. (2014). The Upgrading of Teacher Training Institutions to Colleges of



- Education: Issues and Prospects. *African Journal of Teacher Education*, 3(2), 2-14.
- Nir, A. E., & Kranot, N. (2006). School Principal's Leadership Style and Teachers' Self-Efficacy. *Planning and Changing*, 37(3/4), 205-218. Retrieved from <https://search.proquest.com/docview/218774333?accountid=12753> (02/03/2018).
- Odoom, D., Opoku, E., & Ayipah, D. N. (2016). Staff Development Needs at the Colleges of Education in Ghana: Evidence from Agogo College. *International Journal of Innovative Research & Development*, 1, 127-137.
- Ontai-Machado, D. (2016). Teachers' Perceptions of Elementary School Principals' Leadership Attributes and Their Relationship to School Effectiveness. Walden University <https://scholarworks.waldenu.edu/dissertations> (23/01/2019).
- Osei, A. A., & Adu, K. O. (2016). Transitional Challenges Facing Staff Development in Selected Colleges of Education in Ghana. *International Journal of Research in Education and Social Science*, 4, 301-315.
- Pajares, F. (1997). Current Directions in Self-Efficacy Research: in Maehr, M. & Pintrich, P, R., (Eds.) *Advances in motivation and achievement*. Bingley: UK: Emerald Group Publishing Ltd.
- Pallant, J. (2007). *SPSS survival manual, a step by step guide to data analysis using SPSS for windows* (3 ed.). Sydney: McGraw Hill.
- Pegler, P. L. (2003). An Examination of Teacher Efficacy and Transformational Leadership Behaviours of Principals in Urban Middle Schools. (Ph.D., Howard University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/305330150?accountid=12753>(02/03/2018).
- Randolph, J. (2009). A Guide to Writing the Dissertation Literature Review. *Practical Assessment, Research & Evaluation*, 14(13), 1-13.
- Rhodes, C. and Brundrett, M. (2010). Chapter 9: Leadership for learning. In: Bush, T., Bell,

- L. & Bolam, R., ed., *The Principles of Educational Leadership and Management*. 153-175.
- Riggs, R. (2017). Correlational Study Between Teacher Perceived High School Principal Leadership Style and Teacher Self-Efficacy. (Ed.D., Grand Canyon University). *ProQuest Dissertations and Theses*, Retrieved from <https://search.proquest.com/docview/1952261914?accountid=12753> (02/03/2018).
- Ross, J. and Gray, P. (2006). Transformational leadership and Teacher Commitment to Organisational Values: The Mediating Effects of Collective Teacher Efficacy. *School Effectiveness and School Improvement*, 2, 179-199.
- Ross, J and Bruce, C. (2007). Professional Development Effects on Teacher Efficacy: Results of Randomised Field Trial. *The Journal of Educations Research*, 101(1), 50-60.
- Rowold, J. (2005). *Multifactor Leadership Questionnaire: Psychometric Properties of the German Translation*. Mind Garden Inc.
- Ryan, H. D. (2007). An Examination of The Relationship Between Teacher Efficacy and Teachers' Perceptions of Their Principals' Leadership Behaviours. (Ed.D., University of North Texas). *ProQuest Dissertations and Theses*, Retrieved From <https://search.proquest.com/docview/304821039?accountid=12753> (02/03/2018).
- Shatzer, R, H., Caldarella, P., Hallam, P. and Brown, B, L. (2013). Comparing the Effects of Instructional and Transformational Leadership on Student Achievement: Implications for Practice. *Educational Management Administration and Leadership*, 42(4), 445-459.
- Short, J. J. (2016). Teachers' Self-Efficacy and Their Perceptions of Principals' Transformational Leadership Practices. (Ed.D., Baker University). *ProQuest Dissertation and Theses*.
- Shumate, R. L. (2011). Transformational Versus Transactional Leadership: Which Perceived Leadership Style Has the Stronger Relationship Between Teacher Efficacy and Student Achievement? (Ed.D., Trevecca Nazarene University). *ProQuest Dissertations and*

*Theses*, Retrieved

from <https://search.proquest.com/docview/877976459?accountid=12753> (02/03/2018).

Simmons, M. L. (2013). Teachers' Perceptions of Their Self-Efficacy and Effects of Principal Leadership Practices on Self-Efficacy Beliefs in Low and High-Performing Elementary Schools In South Carolina. (Ed.D., South Carolina State University). ProQuest Dissertations and Theses, Retrieved from

<https://search.proquest.com/docview/1586085342?accountid=12753> (02/03/2018).

Sompongdam, P. (2016). A mixed method study on the influence of principal's Transformational leadership on teacher efficacy. (Ed.D., St. John's University (New York), School of Education and Human Services). *ProQuest Dissertations and Theses*, Retrieved from

<https://search.proquest.com/docview/1782324013?accountid=12753> (02/03/2018).

Soodak, L, C. and Podell, D. (1996). Teacher Efficacy: Towards the Understanding of a Multifaceted Construct. *Teaching and Teacher Education*, 12(4), 401-411.

Stewart, J. (2006). Transformational Leadership: An Evolving Concept Examined through the Works of Burns, Bass, Avolio, and Leithwood. *Canadian Journal of Administration and Policy*, 54, 1-28.

Sun, J., Chen, X., & Zhang, S. (2017). A Review of Research Evidence on The Antecedents of Transformational Leadership. *Education Sciences*, 7(1), 15.

