

The Discrepancy between Teachers' Belief and Practice, from the Sociocultural Perspective

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Abstract

Considering teachers' belief as a construct and its relationship with teachers' practice, a growing body of research has explored the effect of teachers' belief on their practice while there is a bulk of research on the discrepancy between teachers' belief and practice. However, most of the studies indicate that teachers' beliefs should be studied within a framework that is aware of the influence of culture and context leading to the point that teachers' belief is context dependent. The purpose of this paper is to present an argument about the relationship of teachers' beliefs and practices and to find out sociocultural framework to explore the inconsistency of this relationship. Discussing the nature of teachers' beliefs, the relationship among beliefs, knowledge and practices, sociocultural perspectives is explored to explain the inconsistency between teachers' beliefs and practices found in the sample of the study. To this end a two-phase, sequential explanatory mixed methods study was employed to obtain quantitative results and then select participants for follow-up interviews to further clarify the results. In the first phase, quantitative research questions addressed the relationship between teachers' pedagogical and epistemological beliefs in relation to eight teaching methods the teachers might utilize in the classroom. 20 teachers teaching different levels of English proficiency from Kish Institute are randomly chosen for this phase. Epistemic Belief Inventory (EBI) is used to be scattered among the teachers addressing their pedagogical and epistemological belief about teaching. 5 teachers scored high and 5 teachers scored low are chosen based on their responses to the questionnaires. Determining the target participants through the previous stage, qualitative semi-structured interviews were conducted to explore how teachers described their beliefs about those eight constituent of teaching. The interviews are transcribed and codified. Using theme analysis, the main themes of teachers' belief are extracted and explained. In the second phase, the actual practices of these ten teachers are observed by the researchers and an observation checklist is filled out for each teacher to determine the congruity or incongruity between teachers' belief and practice. Analyzing the main themes of teachers belief and comparing them with the observation checklist, a brief description of each class is reported in the next chapter and the antecedent of the mismatches are discussed under the rubric of sociocultural framework.

Keywords

teachers' belief, epistemological belief, teachers' practice, sociocultural theory

1. Introduction

Clark and Peterson (1986); Kagan (1992), and Pajares (1992) defined teachers' beliefs as teachers' assumptions which affect what they notice in any set of circumstances and what they regard as possible, the goals they will set, and the knowledge they will bring into those circumstances. Artzt and Armour-Thomas (1998) defined it as "an integrated system of personalized assumptions about the nature of a subject, its teaching and learning" (p. 8). Aiken (2002) defined beliefs "as confidence in the truth or existence of something that is not immediately susceptible to rigorous proof" (p. 6). As it relates to teachers, this definition was chosen because what a teacher believes encompasses all that she/he knows or believes to be true and will presumably act accordingly. Research indicates that teachers' actual practices are associated with their beliefs, and that teachers filter new information through personal beliefs.

According to Calderhead (1996) teacher beliefs are important mediators of teacher behavior, although according to Pajares (1992) the relation between teacher beliefs and teacher behavior is far from clear, as teacher beliefs are messy constructs with different interpretations and meanings.

From the viewpoint of Mansour (2008) and Richards (1998) the teachers' beliefs are described as being the most valuable in the psychological composition of the teacher. Tatto and Coupland (2003) believe that there is a pressing need to define the concept of teachers' beliefs, while recognizing that there is a difficulty in identifying a clear definition of the beliefs due to the conflict of views of researchers and intellectuals. Barcelos (2003) sees that the beliefs are a form of thoughts that cover all matters that we do not have a sufficient knowledge about, but we have enough trust to work on them. Haney, Lumpe and Czerniak (1996) define beliefs in the teaching environment as: the teacher's contentions, and his/her viewpoints on teaching and learning. On the other hand, Ghaith (2004) sees that the 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.

By reviewing the previous definitions, the researcher 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. As a result of establishment of the beliefs in the teacher's personality, we find that some researchers describe the teachers' beliefs as solid, resistant to change and work as a watchdog for every new knowledge, they also work as barriers to changes in the teaching practices (Pajares, 1992; Fullan & Stegelbauer, 1991).

An extensive literature on teachers' beliefs exists, both in education generally (e.g., Calderhead, 1996; Pajares, 1992; Richardson, 1996) and specifically in relation to language teaching (e.g., Borg, 2003, 2006; Freeman, 2002). The study of teachers' beliefs has in the last 15 years emerged as a major area of

enquiry in the field of language teaching. Different scholars investigated different dimensions of teachers' beliefs. Some investigate the relationship and the effect of teachers' belief and conception as a pivotal factor in forming and arranging classroom practices, activities and techniques, (e.g., Aguirre & Speer, 2000; Burns, as cited in Borg, 1999; Cheng, Chan, Tang, & Cheng, 2009; Isikoglu, Basturk, & Karaca, 2009; Woods as cited in Kearns, 2000) and in teachers' decision making concerning the instructional activities being used in the classroom, (e.g., Aguirre & Speer, 2000; Cheng, Chan, Tang, & Cheng, 2009; Marieke, van der Schaafa, Stokking, & Verloop, 2008; Nunan as reported in Borg, 1999; Pajares as cited in Albion, 1999, p. 95), the relation between teachers' belief and teaching ability (e.g., Fives & Buehl, 2008), the role of teachers belief in implementing new instructional method such as computer technology in the classroom, (e.g., Hermans, Tondeur, van Braak, & Valcke, 2008) and also its role in other disciplines such as mathematics, (e.g., Ozgun-Koca & I'ghanSen, 2006).

