

The relationship of Instructional Beliefs of Teacher Educators with their Classroom Practices in Khyber Pakhtunkhwa

*Itbar Khan¹, Azhar Mehmood^{**}, Nabi Bux Jumani^{****}

^{*}Ph. D Scholar, International Islamic University Islamabad

^{**}Associate Professor, International Islamic University Islamabad

^{***}Professor of Education, International Islamic University Islamabad

Received: August 1, 2017

Accepted: October 5, 2017

ABSTRACT

This study examined the relationship between teacher educators' instructional beliefs and their classroom practices and explored the difference in the observed and self-reported practices of teacher educators. A self-developed 21-item questionnaire, measuring constructivist and traditional beliefs and a 22-item self-reported classroom practices questionnaire measuring constructivist and traditional practices, were administered to 140 randomly selected teacher educators from 09 departments of education in Universities and 20 Regional Institutes of Teacher Education (RITEs). Mean values were measured to find out the beliefs and practices; paired sample t-test was used for calculating the difference in observed and self-reported practices and Pearson r was calculated to find out the relationship between the instructional beliefs and classroom practices of teacher educators. It was found that the instructional beliefs of the teacher educators were significantly correlated with their classroom practices. As a whole, teacher educators believed in constructivist beliefs and practices. They also used and believed in some traditional practices and beliefs respectively. There were significant differences in the self-reported and observed instructional practices and no significant difference was observed in the self-reported and observed traditional practices. The study recommends teaching of instructional beliefs and training through constructivist classroom practices for teacher educators.

KEYWORDS: Teacher educators, instructional beliefs, classroom practices, traditional classroom practices, constructivist practices.

1. INTRODUCTION

Research in the field of teacher education suggests that teachers' classroom behaviors predicate on their beliefs, which they hold about teaching, learners, learning and knowledge. Pajares (1992) identified many terms for teachers' beliefs, which include, attitudes, values, judgments, opinions, ideology, perceptions and so on. Kagan (1992) opines that "*most of the professional knowledge of a teacher can be considered as beliefs*" (p.73). Nespor (1987) and other researchers (Griffin & Ohlsson, 2001; Kagan, 1992; Pajares, 1992) have concluded that beliefs have greater influence than knowledge in determining how individuals organize and define tasks and problems which mold them into stronger foretellers of behavior.

Fives and Buehl (2012) contend that the understanding of reality by an individual is always seen through their current beliefs; they can work as filter in teacher education. Beliefs shape what teachers know and how they have learnt. And there is a possibility that such beliefs have an important relationship with teacher knowledge and practices. Similarly, according to Kagan (1990) teachers' beliefs are "*at the very heart of teaching*" (p. 85). Teachers' beliefs researchers take keen interest in what teachers' think about knowledge, how students become proficient in learning and knowledge and what teachers do to facilitate the development of such proficiency. This also answers how these beliefs develop and the role it plays in classroom practices (Jeff, 2015).

2. Instructional Beliefs

Instructional beliefs refer to the beliefs about teaching and learning, role of teacher and students. These are mainly divided into 2 major beliefs: constructivist beliefs (CB), and traditional beliefs (TB). Constructivist teaching typically involves more student-centered, active learning experiences, more student-student and student-teacher interaction, and more work with concrete materials and in solving realistic problems (Berliner & Calfee, 1996). Traditional beliefs involve teacher centered approaches, transmission type of teaching and learning.

*Corresponding Author: Itbar Khan, Ph. D Scholar, International Islamic University Islamabad,
Email:educationmkd@gmail.com

3. Relationship of Beliefs and Classroom Practices

Bandura (1997) posits that beliefs, more than truth, guide our goals, emotions, decisions, actions, and reactions. Kagan (1992) argues that there is a significant relationship between beliefs and the type of classroom practices. The relationship between beliefs and classroom practices is found across different classes and levels. Ertmer, Gopalakrishnan and Ross (2000) concluded that if we want to integrate technology in such a way which benefits the learning of students, we must consider how the current practices of teachers are traced to and organized by the pedagogical beliefs of teachers.