Szal, D. (2003). The Relationship of Administrative Behaviours and Teacher Characteristics With Teachers' General and Personal Efficacy. (Doctoral Dissertation, University Of Wyoming, 2003. UMI No. 3107419).

Transforming Teacher Education and Learning (T-TEL) in Ghana (2015): Ministry of Education (Ghana). *Creative Commons Attribution-Share-Alike 4.0 International License*. [www.t-tel.org](http://www.t-tel.org). (14/11/18).

Transforming Teacher Education and Learning (T-TEL). (2016). Unit 3: Leading Institutional

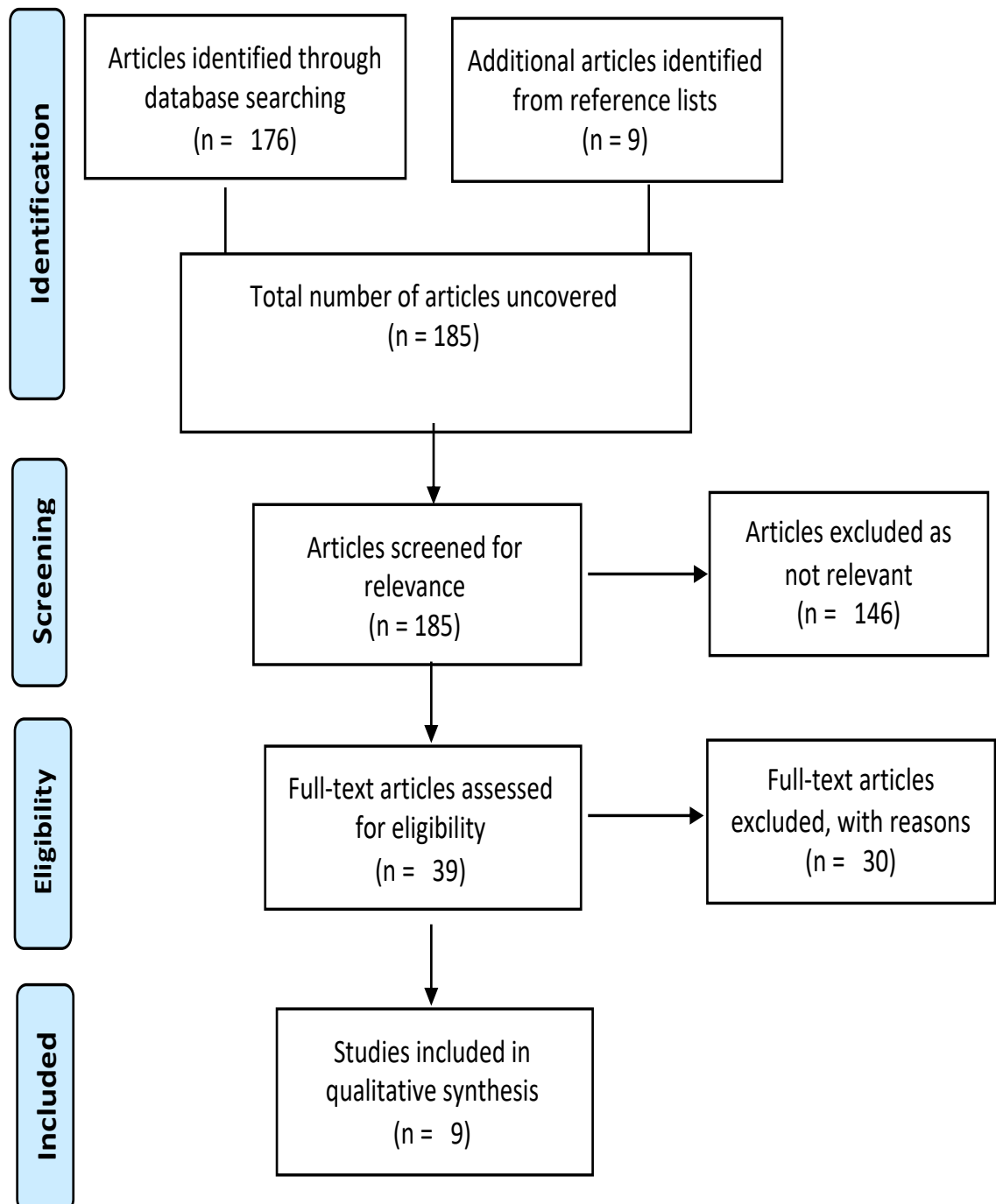
- Strengthening (Operations Leadership) – Leadership Programme Resources for College Leaders. Ghana: Ministry of Education.
- Tschannen-Moran, M., Hoy, A. W., Woolfolk H. A., & Hoy, W. K. (1998). Teacher Efficacy: Its Meaning and Measure. *Review of Educational Research*, 68(2), 202-248.
- Tschannen-Moran, M. and Woolfolk Hoy, A. (2001). Teacher Efficacy: Capturing an Elusive Construct. *Teaching and Teacher Education*, 17(7), 783-805.
- Tschannen-Moran, M. and Woolfolk Hoy, A. (2007). The Differential Antecedents of Self-Efficacy Beliefs of Novice and Experienced Teachers. *International Journal of Teaching and Teacher Education*, 23, 944-956.
- Tschannen-Moan, M. and McMaster, P. (2009). Sources of Self-Efficacy: Four Professional Development Formats and Their Relationship to Self-Efficacy and implementation of a New Teaching Strategy. *The Elementary School Journal*, 110(2), 228-245.
- Tschannen-Moran, M. and Slear, C. (2004). Principal Sense of efficacy: Assessing a Promising Construct. *Journal of Educational Administration*, 42(5), 573-585.
- Urick, A. and Bowers, A. (2014). What are the Different Types of Principals Across the United States? A Latent Class Analysis of Principal Perceptions of Leadership. *Educational Administration Quarterly*, 50(1), 96-134.
- Vaudroz, C., Berger, J., & Girardet, C. (2015). The Role of Teaching Experience and Prior Education in Teachers' Self-Efficacy and General Pedagogical Knowledge at the Onset of Teacher Education. *International Journal of Teaching and Educational Research*, 13(2), 168-178.
- Versland, T. M. and Erickson, J. (2017). Leading by Example: A Case Study of the influence of Principal Self-Efficacy on Collective Efficacy. *Cogent Education* 4, 1-17.
- Walker, J. and Slear, S. (2011). The Impact of Principal Leadership Behaviour on the Efficacy of New and Experienced School Teachers. *NASSP Bulletin*, 95(1), 46-64.
- Ware, H. and Kitsantas, A. (2007). Teacher and Collective Efficacy Beliefs as Predictors of

