ISSN NO.2395-0692

IJAHMS International Journal of Arts, Humanities and Management Studies

Analysis of the Level of the Teacher Efficacy of Beginning Agriculture Teachers in Eswatini

M. Mathenjwa*, & M. P. Dlamini**

**University of Eswatini, Kingdom of Eswatini.*
***University of Eswatini, Kingdom of Eswatini*

Abstract

The study investigated the level of teacher efficacy of beginning agriculture teachers in Eswatini. The study is a census involving senior secondary school agriculture teachers who had up to five years of agriculture teaching experience. 161 agriculture teachers participated in the study. Data were collected using a self-administered modified Teachers' Self-Efficacy Scale (TSES)with a .92 reliability coefficient. The data were analysed using descriptive and inferential statistics. Beginning agriculture teachers were moderately efficacious in classroom management, instructional strategies and student engagement. Gender, subject specialization and affiliation to professional development bodies accounted significant differences in teacher efficacy on selected agriculture teaching tasks. Beginning agriculture teachers are capable of getting the desired learning outcomes from senior secondary school agriculture students as indicated by the moderate level of teacher efficacy.

Keywords: *Beginning agriculture teacher, teacher efficacy, senior secondary school*

INTRODUCTION

There is consensus among researchers and educators that any improvement in teaching and learning requires effective teaching. Meaningful progress in reforms and deliverables of any educational system requires teachers with distinct qualities. Teacher efficacy is a motivational construct influencing teacher effectiveness. The concept of teacher efficacy is based on the social cognitive theory (Bandura, 2006). Teacher efficacy refers to the teachers' belief in their capabilities to organise and execute courses of action to bring about the desired students learning outcomes (Tschannen-Moran, Woolfolk-Hoy & Hoy, 1998).Skaalvik and Skaalvik (2010) expanded teacher efficacy to involve individual teacher's belief in his or her ability to plan, organise and carry out activities required to attain educational goals. Teacher efficacy is the most powerful and influential human agency factor that determine teacher's choices, effort levels, perseverance amidst challenges, and anxieties or confidence. Studies (Jeon, 2017; Pravirash et al., 2012; Wangeri & Otanga, 2014) indicate that teacher efficacy explain teacher behaviour and predicts teacher effectiveness. There is a close relationship between teacher efficacy and getting the desired learning outcomes from students.

Bandura's social cognitive theory serve as a theoretical framework that focus on the relationships among teacher's efficacy beliefs, competency, performance, and the learning environment (Bandura, 2006).The social cognitive theory (SCT) explains that teachers' perceptions of their teaching competence reflect the use of judgement of teaching effectiveness that is conditioned by

teaching experience, previous students' outcomes and social environment. According to the SCT, teacher efficacy is conditioned in a triadic and reciprocal interaction. Tschannen-Moran, Woolfolk Hoy and Hoy (1998) suggested an integrated model which reveals the cyclical nature of teacher efficacy. In the integrated model, the sources of efficacy information, cognitive process of the teacher, analysis the teaching task and assessment of personal teaching competence, teacher efficacy, and performance are interrelated reciprocally. According to the model, high efficacy leads to high level of effort and persistence in a teacher. This causes high performance which produces high teacher efficacy. Teachers with low level of efficacy are more likely to give up when faced with difficulties. This leads low performance among teacher with low teaching efficacy scores.

Sources of efficacy information for teacher include mastery experiences, vicarious experiences, verbal persuasion and physiological states which are cognitively processed in relation to the analysis of the teaching task. The scope and diversity of the sources of efficacy information vary during teacher career stages from pre-service to in-service and teaching experience (Wolf, 2011; Shaughnessy, 2004). Fessler and Christensen (1992) describes teacher's career cycle into eight stages based on self-reported characteristics of teachers on variables such as enthusiasm, interactive teaching skills, attitudes towards students and teaching, and attitudes towards the teaching profession. Ushers and Pajeres (2008) asserted that the influence of each source of efficacy information vary according to contextual factors such as gender, age and domain-functioning. Gist and Mitchell (1992) identified three assessment processes which combine with the four sources of efficacy information and ultimately influence performance outcomes. The assessment processes include analysis of task requirements, attributional analysis of experience, and assessment personal and situational resources or constraints.

