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Teachers' Pedagogical Beliefs and Actual Classroom Instructional Practices in Mathematics

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Abstract

The study was carried out to determine the teachers' pedagogical beliefs and actual classroom instructional practices in mathematics in Nsukka Education Zone Enugu State. The study adopted a correlation research design. The population was 165 mathematics teachers and 6330 Senior Secondary two (SS2) students in the 61 government owned secondary schools. The sample size of 13 mathematics teachers and 324 students was randomly selected from 9 schools for the study. The instruments for data collection were 30-item Teachers' Pedagogical Beliefs Questionnaires (TPBQ) structured on a four point likert scale. The reliability coefficients of 0.76 and 0.83 were obtained using Cronbach alpha technique. Data collected were analyzed using mean and standard deviation to answer research questions while the null hypothesis was tested using Pearson's Product Moment Correlation at 0.05 level of significance. From the findings of the study, it was recommended among others that teachers of mathematics should try and remove all barriers that prevent them from translating their pedagogical beliefs into instructional practices in the classroom. The findings have implications for teachers and all stakeholders in education.

Keywords: Teachers' Beliefs, Teachers' Pedagogical Beliefs, Classroom Practices and Actual Classroom Instructional Practices.

Introduction

In recent decades, more attention has been paid to mathematics teachers' beliefs and their roles in the construction of an effective learning environment. Teachers' beliefs, practices and attitudes are important for understanding and improving educational processes. Beliefs are judgments and evaluations that we make about ourselves, about others, and about the world around us. They are personal convictions based on observation or logical reasoning. Ford as cited in Khader (2012) defined the beliefs as a group of norms or opinions which were formed in the individual through his experiences and the overlapping of thoughts

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during the learning processes. Zanting et al. (2001) emphasized that unlike knowledge, a belief is held both consciously or unconsciously and has significant functions in helping individuals make sense of the world, persuade how new information is perceived, and whether it is accepted or rejected. It also draws a framework for individuals' behaviors. From the viewpoint of Mansour (2008), the teachers' beliefs are described as being the most valuable in the psychological composition of the teacher. It is the attitudes and values about teaching students, and the education process those teachers bring to classrooms. They are the thoughts held by the teacher about the teaching and learning process, which influence his/her classroom practices. These beliefs according to Khader (2012) can be thought of as guiding principles teachers hold to be true that serve as lenses through which new experiences can be understood. Khader believes that the teachers' beliefs are a set of ideas rooted in the psychological and mental content of the teacher and play a central role in guiding his/her teaching behavior. Ghaith (2004) is of the opinion that teachers' beliefs are holistic conception of several dimensions related to the beliefs on education and teaching, curricula and the teaching profession in general, and that such beliefs form the "education culture" which affects pedagogical objectives and values. When people believe something is true, they perceive information supporting that belief. What teachers do in the classroom is said to be governed by what they believe, and these beliefs often serve to act as a filter through which instructional judgments and decisions are made (Cantu, 2001). Donaghue (2003) claimed that teachers' beliefs play a fundamental role in the teacher development process, especially in the acceptance of new approaches, techniques, and activities. Most education reforms concentrate on the content of teachers' instructions or teaching methods and have rarely considered what teachers themselves thought about either content or pedagogy (Clark, as cited in Mellati, Khademi & Shirzadeh, 2015).

Pedagogy, most commonly understood as the approach to teaching, refers to the theory and practice of learning, and how this process influences, and is influenced by, the social, political and psychological development of learners. Pedagogy is often described as the act of teaching. Two overarching pedagogies are didactic and constructivist. A *didactic* approach to teaching and learning is often referred to as traditional or transmission teaching. Using this approach, the teacher directs instruction, elicits objective viewpoints, and develops narrowly defined skills. Students learn the basics through practice, work alone, and are typically assessed through testing. A teacher using a didactic approach might lecture about a mathematics problem, such as solve for *x,* and then have students solve more problems of the same type on a computer (Becker, 2000; Ertmer, Gopalakrishnan & Ross, 2001). A *constructivist* approach to teaching and learning occurs in unstructured environments, emphasizing whole concepts and presenting complex problems. Students often manipulate objects, work in groups, and are assessed through projects by means of rubrics. A teacher using a constructivist approach might give students the task of representing daily temperature data on a computer-generated graph (Becker, 2000; Ertmer, Gopalakrishnan, & Ross, 2001). The pedagogy adopted by teachers shapes their actions, judgments, and other teaching strategies by taking into consideration theories of learning, understandings of students and their needs, their backgrounds and interests of individual students. Research has indicated that teachers possess a vast array of complex beliefs about pedagogical issues. Accepting the nature and role of these beliefs is essential to understanding the choices and decisions these teachers will make. It has become widely recognized that the teachers' pedagogical beliefs play a central role in their teaching practices (Handal & Herrington, 2003). These beliefs are manifested in the teaching methods, in choosing the subjects and activities, decision-making, and evaluation in the classrooms (Borg, 2001).