Another strand in investigating the construct of teachers' belief which is the focus of the present study, takes into account the incongruity or mismatch which may exist between teachers' reported belief and their actual practice in the classroom (e.g., Charlesworth, Hart, Burts, & Hernandez, 1999; Marieke, van der Schaafa, Stokking, & Verloop, 2008; Phipps & Borg, 2009; Peterson, Fennema, Carpenter, & Loef, 1989; Solomon, Battistich, & Hom, 1996; Stipqek, Givvin, Salmon, & MacGyvers, 2001).

Richardson (1996) pointed that teacher's beliefs come from three sources: personal experiences of the teacher in general and teaching in particular, teacher's experience as a student and the teacher's knowledge of the school courses. This experience, according to Lortie (1975) represents the acquisition of the teaching profession through direct observation, as it provides the teachers with information related to the teaching profession. It also helps them in the formation of specific hypotheses on how teaching should be. From the viewpoint of Tsui (2003), the perceptions and presumptions the teachers receive from this source may be considered a very strong influence in affecting their pedagogical beliefs. Whereas Fang (1996) focuses on a group of factors related to school in the formation of teachers' beliefs, the administrative support, attitude of colleagues, school atmosphere, students' abilities and backgrounds in addition to the rules and regulations that applied in a particular school.

Mansour (2008) sees that although there is a lot of research which indicates that the teachers' practices in the classrooms are affected by their beliefs, there is still a need to examine teachers' beliefs to clarify how they affect their practices. In the domain of social studies there is a growing need to study the beliefs of the teachers to understand the factors that affect their classroom practices.

1.1 Objectives of the Study

Considering the body of literature with a clear focus on the mismatch between teachers' educational and epistemic belief and their actual practice in the classroom, this study tried to investigate the source and antecedents of this incongruity. To this end the researchers aimed to assess teachers' belief about some constituents of their teaching practice and their epistemological belief about knowing and learning and compare this with their actual practice in the classroom. Reaching this objective the following research questions are posed.

1.2 Research Question

- 1). What are the teachers' stated pedagogical and epistemological beliefs about their teaching practice?
- 2). How different their actual classroom practice?
- 3). How this mismatch between teachers' belief and practice can be explained through sociocultural perspective?

1.3 Significance of the Study

In learning contexts, pre-service and practicing teachers may be guided by their beliefs about teaching knowledge and ability. Such beliefs may lead them to question the value of information presented; make epistemic assumptions about the nature of teaching knowledge; question the validity of knowledge content; and support their views on teaching and the need for teacher education. Understanding these beliefs in the context of learning to teach and their relation to other important outcomes (e.g., classroom practices, student achievement) can inform the development of learning experiences tailored to the needs of future and practicing teachers. As they mentioned those who evaluate research on teachers' beliefs (e.g., Kagan, 1992; Pajares, 1992; Pintrich, 2002, as cited in Leatham; K. R., 2006) consistently come to a similar conclusion, that research on teacher beliefs although fraught with pitfalls to avoid and difficulties to surmount, has great potential to inform educational research and practice and is therefore worth the effort.

Reviewing the relevant literature, it is evident that scant attention has been paid to teachers' pedagogical belief as a pivotal factor affecting teachers' practice. However, there is a need to explore the degree of discrepancies or consistencies between teachers' beliefs about teaching practice and their practical teaching activities.

This study can be fruitful in enabling other teachers to reflect on and examine their own beliefs about their teaching practices. Due to the great influence of the teacher's beliefs on his/her teaching behavior, it is important to identify the sources of the kind of discrepancies seen in their actual teaching practice. Knowing this can make the teachers aware of the importance of their belief and may prompt them to have interest in the professional development to enhance their knowledge. Furthermore, teachers may come to this understanding that not all the things they think to be true about their teaching can be transferrable to their teaching practice. Examining and ascribing this mismatch to sociocultural perspectives may alert the teachers about the importance of contextual factors shaping their belief and hindering or stimulating their practice.

1.4 The Research Design

The intent of this study was to examine teachers' pedagogical and epistemic beliefs about their method of teaching and its mismatch with their actual teaching practice. To this end a two-phase, sequential explanatory mixed methods study was employed to obtain quantitative results and then select participants for follow-up interviews to further clarify the results. In the first phase, quantitative research questions addressed the relationship between teachers' pedagogical and epistemological beliefs in relation to eight teaching methods the teachers might utilize in the classroom. 20 teachers

teaching different levels of English proficiency from Kish Institute are randomly chosen for this phase. Epistemic Belief Inventory (EBI) is used to be scattered among the teachers addressing their pedagogical and epistemological belief about teaching. 5 teachers scored high and 5 teachers scored low are chosen based on their responses to the questionnaires. Determining the target participants through the previous stage, qualitative semi-structured interviews were conducted to explore how teachers described their beliefs about those eight constituent of teaching. The interviews are transcribed and codified. Using theme analysis, the main themes of teachers' belief are extracted and explained.

In the second phase, the actual practices of these ten teachers are observed by the researchers and an observation checklist is filled out for each teacher to determine the congruity or incongruity between teachers' belief and practice. Analyzing the main themes of teachers' belief and comparing them with the observation checklist, a brief description of each class is reported in the next chapter and the antecedent of the mismatches are discussed under the rubric of sociocultural framework.

2. Literature Review

2.1 Teachers' Belief

During the last 15 years, research on teachers' belief has taken much dominance in language teaching. Teachers' knowledge and beliefs have been the focus of previous investigations (e.g., Kagan, 1992; Pajares, 1992; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). One strand of this work has focused on the relationship between teachers' beliefs and their classroom practices; more specifically, there has been interest in the extent to which teachers' stated beliefs correspond with what they do in the classroom, and there is evidence that the two do not always coincide. Such differences have been viewed as an undesirable or negative phenomenon and described by terms such as incongruence, mismatch, inconsistency, and discrepancy.