Teacher efficacy is context specific (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998)owing to Bandura (2006) call of domain functioning specificity of teacher efficacy instruments. A number of studies have been done on factors that influence teacher efficacy. Most studies examined the relationships between teacher efficacy and background characteristics of teachers. Beginning teachers offer an excellent entry point to study teacher efficacy levels, because they just finished preservice with high levels of efficacy (Harverback&Parault, 2008) which interact with the reality of school-based variables (WoolfolkHoy & Burke-Spero, 2005) which can dampen or inflate teacher efficacy levels.

To date, few studies have examined level of teacher efficacy of beginning agriculture teachers in Eswatini. Unsal, Korkmaz and Percin (2016) observed that most studies on teacher efficacy focus on pre-service teachers. This paper partially addresses the gap in the research by reporting teacher efficacy levels of beginning agriculture teachers at Senior Secondary schools in the Kingdom of Eswatini. Despite the high teacher efficacy accrued due to successful completion of the pre-service teacher programme, beginning teachers face different contextual factors in various placement schools. The diverse contextual factors in placement schoolscause beginning teachers to recalibrate their teacher efficacy to low levels in an attempt to avoid self-assessment of failure(Tschannen-Moran &Woolfolk Hoy, 2007). Studies (Woolfolk Hoy&Burke-Spero, 2005; Pendergast, Garvis& Keogh, 2011) concurred that teacher efficacy is changeable, emphasizing that attention to changing efficacy beliefs in early career stages is desirable because, once established, experienced teachers' efficacy seem resistant to change.Furthermore, poor

academic performance of students in agriculture in the national examinations in Eswatini suggest that teacher efficacy of agriculture teachers had to be examined.

PURPOSE AND RESEARCH QUESTIONS

The purpose of the study is to examine the level of teacher efficacy of beginning agriculture teachers at Senior Secondary schools in Eswatini. Thus, answers to the following research questions were sought

1. What are the levels of teacher efficacy of beginning agriculture teachers?
2. Are there any significant differences in the teacher efficacy of beginning agriculture teachers with regards to;
    a) Gender,
    b) Subject specialization, and
    c) Affiliation to Swaziland Agriculture Teachers' Association (SATA)?

METHODS

The research design employed in the study is descriptive survey. The descriptive survey was chosen because of ease at which the researcher could obtain participants opinions (Polit& Beck, 2004) and it seeks to describe the past or current state of a group (Karasar, 2000). The study is a cross-sectional descriptive survey on the level of teacher efficacy of beginning agriculture teachers at Senior Secondary school in Eswatini.

POPULATION

The population of the study consisted of beginning agriculture teachers teaching at Senior Secondary school. A beginning teacher is a teacher with fewer than five years' of teaching experience. In Eswatini a teacher is eligible to contest any administrative position within the schooling systems after serving a minimum of five years (MoET, 2016).The survey was administered in October to December in the 2016 calendar year to all eligible beginning Agriculture teachers who had less than five years of agriculture teaching experience at senior secondary school. The Ministry of Education and Training Directorate granted the ethical clearance to conduct the study on senior secondary school agriculture teachers. The participation of beginning agriculture teachers was voluntary and informed consent was granted before the administration of the survey. A total of 179 Senior Secondary school agriculture were eligible to participate and only 161 participated in the study. Beginning agriculture teacher participants had an average age of 28 years old, teaching experience of 3 years and taught an average class size of 41pupils.The background information of the participants is presented in Table 1.

ISSN NO.2395-0692
IJAHMS International Journal of Arts, Humanities and Management Studies

Table 1
Background characteristics of beginning agriculture teachers in Eswatini

Background characteristics		N	%
Gender	Female	51	31.68
	Male	110	68.32
Subject Specialization	No	102	63.35
	Yes	59	36.65
Affiliation to SATA	No	92	57.14
	Yes	69	42.86

