PSYCHO-SOCIAL FACTORS AS PREDICTORS OF TEACHING ANXIETY AMONG ACADEMIC STAFF OF BENUE STATE UNIVERSITY, MAKURDI

Joyce Mcivir Terwase¹, Iorpav Eric Tahav², Moses Denen Chiahemba³

^{1,2 & 3}Department of Psychology, Benue State University, P.M.B. 102119, Makurdi, Nigeria.

Abstract

This study examined psycho-social factors as predictors of teaching anxiety among academic staff of Benue State University, Makurdi. The study consists of 201 lecturers drawn randomly from the eight faculties of the University. The respondents were in the age range of 29-60 years with a mean age of 40 years. Out of this number, 128 (63.7%) were male while 73 (36.3%) were female. Data were collected using Teaching Anxiety Inventory (TAI) and Teacher's Efficacy Scale (TSES). Three hypotheses were tested using independent t-test and regression analysis. Results showed that there was no significant p>.05). There was also a significant influence of work experience of university teachers on teaching anxiety (R=.212 and R^2 =.039; f (1,181) = 8.484 P<.05). There was a significant influence of self-efficacy of university academic staff on teaching anxiety (= .254 and R^s= .065, f (1.81) = 12.479, P<.05). It was concluded that gender did not predict teaching anxiety, meanwhile work experience and teacher's self-efficacy predicted teaching anxiety. The result further revealed that gender, work experience and self-efficacy jointly predict teaching anxiety (R=.352 and R²=.124, F (3,177) =8.365; P<.001). Therefore, it is recommended that mentorship should be greatly encouraged and adopted in Universities, especially for the post graduate students. This will help to equip young lecturers to come into the University system with advance knowledge on how to teach and interact with students appropriately. This will help to heighten their self-efficacy and add to their years of experience.

Keywords: Psycho-social, Predictor, Teaching anxiety, Academic staff

INTRODUCTION

Teaching anxiety is a common experience among teachers. An estimated eighty percent of all teachers experience at least some degree of anxiety when they become the center of attention (Plaut, 1990). Teachers who are frequently required to teach under an array of stressful conditions are particularly susceptible to anxious thoughts and feelings. Although a little tension before a lecture is natural and may actually enhance the teaching (Kokotsaki & Davidson, 2003), excessive nervousness acts mostly as a determinant to effective teaching. For many teachers, the task of teaching and demonstrating in front of students can lead to a wide range of physiological, psychological, emotional, and/or behavioral problems (Ely, 1991).

In understanding the components of teaching anxiety and learning and how to overcome its effects are important steps toward improving teaching (Ely, 1991). Considering that the act of lecturing or teaching is essentially a performance experience in and of itself, there is a great need for more research in the area of teaching anxiety.

Thomas (2006) defines teaching anxiety as the feelings, beliefs, or behaviors that interfere with a person's ability to start, continue, or finish a teaching task. Teaching anxiety can be affected by any number of factors including matters relating to public speaking, classroom management, and teacher preparation. Research suggests that teaching anxiety is a significant problem for many educators. Gardner and Leak (1994) surveyed a group of psychology professors and found that roughly eighty-seven percent of the respondents had experienced anxiety associated with the teaching process. In addition to university professors, teaching anxiety has also been identified among graduate teaching assistants (Halat, 2008), and student teachers (Oral, 2012). While no specific research regarding the anxiety of elementary or secondary teachers was uncovered in this inquiry, which remains plausible that educators at all levels are susceptible to anxious thoughts and feelings related to the processes of teaching.

As with music performance anxiety, the issue of teaching anxiety carries great relevance for educational sector. In the same manner that severe performance anxiety can handicap musicians, intense teaching anxiety can be a powered detriment to teachers. According to Akinsola (2008b), anxiety for teaching is a frequent fear of inexperienced teachers and can lead to ineffective and other series of task avoidance.

In this way, the effects of teaching anxiety works against the nature of effective teaching. Indeed, research has shown that teaching anxiety is associated with a particular school subject. It may reflect real or perceived knowledge deficits in subject

content as well as in skill of delivery (Engelhard, 1990).