- Professional Commitment. *Journal of Educational Research*, 100(5), 303-310.
- Wayne, A. J., Suk Y. K., Zhu, P., Cronen, S. and Garet, M. (2008). Experimenting with Teacher Professional Development: Motives and Methods. *Educational research*, 37(8), 469-479.
- Williams, E. Jr., (2006). "Teachers' Perceptions of Principal Leadership in Relation to Student Achievement. ETD Collection for AUC Robert W. Woodruff Library Paper AAI3258821. (23/01/2019).
- Williams, D. P. (2010). Outcome Expectancy and Self-Efficacy: Theoretical Implications of an Unresolved Contradiction. *Personality and Social Psychology Review*, 14(4), 417-425.
- Wilson, M. (2014). Critical Reflection on Authentic Leadership and School Leader Development from a Virtue Ethical Perspective. *Educational Review*. 66(4), 482-496.
- Wolters, C. A., & Daugherty, S. G. (2007). Goal Structures and Teachers' Sense of Efficacy: Their Relation and Association to Teaching Experience and Academic Level. *Journal of Educational Psychology*, 99, 181-193.
- Woolfolk Hoy, A. & Burke Spero, R. (2005). Changes in Teacher Efficacy During the Early Years of Teaching: A Comparison of Four Measures. *Teaching and Teacher Education*, 21, 343-356.
- Yong, A. G. and Pearce, S. (2013). A Beginner's Guide to Factor Analysis: Focusing on Exploratory Factor Analysis. *Tutorials in Quantitative Methods in Psychology*, 9(2), 79-94.
- Yukl, G. A. (1999). An Evaluation of Conceptual Weaknesses in Transformational and Charismatic Leadership Theories. *Leadership Quarterly*, 10, 285-305.