Determining sources of teachers' pedagogical beliefs would be a significant help in designing classroom curriculums and planning effective teaching methods, designs, and strategies for any particular teaching

context. There are various sources of teachers' pedagogical beliefs; some researchers claimed that they are derived from sources such as experiences and personality (Donaghue, 2003; Ellis, 2008). Zeichner and Tabachnick as cited in Khader (2012) argued that beliefs are derived from childhood learning experiences. That teachers shape their beliefs in the classroom. They claimed that the main source of teachers' beliefs is their experiences. However, Mellati, Khademi & Shirzadeh (2015) classified them into two main categories, "*Experienced Pedagogical Beliefs*" and "*Educational Pedagogical Beliefs*" and also investigated the relationship between these two sources of teachers' pedagogical beliefs and student outcomes. In this classification, the first category is "*Experienced pedagogical beliefs*" that encompasses pedagogical beliefs that are formed in teachers' own learning and teaching experiences. In this kind of source, teachers' beliefs can be shaped through their lives and are influenced by a variety of factors such as actions, experiences, and other people in their lives such as teachers, students, and parents. Some of these beliefs can be directly adopted from the culture. The second category, "*Educational pedagogical beliefs*", encompasses pedagogical beliefs that are formed in teacher education programs. Educational materials, structures, and formal teacher education programs are some of the main factors that shaped educational pedagogical beliefs. In other words, "*Educational pedagogical beliefs*" are those pedagogical beliefs that are established in any teacher education program and "Experienced pedagogical beliefs" are those pedagogical beliefs that are established anywhere except teacher education programs.

Researchers have shown a wealth of evidence that teachers' beliefs affect their classroom instructional practices. Ernest as cited in Khader (2012) said that teachers' beliefs have a strong effect on the teaching/instructional practices by converting those beliefs into a practical reality. In the same context, Clark & Peterson as cited in Khader (2012) also said that teacher's beliefs are a rich store of knowledge that may affect teaching plans and thoughts. There is an increasing interest in studying the relationship between teachers' pedagogical beliefs and their classroom instructional practices. King (2002) found that teachers' pedagogical beliefs affect their teaching/instructional abilities. Although there is a lot of research which indicates that the teachers' classroom instructions are affected by their beliefs, there is still a need to examine teachers' pedagogical beliefs to clarify how they affect their classroom instructional practices in mathematics.

Thus, this study is vested in investigating the degree of teachers' pedagogical beliefs in mathematics instruction among the mathematics teachers in the Senior Secondary Schools and the degree of their classroom instructional practices of these beliefs, as well as disclosing the relationship between the pedagogical beliefs of mathematics teachers and their classroom instructional practice of such beliefs.

Purpose of the Study

Little or no attention has been paid to the links between teachers' beliefs and classroom instructional practices in the domain of mathematics in Nsukka Education Zone. Therefore, there is a need to explore the degree of discrepancies or consistencies between teachers' beliefs about teaching mathematics and their practical teaching activities. Hence, the purpose of the study was to investigate the relationship between the teachers' pedagogical beliefs and classroom instructional practices in mathematics in senior secondary school in Nsukka Education Zone of Enugu State, Nigeria. Specifically, the study seeks to investigate degree of teachers' pedagogical beliefs in mathematics instruction as evaluated by teachers, the degree of their classroom instructional practices of these beliefs as seen by students from their own perspectives and relationship between the pedagogical beliefs of mathematics teachers and their classroom instructional practice of such beliefs.

Research Questions

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The following research questions guided the study:

1. What are the teachers' pedagogical beliefs about the way mathematics should be taught?
2. What are the teachers' actual classroom instructional practices in mathematics?
3. What is the relationship between the teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics?