And university teachers might be at greater risk to suffer from anxiety than teachers in other levels of education. The act of teaching, when done well, includes aspects of classroom demonstrations. Teachers often provide a sound model for students and demonstrate on how to carry out a particular task before students. If these, and similar tasks are not accomplished well, perhaps due to some level of anxiety on the part of the teacher, the teaching process is hindered. As perceptions of ineffectiveness mount, the likelihood of teachers to experience some anxiety related to the teaching process increases. However, performance anxiety and teaching may function as a catalyst for the others when manifest within a lecturer.

Hence this study is on psycho-social factors as predictors of teaching anxiety, one psychological variable of self-efficacy and two social variables of gender and work experience and their influence on teaching anxiety were the point of focus. In our day to day activities, psycho-social factors play a significant role in predicting the outcome of our behavior and task performance to be specific. This is supported by Peker, (2006) who pointed out that there were several psycho-social factors, such as content teaching experience, gender, knowledge and self-efficacy related to teaching anxiety. Ameen, Guffey and Jackson (2002), reported that accounting educators' intensity of teaching anxiety was affected by teaching experience and rank.

As regards to gender, Ameen, Guffey and Jackson (2002) claimed that the social aspect of the psycho-social factors called gender has no influence on the intensity of teaching anxiety. Though in another study, Fish and Fraser (2001) found that among the university professors surveyed about teaching anxiety, gender was a factor with female faculty reporting more teaching anxiety than males. Furthermore, Peker and Halat (2008) found that gender was not a psychosocial factor among the pre-service elementary school teachers' teaching anxiety.

With regards to self-efficacy as a psychosocial factor of predicting teaching anxiety, Albert Bandura assumed that the task of creating learning environments conducive to the development of cognitive competencies rest heavily on the talents and self-efficacy of teachers (Bandura, 1997). Perceived self-efficacy, as defined by Bandura is the belief that an individual has the ability to carry out certain actions that result in a desired outcome Bandura, (1997). A teacher's sense of efficacy is consistently recognized as an important attribute of effective teaching and has been negatively correlated to teaching anxiety (Tschannen-Moran & Woolforl-Hoy, (2001). How efficacious a person believes he or she is influences the choice of

activities, amount of effort spent, and the persistence put forth to complete the tasks when confronted with obstacles. Furthermore, teacher efficacy accounts for how competent a teacher feels in his ability to affect the performance of all students, no matter how unmotivated and difficult (Tschannen- Moran & Woolfolk-Hoy, 2001). Unfortunately, simply identifying high and low-efficacy teachers will not provide information on increasing levels of efficacy. Instead, a deep comprehension of the influences on teacher self-efficacy is needed. Schools of education and teachers preparation programs in particular need to be aware of the psychological factors associated with increased levels of selfefficacy in order to produce the most capable, innovative, and productive and dedicated teachers possible without any feeling of teaching anxiety.

Since little research especially in Nigeria has been done in the area of teaching anxiety among university lecturers regarding experience, sex and self-efficacy, this research is undertaken to contribute to this area. Therefore, the aim of this study is to examine the psychosocial factors (gender, work experience and self-efficacy) as predictors of teaching anxiety among university lecturers at Benue State University, Makurdi. And the objectives are firstly, to investigate if there is a significant gender difference in teaching anxiety among university lecturers, to examine if there is a significant difference between work experience and teaching anxiety among university lecturers, and to determine if self-efficacy will significantly relate with teaching anxiety among university lecturers.

Literature Review

Gender

Gender provides an important subject of study because it may be understood both at the macro level, as a position in the social structure (Ridgeway, 1993), and at the micro level, as an identity that persons apply to themselves (Burke & Tully, 2007). When gender is conceptualized as a position, the question is how a particular class of persons (either men or women) behaves and is treated in interaction, given the expectations attached to other status. When gender is conceptualized as an identity, we examine the meaning of male or female for persons when they are reflective, and how this self-meaning guides behavior in interactions. Gender as status comes from the viewpoint of society; gender as identity comes from the viewpoint of individuals.