**APPENDIX I: Flow Chart of the Search for Literature; Summary of Selected Studies.**

**Flow Chart of Literature search (model adapted from Moher D., Liberati A., Tetzlaff J,**

**Altman D, G. (2009).**



## Summary of 9 selected studies for Literature Review in Chapter Two

| Author(s), Year, location Study Type              | Research Population                 | Research Purpose  | Research Questions   | Sampling methods and Size  | Research Design  | Major Findings   |
|---|-------------------------------------|---|--|--|--|--|
| Ryan (2007)<br>USA<br>Dissertation                | Elementary, Middle and High Schools | (1) To examine the relationship between principal leadership behaviours and teachers' sense of efficacy as perceived by them<br>(2) It also examines perceptual differences among elementary, middle and high school teachers and identifies the sort of principal leadership behaviours that enhance or diminish.  | Three research questions and hypotheses are stated:<br>(1) what is the relationship between teachers' sense of efficacy and the perceptions of their principals' leadership behaviours?<br>(2) Does this relationship differ between elementary, middle and high school teachers?<br>(3) What leadership behaviour significantly impact on teacher self-efficacy in elementary, middle and high schools?   | 327 teachers<br><br>Systematic sampling procedure                    | Mixed Methods (Questionnaire and focus groups).<br><br>PLQ (Leithwood and Jantzi, 1996)<br><br>TSES (Tschannen-Moran et al., 1998) | In total, 79% of all teachers indicated statistically significant relationship between their sense of efficacy and perception of principal leadership. While middle school teachers reported statistically nonsignificant relations, elementary schools reported high statically significant of 0.05 in level 18 of the 28 correlations while high school teachers reported 0.001 in level 6 of the 28 correlations (p.86) |
| Espinoza (2013)<br>USA<br>Dissertation            | Elementary and Secondary schools    | (1) To examine how much of the total variance of the teacher leadership development and teacher efficacy can be explained by teachers' perceptions of the transformational leadership behaviours of their principals, and<br>(2) To examine the difference between elementary and secondary school teacher perceptions of their principals' transformational leadership behaviours. | (1) How much of the total variance of teacher leadership development is accounted for or explained by the principal's transformational leadership behaviours as perceived by teachers?<br>(2) How much of the total variance of teacher efficacy is accounted for or explained by the principal's transformational leadership behaviours as perceived by teachers?<br>(3) What are the differences in teachers' perceptions of principals' transformational leadership behaviours in elementary and secondary schools? | 283 teachers (128 = elementary schools, and 155 = secondary schools. | Quantitative Survey: Descriptive statistics (NLS and TSES).  | Findings indicated that: (1) principal transformational leadership behaviours explained a statistical significance of the variance of teacher classroom management and instructional strategies. (2) A two-way factorial analysis found no significant differences between teacher perceptions of the transformational leadership behaviours of their principals in elementary and secondary schools.                      |
| Shumate (2011)<br>USA<br>Dissertation             | Elementary schools                  | To examine the relationship between principal leadership style and teacher efficacy as well as student academic achievements.   | (1) What relationship, if any, exists between teacher perceptions of their principal leadership and their self-efficacy?<br>(2) What relationship, if any, exist between the perceived leadership style of the principal and schools' 'valued-added score'?<br>(3) What principal behaviours are perceived by teachers to increase their effectiveness in the classroom?   | 348 (19 principals and 327 teachers                                  | Mixed Methods<br><br>MLQ (Form 5X)<br><br>TSES   | Findings indicate that (1) intellectual stimulation had strong, positive relationship to all three factors of teacher sense of efficacy.<br>(2) Contingent rewards also had strong positive relationship to classroom management, and moderate relationship with the other two TSES factors.   |
| Ling et al. (2015)<br>Malaysia<br><br>Peer Review | Secondary School teachers           | To examine the relationship between transformational school leadership and teacher efficacy   | No specific research questions or hypotheses are stated  | 137 valid responses out of 160 representing 85.6% response rate.     | NLS<br>TSES<br>Quantitative Surveys: Descriptive statistics, correlations and Multiple regression.                                 | Analysis reveal significant relationships between dimensions of TSL and teacher efficacy   |
| Mehdinezhad and                                   | Elementary, Middle                  | To investigate the relationship between   | (1) is there a significant relationship between  | 254 teachers selected randomly                                       | MLQ<br>TSES  | Findings indicate significant relationship   |

|  |                                  |  |  |   |   |   |
|--|----------------------------------|--|--|---|---|---|
| Mansouri (2016)<br>IRAN<br>Peer Review         | and Secondary school teachers.   | school principal's leadership behaviour and teachers' sense of efficacy.   | principal leadership behaviour and teachers' self-efficacy?<br>(2) Are principal leadership behaviours predictive of teacher self-efficacy?  | by proportional sampling<br>98 males. 156 females.  | Quantitative Surveys: Descriptive and correlational studies.                        | between components of PL and Teacher sense of efficacy.<br>Idealised and Intellectual stimulation predicted the most changes in teacher sense of efficacy.  |
| *Riggs (2016)<br>USA<br>Dissertation           | High school teachers             | To examine the relationship between teacher-perceptions of principal leadership and their self-efficacy beliefs.   | 1) Is there a relationship between rural south Dakota high school teacher perceptions of their principal leadership and teacher efficacy in student engagement?<br>(2) Is there a relationship between rural south Dakota high school teacher perceptions of their principal leadership and teacher efficacy in instructional strategy?<br>(3) Is there a relationship between rural south Dakota high school teacher perceptions of their principal leadership and teacher efficacy in classroom management?                      | 139 certified teachers  | Quantitative Correlational study (MLQ (Form 5X) and TSES).                          | Findings reveal an overall significant relationship between teachers' perceptions of their principal transformational leadership and their self-efficacy beliefs.   |
| *Sompongam (2016)<br>Thailand<br>Dissertation  | Unknown                          | 1) To identify the transformational leadership behaviours which best predict teacher efficacy<br>(2) To identify the positive influence of TL on teacher efficacy.   | (1) How strongly are principal's transformational leadership qualities and teacher efficacy correlated?<br>(2) Which principal's transformational leadership variable best predicts teacher efficacy?  | Quan = 385<br>Qual = 8  | Mixed Methods<br>NSLS<br>TSES<br>Interviews   | PTL behaviours had statistical significant effects on TE<br>'Developing widely shared school vision' best predicted TE  |
| Short (2016)<br>USA<br>Dissertation            | Elementary Schools               | (1) To determine teacher efficacy in student engagement and their perceptions of the extent to which their principals' leadership is transformational.<br>(2) To determine the relationship between their efficacy in instructional strategies and the transformational leadership characteristics of their principals.<br>(3) To determine the relationship between teacher efficacy in classroom management and the transformational leadership practices of their principals. | (1) What is the extent of relationship between teacher efficacy in student engagement and perceptions of the transformational leadership of their school principals?<br>(2) What is the extent of the relationship between teacher efficacy in instructional strategies and their perceptions of the transformational leadership of their principals?<br>(3) What is the extent of the relationship between teacher efficacy in classroom management and their perceptions of the transformational leadership of their principals? | 43 teachers<br>Out of 126 participants were studied.<br><br>Purposive sampling methods          | Quantitative Survey<br>NSLS (Nature of School Leadership Survey)<br>TSES            | (1) No statistical significance in relationship between teacher efficacy in student engagement and classroom management and principals' transformational leadership.<br>(2) Some statistical significance in relationship between teacher efficacy in instructional strategies and PTL qualities such as: shared vision, building consensus, individualized considerations, and collaborative structure building. |
| Gkolia et al., (2018)<br>GREECE<br>Peer Review | Elementary and Secondary schools | To examine the effects of Principals' transformational leadership on teachers' self-efficacy.  | No specific research questions or hypotheses are stated in the study.  | 640 teachers:<br>251 males<br>381 females<br>346 elementary teachers<br>294 secondary teachers. | PLQ<br>TSES<br>Multi-level structural Equation Modelling Analysis (Mplus software). | General factors of PLQ impacted on teacher self-efficacy in student engagement and instructional strategies   |