Hypothesis

The hypothesis was formulated and tested at 0.05 level of significance;

1. There is no significant relationship between teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics.

Methodology

The study adopted a correlation research design to find out the relationship between the teachers' pedagogical beliefs and classroom instructional practices in mathematics in Nsukka Education Zone of Enugu state. The population of the study comprised one hundred and sixty five (165) mathematics teachers and six thousand three hundred and thirty (6330) Senior Secondary two (SS2) students in the sixty one (61) government owned secondary schools in Nsukka Education Zone of Enugu State (Post Primary School Management Board, PPSMB Nsukka zone, 2024/2025). The sample of thirteen (13) mathematics teachers and three hundred and twenty four (324) students was randomly selected from nine (9) schools out of the sixty-one (61) secondary schools in Nsukka Education zone. A stratified random sampling method was also used in selecting the nine (9) schools. The students were chosen from a class taught by each mathematics teacher within the sample, and then the average score of the class was used for correlation. The instrument for data collection was 30-item Teachers' Pedagogical Beliefs Questionnaires (TPBQ) adapted from Khader (2012). The same instrument was formulated in a way that enables the students to measure the actual instructional practices of those beliefs by the teachers in the mathematics classroom. It has a 4-point likert-type scale of Strongly Agreed (4), Agreed (3), Disagreed (2), and Strongly Disagreed (1). Therefore, items with the mean utilization value ranging from 0.01-1.49, 1.50-2.49, 2.50-3.49 and 3.50-4.00 were rated as follows: low, moderate, high and very high degrees respectively. The instrument was face validated by test experts while reliability estimates of 0.76 and 0.83 were obtained from teachers and students respectively outside the samples, using Cronbach alpha method. Mean and standard deviation were used in answering the research questions one and two, while the formulated hypothesis was tested using Pearson's correlation coefficient.

Results

The data collected were analyzed, summarized and presented in the following tables below based on the research questions and hypothesis that guided the study.

Research Question One

What are the teachers' pedagogical beliefs about the way mathematics should be taught?

Table 1: Mean and standard deviation of respondents on teachers' pedagogical beliefs about the way mathematics should be taught.

S/N	Item Statement	Mean	SD	Degree of Belief
1	Covers all the mathematics topics needed in the term	2.62	1.12	High

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2	Starts and ends the mathematics lesson at the right time	3.15	0.99	High
3	Consistently provides well-planned sequence of appropriate instructional strategies in teaching mathematics	2.85	0.99	High
4	Makes sure that all the students understand the topics in Mathematics	3.23	0.73	High
5	Integrating a variety of technology applications and learning tools in teaching	2.31	1.11	Moderate
6	Monitoring students effectively while doing their seat work	3.62	0.51	Very High
7	Giving students opportunities to choose appropriate activities	2.62	1.19	High
8	Maintaining consistent order and discipline in the classroom	3.54	0.52	Very High
9	Monitoring students effectively while doing their exams	3.69	0.48	Very High
10	Respecting the differences in opinions among students	2.85	0.10	High
11	Encouraging discussions in the mathematics classroom	3.31	0.75	High
12	Clearly explains the content and the objectives of the material at the beginning of the school year	2.69	1.11	High
13	Demonstrating a depth of knowledge in subject matter	4.00	0.00	Very High
14	Accepting objective critique in mathematics classroom	3.15	0.80	High
15	Shows enthusiastic about his/her teaching	3.46	0.66	High
16	Encouraging students to show respect to the opinions of others	3.38	0.65	High
17	Engage students in problem solving and critical thinking techniques	3.00	0.82	High
18	Speaking clearly and audibly during teaching of mathematics	3.62	0.51	Very High
19	Ensuring that the evaluation of students reflect each student's merits	3.77	0.86	Very High
20	Making sure that exams are always comprehensive	3.08	0.86	High
21	Keeping students informed of their progress they achieved in class	3.38	0.51	High
22	Providing a variety of ways in assessment like assignments, seatwork, etc	3.77	0.44	Very High

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23	Uses varieties of nontraditional instructional methods in teaching mathematics	3.38	0.65	High
24	Beginning lesson with a review of previous knowledge	3.08	0.86	High
25	Communicating effectively the learning objective to student	3.15	0.09	High
26	Utilizing cooperative learning strategy from time to time	3.46	0.66	High
27	Accommodating individual learning differences	3.46	0.52	High
28	Making students partners in setting the classroom rules and regulations	2.69	0.95	High
29	Exhibiting modesty in knowledge of mathematics	3.62	0.51	Very High
30	Exhibiting a role model to the students	3.77	0.44	Very High
	Grand Mean	**3.62**	**0.27**	**Very High**