The field of teachers' beliefs is inclusive of any and all beliefs pre-service and practicing teachers have about topics and/or constructs related to teaching, learning, and education. The term belief is referred to by Pajares (1992) as "an individual's judgment of the truth or falsity of a proposition". The importance of teachers' beliefs is highlighted in theoretical discussions, literature reviews, and empirical research. In his review, Pajares (1992) discussed the importance of teachers' beliefs and highlighted the work of several scholars (e.g., Bandura, 1986; Clark, 1988; Cole, 1989; Nisbett & Ross, 1980; Pintrich, 1990; Rokeach, 1968) who emphasized and gave evidence for the examination of beliefs as the "best indicators of the decisions individuals make throughout their lives" (p. 307). Numerous investigations have explored a wide spectrum of teachers' beliefs (e.g., *motivation*: Stipek, Givvin, Salmon, & MacGyvers, 2001; *constructivism*: Holt-Reynolds, 2000; *instructional practices*: Borko, Davinroy, Bliem, & Cumbo, 2000; *diversity*: McAllister & Irvine, 2002; *bilingual education*: Johnson, 2000; *special education*: Jordan & Stanovich, 2003; and *urban education*: Roderick, 1994). These findings suggest that teachers' beliefs may influence their practice (e.g., Borko et al., 2000).

Pajares (1992) then sketched numerous facets of beliefs and acknowledged that a variety of

conceptions of educational beliefs appear in the literature, citing Nespor's (1987) influential work, he suggested that "beliefs are far more influential than knowledge in determining how individuals organize and define tasks and problems and are stronger predictors of behavior" (p. 311). Pajares (1992) promoted 16 "fundamental assumptions that may reasonably be made when initiating a study of teacher's education beliefs" (p. 324). These assumptions include among others, the notions that:

1. Beliefs are formed early and tend to self perpetuate, persevering even against contradictions caused by reason, time, schooling, or experience;
2. Individuals develop a belief system that houses all the beliefs acquired through the process of cultural transmission;
3. Beliefs are instrumental in defining tasks and selecting the cognitive tools with which to interpret, plan, and make decisions regarding such tasks;
4. Individuals' beliefs strongly affect their behavior;
5. And knowledge and beliefs are inextricably intertwined (for complete discussion of all 16 assumptions, see Pajares, 1992, pp. 324-326).

Williams and Burden (1997) argue that teachers are highly influenced by their beliefs, which in turn are closely linked to their values, to their views of the world and to their conceptions of their place within it. They also suggest that teachers' beliefs may be divided roughly into three major groups: beliefs about learners; beliefs about learning; beliefs about themselves.

Phipps and Borg (2009) widely reviewed this construct in their article and categorized the sorts of literature which predominantly focused on this phenomenon. According to them, teachers' beliefs about teaching and learning: may be powerfully influenced (positively or negatively) by teachers' own experiences as learners and are well established by the time teachers go to university (Holt Reynolds, 1992; Lortie, 1975); act as a filter through which teachers interpret new information and experience (Pajares, 1992); may outweigh the effects of teacher education (Kagan, 1992; Richardson, 1996) in influencing what teachers do in the classroom; can exert a persistent long-term influence on teachers' instructional practices (Crowley & Salyer, 1995); are at the same time, not always reflected in what teachers do in the classroom (Dobson & Dobson, 1983; Pearson, 1985; Tabachnick & Zeichner, 1986).

It is also evident that language teacher' beliefs about teaching and learning have a powerful effect on teachers' pedagogical decisions (Johnson, 1994); strongly influence what and how teachers learn during language teacher education (Freeman & Richards, 1996); can be deep-rooted and resistant to change (Almarza, 1996; Pickering, 2005); interact bi-directionally with experience (i.e., beliefs influence practices and practices can also lead to changes in beliefs) (Richardson, 1996).

Simon Borg is a distinguished scholar who has conducted a series of studies concerning teachers' belief. In *Teacher Cognition and Language Education (2006)* Borg faces the same daunting task as Pajares. He provides an account of the immense body of work in the field of teacher cognition (180 studies published between 1976 and 2006; chapters 1-5), examines the associated research methodologies (chapters 6-9), and outlines a framework for continued research for the next 15 years (chapter 10).

In another article, Borg (1999) reviewed the sorts of research done in this field, such as Beach, 1994; Brickhouse, 1990; Briscoe, 1991; Brown and Wendel, 1993; Dirx and Spurgin, 1992; Konopak and Williams 1994; Smith and Shepard, 1988; Wyatt and Pickle, 1993. He mentioned that teacher cognition has been studied in a range of diverse instructional settings in both pre-service and in-service contexts, at various levels (kindergarten, elementary, secondary, high school, college, and adult education), and with respect to a wide range of subjects (e.g., English, mathematics) and specific aspects of subjects (e.g., vocabulary, geometry). The significant body of such work which now exists indicates that teachers' cognitions consist of a set of personally oriented understandings of teaching and learning which exert a significant influence on instructional decisions (Clark & Peterson, 1986; Clandinin & Connelly, 1987; Kagan, 1990; Pajares, 1992; Fang, 1996; cited in Borg, 1999). These studies provide remarkable insights into teachers' conditions. They allow us to understand discrepancies between theoretical recommendations based on research and classroom practice (Clark & Peterson, 1986, cited in Borg, 1999), provide quality portraiture of teaching in all its complexity (Clark & Lampert, 1986, cited in Borg, 1999), permit us to understand how teachers develop (Tobin & LaMaster, 1995, cited in Borg, 1999), and to develop a new conceptualization of teaching which supports and improves the quality of teachers' professional practice (Calderhead, 1987, as cited in Borg, 1999).

According to Calderhead (1996), teachers' beliefs are important mediators of teacher behavior. However, the relation between teacher beliefs and teacher behavior is far from clear. Pajares (1992) viewed teachers' beliefs as "messy constructs" with different interpretations and meanings.