In essence, examining gender only as status may address issues of power and inequality between the sexes, but it tends to mask individuals choice and agency (Molm, 2000). Alternatively, studying gender only as identity treats gender as an individual characteristic while ignoring how "doing gender" in interaction creates and reinforce differences between men and women in social interactions (West & Zimmerman, 2009). The status of gender and identity of gender as seen as simultaneously produced and maintained in interaction. Gender signals one's social structural position and one's view of him/herself. The meaning of both influences behavior in interactions, this behavior, in turn, sustains identities and social interactions.

Work Experience

According to Hoy, (2000), work experience is conceptualized to be any experience that a person gains while working in specific field or occupation, but the expression is widely used to mean a type of volunteer work that is commonly intended for young people often students, to get a feel for professional working environment.

It is unclear however, if work experience, teacher efficacy beliefs are gender related. Some researchers suggest that female teachers gained fast, experience and selfefficacious than their male colleagues (Cheung, 2003; Evans & Tribble 1986), while others have found no such relationship exists (Ghaith & Shaaban, 1999; Hoy & Woolfolk, 1993).

Research suggests that experienced teachers positively influence their attitudes towards their work (Coladarci, 1992), and their persistence in managing related challenges. Experienced teachers possess teaching qualities and experiment with a

wide repertoire of instructional strategies that are student-centered (Riggs & Enochs, 1990), especially strategies that require them to negotiate control with their students and manage their classrooms (Woolfolk, Rosoff, & Hoy, 1990). They are more likely early adopters of innovations; take time to plan their lessons (Allinder, 1994); are more committed to teaching and their students.

Experienced teachers persist in their efforts with students who are struggling and positively influence their students' motivation (Perry, 2004), and academic achievement (Gibson & Dembo, 1984). These teachers experience lower levels of teaching anxiety than inexperienced teachers with a low sense of self-efficacy. Conversely, Bandura (1997) suggests that teachers who are inexperienced tend to set goals that they do not complete, become, and view themselves as less competent than their peers.

Self-Efficacy

The construct of self-efficacy can be traced to the social cognitive theory of Bandura (1994), who deconstructed self-efficacy into two behavioral constructs: efficacy expectations and outcome expectations. Efficacy expectations refer to an individual's personal belief that she/he has the capabilities to organize and execute the courses of action required to produce given attainments (Bandura, (1997). On the other hand, outcome expectation is an individual's personal belief that a particular behavior will yield a specific outcome (Swars, Hart, Smith, Smith & Tolar 2007).

However, this explanation of efficacy does not refer to an individual's actual abilities to perform a task, but he/her perceived ability to perform the task. Thus, two individuals with the same skills or abilities may experience different levels of success at the same task, depending on the beliefs about their own efficacy for performing the task. It is the combination of positive selfefficacy, skills and knowledge that are required for performing a given task (Humker & Madison, 1997), Pajares (1996), attribute efficacy beliefs to an individual's previous experiences, which are specific to situations and contexts. Bandura (1997) elaborated on four factors that develop efficacy. He suggests that teachers' mastery experiences strengthen efficacy, particularly when an appropriately challenging task is successfully completed with little assistance. On the other hand, vicarious experiences allow individuals to observe and assess the success of others whose abilities may not match theirs, and may affect efficacy beliefs. Bandura also suggests that social persuasion may strength the teachers 'efficacy beliefs when others express confidence in them. Finally, Bandura suggests that positive emotional and physiological environment builds efficacy.

A related construct, teacher efficacy, is defined as teachers' beliefs in their ability to

actualize the desired outcomes (Wheatley, 2005), and has attracted much research over the last three decades. Tschannen - Moran and Hov. (2001), discovered a strong positive correlation between teachers' selfefficacy beliefs, effective teaching practices and improved student achievement. Teacher efficacy beliefs affect the way teachers feel about their work. They begin to take shape early in the learning process, and once, established they appear to be somewhat resistant to change and have implications for teacher development early in teacher's career (Tschannen - Moran and Nestor Baker, 2004).

For new teachers, it must be challenging to teach in a way that is at odds with their own experiences as students, particularly if these experience and successes were dominated by teacher-centered approaches (Huinker & Madison, 1997). Overcoming their selfdoubt in this situation is often worsened if these individuals were successful at traditional academic discipline, at which they have attained some proficiency, but are required to engage in constructivist strategies to teach their students.