Results from table 1 above shows that items 1, 2, 3, 4, 7, 10, 11, 12, 14, 15, 16, 17, 20, 21, 23, 24, 25, 26, 27 and 28 had mean ratings within the range of 2.50-3.49. This means the degree of teachers' pedagogical beliefs about the way mathematics should be taught is high. Their standard deviations ranged from 0.09-1.19 shows that their individual responses are relatively not far from one another. Also, item 5 had a mean rating within the range of 1.50-2.49. This means the degree of teachers' pedagogical beliefs about the way mathematics should be taught is moderate, with the standard deviation of 1.11. On the other hand, items 6, 8, 9, 13, 18, 19, 22, 29 and 30 had mean ratings within the range of 3.50-4.00. This means the degree of teachers' pedagogical beliefs about the way mathematics should be taught is very high. Their standard deviations ranged from 0.00 – 0.86 shows that their individual responses are relatively not far from one another. The grand mean of 3.62 implies that teachers have a very high degree of pedagogical belief about the way mathematics should be taught in the classroom.

Research Question two

What are the teachers' actual classroom instructional practices in mathematics?

Table 2: Mean and standard deviation of respondents on the teachers' classroom instructional practices in mathematics

S/N	Item Statement	Mean	SD	Degree of Practices
1	Does your teacher cover all the mathematics topics needed in the term?	2.01	1.08	Moderate
2	Does your teacher start and end the lesson at the right time?	2.04	1.06	Moderate
3	Does your teacher consistently provide a well-planned sequence of appropriate instructional strategies in teaching mathematics?	1.99	1.13	Moderate

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4	Does your teacher make sure that all the students understand the topics in mathematics?	1.67	0.79	Moderate
5	Does your teacher integrating a variety of technology applications and learning tools teaching mathematics?	1.81	1.04	Moderate
6	Does your teacher monitor students effectively while doing their seat work?	2.53	1.17	High
7	Does your teacher give students opportunities to choose appropriate activities?	1.64	0.90	Moderate
8	Does your teacher maintain consistent order and discipline in the classroom?	2.67	1.09	High
9	Does your teacher monitor students effectively while doing their exams?	2.09	1.16	Moderate
10	Does your teacher respect the differences in opinions among stu	2.29	1.10	Moderate
11	Does your teacher encourage discussions in the mathematics cla	2.30	1.12	Moderate
12	Does your teacher clearly explain the content and the objectives of the materials at the beginning of the school?	1.92	1.00	Moderate
13	Does your teacher demonstrate a depth of knowledge in subject matter?	2.20	1.12	Moderate
14	Does your teacher accept objective critique in mathematics classroom?	2.46	1.15	Moderate
15	Does your teacher show enthusiasm about his/her teaching?	2.26	1.10	Moderate
16	Does your teacher encourage students to show respect to the opinions of others?	2.09	1.16	Moderate

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17	Does your teacher engage students in problem solving and critical thinking techniques?	2.54	1.19	High
18	Does your teacher speak clearly and audibly in class?	2.54	1.05	High
19	Does your teacher ensure that the evaluation of students reflects each student's merits?	2.55	1.19	High
20	Does your teacher make sure that exams are always comprehensive?	2.57	1.07	High
21	Does your teacher keep students informed of their progress they achieved in class?	2.57	1.19	High
22	Does your teacher provide a variety of ways in assessment like, assignment, seatwork, etc?	2.94	0.92	High
23	Does your teacher use varieties of nontraditional instructional methods in teaching mathematics?	2.17	1.08	Moderate
24	Does your teacher begin the lesson with a review of previous knowledge?	2.84	0.91	High
25	Does your teacher communicate effectively the learning objective to students?	2.46	1.16	Moderate
26	Does your teacher utilize cooperative learning strategies from time to time?	2.07	1.12	Moderate
27	Does your teacher accommodate individual learning differences?	2.55	1.12	High
28	Does your teacher make students partners in setting the classroom rules and regulation	2.20	1.07	Moderate
29	Does your teacher exhibit modesty in knowledge of mathematic	2.17	1.08	Moderate
30	Does your teacher exhibit a role model to the students?	2.54	1.04	High
	Ground Mean	**2.29**	**0.95**	**Moderate**