Firstly, current definitions of teacher beliefs focus on teachers' assumptions which affect what they notice in any set of circumstances and what they regard as possible, the goals they will set, and the knowledge they will bring into those circumstances (Clark & Peterson, 1986; Kagan, 1992; Pajares, 1992). Since teacher beliefs shape the way teachers perceive and interpret classroom interaction and influence their construction of intentions in response to those interactions, teacher beliefs is defined by Artztand Armour-Thomas (1998) as "an integrated system of personalized assumptions about the nature of a subject, its teaching and learning" (p. 8).

Secondly, it is generally assumed from the works of scholars such as Aguirre and Speer (2000); Ajzen (2002); and Schoenfeld (1998) that teachers' beliefs differ in specificity and in strength depending on the context (as perceived), that they tend to be activated in clusters, and that incompatible beliefs may contend for priority. This implies that not all teachers' beliefs will play a role in their actual behavior. Only the most salient beliefs will influence the execution of teaching tasks.

Korthagen (2004) presented a six-level "onion model" illuminating our understanding that factors influencing teaching should be visualized as an "onion model" representing various levels from the outermost to the innermost shells, namely, environment, behavior, competencies, beliefs, identity and mission. According to him, these different levels of change are interconnecting and influencing each other. When applied to the teacher education context, student-teachers' beliefs are one of the variables affecting student teachers' classroom practices at the behavior level.

Richardson (1996) identified teachers' beliefs as being derived from three main sources. Firstly, personal experiences of individual teachers have been shown to affect approaches to teaching, in particular experiences of community (Clandinin & Connelly, 1991, cited in Richardson) and of parenting (Bullough & Knowles, 1991, cited in Richardson). Secondly, experience with schooling and instruction influences beliefs about children's learning and the role of teacher (Britzman, 1991, cited in Richardson), and are considered to be more powerful influences on beliefs than experiences afforded by teacher education courses (Brousseau, Book, & Byers, 1988; Feiman-Nemser, 1983; Lortie, 1975, cited in Richardson). Lastly, formal knowledge in the context of pedagogical knowledge, although not as powerful as other factors, has been found to influence teacher beliefs (Clift, 1987; Grossman, 1990, cited in Richardson).

Green (1971) and Pajares (1992) declared that teachers' beliefs exist as a system in which certain beliefs are core and others peripheral. Core beliefs are stable and exert a more powerful influence on behavior than peripheral beliefs. The study of relationships—and in particular of differences, or tensions—between teachers' beliefs and practices can be enhanced through attention to the distinction between these belief sub-systems.

Burns (1992, as cited in Borg, 1999) stated that teachers' practices were influenced by a network of beliefs they held about language, beginning language learning, and learners. Also Burns (as reported in Borg, 1999) noted that teachers' practices were shaped by beliefs relating to the institutional culture of the school they worked in, their own personal beliefs about language, learners, and learning, and their beliefs about specific instructional tasks and materials.

Johnson (1992) showed a significant statistical relationship between teachers' theoretical orientations and L2 learning and teaching and their instructional practices.

In another study Nunan (1992) demonstrated that most of the interactive decisions made by a teacher reflected this teacher's personal philosophy and their belief of language teaching. Smith (as cited in Borg, 2006) stated that teachers' beliefs about second language teaching and learning were the critical factor in influencing the types of decisions these teachers made. And that the contextual factor which had most impact on teachers' decisions was student characteristics of their goals, interests, and affective states.

Cheng, Chan, Tang and Cheng (2009) mentioned that educators and researchers often argue that teachers' beliefs and value systems will shape their conceptions and practical theories in classroom teaching, eventually influencing their instructional strategies and performance in the classroom. Conceptions about the nature of knowledge and teaching and learning are formed through many years of exposure to educational practices, in both the narrow (teacher specific) and broader (system-wide) senses (So, Cheng, Fong, Ng, & Tang, 2001). Indeed, Bruner (1996) used the term "folk pedagogies" to describe the beliefs that individuals develop about teaching and learning.

Some other studies investigated the relationship and the effect of teachers' belief on classroom practice and behavior (Marieke, van der Schaafa, Stokking, & Verloop, 2008); teaching ability (Fives & Buehl,

2008); belief about student centered education (Isikoglu, Basturk, & Karaca, 2009); changing teachers' curriculum orientation (Beck, Czerniak, & Lumpe, 2000; Minor, Onwuegbuzie, Witcher, & James, 2002; Prawat, 1992); computer use and technology aided education (Hermans, Tondeur, van Braak, & Valcke, 2008).

Hasweh (as cited in Isikoglu et al., 2003) mentioned that teachers with traditional beliefs are more likely to employ didactic instructional practices, while teachers with constructivist beliefs are more likely to employ student centered practices. Teachers' prior knowledge and beliefs should be critically examined before expecting any changes in teacher practices.

2.2 Discrepancy between Teachers' Belief and Practice

Another area which is of great importance in literature, concerns the congruity and sometimes incongruity between teachers' beliefs and their actual performance in the classroom and the reasons behind these sorts of proposed mismatches.

Phipps and Borg (2009) examined tensions in the grammar teaching beliefs and practices of three practicing teachers of English working in Turkey. They examined divergences between what English language teachers say and do in teaching grammar, and, by exploring the reasons for these, also provided insight into deeper tensions among competing beliefs that teachers hold. The teachers were observed and interviewed over a period of 18 months; the observations provided insights into how they taught grammar, while the interviews explored the beliefs underpinning the teachers' classroom practices. Drawing on the distinction between core and peripheral beliefs, the analysis indicated that, while at one level teachers' practices in teaching grammar were at odds with specific beliefs about language learning, at another level, these same practices were consistent with a more generic set of beliefs about learning. The latter, it is hypothesized, constituted the teachers' core beliefs and it was these, rather than the more peripheral beliefs about language learning, that were most influential in shaping teachers' instructional decisions.