INSTRUMENTATION

The study used the Teachers' Self Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk (2001) and adapted to the context of teaching agriculture at Senior Secondary school in Eswatini. Haram (2018) opined that the 24 item of the TSES were better suited to measure personal teaching efficacy. Bandura (2006) advocated for the development of teacher efficacy scales that are sensitive to the specificity of the task and domain functioning. The TSES was modified by two focus group discussions involving agricultural education graduates linked with teaching, supervision and monitoring of senior secondary school agriculture. The TSES has three dimensions of efficacy namely: instructional strategies (IS), classroom management (CM), and student engagement (SE)which "represent the richness of teachers' work livesand the requirements of good teaching" (Tschannen-Moran and Woolfolk Hoy 2001). The modified TSES had 29 items on a nine-point Likert-type capability rating scale to allow greater differentiations among responses. The teachers' capability was assessed along a 9-point continuum with anchors at 1 = no capability, 3 = very little capability, 5 = little capability, 7 = moderate capability, and 9 = a great deal of capability. The scale was designed to measure IS, CM and SE dimensions of agriculture teacher efficacy. The reliability coefficients of the scale of the study were: the α reliability coefficient was .91 for classroom management domain; .93 for instructional strategies efficacy; .91 for student engagement efficacy and .92 for the overall agriculture teacher efficacy scale. Background information of the participants which included gender, subject specialization and affiliation to Swaziland Agriculture Teachers' Association was also solicited.

DATA ANALYSIS

SPSS 20.0 statistical software was used to analyse the data. The data followed normal distribution thus parametric statistics which included: descriptive statistics, independent *t*-tests and analysis of variance (ANOVA) were used for data analysis. Based on prior research (Wolf, 2011;Knap, 2013; Sangueza, 2010; Moalasi & Forcheh, 2015) the item responses for the modified TSES were combined into categories 1.00 - 3.44, 3.45 - 5.44, 5.45 - 8.44 and 8.45 – 9.00 into very low, low, moderate and high teacher efficacy, respectively.

FINDINGS

What are the levels of teacher efficacy of beginning agriculture teachers?

ISSN NO.2395-0692
IJAHMS International Journal of Arts, Humanities and Management Studies

The findings of the study indicate that beginning agriculture teachers were moderately efficacious in all the three dimensions of teacher efficacy as shown in Table 1. The mean agriculture teacher efficacy scores in classroom management, instructional strategies and student engagement were 6.78; 6.77 and 6.52 respectively. Regarding specific agriculture teaching tasks, teachers reported the highest capability belief (M = 7.45) in providing alternative explanations when learners are confused. Low teacher efficacy (M = 5.32) was reported in assisting learners market produce.

Table 1
Means and Standard Deviations of Beginning Agriculture Teacher Efficacy

Item	M	SD
1. Get my learners to observe safety rules during subject practicals	7.34	1.62
2. Supervise the learners in animal production	7.14	1.82
3.Manage all activities related to crop production	7.04	1.72
4. Get my learners to adhere to classroom rules	7.01	1.64
5. Control disruptive behaviour in my classroom	6.91	1.66
6. Establish routines to keep activities running smoothly	6.64	1.86
7. Respond well to defiant students	6.37	1.75
8. Get through to most difficult learners in class	5.86	1.84
Teacher efficacy on classroom management average	**6.78**	**1.16**
1. Provide alternative explanations when my learners are confused	7.45	1.60
2. Respond to difficult questions from learners	7.42	1.71
3. Develop questions that are appropriate for my learners	7.26	1.57
4. Assess the practical work by adhering to the syllabus criterion	6.96	1.85
5. Use different teaching methods in my classes	6.90	1.81
6. Integrate current advances in agriculture	6.76	4.24
7. Link curriculum instruction with learners' home practices	6.72	2.01
8. Simplify curriculum for my learners	6.65	1.85
9. Gauge learners comprehension of what I have taught	6.58	1.79
10. Use a variety of assessment strategies	6.57	1.84
11. Teach learners to think critically	6.42	2.02
12. Provide appropriate challenges for capable learners	6.35	1.84
13. Teach my learners at all levels of cognition	6.05	1.88
Teacher efficacy on instructional strategies average	**6.77**	**1.20**
1. Help students value learning agriculture	7.42	1.80
2. Motivate learners to show interest in their school work	7.01	1.85
3. Supervise investigatory projects for learners	6.91	2.11
4. Get my learners to actively participate in class	6.61	1.98
5. Manage the tools for the department	6.58	1.98
5. Finishing the syllabus within the set deadline	6.55	2.27
6. Identify teachable moments during agriculture practical activities	6.38	1.94
7. Make timely entries to the learners' academic portfolios	5.88	1.97
8. Assist learners market their produce	5.32	2.29
Teacher efficacy on student engagement average	**6.52**	**1.38**
Overall teacher efficacy	**6.70**	**1.09**

ISSN NO.2395-0692
IJAHMS International Journal of Arts, Humanities and Management Studies

Are there any significant differences in teacher efficacy of beginning agriculture teachers with regards to: gender, subject specialization and affiliation to SATA

Gender

Based on gender, significant differences on teacher efficacy among beginning agriculture teachers were noted on ensuring students observe safety rules during practicals and developing questions that are appropriate for learners. Female beginning agriculture teachers had a significantly higher level of teacher efficacy relative to their male counterparts in ensuring students observe safety rule during practicals and in developing appropriate questions for learners.