In real classroom situation, teachers' beliefs and their classroom instructions are often inconsistent due to a variety of variables such as the pressure to adapt to a particular school philosophy and government instructions. Liu (2011) posits that elementary teachers, who have constructivist beliefs about instruction, believe in constructivist practices, but in real classrooms they do not practice it. The main factor which the teachers showed was the achievements of students. Khader (2012) investigated the stated beliefs of social studies teachers and their classroom practices and found no statistically significant correlation between the teachers' pedagogical beliefs and their actual classroom practices of such beliefs. This inconsistency was due to overcrowded classrooms, teachers, busy schedule and other assignments.

There are contradictions between teachers' beliefs and their classroom practices. Calderhead (1996), Ertmer, Gopalakrishnan, & Ross (2000) and Fang (1996) described a number of studies in which researchers found little relationship between teachers' beliefs and their instructional reading practices, and suggested that contextual factors affected the teachers' ability to constantly apply their beliefs in practice. Results from a study of technology-using teachers supported this as well. Ertmer, Gopalakrishnan and Ross (2000) reported that teachers' visions for, or beliefs about, classroom technology use did not always match their classroom practices. Nevertheless, the findings confirm that these beliefs serve as the key evaluator of their students' literacy development (Powers, Zippay & Butler, 2006).

The role ascribed to teachers' beliefs is of particular interest in relation to the implementation of curriculum reform. Fenstermacher (1978) suggested that if "*our purpose and intent are to change the practices of those who teach, it is necessary to come to grips with the subjectively reasonable beliefs of teachers*" (p. 174). More specifically, teachers' beliefs are considered as a filter, interpretive device, and transformer of curricular intentions established elsewhere (Bryan, 2012; Griffin & Ohlsson, 2001; Kagan, 1990; Pajares, 1992).

4. Purpose of the Research Article

The purpose of this article is to examine the relationship between teacher educators' instructional beliefs and their classroom practices and to find out difference in the observed and self-reported instructional practices. Other researchers have investigated the influence of teachers' pedagogical beliefs on classroom practices related to science (Czerniak & Lumpe, 1996), history (Wilson & Wineburg, 1993) and literacy. Most of the studies had investigated the beliefs of students in teacher education; few studies had looked into the instructional beliefs of teacher educators' and their relationship with classroom practices in teacher education institutions. Moreover, less attention has been paid to teachers' beliefs in Pakistan and less to the beliefs of teacher educators in the world. Furthermore, recently teacher education curriculum has been changed in Pakistan. The changed curricula for 4 year and 2 year degree in education in Pakistan demands constructivist practices. This study investigated the instructional beliefs of teacher educators and their practices in classroom.

5. The current research aimed to investigate the following questions

1. What are the instructional beliefs of teacher educators in Khyber Pakhunkhwa, Pakistan?
2. What are the instructional practices of teacher educators in Khyber Pakhunkhwa, Pakistan?
3. What is the relationship between instructional beliefs and instructional practices of these teacher educators?
4. Is there any difference in the self-reported and observed instructional practices of teacher educators?

6. Methodology

As a co-relational research, the study aimed to examine the relationship between instructional beliefs and classroom practices of teacher educators in teacher education institutions. Data were collected from the participants without any manipulation. Mean and standard deviation was calculated to measure the beliefs and practices; Pearson r was calculated to examine the relationship between the instructional beliefs and instructional practices of teacher educators and paired sample t- test was used to find out the difference in the observed instructional practices of teacher educators.