*Table of Summary of Critical Appraisal of Selected studies for Review in Chapter Two*

| Study No | Author and Date                 | Q1 Aim  | Q2 Methods | Q3 Design | Q4 Sampling | Q5 Data Collection | Q6 Researcher Role | Q7 Ethics | Q8 Data Analysis | Q9 Findings | Q10 Validity |
|----------|---------------------------------|---------|------------|-----------|-------------|--------------------|--------------------|-----------|------------------|-------------|--------------|
| 1        | Ryan (2007)                     | √       | √          | moderate  | √           | moderate           | √                  | moderate  | √                | √           | √            |
| 2        | Ling et al. (2015)              | limited | √          | moderate  | X           | √                  | √                  | √         | limited          | limited     | √            |
| 3        | Shumate (2013)                  | √       | √          | moderate  | √           | √                  | √                  | moderate  | √                | √           | √            |
| 4        | Mehdinezhad and Mansouri (2016) | √       | √          | √         | √           | √                  | X                  | X         | limited          | limited     | √            |
| 5        | Short (2016)                    | √       | √          | √         | limited     | √                  | √                  | √         | √                | √           | √            |
| 6        | Gkolia et al. (2018)            | √       | √          | √         | √           | √                  | X                  | X         | limited          | limited     | √            |
| 7        | Espinoza (2013)                 | √       | √          | √         | moderate    | √                  | √                  | √         | √                | √           | √            |

Key: Responses to question: 'Yes' = √; 'Moderate'; 'Limited'; and 'Not stated' = X.

## APPENDIX II: Letter of Application and Approval for the Use of TSES

St Margaret's  
Parish  
48 Bridgend,  
Duns,  
Berwickshire  
Scotland, UK  
TD11 3EX

Megan Tschannen-Moran,  
College of William and Mary  
School of Education<sup>[L]</sup><sub>[SEPP]</sub>  
P.O. Box 8795<sup>[L]</sup><sub>[SEPP]</sub>  
Williamsburg, VA 23187-8795

Dear Dr Tschannen-Moran,

<sup>[L]</sup><sub>[SEPP]</sub>

### PERMISSION TO USE YOUR TEACHER SENSE OF EFFICACY SCALE.

I am a doctoral student in Education studying for a degree in educational leadership at Newcastle University in the United Kingdom. I intend to conduct a research study exploring the relationship between principal transformational leadership practices and teacher self-efficacy beliefs from tutor perspectives in the Colleges of Education in Ghana.

I would like to use the Teachers' Sense of Efficacy Scale developed by yourself and Dr Woolfolk Hoy (1998; 2001) to measure tutor perceptions of their self-efficacy beliefs in these colleges which have recently been upgraded from post-secondary to tertiary institutions. I hope to commence my fieldwork by June 20<sup>th</sup>, 2018.

From my review of literature in the area, the validity and reliability of your instrument is significantly high and appears to be less contested.

I am therefore requesting your permission to use the instrument and would appreciate a written electronic response indicating such for the appendix of my dissertation. A copy of the instrument along with directions for scoring and reliabilities will be very much appreciated. I could contacted me via email for an electronic response through: [afayori@yahoo.com](mailto:afayori@yahoo.com)

[r.afayori@newcastle.ac.uk](mailto:r.afayori@newcastle.ac.uk) Thank you so much for your help.

Yours faithfully,

.....  
Robert Afayori  
(Ed.D-Candidate, Newcastle University)



## William & Mary School of Education

April 20, 2018 Robert,

MEGAN TSCHANNEN-MORAN, PHD

PROFESSOR OF EDUCATIONAL LEADERSHIP

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research. You can find a copy of the measure and scoring directions on my web site at <http://wmpeople.wm.edu/site/page/mxtsch> . Please use the following as the proper citation:

Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

I would love to receive a brief summary of your results. All the best,

Megan Tschannen-Moran<sup>[SEP]</sup>  
The College of William and Mary<sup>[SEP]</sup> School of Education

---

P.O. Box 8795 • Williamsburg, VA 23187-8795 • (757) 221-2187

• [mxtsch@wm.edu](mailto:mxtsch@wm.edu)

### APPENDIX III: Letter of Application and Approval for the Use of the PLQ

St Margaret's  
Parish  
48 Bridgend,  
Duns,  
Berwickshire  
Scotland, UK  
TD11 3EX

Ontario Institute for  
Studies in Education,  
Toronto,  
Canada.

Dear Dr Leithwood,

#### PERMISSION TO USE YOUR NATURE OF LEADERSHIP QUESTIONNAIRE.

I am a doctoral student in Education studying for a degree in educational leadership at Newcastle University in the United Kingdom. I intend to conduct a research study exploring the relationship between principal transformational leadership practices and teacher self-efficacy beliefs from tutor perspectives in the Colleges of Education in Ghana.