Teaching Anxiety

Anxiety is a complex emotional response which has behavioral, psychological, affective, physiological, and cognitive aspects that impede an individual's ability to constructively manage challenges, problems and opportunities (Kellerman & Burry, 2007). Though anxiety is often confused with fear, which is a response to an actual stimulus or threat, anxiety is a response to an anticipated stimulus or threat. Thus, an individual who faces a situation they perceive of as immediately threatening goes into fight-or-flight mode in preparation for action. They become agitated or anxious about the situation and experience mental and physical manifestations of their un-ease, such as sweating, tension, and increased heart rate (Anxiety Disorders Association of America, 2010), often appearing to respond irrationally to stimuli that others may not interpret as threatening. Anxiety-prone individuals often cannot distinguish between fear and anxiety. It is therefore natural that all individuals experience anxiety at some time in their lifetime. Though there are many forms of anxiety but however, the one that is related to teaching is referred to as teaching anxiety. Thomas (2006) defines teaching anxiety as the feelings beliefs, or behaviors that interfere with a person's ability to start, continue, or finish teaching task.

Teaching anxiety has been linked to the teacher and the teaching of a course (Furner & Duffy, 2002). As a result, research on teaching anxiety has been broadened to include research into pre-service and inservice teachers' teaching anxiety (Peker, 2009). Gardner and Leak (1994) and Levine (1993), described teaching anxiety as the anxiety that teachers experience during

lesson preparation, and during instruction when they teach concepts, theories and formulas or during problem solving (Peker, 2009). This anxiety can be linked to teachers' content knowledge, pedagogical knowledge, attitudes toward the chosen subject and self-confidence related to both teaching anxiety and subject teaching anxiety.

Manifestations of teaching anxiety include feelings of tension, heightened nervousness; difficulty in concentrating, especially in noisy environments; extreme agitation at students; and negative self-talk (Beilock, Gunderson, Ramirez, & Levine 2010). Negative self-talk in particular may reduce a teacher's self-confidence to teach a particular subject because they become convinced that they cannot do so competently (Godbey and Robinson, 1997).

Anxious Teachers who hold negative attitudes about their teaching of a particular subject tend to have a poor understanding of concepts and poorly developed problem solving competencies, thus they cannot teach what they do not know. They do not understand how students learn the subject, and so are unable to identify and assist students who experience difficulty in such a subject (Harper & Daane, 1998; Kennedy, 1998). They do not know how to listen to their students, thus, they do not know what student thinks about the subject, or how to encourage them to share what they think

(Kennedy, 1998). They generally find it difficult to cope with their fear of the anxiety-provoking subjects. This ought to raise serious concerns about teachers' ability to effectively teach the subject to young children and the likelihood that they will communicate and transfer their anxiety to their students (Gresham, 2008).

Swars, Daane and Giesen (2006), Vinson (2001a) and Hembree (1990), posited that anxious teachers tend to employ traditional teaching strategies such as lecturing, rather than collaborative strategies. They spend more time on whole group instruction, rather than differentiated instruction. Anxious teachers rely heavily on textbooks to direct instruction; promote role memorization; teach for skills acquisition rather than conceptual understanding of concepts. They assign the same work to all students, rather than meeting the needs of diverse learners in the classroom. They emphasize solving textbook problems rather than spending time on problem solving activities and linking concepts to the real world; are less confident about teaching (Bradley & Bowd, 2005), and have low teaching efficacy. (Swars, Daane & Giesen, 2006), Swars (2004) found that elementary teachers with low anxiety were highly efficacious teachers.

METHOD

Design

This study adopted the cross sectional

design.

Participants

Participants for the study were selected to cut across all gender, ages, educational qualifications, tribe, marital status, religion, rank, work experience and faculties. Their ages ranged from 29-60 years with a mean age of 40 years. Males were 128 (63.7%), while females were 73 (36.3%). Marital status indicates that 134 (66.7%) were married, 40(19.9%) were single, widowed were 5(2.5%), separated were 13(6.5%), and those who did not answer that item were 2 (1.0%). Educational gualification revealed that those participants with Doctoral degrees were 30(39.8%), Master's degrees were 84 (41.8%), first degrees were 21 (10.4%), and Professors were 16 (8.0%). Ranking revealed that senior lecturers were 102 (50.7%), junior lecturers were 97 (48.3%), while 2 (1.0%) failed to indicate their rank.