6.1 Participants

The participants for the study were randomly selected from both the strata of the population, RITEs and universities. There are total 149 teacher educators in RITEs and 62 teacher educators in universities. So, 111 teacher educators from 20 RITEs and 47 teacher educators from 09 universities in Khyber Pakhtunkhwa were selected through stratified random sampling. The age of 5 educators ranged from 24-33 (3%), 43 were from 31-40 (30%), 50 were from 41-50 (40%) and 50 (25%) teacher educators were above 50 years old. All the teacher educators have master degrees along with professional qualification. There were 21 (15%) teacher educators who held bachelor degrees in education, 72 (51%) held master degrees in education, 18 (12%) had Master of Philosophy degrees and 28 (20%) teacher educators had Doctor of Philosophy in education.

6.2 Data collection tool and Analysis

Self-developed questionnaire for instructional beliefs, consisting of two main dimensions, one covering constructivist instructional beliefs and another covering transmission instructional belief were administered. Similarly, the instructional beliefs questionnaire was modified in a way to find out the classroom practices of teachers. The instructional beliefs questionnaire used Likert Scale (Strongly Disagree=1, Disagree=2, Not sure=3, Agree=4, Strongly Agree=5) for measuring the beliefs. The classroom practices questionnaire also used Likert Scale (never = 1, rarely= 2, sometimes=3, often= 4, always=5). Scores on both the dimensions of the questionnaire was summed up and means were found out. The more the score, the more the dimension in the respective questionnaire. The Cronbach alpha of the constructivist dimension in instructional practices scale was .741 and the alpha value of the traditional practices items was .611. Cronbach Alpha of the Instructional beliefs questionnaire was .661, the Alpha of the constructivist beliefs was .687 and Alpha of the traditional beliefs was .757

7. Data Analysis

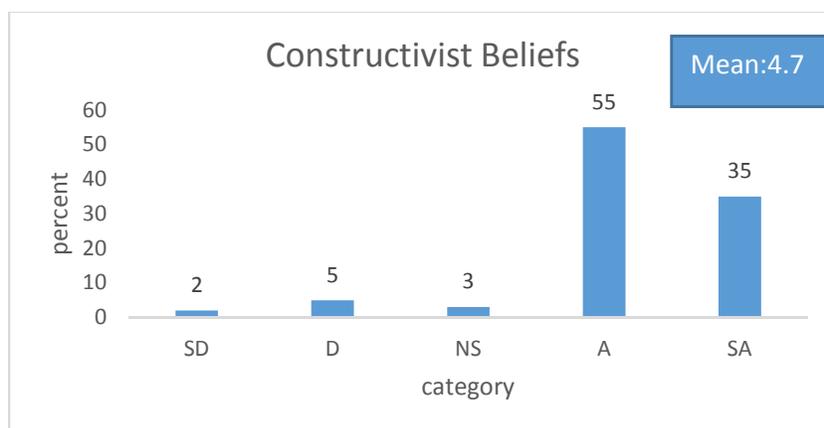


Figure 1: Constructivist Beliefs of teacher Educators

Key: SD: Strongly Disagree D: Disagree NS: Not Sure A: Agree SA: Strongly Agree

Figure 1 shows that 35% teachers ‘Strongly Agreed’, 55% ‘Agreed’, 3% were ‘Not Sure’, 5% ‘Disagreed’ and 2% ‘Strongly Agreed’ that constructivist instructional practices should be used. Means value of the constructivist instructional beliefs show that a majority of the teacher educators believed in the constructivist instructional beliefs.