Results from table 2 above show that items 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 23, 25, 26, 28 and 29 had mean ratings within the range of 1.50-2.49. This means the degree of teachers' classroom instructional practices in mathematics is moderate. Their standard deviations ranged from 0.79-1.16 shows that their individual responses are relatively not far from one another. On the other hand, items

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6,8,17,18,19,20,21,22,24,27 and 30 had mean ratings within the range of 2.50-3.49. This means the degree of teachers' classroom instructional practices in mathematics is high. Their standard deviations ranged from 0.91-1.19 shows that their individual responses are relatively not far from one another. The grand mean of 2.29 implies that the degree of teachers' classroom instructional practices in mathematics is moderate.

Research question three

What is the relationship between the teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics?

Table 3: Pearson's Product Moment Correlation of the teachers' pedagogical beliefs (TPB) and their actual classroom instructional practices (CIP) in mathematics

		TPB Scores	**CIP (Average class Scores)**
TPB Scores	Pearson Correlation	1	-.701**
	Sig. (2-tailed)		.008
	N	13	13
CIP (Average class Scores)	Pearson Correlation	-.701**	1
	Sig. (2-tailed)	.008	
	N	13	13

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

Table 3 presented the Pearson's Product Moment Correlation of the teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics. The correlation coefficient between the teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics is -0.701. This shows that there is a strong negative relationship between the teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics.

Hypothesis one: There is no significant relationship between teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics.

Table 3 shows the probability associated with the calculated value of r (- 0.701) is 0.008, indicating a significant negative relationship between teachers' pedagogical beliefs and their actual classroom instructional practices in mathematics. It implies that as teacher's pedagogical beliefs increase their actual classroom instructional practices decrease and vice versa. This explains that the degree of teachers' pedagogical beliefs does not necessarily reflect the degree of their actual classroom practices. Conclusively, the hypothesis that stated there is no significant relationship between teachers' pedagogical beliefs and their classroom instructional practices in mathematics fails to be rejected.

Discussion

Findings from research questions revealed that the degree of teachers' pedagogical beliefs about the way mathematics should be taught was high while the degree of practicing pedagogical beliefs by teachers of mathematics from the students' own perspectives was moderate. This shows that there are conflicts

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between teachers' beliefs and the reality of their instructional classroom practices. Teachers have a set of complex or high belief systems that are sometimes not reflected in their instructional classroom practices. Multiple factors account for this lack of congruence between teachers' beliefs and instructional practices, such as large class size, teachers work load, poor salary, lack of training/workshop, lack of supports or motivations or incentives, extent of teachers' pedagogical background, teacher experience or teachers' level of general education. The findings of the current study are in agreement with Shun (2008) who examined teachers' beliefs and their relations to instructional methods. The results showed that there was not much variance in teachers' beliefs, and the use of instructional methods. This result also agrees with Kalu-Uche, Alamina & Ovute (2015) assertion that science teachers' reports of their classroom practices did not closely align with their observed practices and do not accurately report on their classroom practice. But not in agreement with those of Mellati, Khademi & Shirzadeh, (2015) who found that one of the significant findings that emerges from their study is that the teachers' awareness of their pedagogical beliefs has a magnificent effect on the teachers' decision, teaching approaches, teaching opportunities, and classroom practices, Bernat and Gvozdenko, (2005); Ellis, (2008); Hachfeld et al., (2011); Thomson et al., (2012); and Khademi et al., (2013) who found that out beliefs and attitudes that teachers bring with them to the teaching context are significant factors in the ultimate success of both teachers and learners.

Conclusion

The findings of the study confirmed the following:

1. That the degree of teachers' pedagogical beliefs about the way mathematics should be taught as evaluated by teachers is high.
2. The degree of teachers' classroom instructional practices in mathematics from students' perspectives is moderate.
3. The hypothesis that stated there is no significant relationship between teachers' pedagogical beliefs and their classroom instructional practices in mathematics fails to be rejected.

Therefore, the degree of teachers' pedagogical beliefs does not necessarily reflect the degree of their actual classroom practices. This shows that there are conflicts between teachers' beliefs and the reality of their instructional classroom practices. It is pertinent to conclude that activities in mathematics classrooms in Enugu State are dominated by transmissionist-oriented pedagogical practices which are essentially teacher-centered.