Charlesworth, Hart, Burts and Hernandez (1991) examined 113 kindergarten teachers using the *Teacher Questionnaire*, which identified developmentally appropriate or inappropriate reported beliefs and reported practices. They found positive correlations between developmentally appropriate reported beliefs and reported activities ($r = .63, p = .000$) as well as between developmentally inappropriate reported beliefs and activities ($r = .71, p = .000$). These correlations were based on two self-reports of beliefs and practices, which were completed at the same time. Therefore, teachers' responses on the first scale may have influenced their ratings on the second scale and that the correlations would be much lower if the teachers filled out the two scales at different times or if the ratings were based on actual observations in addition to the self-reports.

Stipek, Givvin, Salmon, and MacGyvers (2001) examined teachers' beliefs and practices that are directly related to inquiry-oriented mathematics instruction. The goal is to better understand the nature of teachers' beliefs about mathematics teaching and learning and the links between their beliefs and practices. Beliefs and practices related to mathematics were assessed for 21 fourth-through sixth-grade

teachers. At the beginning and the end of the school year teachers' beliefs about (1) the nature of mathematics, (2) mathematics learning, (3) who should control students' mathematical activity, (4) the nature of mathematical ability, and (5) the value of extrinsic rewards for getting students to engage in mathematics activities were assessed. (6) Teachers' self-confidence and enjoyment of mathematics and mathematics teaching were also assessed. Analyses were conducted to assess the coherence among these beliefs and associations between teachers' beliefs and their observed classroom practices and self-reported evaluation criteria. Findings showed substantial coherence among teachers' beliefs and consistent associations between their beliefs and their practices.

Peterson, Fennema, Carpenter and Loef (1989) found very specific associations between beliefs and practices. For example, teachers who believed that children learn mathematics by constructing their own understanding in the process of solving problems (an inquiry-oriented view, which they refer to as "cognitively-based" beliefs) used more word problems in instruction and spent more time developing children's counting strategies before teaching number facts than teachers who believed that mathematics is learned by receiving knowledge about mathematical operations from the teacher in discrete units (a more traditional view).

Solomon, Battistich and Hom (1996) examined the attitudes, beliefs, perceptions, and classroom practices of teachers in 24 urban and suburban elementary schools. Patterns of relationships were found to exist between classroom practices and teacher attitudes and perceptions. Belief in the importance of student self-direction and exploration had a positive correlation with observed practices reflecting student autonomy, participation in planning, use of cooperative activities, and teacher supportiveness. Yet these beliefs had a negative relationship with use of extrinsic controls and academic competition. The most significant relationship between beliefs and observed teaching behavior were those beliefs regarding teacher authority and student compliance.

3. Data Analysis and Discussion

3.1 Quantitative Analysis

Because the Epistemic Belief Inventory (EBI) has been employed, at the very first step there is a need to calculate the reliability of this questionnaire and to determine the main important factors determining teachers' epistemic belief. To this end a pilot study was conducted using a preliminary sample of 10 teachers teaching at Kish Language Institute. The EBI contains 32 items. Cronbach alpha was employed to determine the reliability of the questionnaire, coming up with this result that among these 32 items only 19 items are kept and the other 13 items were disregarded. The ultimate reliability of the resulted questionnaire was .783 (See Table 1).

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
.783	19

To answer the first research question there is a need to elaborate on the main factors comprising teachers' epistemic belief and their pedagogic belief about their own method of teaching. Coming up with the new version of the epistemic belief questionnaire containing 19 items, this questionnaire was given to 30 participants. Collecting the data, factor analysis was employed to extract the factors underlying teachers' epistemic belief (See Figure 1). The 19 items were clustered into four components. These four components contain the 79.77% of the all 19 items. Considering the coefficient of each item, the four factors are structure, speed, control and source. Table 2 illustrates the coefficient of each item and the last row depicts the value of each variable in constructing each component.

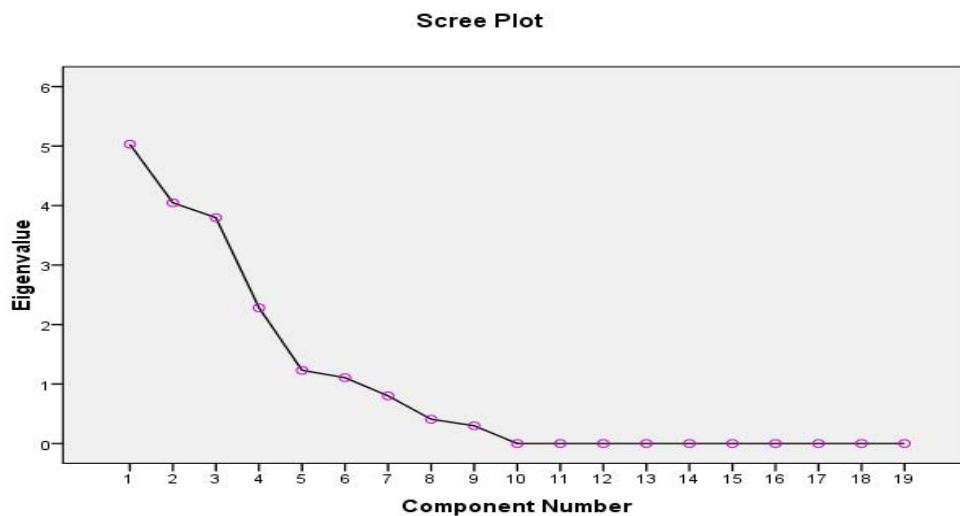


Figure 1. The Scree Plot Showing All Components of Teachers' Epistemic Belief

Table 2. First Four Components of the 19 Items of Epistemic Belief Inventory

Item	Structure	Speed	Control	Source
Too many theories just complicate	0.702			
Things are simpler than most teachers would have you believe	0.776			
The best ideas are often the most simple	0.704			
Teachers should focus on facts instead of theories	0.824			