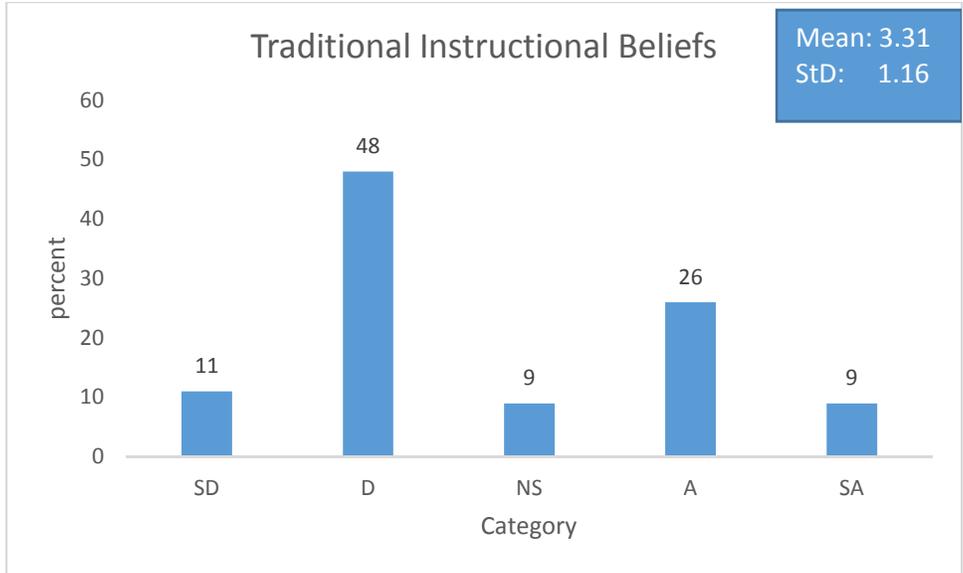


Figure 2: Traditional Beliefs of Teacher Educators

Figure 2 indicates that, 9% teacher educators “Strongly Agreed”, 26% “Agreed”, 9% were “Not Sure,” 48% “Disagreed” and 11% “Strongly Disagreed” that teacher educators should use traditional instructional practices. The mean value (2.76) of traditional instructional beliefs shows people have less traditional instructional beliefs. However, the value is just below average. Mean value of the statement (Teacher educator is to impart knowledge) in the questionnaire is 3.95, which shows that educators impart knowledge. They do not allow the learners to create knowledge. Similarly, educators prescribe certain methods and they correct misconceptions. The data shows that 35% teacher educators agreed with the traditional instructional beliefs which is a huge number.

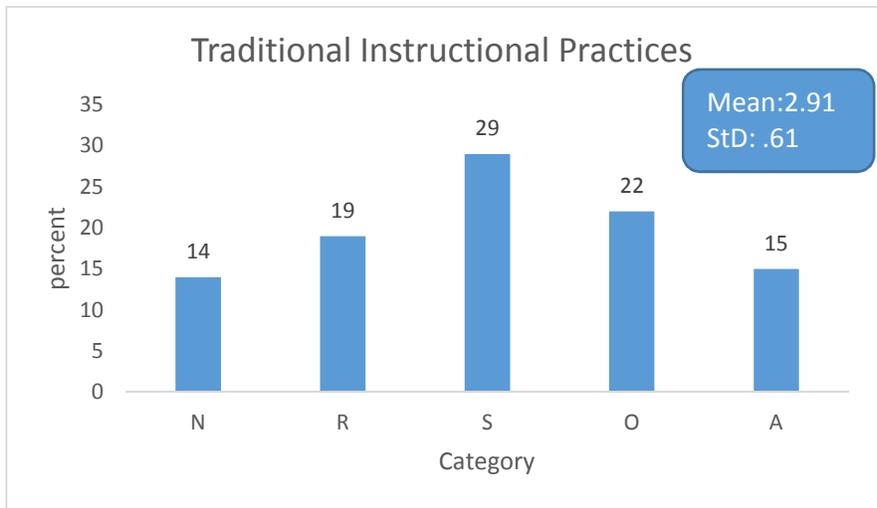


Figure 3: Traditional Instructional Practices

Key: N: Never R: Rarely S: Sometimes O: Often A: Always

In response to traditional instructional practices, Figure 3 provides percentage responses of the teachers i.e. 15% “Always,” 22% “Often,” 29% “Sometimes”, 19% “Rarely”, and 14% “Never” used traditional Instructional Practices. Mean value of traditional Instructional Practices (2.91) shows that it is just below average, which means that teacher educators used traditional instructional practices. A majority of the teachers used researched based material, delivered lectures and corrected misconceptions, which are traditional classroom practices.