Sampling

Due to the nature of the participants, the accidental sampling technique which is a type of non-probability sampling was used to recruit participants to the study. This choice was informed due to the unique nature of the population who are University lecturers.

Instruments

Two instruments were used to collect data for the study, these are; Teaching Anxiety Inventory (TAI) and Teacher Self-Efficacy

Scale (TSES). These are all standardized instruments developed by Kenny and Osborne, (2006) and Schwarzer, Schmitz, & Daytner (1999) respectively. The TAI is a 27 item questionnaire which has a cronbach alpha of .73, while TSES is a 10-item scale with a cronbach alpha of .77. independent t-test to determine mean differences between male and female, while regression analysis were used to test the influence of work experience and selfefficacy on teaching anxiety using SPSS version 20. Also simple percentages and descriptive statistics such as the mean and standard deviation were used in analyzing demographic data.

Data Analysis

Data for this study were analyzed using

RESULTS

 Table 1: Difference between male and female lecturers on teaching anxiety

Variable	Gender	Ν	Μ	SD	df	t	Р	
Teaching Anxiety	Male	121	66.1405	14.34823	183	.452	.061	
	Female	64	65.1719	12.90325				

The result in table 1 indicate that there was no significant difference between male and female lecturers on teaching anxiety (t(183)=.452, P>.05). This means that gender is not a determinant of teaching anxiety among University academic staff. Thus the research hypothesis is rejected.

Table 2: Influence of work experience on teaching anxiety among academic staff of BSU,

 Makurdi

Variable	R	\mathbb{R}^2	F	β	t	Р		
Constant	.212	.045	8.484		41.719	.000		
Work experience				212	-2.913	.004		

Table 2 reveals that work experience significantly predicts teaching anxiety among academic staff of BSU, Makurdi

(R=1.212 and R^2 = .045 F(1,181) =8.484, <.05). Thus the research hypothesis is therefore accepted.

Contemporary Journal of Applied Psychology (CJAP)

Table 3: Influence of Self-Efficacy on teaching anxiety among academic staff of BSU,

 Makurdi

Variable	R	\mathbf{R}^2	F	β	t	Р
Constant	.254	.065	12.479		17.452	.000
Self-efficacy				254	-3.533	.001

Table 3 indicates that self-efficacy significantly predicts teaching anxiety among staff of BSU, Makurdi R=.254 and

 $(R^2 = .065, F(1, 181) = 12.479, P < .05)$. Thus, the research hypothesis is therefore accepted.

Table 4: Joint influence of gender, work experience and self-efficacy on teaching anxiety of academic staff of BSU, Makurdi.

Variable	R	\mathbb{R}^2	F	β	t	р
Constant Gender Work exp. Self-efficacy	.352	.124	8.365	33 253 179	15.004 460 3.405 -2.400	.000 .646 .001 .015

Table 4 above reveals that gender has independent contribution (33%), work experience contributed (25%) and self-efficacy has (17.9%) contribution to the prediction of teaching anxiety.

DISCUSSION

Having tested all the hypotheses, the result of the first hypothesis showed that there was no significant sex difference in the lecturer's teaching anxiety. This means that both male and female lecturers do not differ in any significant way on teaching anxiety, the implication of this result is that, both male and female lecturers do not experience unnecessary fear, tension and confusion while teaching their students. So, teaching anxiety across sexes should not be born out of a cultural belief that females are weaker than males, so should go for less difficult tasks than males. This is because; attitude could subject females to believe that teaching/lecturing is a man's thing while women settle for clerical jobs. This finding contradicts a study by Casey, Nuttal, and Pezaris (2001) who found sex differences in teaching anxiety and performance in the classroom. According to these scholars, compared to men, women lacked confidence and had debilitating causal attribution patterns, perceived teaching as a male domain and were anxious about teaching. However, this finding is in line with (Farooq and Shah 2008), who also found no significant difference in teachers' anxiety in teaching, since it is likely to depend on attitude towards subject. Therefore, this result clearly points out that sex difference is not a determining factor of teaching anxiety among University lecturers.