Students who learn things quickly are the most successful	0.832			
Some people will never be smart no matter how hard they work	0.447			
If a person tries too hard to understand a problem, they will most likely end up being confused	0.690			
If you don't learn something quickly, you won't even learn it	0.632			
If two people are arguing about something, at least one of them must be wrong	0.475			
If you haven't understood a chapter the first time through, going back over it won't help	0.721			
Working on a problem with no quick solution is a waste of time	0.692			
Smart people are born that way		0.784		
Some people are born with special gifts and talents.		0.834		
How well you do in school depends on how smart you are		0.731		
Really smart students don't have on work as hard as to do well in school		0.651		
It bothers me when teachers don't tell students the answers to complicated			0.556	
Parents should teach their children all there is to know about life			0.534	
I like teachers who present several competing theories and let their students decide which is best			0.576	
When someone is authority tells me what to do, I usually do it			0.791	
% Variance	26.482	21.298	19.979	12.007

As discussed earlier in the design section the pedagogic belief scale which addressed 8 teaching procedures, and epistemic belief inventory given to 30 teachers teaching in Kish language institute. Collecting the data from these 30 participants, the results and their analysis are as follows.

The aim of the first research question is to report on the content of belief teachers have about their own profession. To this end the content of pedagogic belief questionnaire is first reported and analyzed.

Pedagogic belief questionnaire was employed to assess teachers' pedagogic belief about 8 procedures applied in the classroom, namely, demonstration, experiment, group projects/assignments, independent

assignment, lecture, role play, small group/partner discussion, teacher led discussion. Through this questionnaire teachers have to declare about the frequency the make use of each of these techniques on a kind of likert scale ranging from never to great deal.

Analyzing the data gathered through the questionnaire, those responses pertinent to Never and Rarely demonstrating that teachers may not make use of the proposed technique are considered as *No Use*, and those under the title of Occasionally, Moderately, Great deal, demonstrating that the teachers make use of these techniques are labeled as *Use*.

For the first item teacher are asked about how often they make use of demonstration. Demonstrations are used to teach students how to do certain tasks and they usually include explanation and illustrations.

Table 3. The Frequency of Employing Demonstrations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	30	100.0	100.0	100.0

As it can be seen all the participants declared that they believe they make use of this technique in their classroom practice.

The second technique, experiment, in which the students perform a test to examine a hypothesis for an objective problem is used by 70% of the teachers (See Table 4).

Table 4. The Frequency of Employing Experiments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	33.3	33.3	33.3
	No	20	66.7	66.7	100.0
	Total	30	100.0	100.0	

Through group project/assignment, groups of students work together to complete projects and assignments. Teachers declared that they make use of this technique highly frequently in their classrooms. 90 percent of students apply this technique as it is shown in Table 5.

Table 5. The Frequency of Employing Group Projects/Assignments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	10.0	10.0	10.0
	No	27	90.0	90.0	100.0
	Total	30	100.0	100.0	

The fourth item addressed the independent assignment which takes into account the in-class and out-of class assignments that students complete individually. This technique was well favored by the teachers. They all claimed that they employ this technique in their daily teaching practice, as it can be inferred from the Table 6.

Table 6. The Frequency of Employing Independent Assignments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	30	100.0	100.0	100.0

The fifth teaching activity was lecture. In a lecture the teacher disseminates factual information. This technique includes the use of visual aids e. g. power point presentation, overhead, transparencies and etc., this techniques was employed by the learners quite frequently. 80% of the teachers stated that they make use of this technique (See Table 7).

Table 7. The Frequency of Employing Lecture

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	80.0	80.0	80.0
	2	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Role play involves having students play or portray a given role. The playing of and analysis of the role provides the information for what is being taught. This technique was employed by all the teachers as they state. As it can be inferred from Table 8 all the teachers claimed that they made use of this technique.

Table 8. The Frequency of Employing Role-Play

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	30	100.0	100.0	100.0

The seventh item asked teachers how often they employ small group of partner discussion. In this activity individual students or groups are asked to discuss a topic or question in order to come up with their own opinion. This technique was employed by the teachers quite frequently. About 90% of the teachers stated that they make use of this technique.

Table 9. The Frequency of Employing Small Group/Partner Discussion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	27	90.0	90.0	100.0
	Total	30	100.0	100.0	

Teacher led discussion was the last teaching activity which the teachers are asked about. In this technique the teacher poses a question and the students offer the answer. 90% of the teachers claimed that they employ this technique in the class procedure.

Table 10. The Frequency of Employing Teacher Led Discussion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	27	90.0	90.0	100.0
	Total	30	100.0	100.0	

In order to determine the order of the techniques employed by the teachers, Friedman test was implemented. Using this technique, it became clear that demonstration was the first and foremost technique the teachers make use of. The order of the other techniques as it can be seen from Table 11 is individual assignment, group work, small group, role play, teacher led discussion, experience and lecture.

Table 11. Friedman Test Result Showing the Rank of Techniques Being Employed

Technique	Demonstration	experience	Group work	Ind. Assign.	lecture	Role play	Small group	Teacher led disc.
Mean rank	5.32	3.38	5.50	5.60	1.92	4.97	4.67	4.65

The other statistical procedure employed in this section is the person product moment correlation analysis to determine whether there is a relationship between teachers' epistemic belief and pedagogic belief in the selected sample. As it can be seen in Table 10 there is a significant positive correlation between epistemic and pedagogic belief. The strength of this relationship is .74 at the .01 significance level.