I would like to use 'The Nature of Leadership' questionnaire instrument developed by yourself and Dr Jantzi to measure tutor perceptions of the transformational leadership practices of their principals in these colleges which have recently been upgraded from post-secondary to tertiary institutions. I hope to commence my fieldwork by June 20<sup>th</sup>, 2018.

I will therefore be happy if you could grant me permission to use the instrument and would appreciate a written electronic response indicating such for the appendix of my dissertation. A copy of the instrument along with directions for scoring and reliabilities will be very much appreciated as well.

I could be contacted electronically through [afayori@yahoo.com](mailto:afayori@yahoo.com) or [r.afayori@newcastle.ac.uk](mailto:r.afayori@newcastle.ac.uk)

Thank you so much for your help.

Yours faithfully,

.....  
Robert Afayori  
(Ed.D-Candidate,  
Newcastle  
University)

Letter of Approval for the use of Transformational leadership instrument

KL

Kenneth Leithwood <kenneth.leithwood@utoronto.ca>

Reply all

Wed 11/04, 21:34

Robert Afayori (PGR)

Leithwood Leadership Survey Short version 2015.docx 23 KB  
Ontario Leadership Framework.pdf 484 KB

2 attachments (507 KB) Download all

Save all to OneDrive - Newcastle University

You are welcome to use the attached instrument. It measures a combination of transformational leadership practices.

I usually use a 4-point response scale but have used as many as 7.

This version is for those experiencing leadership not the leaders themselves, although it is easily adapted.

I have attached a document which includes (among other things) a review of the evidence justifying the instrument. When each of the four categories of items are treated as scales, internal reliabilities always exceed .85

Marking is simple, for example, calculate the mean response for each scale. if you compute standard deviations then you can calculate your own reliabilities.

## APPENDIX IV: Ethical Approvals from University and School of Education

### Approval from Newcastle University Ethics Committee

Ethics Form Completed for Project: The Impact of Principal Leadership on Tutor Self-Efficacy Beliefs in Colleges of Education in Ghana

P

Policy & Information Team, Newcastle University <noreply@limesurvey.org>

Reply all

Tue 31/10, 19:05

Robert Afayori (PGR)

Ref: 1456/2017

Thank you for submitting the ethical approval form for the project 'The Impact of Principal Leadership on Tutor Self-efficacy Beliefs in Colleges of Education in Ghana' (Lead Investigator: ROBERT AFAYORI). Expected to run from 01/08/2018 to 03/11/2018.

Based on your answers the University Ethics Committee grants its approval for your project to progress. Please be aware that if you make any significant changes to your project then you should complete this form again as further review may be required. If you have any queries please contact [res.policy@ncl.ac.uk](mailto:res.policy@ncl.ac.uk)

Best wishes

Policy & Information Team, Newcastle University Research Office

[res.policy@ncl.ac.uk](mailto:res.policy@ncl.ac.uk)

**Approval from ECLS Ethics Committee.**

AB

Adele Bennett

Reply all

Tue 28/11/2017, 12:35

Robert Afayori (PGR)

Hello Robert.

Your ethics application has now been approved.

Many thanks

Adele

**From:** Caroline Walker-Gleaves

**Sent:** 28 November 2017 11:45

**To:** Adele Bennett <Adele.Bennett@newcastle.ac.uk>

**Subject:** Re: Ethics Application

hi Adele

thanks and yes, I can now approve this application

thanks

Caroline

Professor Caroline Walker-Gleaves, NTF, FHEA, FRSA

Professor of Education

Head of School of Education, Communication & Language Sciences

Newcastle University

King George VI Building

Queen Victoria Road

Newcastle Upon Tyne NE17RU

## APPENDIX V: Permission and Approval for Research to be Conducted.

St Margaret's Parish  
48 Bridgend,  
Duns,  
Berwickshire  
Scotland.  
TD11 3EX

The Chairperson,  
National Council for  
Tertiary Education,  
Accra, Ghana.

Dear Sir/Madam,

### PERMISSION TO CONDUCT RESEARCH STUDIES IN THE COLLEGES OF EDUCATION IN GHANA.

My name is Fr Robert Afayori, a native of Navrongo in the Upper East Region, and a doctoral student of education in Newcastle University – United Kingdom. I am conducting a research study in the Ghanaian Colleges of Education on the relationship between principals' transformational leadership practices and tutors' self-efficacy beliefs. Tutors' self-efficacy here simply constitutes tutors' perceptions in their ability to organise instructional strategies to achieve required instructional outcomes.

Robust empirical studies consistently demonstrate that teacher self-efficacy is a significant predictor of teacher performance efficacy, teacher commitment to school goals and teacher job satisfaction. While this remains the case, studies also show that principal transformational leadership practices have the potential to negatively or positively influence this area of teacher effect-variables.

Research studies also indicate that structural and institutional changes in response to new educational reforms also impact on teacher self-efficacy beliefs. The Colleges of Education have recently undergone major institutional changes through the 2012 Colleges of Education Act (847) which upgraded them into tertiary institutions. These significant changes are bound to impact on tutor self-efficacy beliefs

It is against this backdrop that research studies which are directed at ascertaining the self-efficacy levels of tutors in these colleges on the one hand, and on the other, demonstrate the degree to which these efficacy beliefs are impacted by the leadership practices of college principals, may prove useful to your council, to principals, the tutors and other stakeholders in education.