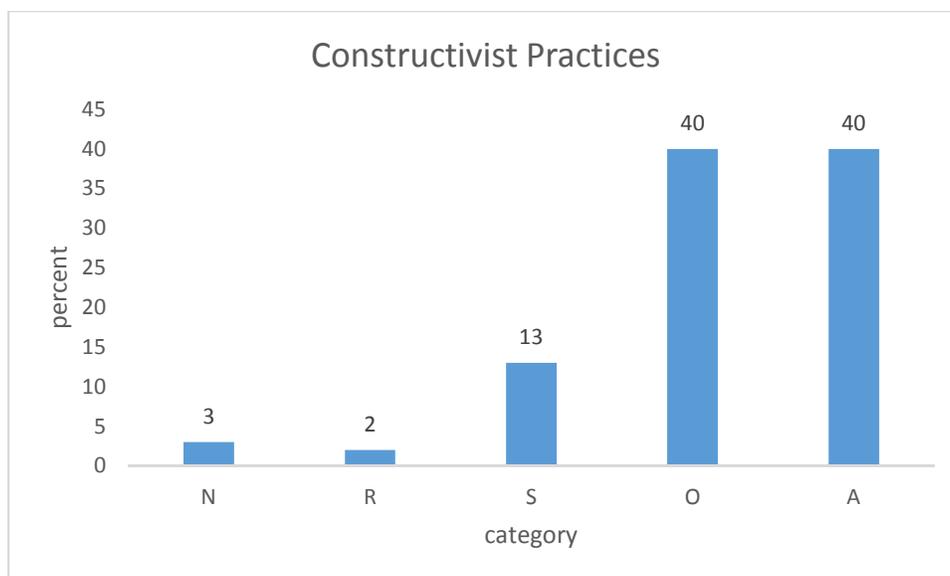


Figure 4: Constructivist Instructional Practices of Teacher Educators

In response to self-reported constructivist practices of teacher educators, Figure 4 provides percentage responses of the teachers i.e.40% “Always”, 40% “Often,” 13% “Sometimes,” 2% “Rarely,” and 3% “Never” used constructivist instructional practices. Mean value (4.28) of constructivist instructional beliefs shows that most of the teacher educators practiced constructivist practices in classroom.

Table 1 Relationship between Instructional Beliefs and Instructional Practices

	Traditional beliefs	Traditional practices	Constructivist Beliefs	Constructivist Practices	Instructional Beliefs	Classroom Practices
Traditional Beliefs	1					
Traditional Practices	.521** .000	1				
Constructivist Beliefs	-.116 .173	-.071 .403	1			
Constructivist Practices	-.035 .685	-.120 .157	.333** .000	1		
Instructional Beliefs	.761** .000	.390** .000	.556** .000	.189* .026	1	
Classroom practices	.420** .000	.771** .000	.153 .071	.539** .000	.452** .000	1

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

Table 1 shows the results of interrelationship between instructional beliefs and instructional practices of teacher educators. The results show that there is positive significance correlation between traditional practices and traditional beliefs (r: .521**, p: .000). There is a negative correlation between constructivist beliefs and traditional beliefs and traditional practices with r: -.116, p: .173, r: -.071, p: .403, respectively. There is also negative correlation between constructivist practices and traditional beliefs (r: -.035, p: .685), traditional practices (r: -.120, p: .157); there is significant positive correlation between constructivist practices and constructivist beliefs (r: .333**, p: .000).Moreover, Instructional Beliefs as a whole had significant positive correlation with traditional classroom practices (r: .390**, p: 000) and insignificant positive relationship with constructivist classroom practices (r: .189*

p: .026). Similarly, instructional practices as a whole had significant positive correlation with Traditional Beliefs (r:.420**, p: .000) and insignificant positive correlation with constructivist beliefs (r: .153, p: .071).