Hypothesis two found that there is a significant influence of work experience on teaching anxiety. This finding is true because experience is a great teacher as lecturers who probably stay long on their jobs tend to gradually learn over the years how to overcome tension when teaching, unlike the inexperienced teachers who are jittery, tensed up and confused when delivering lectures to students. This result is similar to the research outcome by Ameen, Guffey and Jackson (2002) who on the investigation of prevalence and severity of teaching anxiety among (333) accounting lecturers from over 600 different college institutions revealed that, over 80% of the respondents have experienced teaching anxiety, a majority having dealt with it on a perpetual basis. The most commonly reported triggers of anxiety were insufficient preparation and lack of familiarity with course content. Moreover, personal characteristics such as age and rank emerged as negative correlates of teaching anxiety. Therefore, this reveals that continuous teaching is likely to reduce teaching anxiety among university lecturers.

Hypothesis three found a significant influence of self-efficacy on teaching anxiety. This implies that self-efficacy predicts teaching anxiety. This further means that university teachers with low self-efficacy lack confidence and doubt their abilities to teach effectively; hence they become tensed up and confused in the presence of students. This category of lecturers suffer inferiority complex. On the other hand, lecturers with high self-efficacy have high level of confidence and so believe in their abilities to teach effectively and therefore are less vulnerable to teaching anxiety. This result tallies with the finding of Rashid, Saleh, Mohamed Salleh & Al-Ghafri (2011), who examined two hypothesized models in which teachers' efficacy beliefs are predicted by teaching attitudes and teaching anxiety. Attitudes and anxiety, as predictors, interchanged the role of being exogenous variable in the two suggested models. Results derived from pre-service teachers showed moderate relationships among the three variables with the strongest relationship reported between teaching anxiety and efficacy beliefs. These scholars maintained that teachers with high self-efficacy belief tend to be less vulnerable to teaching anxiety than teachers with low self-efficacy. Therefore, it is clear from this result that, self-efficacy significantly influences anxiety level among university lecturers and therefore, determines effective teaching.

Hypothesis four was tested and it was found that there was a significant joint influence of gender, work experience and selfefficacy on teaching anxiety. This by implication means that psycho-social factors like gender, work experience and self-efficacy are the determinants of teaching anxiety and should be given due consideration in the teaching profession.

Conclusion / Recommendations

Based on the results, it was concluded that gender does not predict teaching anxiety whereas work experience and teachers' selfefficacy are predictors of teaching anxiety. The result further revealed that gender, work experience and self-efficacy jointly predict teaching anxiety.

Therefore, it was recommended that firstly, University lecturers should always make intense and advance preparations before going to teach to avoid undue anxiety resulting from lack of self-efficacy.

Secondly, it is recommended that mentorship should be greatly encouraged and adopted in universities, especially for the post graduate students. This will help to equip young lecturers to come into the university system with advance knowledge on how to teach and interact with students appropriately. This will help to heighten their self-efficacy and add to years of experience.

REFERENCES

- Akinsola M.K, (2008b). Relationship of some psychological variables in predicting problem solving ability of in-service mathematics teachers. *Montana Mathematics Enthusiasts*, 5(1) 79.
- Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17, 86-95.*
- Ameen, E. C., Guffey, D. M. & Jackson, C. (2002). Evidence of teaching anxiety among accounting educators. *Journal of Education for Business*, 78 (1), 16-22.
- Anxiety Disorder Association of America, (2010). 30th Annual Conference. March 4.7.2010: *Retrieved by medscape psychiatry* © 2010 web.
- Bandura, A. (1994). Self-efficacy. In V.S. Ramachaudian (Ed.), Encyclopedia of human behaviour. 4, 71-81. New York. Academic Press.
- Bandura, A. (1997). *Self-efficacy: The Exercise of control*. Freeman, USA.
- Beilock, S.L., Gunderson, E. A., Ramirez,
 G. & Levine, S.C. (2010). Female
 Teacher's math anxiety affects girls'
 math achievement. *Proceedings of*the National Academy of Science,
 107, 1860 1863.
- Bradley M. M., & Bowd N, (2005). Instruction manual and affective ratings. University of Florida:

Gainsville.