Subject specialization

Beginning agriculture teachers who did not specialize (taught agriculture and other subjects) were significantly different in their capability belief in gauging the comprehension of students on what they have been taught. Beginning agriculture teachers who taught agriculture only at Senior Secondary had a lower confidence in their capability to gauge the comprehension of students on what has been taught compared to their counterparts who taught agriculture and other subjects offered in the school curriculum. No significant differences existed on the efficacy mean scores on classroom management, instructional strategies and student engagement of beginning agriculture teachers.

Affiliation to SATA

The affiliation status of beginning agriculture teachers to SATA had significant differences in the capability beliefs scores in teaching students at all levels of cognition. Teachers who were not affiliated to SATA had a higher efficacy mean score in teaching agriculture students at all levels of cognition.

The *t*-test analysis revealed no significant differences at $p<.05$ for all the three dimensions of teacher efficacy against the independent variables of gender, subject specialisation and affiliation to subject-based teacher association.

Table 2
T-test results between beginning agriculture teacher efficacy scores and selected background characteristics

Teaching task	Backgroundcharacteristics		Mean	t-value	p
1. Ensuring students observe safety rules during practicals	Gender	Female	7.82	2.659	.009***
		Male	7.10		
2.Developing questions that are appropriate for learners	Gender	Female	7.62	2.041	.043**
		Male	7.09		
3.Gauging comprehension of	Subject	No	6.80	2.127	.035**

students on what has been taught	specialization	Yes	6.18		
4. Teaching students at all levels of cognition	Affiliation to SATA	No	6.31	2.087	.038**
		Yes	5.69		

DISCUSSION

Level of teacher efficacy of beginning agriculture teachers

The results indicate that beginning agriculture teachers are moderately efficacious in all the three dimensions of teacher efficacy namely classroom management, instructional strategies and student engagement. Beginning agriculture teachers have moderate capability belief to organise and execute courses of action to bring about the desired students learning outcomes.The level of teacher efficacy of beginning agriculture teachers is consistent with studies (Jaggernauth& Jameson-Charles, 2015;Eslami&Fatahi, 2008; Swafford, 2013; Selbie, 2015) which uncovered moderate teacher efficacy among in-service English and Agriculture teachers.Direct comparison of teacher efficacy scores are reported with extreme caution due to the possibility that survey responses may reflect cultural biases (King, Murray, Solomon &Tandon, 2004; Jeon, 2017). According to Sridhar and Badiei (2008) teacher efficacy research centres on the effects of teacher efficacy on two categories of teachers namely high teacher efficacy and low teacher efficacy.Based on the moderate level of teacher efficacy of beginning agriculture teachers, positive teacher behaviour and effectiveness in teaching agriculture can be predicted at senior secondary schools in Eswatini.

Differences in teacher efficacy of beginning agriculture teachers related to background characteristics

Based social cognitive theory, Bandura (2006) posited that teacher efficacy is a triadic reciprocal interaction between personal and environmental factors. The study investigated differences teacher efficacy levels of beginning agriculture teachers based on background characteristics which included gender, subject specialization and affiliation to professional development bodies. The selected background characteristics did not have any significant differences on the capability beliefs of beginning agriculture teachers to manage classrooms, choose instructional strategies and engage students.The findings of non-significant differences in teacher efficacy contradicts findings (Klassen& Chiu, 2010; Shaukat&Iqbal, 2012; Gkolia, Dimistrios&Koustelios, 2016; Lesha, 2017) that male teachers were significantly better than female teachers in classroom management and student engagement. However, the findings of the study revealed female agriculture teachers were significant better in their capability beliefs in ensuring students observe safety rules during practicals and developing questions that are appropriate for learners.This evidence supports (Sridhar &Badiei, 2008; Dehghani, Sani, Pakmehr&Malekzadeh, 2011; Sarfo, Amankwah&Konin, 2015; Kumar, Verma&Kiran, 2017) conclusion of female teacher efficacy higher than male teacher efficacy.