8. DIFFERENCE IN THE OBSERVED AND SELF-REPORTED CLASSROOM INSTRUCTIONAL PRACTICES

Table 2. Difference in the Observed and Self-Reported Traditional Practices Paired Samples Statistics

	Mean	N	S. D	Std. Error	Mean t	Sig.(2-tailed)
Observed Traditional Practices	3.31	34	.42	.073	1.049	.302
Self- Reported Traditional Practices	3.18	34	.63	.10		

Mean Difference is not Significant at P<0.05

Table 2 shows the comparison of observed traditional instructional practices and self-reported traditional instructional practices. The mean value of observed traditional instructional practices was 3.31 with S.D .42 and the mean value of self-reported instructional practices was 3.18 with S.D. 3.18. But paired t test showed no significant difference as p> 0.05.

Table 3 Difference in the Observed and Self-Reported Constructivist Instructional Practices

	Mean	N	S.D.	Std. Error	Mean t	sig.(2-tailed)
Observed Constructivist Practices	3.4251	34	.48556	.08327	-7.832	.000
Self- Reported Constructivist Practices	4.2567	34	.41174	.07061		

Mean Difference is Significant at P<0.05

N= Number of observed teachers, S.D= Standard Deviation

Table 7 depicts that the mean value of observed constructivist practices was 3.42, S.D .48 and the mean value of Self- Reported Constructivist Practices was 4.25, S.D .41. The mean difference between the observed constructivist instructional practices and self-reported constructivist practices was significant as p< 0.05.

9. Discussion

Based on the relative mean score values, there was a greater tendency of the teacher educators to hold constructivist beliefs but at the same time they also believed and practiced some traditional beliefs and practices, like, lecturing, providing information, correcting misconceptions. It means that there is no consistency in their beliefs and practices, which also showed they were not fully cognizant of constructivist practices. Above average teachers delivered lectures but below average teacher educators believed in lectures. In this case, beliefs have not effected practices. It seems that the prevailing practice of lectures in higher education is dominant in Pakistan. As a whole, traditional beliefs and traditional practices are positively correlated; similarly, constructivist beliefs and constructivist practices are positively correlated. The study also found significant relations between traditional beliefs and traditional practices and between constructivist beliefs and constructivist practices. It showed classroom practices as a whole were driven by beliefs. The study also showed that teachers believed in constructivist beliefs but there was a difference in the self-reported and observed constructivist practices. It showed that teachers have some contextual, institutional or other reasons due to which they could not practice what they believed. The study extends the findings of Khadar (2012), Powers, Zippay& Butler, (2006), Calderhead, (1996), Ertmer, Gopalakrishnan, & Ross (2000), Fang (1996), Ertmer, Gopalakrishnan and Ross (2000), Liu (2011). This study highlights the important influence of instructional beliefs on the classroom practices of teacher educators. Teacher educators should especially think about their espoused beliefs and think about their practices if they conform to the curricular needs of teacher educators.

10. Implications for Teacher Education

1. Instructional beliefs and classroom practices have significant positive co-relationship. It means that educators may be given training on constructivist beliefs so that they think over their beliefs and form right sort of beliefs.
2. Teacher educators, according to reported beliefs and practices, believed and practiced constructivist beliefs and practices. However, it was also found that they did not have consistency in their beliefs. This means

that teacher educators might not have clear idea about constructivist practices and beliefs. Again, they need to ponder over their beliefs and practices in the classroom. In observation, it was found that teacher educators need proper training in constructivist practices. There may be courses in teacher education curriculum on the beliefs. Most of the courses in the earlier curricula for teacher education did not have content on beliefs system. Even, the innovated curricula for 4 year degree in education did not have content on beliefs and their importance in teaching and learning.