- Burke, P. J. & Tully, J.C. (2007). The measurement of role identity. *Social Forces*, 55 (4), 881-897.
- Casey, M. B. Nuttal, R. L. & Pezaris, E. (2001). Spatial-mechanical reasoning skills versus mathematics Selfconfidence as mediators of gender differences on mathematics subtests using cross-national gender-based items. Journal for Research in Mathematics Education 32(1), 28-57.
- Cheung, S.Y. (2003). Social Class, ability and choice of subject in secondary and tertiary education in Britain. *British Educational Research Journal* 29 (1), 41-62.
- Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching: *Journal of Experimental Education*, 60, 323-337.
- Ely, M.C. (1991). Stop performance anxiety. *Music Educators Journal*, 78 (2), 35-39.
- Engelhard, G. (1990). Math anxiety, mother's education, and mathematics performance of adolescent boys and girls: evidence from the United States and Thailand. *The Journal of Psychology, 124 (3), 289-298.*
- Evans, E. D. & Tribble, M. (1986). Perceived Teaching Problems, Selfefficacy, and commitment to Teaching among preservice Teachers: *The Journal of Educational Research, 80 (2), 81-85.*
- Farooq, M.S. & Shah, S.Z.U. (2008).

Students' attitude towards mathematics. *Pakistan Economic and Social Review*, 46,(1), 75-83.

- Fish, T.A. & Fraser, I. H. (2001). Exposing the iceberg of teaching anxiety: a survey of faculty at three new Brunswick Universities. *Electronic* Journal of American Association of Behavioural and Social Sciences, 4, Available at http://www.aabss.org/ journal2001/Fish2001.jmm.html, Retrieved 8 April 2008).
- Gardner, L. E. & Leak, G. K. (1994). Characteristics and correlates of teaching anxiety among college psychology teachers. *Teaching of psychology*, 21 (1) 28-32.
- Ghaith, G. & Shaaban, K. (1999). The Relationship between perceptions of teaching concerns, teacher efficacy, and selected teacher characteristics. *Teaching and Teacher Education 15* (5), 487-496.
- Gibson, S. & Dembo, M. (1984). Teacher efficacy: A construct validation. Journal of Educational Psychology, Vol. 76 (4), 569-582.
- Godbey, G. & Robinson, J.P. (1997). *Time* for Life: The surprising ways Americans Use their time. The Pennnsylvania State University Press, University Park, Pennsylvania. 2nd Ed.
- Gresham, G. (2007). A study of mathematics anxiety in preservice teachers. *Early Childhood Education Journal*, 35(2), 181–188.

- Halat, E. (2008). A good teaching technique: webquests. *Clear Hou.,* 81, 109-111.
- Harper, N. W. & Daane, C. J. (1998). Causes and reduction of math anxiety in preservice elementary teachers. *Action in Teacher Education 19 (4), 29-38.*
- Hembree, R. (1990). The nature, effects and relief of mathematics anxiety. *Journal for Research in Mathematics Education, 21,(1) 33-46.*
- Hoy, A. W. (2000). Changes in teacherefficacy during the early years of teaching. Paper presented at the Annual Meeting of the American Educational Research Association, New Orlearns.
- Hoy, W.K. & Woolfolk, A.E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal, 93,* 356–372.
- Huinker, D. & Madison, S.K., (1997).
 Preparing efficacious elementary teachers in science and mathematics:
 The influence of method courses.
 Journal of Science Teachers Education, 8 107-126.
- Kellerman, H. & Burry, A. (2007) Handbook of Psychodiagnostic testing. Analysis of personality in the psychological Report of Teacher and parent and testing of preschoolers. New York city.
- Kennedy, M.M. (1998). Education reform and subject matter knowledge. Journal of Research in Science

Teaching, 35,(3), 249-263.