Based subject specialization, beginning agriculture teachers did not differ significantly in classroom management, instructional strategies and student engagement. This finding

augmentKhezerlou (2013) conclusion that teaching loads associated with burnout has no significant differences in teacher efficacy. However, significant differences were only noted in capability beliefs on gauging students' comprehension of what has been taught. Beginning agriculture teachers who taught several subjects in school had a superior capability belief in gauging students' comprehension than agriculture teachers who taught agriculture only.

Affiliating to the association of agriculture teachers in Eswatinihad no significant differences in the capability beliefs of beginning agriculture teachers to manage classrooms, choosing instructional strategies for learners and engaging students. The results contradict studies (Thompson, 2016; Heaton, 2013) that affiliating to a professional development association strengthens teacher efficacy. The findings on teachers who were not affiliated to any professional development association having a significantly higher capability belief in teaching students in all cognition levels supports a conclusion of Nolan (2009) that affiliation to professional development communities is negatively correlated to teacher efficacy.

IMPLICATIONS

The study provides insights on potential content areas of pre-service teacher training and in-service training programmes that can be strengthened especially where agriculture teachers reported low capability beliefs.

REFERENCES

i. Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares& T. Urdan (Eds.), Adolescence and education: *Self-efficacy and adolescence*, 5. Greenwich, CT: Information Age.

ii. Dehghani, M., Sani, H. J., Pakmehr, H., &Malekzadeh, A. (2011). Relationship between students critical thinking and self-efficacy beliefs in Ferdowsi university of Mashhad, Iran, *Procedia Social and Behavioural Sciences, 15, 2952-2955.*

iii. Eslami, Z. R., &Fatahi, A. (2008). Teachers' sense of self-efficacy, English proficiency and instructional strategies: A study of Nonnative EFL teachers in Iran, TESL-EJ, 11(4), 1-19.

iv. Fessler, R., & Christensen, J. (1992). The teacher career cycle. In the teacher career cycle: Understanding and guiding professional development of teachers, ed. R.Boston: Allyn and Bacon

v. Gist, M., & Mitchell, T. (1992). Self-efficacy: A Theoretical Analysis of its Determinants and Malleability. *The Academy of Management Review*, 17(2), 183-211.

vi. Gkolia, A., Dimistrios, B. A.,&Koustelios, A. (2016). Background characteristics as predictors of Greek teachers' self-efficacy. *International Journal of Educational management*, 30 (3), 460-472.

vii. Haram, J. (2018). Teacher efficacy research in the global context. Korea University, hhps://www.researchgate.net/publication/322266142.

viii. Haverback, H. R., &Parault, S. J. (2008). Pre-service reading teacher efficacy and tutoring*: A Review: Educational Psychology Review*, 20(3), 237-255.

ix. Heaton, M. (2013). An examination of the relationship between professional learning community variables and teacher self-efficacy. Electronic Theses and Dissertations, 5038

x. Jaggernauth, S. J., & Jameson-Charles, M. (2015). Initial teacher efficacy of in-service secondary teachers in Trinidad and Tobago. *Caribbean Curriculum*, 23, 23-28.

xi. Jeon, H. (2017). Teacher efficacy research in a global context. Center of social cohesion Education, Korea University

xii. Karasar, N. (2000). *Scientific research methods-Term, scopes, Techniques*. Ankara: Nobel Publication

xiii. Khezerlou, E. (2013). Teacher self-efficacy as a predictor of job burnout among Iranian and Turkish EFL teachers. *Procedia- Social and behavioural sciences* 70, 1186 – 1194

xiv. King, G., Murray, C., Salomon, J., &Tandon, A. (2004). Enhancing the validity and cross-cultural comparability of measurement in survey research. *American Political Science Review*, 98,191 – 207.

xv. Klassen, R. M., & Chiu, M. M. (2010). Effects of teachers' self-efficacy and job satisfaction: Teacher gender, years of experience and job stress. *Journal of Educational Psychology*, 102(3), 741-756.

xvi. Knap, A. K. (2013). A Study of Secondary Science Teacher Efficacy and Level of Constructivist Instructional Practice Implementation in West Virginia Science Classrooms. Theses, Dissertations and Capstones, Paper 472.

xvii. Kumar, R. A., Verma, L., &Kiran, N. (2017). Self-Efficacy among higher secondary schoolteachers: Empirical study. The Online journal of new horizons in education, 7(30), 53-57.