Table 12. Pearson Product Moment Correlation between Epistemic and Pedagogic Belief

		Part1	part2
Epistemic	Pearson Correlation	1	.749*
	Sig. (2-tailed)		.013
	N	30	30
Pedagogic	Pearson Correlation	.749*	1
	Sig. (2-tailed)	.013	
	N	30	30

Observations: In order to explore the participants' practices, they were observed by the author during their teaching. Each teaching session lasted 45 min. Descriptive field notes were taken throughout the observations.

In order to check whether teachers' beliefs are transported into their teaching practice, ten teachers are chosen randomly to be observed by the researcher. The same techniques in the pedagogic belief inventory are listed in a checklist to see how frequently teachers made use of those techniques in the reality of their classroom practice. For each teaching technique the observer must check the frequency of use and selected the related option in a sort of likert scale from "never" showing that the teachers' no use of the technique to "a great deal" showing that the technique was employed quite frequently by the teacher.

After collecting the data from the observer's checklists, two nonparametric tests, Wilcoxon and sign procedures are employed to see whether the overall teachers' performance in their class procedure is differentiated from their pedagogic beliefs.

Using nonparametric Willcoxon test, it can be seen from Table 13 that their classroom practice is totally different from their stated beliefs at the level of .05 significance. Because the Z value is negative, it can be inferred that frequency of the classroom procedures in reality is less than their stated belief.

Table 13. Willcoxon Test Showing the Difference between Belief and Reality

	Observation—their believe
Z	-2.810 ^a
Asymp. Sig. (2-tailed)	.005

Moreover, sign test verifies the result of Willcoxon procedure, at the .05 level of significance (See Table 14).

Table 14. Sign Test Showing the Difference between Belief and Reality

	Observation—their believe
Exact Sig. (2-tailed)	.002 ^a

Also, to see whether each of the procedures stated by the teachers are different from those observed by the researcher one by one, Willcoxon procedure is employed for each of the procures. It became evident that the frequency of each procedure observed by the researcher is different from those stated by the teachers.

3.2 Qualitative Analysis

When it was certified that teachers' classroom practice is different from their pedagogic belief, it was aimed to identify the sources of this difference based on teachers' points of views. To this end a semi structured interview was conducted be the researcher. The answers to the researcher's questions are transcribed and codified to find out the common themes. Based on the frequency of the points declared by the teachers the following themes are extracted.

1) *Learners' low social and background knowledge and motivation*: learners' diversity in terms of their background knowledge, their socio economic background, and motivation was the learners' characteristics which teachers confess as interfering factors hindering teachers' beliefs to be transformed into teaching practice. A mentioned in the interview by the teachers, most of the learners are different in terms of their background general knowledge. This causes them not be able to utter their opinion for most of the activities, mostly lectures, or class discussion. Their low background knowledge deters them to be capable enough to discuss the issues or present ideas. This rooted in family structure and the parents' degree of literacy. Teachers mentioned that those learners coming from families, who are literate, assist their children in their learning activity, and provide them with enough facilities such as computer or access to internet have more ability and knowledge in performing the tasks. Moreover, learners are diverse in terms of motivation which stimulates them to attend English courses. These factors make the classes heterogeneous for the teachers to perform all the procedure they believe in their classrooms. The complexities of the classroom atmosphere and the pace of teaching can constrain teachers' abilities to attend to their beliefs and provide instruction which corresponds with their theoretical beliefs.

2) *Teachers' low teaching skill*: Teachers were not all equal in terms of their teaching expertise. Handling all the activities they were instructed in teacher training courses and their teaching manual necessitates enough skill and knowledge. Some of the teachers declared in the interview that they were not familiar with all teaching options and techniques, and they are not motivated and creative enough to search for them to manage the sort of diversities they witnessed in their classroom. They stated that the techniques presented in the training courses and those suggested in teaching manual are kind of fit-to-all prescriptions which do not have the potential to be executed in the classroom. As an example

was the games presented for kids classes. In most cases learners are not familiar with rules of these games or they are not part of their cultural repertoire. Replacing these activities with those with which learners are acquainted with needs teachers' creativity and teaching knowledge. Many teachers expressed the desire to conduct more communicative lessons, but appeared to lack the expertise and the confidence to actually carry these out, fearing classroom management problems.

3) *Discrepancy between the activities cited in the teachers' books and learners' background*: Textbooks are authored, designed and published by European countries having the criterion of those societies and do not take into account the cultural and social circumstances of local contexts. As mentioned above, adapting these procedures into the local classroom environment needs teachers innovation. However, this discrepancy deters teachers' to practice all they believe in.

4) *Educational system*: The educational and institutional system seems to be of top down structure. Most of the teachers complains about the regulations and conventions administered by the system which confined their freedom and innovation. They declared that, during briefing sessions after the time their classes had been observed by the "so called expert", the observer give them advice on those procedure which differ from those mentioned in the teachers manual of offered by the administration. This structure limits teachers to perform all the points they believe into their teaching activities.

5) *Time limits*: Managing a learners centered classroom, performing all the processes teachers believe need sufficient time. Teachers made a mention about the time limit they have during a term.