This is because the information garnered from this study could provide useful insights into the kind of training and professional development programs that support effective principal leadership and tutor performance efficacy. It is therefore my hope that you will grant me the permission to undertake this all-important exercise within the months of June and July 2018. Permission has already been sought from the Minister of Education, and permission will be sought from principals and tutors of selected colleges.

Yours faithfully,

.....  
Fr Robert Afayori  
(Ed. D. Candidate)

**NB:** Your much needed response could be sent via email: [REDACTED]  
[REDACTED] or posted through the above address. Thank you.

PERMISSION FROM THE NCTE





## Letters to the Principals of Selected Colleges of Education

St Margaret's Parish.  
48 Bridgend,  
Duns.  
Berwickshire  
Scotland – UK  
TD11 3EX

Dear Principal,

### PERMISSION TO CONDUCT RESEARCH STUDIES IN YOUR INSTITUTION

My name is Fr Robert Afayori, a native of Navrongo in the Upper East Region, and a doctoral student of education in Newcastle University – United Kingdom. I am conducting a research survey in the Ghanaian Colleges of Education on the relationship between principals' transformational leadership practices and tutors' self-efficacy beliefs. Tutors' self-efficacy here constitutes tutors' perceptions of their ability to organise instructional strategies to achieve instructional outcomes.

I have sought for and gained permission undertake this survey from the Minister of Education and the National council for Tertiary Education. As this college is under your direct leadership, I would be very grateful if you would grant me the permission to undertake this survey and support me in the best way you can.

I intend to conduct the survey across the country between the months of June and July 2018. Since I intend to meet you and your tutors and explain certain elements in the survey instrument before administration, your help in making this possible would be very much appreciated. The survey should take approximately 25 minutes to complete.

Tutor participation is completely voluntary, and responses will be anonymised. Neither tutor names nor your college name will appear anywhere on the survey. Whereas their participation in this study is extremely significant for the completion of my thesis, results will provide useful information on the impact of transformational leadership on tutor self-efficacy in classroom management, instructional strategies, and student engagement.

I could be contacted on questions regarding this research via email: [REDACTED]

[REDACTED]. Thank you for your kind help and assistance.

Yours faithfully,

.....  
Fr Robert Afayori  
(Ed. D. Candidate)

## APPENDIX VI: Participants' Information Sheet and Consent Form



School of Education, Communication & Language Sciences

### PARTICIPANT'S INFORMATION SHEET

1. You are invited to take part in a research study entitled '**The Impact of Principal Transformational Leadership Practices on Tutor Self-Efficacy Beliefs in the Colleges of Education in Ghana**'.
2. Please read this form carefully and ask any questions you may have before agreeing to be in the study.
3. The study is conducted by **Fr Robert Afayori** as part of his Doctor of Education studies at Newcastle University.
4. This research project is supervised by: **Prof. James Tooley** from the School of Education, Communication & Language Sciences at Newcastle University.
5. The purpose of this study is to research tutors' perceptions of their self-efficacy beliefs and the extent to which, if at all, this is impacted by the transformational leadership practices of their college principals.
6. If you agree to be in this study, you will be asked to participate in a survey, and maybe, a follow-up focus group interviews depending on the outcome of the analysis of the survey, and your willingness to participate.
7. Your participation in this study will take approximately **20 to 30 minutes**.
8. You are free to decide whether or not to participate. If you decide to participate, you are free to withdraw at any time without any negative consequences for you.
9. All responses you give or other data collected will be kept confidential. The records of this study will be kept secure and private. All files containing any information you give are password protected. In any research report that may be published, no information will be included that will make it possible to identify you individually. There will be no way to connect your name to your responses at any time during or after the study.
10. If you have any questions, requests or concerns regarding this research, please contact me via email at: [REDACTED] or by telephone at: [REDACTED] (Ghana).

This study has been reviewed and approved by the School of Education, Communication & Language Sciences Ethics Committee of Newcastle University (date of approval: **28<sup>th</sup> November 2017**)

Faithfully yours

.....  
Robert Afayori



## APPENDIX VII: Survey Instruments for Data Collection



SCHOOL OF EDUCATION, COMMUNICATION AND LANGUAGE SCIENCES

### SURVEY INSTRUMENT

It will take between 20 to 25 minutes to complete the entire questionnaire

#### PART ONE: TUTOR DEMOGRAPHIC INFORMATION

Directions: Please provide the following information about yourself by *filling* the space provided or *ticking* (✓) in the parenthesis where applicable. All responses are strictly confidential.

1. Name of your college \_\_\_\_\_
2. Gender:
  - (a) Male.....{ }
  - (b) Female..... { }
3. Highest Qualification as a tutor:
  - (a) Diploma..... { }
  - (b) First Degree..... { }
  - (c) Masters/MPhil..... { }
  - (d) PhD..... { }
  - (e) Other.....{ } Please specify.....
4. How many years have you worked as a tutor at the end of this academic year?.....
5. How many years have you worked with the current principal at the end of this academic year?.