- Kenny, D.T., & Osborne, M.S. (2006). Music performance anxiety: New insights from young musicians. Advances in Cognitive Psychology, 2(2-3), 103-12.
- Kokotsaki, D. & Davidson, J.W (2003). Investigating musical performance anxiety among music college singing students: a quantitative analysis. *Music Education Research 5(1): 45-59.*
- Levine, G. (1993). Prior mathematics history, anticipated mathematics teaching style, and anxiety for teaching mathematics among preservice elementary school teachers. Paper presented at the Annual Meeting of the International Group for Psychology of Mathematics Education, North American Chapter, ERIC Document Reproduction Service No. (eD373972).
- Molm, L. D. (2000). Theories of social exchange and exchange networks. In Ritzer, G & Smart, B. (Eds.). Handbook of social theory (pp.260 272). Thousand Oaks, CA: Sage.
- Oral, B. J. (2012). *Foreign Language Anxiety and Oral Performance*: A Replication of Phillips. (MLJ) Study.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66, 533-578.*
- Peker, M. (2009). Pre-service teacher's teaching anxiety about mathematics and their learning styles. *Eurasia*

Journal of Mathematics, Science and Technology Education, 5(4), 335-345.

- Peker, M. & Halat, E. (2008). Teacher Anxiety and the Mathematical Representations Developed Through WebQuest and Spreadsheet Activities. Journal of Applied Sciences, 9: 1301-1308.
- Perry, B.D. (2008). Homeostasis, stress, trauma, and adaptation. A neurodevelopmental view of childhood trauma. *Child and adolescent Psychiatric Clinics of North America 7(1): 33-51.*
- Plaut, D. C. & Farah, M. J. (1990). Visual object representation: Interpreting neurophysiological data within conceptual framework. *Journal of Cognitive Neuroscience*, *2*, 320-343.
- Mehrzi, R.A., Aldhafri, S., Al-Busidi, S., Ambusaidi, A., Osman, M., Amat, S. & Al-Ghafri, M. (2011). Path analysis of the effects of teaching attitudes and anxiety on pre-service teacher's efficacy beliefs. *World Applied Sciences Journal*, 14(4), 52-59.
- Ridgeway, C.L. (1993). Gender, status, and the social Psychology of Expectations", in theory on gender/feminism on theory, 175-197. New York NY.
- Riggs, I. & Enochs, L. (1990). Toward the development of an elementary teacher's science teaching efficacy belief instrument. *Science Education*,

74 (6), 625-638.

- Schwarzer, R., Schmits, G. & Daytner, G. (1999). *Perceived Self-efficacy of Teachers:* longitudinal findings with a new instrument 14 (1)12-25.
- Swars, S. L. (2004). Mathematics teaching efficiency beliefs of elementary pressure teachers and their relationship to mathematics anxiety. Unpublished doctoral dissertation, University of Alabama.
- Swars, S.L., Daane, C.J. & Giesen, J. (2006). Mathematics anxiety and mathematics teacher efficacy: What is the relationship in elementary pre-services teachers? *School Science and Mathematics, 106 (7), 306-315.*
- Swars, S. L., Hart, L.C., Smith, S.Z., Smith, M.E. & Tolar, T. (2007). A longitudinal Study of Elementary Pre-service teachers mathematics beliefs and content knowledge: *School Science and mathematics*, 107 (8),325-335.
- Thomas, B. M. (2006). Composition studies and teaching anxiety: A pilot study of teaching groups and discipline and program specific triggers. Unpublished Doctoral Dissertation. Bowling Green State University, Bowling Green, Ohio.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17 (7), 783-805.

Tschannen-Moran, M. & Nestor-Baker, N.

(2004). The tacit knowledge of productive scholars in education: *Teachers college Record, 106(7), 1484-1511.*

- Goddard, R.D., Tsdchannel-Moran, M. & Hoy, W. K. (2001). A Multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. The *Elementary School Journal*, *102* (1) 3-17.
- Vinson, B.M. (2001). A comparison of preservice teachers' mathematics anxiety before and after a methods class emphasizing

manipulatives. *Early Cchildhood Education Journal*, 29(2), 89-94.

- West, C. & Zimmerman, D.H. (2009). Accounting for doing gender: *Gender* & Society.23(1): 112-122.
- Weathley, K. F. (2005). Teaching effectiveness and performance: *Article in Teaching & Teacher Education, 21(4) 747-766.*
- Woolfolk, A. E., Rosoff, B. & Hoy, W.K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6, 137-148.