6) *Teachers' motivation*: When asking them about their teaching practice, teachers objected about their professional motivation. The extent to which teachers were motivated to teach well also figures strongly when considering factors that constrain teachers in this regard. In such cases, it can be assumed that the teacher will avoid teaching situations which would demand more effort and take up more of their time. Almost all of the teachers interviewed explained that they had taken up their current teaching positions due to financial reasons. Almost all of them had at least one other teaching post. Some of the teachers were juggling three teaching positions in three different institutions as well as offering private tutoring, which meant teaching from morning till midnight, seven days a week. Considering these factors, it is understandable that some teachers choose to opt for the easiest possible way. This relates to what Crookes (1997) refers to as the psychological separation between teachers as human beings and teachers in their working environments. When teachers have to "work in conditions in which they cannot maintain professional standards, and are unable to derive...satisfaction and opportunities for personal growth" (p. 74), it is hardly surprising that their professional practice is not at the optimum; and that for these teachers, survival rather than pedagogic concerns are the priority.

7) *Institutional facilities*: The institution because of the financial and managerial issues does not provide enough teaching facilities for teachers. Teachers complained about lack of the facilities such as CDs, video tapes, computer, copies, and cassette player at the due time. When teachers wanted to execute their own activities which they believe to be suitable for that context, the lack of access to equipment deter them to execute what they want to do.

The incongruence between teachers' stated beliefs and their observed classroom behavior, confirms Parajes' (1992) view that stated beliefs are an unreliable indicator of actual practice.

Several factors were seen to be responsible for why conflicts between beliefs and practices exist. These include conflicting beliefs, the degree of teacher's professional motivation, teachers' personalities and other unavoidable situational factors.

Regarding the observed discrepancies Thompson (1992) pointed out that "one must question the extent to which teachers are aware of such discrepancies and if so how do they explain them" and "some explanations offered by teachers may reveal various sources of influence on their instructional practice, causing them to subordinate their beliefs" (p. 135).

The teachers reported here, however, are well aware of the discrepancy and they explained this situation on the basis of the institutional context by referring their goal in context and constraints imposed upon their teaching by the institutional setting. This indicates the significance of the context since the goal that teachers have in certain contexts may even "subordinate" the teachers' beliefs on teaching.

Mansour made a mention of the previous studies on teachers' belief, claimed that teachers' belief studies should be done under a framework which is "aware of the influence of culture" (p. 32). This necessitates that teachers' belief cannot be regarded without the influence of context. According to Mansour culture is a screen through which people view their lives and interpret the world around them. Therefore, within this socially constituted nature of culture one can regard beliefs as playing an integral role in filtering information and determining what is considered important and to be of value in the group. To this point studying belief should take into account the physical setting, constraints, opportunities, and external influences. To explain the mismatch between teachers' belief and practice and assigning this mismatch to environmental factors, Lederman (1992) suggests the mediated role of a complex set of situational variables. Real-life factors, such as learner behaviours, time, resources, and course contents, are the other factors Ajzen (2002) reported. Other researchers such as Flores, López, Gallegos and Barojas (2000); Ernest (1988); and Fang (1996); Pajares (1992) emphasized the role of social and contextual factors in making a gap between teachers' belief and their practice. These factors are social context, (Flores, López, Gallegos, & Barojas, 2000) institutional curriculum (Ernest, 1988) which include the adopted text or curricular scheme, the system of assessment, and the overall national system of schooling.

Mansour defined teachers' beliefs as knowledge, experience, and environment-based. Teachers are pragmatic, and may establish or validate their beliefs in context-specific environments where their instructional experience is successful.

As it was discussed earlier the educational system is part of the larger socio-economic, political and cultural contexts. The educational system and the classroom context as a part of it are linked together and have a reciprocal effect on each other.

The factors which deter teachers to transform their stated belief into teaching practice are regarded as

mediating factors most of which initiated from socio cultural environment. Researchers such as Borg, Riding and Falzon (1991) and Borg (1990) defined common external “stressors” that affect teachers’ performance. These include: work overload, time restraints, and problems with child behavior, working conditions, relationships with colleagues, lack of resources, and the physical demands of teaching. Kelly and Berthelsen (1995) identified sources of constraints for teaching practices such as time pressures, children’s needs, non-teaching tasks, personal needs, parents’ expectations and interpersonal relationship. A qualitative study carried out by Blasé (1986) with elementary, middle, and high school teachers, emphasized that time was one of the most important constraints and that it could not be understood as independent of the other constraints that were perceived as directly interfering with the instructional time of teachers.

The other mediating factors are end-of-course tests, and class size (Goelz, 2004); student characteristics, teacher characteristics, school environment characteristics, and conditions of service, (Okebukola & Jegede, 1992); external factors such as life experience, educational experiences, classroom events, school curriculum requirements, students, administrative demands, theoretical knowledge, educational policy, family and peers and internal factors such as personal practical knowledge, culture, values, and personality and internalized external factors (Maxion, 1996); bureaucratic school climate with an administrative emphasis on “law and order” (Cornbleth, 2001); technical controls such as scheduling, team teaching, structured instructional materials (Densmore, 1987) which best justifies the findings of the present study.

4. Conclusion

With regard to the quantitative analysis of the data, the researchers came up with the four factors as structure, speed, control and source comprising teachers’ epistemic belief and their pedagogic belief about their own method of teaching. With regard to teachers’ practice the techniques employed by the teachers were demonstration, individual assignment, group work, small group, role play, teacher led discussion, experience and lecture respectively, based on the frequency of use. Moreover, it was concluded that there is a significant positive correlation between epistemic and pedagogic belief in the selected sample.

Based on the class observation, it was seen that teachers’ classroom practice is totally different from their stated beliefs.

When it was certified that teachers’ classroom practice is different from their pedagogic belief, it was aimed to identify the sources of this difference based on teachers’ points of views. To this end a semi structured interview was conducted by the researcher. Based on the frequency of the points declared by the teachers the following themes are extracted. The themes are learners’ low social and background knowledge and motivation, teachers’ low teaching skill, discrepancy between the activities cited in the teachers’ books and learners’ background, educational system, time limits, teachers’ motivation, institutional facilities. These themes are analyzed based on sociocultural theory.

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