## PART TWO: TUTOR SENSE OF EFFICACY QUESTIONNAIRE SCALE (TSES)

**Directions:** This questionnaire is designed to help me gain a better understanding of your self-efficacy beliefs. Please indicate your opinion about each of the statements below by *circling* where appropriate using this Scale: **1 = Nothing (N)**; **2-3 = Very Little (VL)**; **4-5 = Some Influence (SI)**; **6-7 = Quite a Bit (QB)**; and **8-9 = A Great Deal (GD)**. Your answers are strictly confidential.

|   | (N) | (VL) | (SI) | (QB) | (GD)                |
|---|-----|------|------|------|---------------------|
| 1. How much can you do to get through to the most difficult students?                     | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 2. How much can you do to help your students think critically?                            | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 3. How much can you do to control disruptive behaviour in the classroom?                  | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 4. How much can you do to motivate low interest students to study?                        | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 5. How much can you make your expectations about good behaviour clearer to students?      | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 6. How much can you motivate students to believe they can do well in their studies?       | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 7. How well can you respond to difficult questions from your students?                    | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 8. How well can you establish routines to keep classroom activities running smoothly?     | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 9. How much can you do to help your students value learning?                              | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 10. How well can you assess a student's comprehension of what you have taught?            | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 11. How well can you craft good questions for your students?                              | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 12. How much can you do to foster student creativity and learning?                        | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 13. How much can you do to get students to follow classroom regulations?                  | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 14. How much can you do to help improve the understanding of a failing student?           | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 15. How much can you help calm down a disruptive or noisy student in the classroom?       | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 16. How well can you establish classroom management system with groups of students        | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 17. How well can you adjust your lessons to suit the proper levels of each student?       | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 18. How much can you use a variety of assessment strategies?                              | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 19. How well can you keep a few problem students from ruining an entire lesson?           | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 20. How well can you provide alternative explanations to help students to understand?     | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 21. How well can you respond to defiant students in the classroom?                        | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 22. How much can you help families to support their children to succeed in their studies? | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 23. How well can you implement alternative instructional strategies in your classroom?    | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |
| 24. How well can you provide appropriate challenges for very capable student?             | (1) | (2)  | (3)  | (4)  | (5) (6) (7) (8) (9) |

### PART THREE: PRINCIPALS' LEADERSHIP QUESTIONNAIRE (PLQ)

**Directions: The following statements are descriptions of principal leadership practice that may or may not reflect your principal's leadership practices. Indicate the extent to which you agree or disagree that the statements describe the leadership practices of your college principal by circling the number that best reflects your opinion. Your responses are strictly confidential.**

|  | <i>Strongly<br/>Disagree</i> | <i>Disagree</i> | <i>Agree</i> | <i>Strongl<br/>y Agree</i> |
|--|------------------------------|-----------------|--------------|----------------------------|
| 1. My principal has both the capacity and the judgment to resolve problems in our college.                                   | (1)                          | (2)             | (3)          | (4)                        |
| 2. My principal commands respect from everyone in the college.   | (1)                          | (2)             | (3)          | (4)                        |
| 3. My principal motivates tutors with visions of what we could accomplish if we work together as a team.                     | (1)                          | (2)             | (3)          | (4)                        |
| 4. My principal makes us feel and act like leaders.  | (1)                          | (2)             | (3)          | (4)                        |
| 5. My principal gives us a sense of overall purpose of the college.  | (1)                          | (2)             | (3)          | (4)                        |
| 6. My principal leads by examples rather than by telling.  | (1)                          | (2)             | (3)          | (4)                        |
| 7. My principal symbolizes success and accomplishment within our profession as tutors.                                       | (1)                          | (2)             | (3)          | (4)                        |
| 8. My principal models higher levels of professional practice.   | (1)                          | (2)             | (3)          | (4)                        |
| 9. My principal provides for our participation in developing college goals.  | (1)                          | (2)             | (3)          | (4)                        |
| 10. My principal encourages us to work towards the same college goals.   | (1)                          | (2)             | (3)          | (4)                        |
| 11. My principal uses problem solving strategies and examples in working with tutors to generate intermediate college goals. | (1)                          | (2)             | (3)          | (4)                        |
| 12. My principal works toward whole staff consensus in establishing priorities for college goals.                            | (1)                          | (2)             | (3)          | (4)                        |

|   |     |     |     |     |
|---|-----|-----|-----|-----|
| 13. My principal regularly encourages us to evaluate our progress towards the achievement of college goals.               | (1) | (2) | (3) | (4) |
| 14. My principal makes provision for my professional training and development.  | (1) | (2) | (3) | (4) |
| 15. My principal provides the necessary resources to support my efforts at accomplishing intermediate college programmes. | (1) | (2) | (3) | (4) |
| 16. My principal treats me as an individual with unique needs and expertise.  | (1) | (2) | (3) | (4) |
| 17. My principal takes my views into consideration when initiating actions that affect my work.                           | (1) | (2) | (3) | (4) |
| 18. My principal behaves in a manner considerate of my personal needs.  | (1) | (2) | (3) | (4) |
| 19. My principal challenges me to re-examine my basic assumptions in working with students in the college.                | (1) | (2) | (3) | (4) |
| 20. My principal stimulates me to reflect on my actions in my response to the needs of students.                          | (1) | (2) | (3) | (4) |
| 21. My principal provides information that helps me think of ways to implement intermediate college programmes.           | (1) | (2) | (3) | (4) |
| 22. My principal insists on only best performance from us as tutors.  | (1) | (2) | (3) | (4) |
| 23. My principal demonstrates to us that there are high expectations of us as professionals.                              | (1) | (2) | (3) | (4) |
| 24. My principal does not settle for second best in our performance as tutors.  | (1) | (2) | (3) | (4) |