3. These teachers have been educated in teacher centered classrooms and teacher education courses in universities and RITES do not have enough material on beliefs; therefore, these teacher educators have simple beliefs or they do not clear ideas about instructional beliefs. And this is a cycle which will continue until stopped by teacher education institutions. Teacher educators may be given training and reading material and then they may question their beliefs if they have such beliefs which promote teacher centered beliefs or otherwise. Once the beliefs of teacher educators are reframed, they should ask the prospective students to reflect upon their beliefs. As Chi-Kin Leo, Zhang, Song, Huang (2013) have posited that teacher educators may make prospective teachers conscious about their beliefs.
4. Teachers in primary and high schools may be given intensive training on constructivist beliefs and instructional practices because these teachers did have necessary knowledge about students' centered beliefs and practices.

REFERENCES

- Bandura, Albert. "Perceived self-efficacy in the exercise of control over AIDS infection." *Evaluation and program planning* 13, no. 1 (1990): 9-17.
- Berliner, David C., and Robert C. Calfee, eds. *Handbook of educational psychology*. Routledge, 1996.
- Bryan, L. A. (2012). Research on science teacher beliefs *Second international handbook of science education* (pp. 477-495): Springer.
- Calderhead, J. (1996). Teachers: Beliefs and knowledge.
- Creswell, J. W. (2015). Revisiting mixed methods and advancing scientific practices *The Oxford handbook of multimethod and mixed methods research inquiry*.
- Czerniak, C. M., & Lumpe, A. T. (1996). Relationship between teacher beliefs and science education reform. *Journal of Science Teacher Education*, 7(4), 247-266.
- Ertmer, P. A., Gopalakrishnan, S., & Ross, E. (2000). *Technology-using teachers: Comparing perceptions of exemplary technology use to best practice*: Citeseer.
- Ertmer, P. A., Gopalakrishnan, S., & Ross, E. (2000). *Technology-using teachers: Comparing perceptions of exemplary technology use to best practice*
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational research*, 38(1), 47-65.
- Fenstermacher, G. D. (1978). 4: A Philosophical Consideration of Recent Research on Teacher Effectiveness. *Review of research in education*, 6(1), 157-185.
- Fives, H., & Buehl, M. M. (2012). Spring cleaning for the "messy" construct of teachers' beliefs: What are they? Which have been examined? What can they tell us. *APA educational psychology handbook*, 2, 471-499.
- Griffin, T. D., & Ohlsson, S. (2001). *Beliefs versus knowledge: A necessary distinction for explaining, predicting, and assessing conceptual change*. Paper presented at the Proceedings of the 23rd annual conference of the Cognitive Science Society.
- Grossman, P. L., Wilson, S. M., & Shulman, L. S. (1989). Teachers of substance: Subject matter knowledge for teaching. *Profesorado, Revista de Currículum y Formación del Profesorado*, 9(2), 1-25.
- Kagan, D. M. (1990). Ways of evaluating teacher cognition: Inferences concerning the Goldilocks principle. *Review*

of educational research, 60(3), 419-469.

- Kagan, D. M. (1992). Implication of research on teacher belief. *Educational psychologist*, 27(1), 65-90.
- Khader, F. R. (2012). Teachers' pedagogical beliefs and actual classroom practices in social studies instruction. *American International Journal of Contemporary Research*, 2(1), 73-92.
- Liu, S.-H. (2011). Factors related to pedagogical beliefs of teachers and technology integration. *Computers & Education*, 56(4), 1012-1022.
- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of curriculum studies*, 19(4), 317-328.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of educational research*, 62(3), 307-332.
- Powers, S. W., Zippay, C., & Butler, B. (2006). Investigating connections between teacher beliefs and instructional practices with struggling readers. *Reading Horizons*, 47(2), 121.
- Skott, J. (2015). The promises, problems, and prospects of research on teachers' beliefs. *International handbook of research on teachers' beliefs*, 13-30.
- Wilson, S. M., & Wineburg, S. S. (1993). Wrinkles in time and place: Using performance assessments to understand the knowledge of history teachers. *American Educational Research Journal*, 30(4), 729-769.