xviii. Lesha, J. (2017). Gender differences in primary school teachers' self-efficacy beliefs. *EuropeanJournal of Educational studies*, 3 (10), 730-740

xix. Ministry of Education and Tranining, (2016).The Swaziland Education for ALL ReviewReport, 2000-2015. Retrieved from efa2015 reviews@unesco.org

xx. Moalosi, W.T. S., &Forcheh, N. (2015). Self-Efficacy levels and gender differentials among teacher trainees in colleges of education in Botswana. Journal of education and Learning, 4(3), 1-13.

xxi. Nolan, D. (2009) A study of the relationship of teacher self-efficacy and the impact of professional learning community as an organisational structure. Doctoral dissertation submitted at the Louisiana State University and Agricultural and Mechanical College.

xxii. Parivash, J., Samaneh, K., & Nader, S. (2012). The relationship among organisational climate, organisational learning and teacher efficacy. *Procedia Social Behaviour science*, 47, 2212 – 2218.

xxiii. Pendergast, D., Garvis, S., & Keogh, J. L. (2011). Pre-service teachers' self-efficacy beliefs:An insight into making teachers. *Australian Journal of Teacher Education*, 36(12), 46-57.

xxiv. Polit, D. F., & Beck, C.T. (2004). Nursing research: Appraisal of evidence for nursing practice (7th Edition). Philadelphia: WoltersKlower/Lippincott Williams & Wilkins.

xxv. Sangueza, C. R. (2010). Pre-service elementary science teaching self-efficacy and teaching practices: A mixed-methods, dual-phase, embedded case study. UNLV theses, Dissertations, professional Papers, and Capstones. 844.

xxvi. Sarfo, F. K., Amankwah, F., Sam, F. K.,&Konin, D. (2015). Teachers' Self-efficacy Beliefs.GJDS, 12(1 & 2), 19-32.

xxvii. Selbie, L. (2015). Examining the sources of teacher efficacy and how the context of teachingcontributes to teacher efficacy. (Doctoral dissertation submitted in the Colombus State,University. Colombus, GA.

xxviii. Shaughnessy, M. F. (2004). An interview with Anita Woolfolk. The educational psychology of teacher efficacy. *Educational psychology Review*, 16, 153 – 176.

xxix. Shaukat, S., & Iqbal, H. M. (2012). Teacher self-efficacy as a function of student engagement, instructional strategies and classroom management. *Pakistan Journal of Social and Clinical Psychology*, 9(3), 82-85.

xxx. Skaavlik, E. M., &Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26, 1059-1069.

xxxi. Sridhar, Y.N., &Badiei, H. R. (2008). Teacher Efficacy Beliefs: A Comparison of Teachers inIndia and Iran.*Journal of the Indian Academy of Applied Psychology*, 34, 81-89.

xxxii. Swafford, M. R. (2013). Factors affecting teacher efficacy of beginning secondary agricultural education teachers. (Doctoral dissertation submitted to the Graduate Faculty of the Lousiana State University and Agricultural and Mechanical College).

xxxiii. Thompson, G. (2016).Japanese High School English Teachers' Self-Efficacy Beliefs aboutTeaching English. Unpublished Doctoral Dissertation submitted in the Queensland Universityof Technology.

xxxiv. Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing Construct.*Teaching and Teacher Education*, 17, 783-805.

xxxv. Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23, 944-956.

xxxvi. Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248.

xxxvii. Unsul, S., Korkmaz, K., &Percin, S. (2016).There is a close relationship between teacher self-efficacy perceptions and in displaying a successfulperformance.*Journal of Education and Practice*, 7 (24), 99 – 107.

xxxviii. Ushers, L. L. &Pajares, F. (2008). Sources of self-efficacy in school: Critical Review of the Literature and Future Directions. *Review of Educational Research*, 78(4), 751-796

xxxix. Wangeri, T.,&Otanga, H. (2014). Sources of personal teacher efficacy and influence on teaching methods among teachers in primary schools in coast province, Kenya. *Global Journal of Interdisciplinary Social science,* 3 190-195

xl. Wolf, K. J. (2011). Agricultural education perceived teacher self-efficacy. A descriptive study of beginning agricultural education teachers. *Journal of Agricultural Education*, 52(2), 163 – 176.

xli. Woolfolk Hoy, A. E., & Burke-Spero, R. (2005). Changes in teacher efficacy during early years of teaching. A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356.