Recommendations

1. Teachers of mathematics should try to remove all barriers that prevent them from translating their pedagogical beliefs into instructional practices in the classroom.
2. Mathematics teachers should be encouraged to attend workshops and seminars that will ultimately improve their use of student-centered teaching practices which are in line with current research findings and curriculum policies.
3. Government and school authorities should create an enabling environment that will bridge the gap for the lack of congruence between teachers' beliefs and instructional practices by providing good and quality infrastructures, avoid overcrowding in a classroom, increase their salaries and incentives, and so on.

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References

Becker, H. J. (2000). Findings from the teaching, learning, and computing survey: Is Larry Cuban right? *Education Policy Analysis Archives,* 8, 1-31.

Bernat, E. & Gvozdenko, I. (2005). Beliefs about language learning: Current knowledge, pedagogical implications, and new research directions. *TESL-EJ*, *9*(1).http://www-writing.berkeley.edu/TESLEJ/ej33/a1.html

Borg, M. (2001). Teachers' beliefs. *ELT Journal, 55 (2), 186-187.*

Cantu, D. (2001). A Investigation of the Relationship between social studies teachers' beliefs and practice. Lampeter: The Edwin Mellen Press.

Donaghue, H. (2003). An instrument to elicit teacher's beliefs and assumptions. *ELT Journals*,*57*(4), 344-351

Ellis, R. (2008). *The study of second language acquisition*. 2 Editions. Oxford: Oxford University Press.

Ertmer, P. A., Gopalakrishnan, S., & Ross, E. M. (2001). Technology-using teachers. *Journal of Research on Computing in Education,* 33, 1-27.

Hachfeld, A., Hahn, A., Schroeder, S., Anders, Y., Stanat, P. (2011). Assessing teachers' multicultural and egalitarian beliefs: the teacher cultural beliefs scale. *Teaching and Teacher Education*, *27*, 986-996. Doi:10.1016/j.tate.2011.04.006.

Handal, B. & Herrington, A. (2003)." Mathematics teachers' beliefs and curriculum reform". *Mathematics Education Research Journal, 15(1), 59-69.*

King, E. (2002). Science teachers' belief about teaching and reform: Case studies from a restructured high school. Unpublished Doctoral Thesis, Georgia State University

Mellati, M. , Khademi, M., Shirzadeh, A. (2015). The Relationships among Sources of Teacher Pedagogical Beliefs, Teaching Experiences, and Student Outcomes. *International Journal of Applied Linguistics & English Literature,* 4(2) ISSN 2200-3592 (Print), ISSN 2200-3452 (Online) Post Primary School Management Board (PPSMB) Nsukka Zone (2018). Students' records2017/2018 Session

Thomson, M. M., Turner, J. E., Nietfeld, J. L. (2012). A typological approach to investigate the teaching career decision: Motivations and beliefs about teaching of prospective teacher candidates. *Teaching and Teacher Education*, *28*, 324- 335. Doi:10.1016/j.tate.2011.10.007

Ghaith, G. (2004)." Correlates of the implementation of the STAD cooperative learning method in the English as a foreign language classroom". Bilingual Education and Bilingualism, 7(4), 279-294.

Kalu-Uche, N., Alamina, J. I. and Ovute, A. O. (2015). Pedagogical Practices in the Teaching of Science in Secondary Schools in Rivers State Nigeria. *Journal of Research in Humanities and Social Science, 3(2), 50-55.*

Khademi, M., Motallebzadeh, K., & Ashraf, H. (2013). The relationship between Iranian EFL instructors' understanding of learning styles and their students' success in reading comprehension. *English Language Teaching, 6(4)*, 134-142. doi:10.5539/elt.v6n4p

Khader, F. R. (2012). Teachers' Pedagogical Beliefs and Actual Classroom Practices in Social Studies Instruction. *American International Journal of Contemporary Research, 2(1)*

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Mansour, N. (2008)." Science Teachers' Beliefs and Practices: Issues, Implications and Research Agenda". *International Journal of Environmental & Science Education*, 4(1), 25-48.

Shun, L. (2008). Teacher Beliefs and their implications for enhancing instructional practices. Center for Research in Pedagogy and Practice. Singapore.

Zanting, A., Verloop, N., Vermunt, D. J. (2001). Student teachers eliciting mentors' practical knowledge and comparing it to their own beliefs. *Teaching and Teacher Education*, *17*, 725-740.

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