Impact of Religion on Turkish Early Childhood Teachers' Factuality Judgments and Their Classroom Practice

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Abstract
The purpose of this study is to examine the impact of religion on Turkish early childhood teachers' factuality judgments and reasoning. Participants responded following questions about the story of "Moses's stick": 1) Can Moses run water from a dry fountain just by hitting his stick to the ground? 2) Why, or why not? 3) Would you read this story to your children in your classroom? 4) How would you respond to your children in your classroom if they ask you, "Could Moses flow water from a dry fountain just by hitting his stick to the ground?" Findings revealed that 82.4% of the participants responded to the first question affirmatively, 83% provided religious reasoning for their response, 72% would not read this story to their children and 56% provided religious explanation for question four. In-service education on the nature of science, epistemology, the philosophy of science, the historical development of science, and scientific thinking, through which teachers can acquire scientific attitudes and practice scientific discussions should be provided. Thus, they can internalize science and understand that science is not an isolated discipline that is practiced in universities, but rather, in secular life it is the core of everyday living.

Key words: Early childhood teacher education, teachers' judgments, religion, science.

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Introduction

Most valuable natural sources for countries are their human capita. Therefore, education seems to act as leverage for the development of individual and society. This is especially true for developing countries such as Turkey because we want to close gap between our country and industrialized, developed countries. To achieve this we have to start educating our human capita as early possible and provide scientific education to our human capita.

Generally we can define science as systematic endeavors to help us discover facts of nature and life (Karasar, 2014; Özbek & Kotaman, 2011). Acquiring facts free us from conditions. Therefore, freedom involves attaining laws of nature and rising above conditions (Özbek & Kotaman 2011). For example, if you do not understand gravity you cannot build airplanes. We have to know many other facts and laws to build and travel with an airplane. We discover facts and laws of nature and life through scientific endeavors, which are unique to human kind. Therefore, in order to raise our children to live as humanly as possible, to be themselves, to live their own lives, and to contribute to humanity, we should accept the guidance of science (Kotaman, 2013). We should provide scientific education in which children attain scientific attitudes and behaviors such as being open-minded and skeptical, not accepting anything as a fact without questioning, depending on evidence in one's judgments, being flexible, depending on logical grounds which are supported by evidence in your inferences, and accepting new evidence to modify your inferences (Buaraphan, 2010; Çorlu, & Çorlu, 2012; Tanel, 2013; Yurt, & Demiriz, 2014) for our children.

Scientific education should start as soon as possible because several studies (e.g. Abbott-Shim, Lambert, and McCarty 2003; Lee et al. 1990; Mckey et al. 1985) have revealed positive impacts of quality and comprehensive early education on children's cognitive, socio-emotional and physical development. Children cannot acquire scientific attitudes, behaviors and concepts by themselves because they are abstract, complex, global and systematic (Vygotsky, 1998). Therefore, the presence of someone more competent than the learner in the learning environment is needed. A competent person can turn an unintentional process into an intentional one (Bodrova, & Leong, 1996; Karpov, & Haywood, 1998). In early childhood education this person is the teacher. Science needs proof. Scientific judgment has to be proven in a scientific way (Dawkins, 2008). For example, we can prove gravity and understand mathematical (abstract) formula of gravity. We know that gravity is valid for everyone. Therefore, we do not believe illusionists even when we see them flying. However, the abstraction capacity of children is limited; they cannot fully recruit either inductive or deductive reasoning to sustain their theories (Kuhn, 1999; Kuhn, & Pearsall, 2000; Legare, 2014). Therefore, children still heavily rely on the information provided by adults and perceive those entities which adults (parents, teachers) encourage them to believe in as real (Fender, & Crowley, 2007; Harris, 2007; Piekny, & Maehler, 2013; Sharon & Woolley, 2004). Teachers, especially early childhood teachers are role models and a source of reliable information for children (Cote, Japel, Sequin, Mongeau, Xu, & Tremblay, 2013; Cabell, Justice, Piasta, Curenton, Wiggins, Turnbull, & Petscher, 2011). Many studies have revealed the positive impact of quality teacher on children's development (NICHD, 2002; Croninger, Rice, Rathbun, & Nishio, 2007; Unutkan, 2007; Kiuru, Aunola, Torppa, Lerkkanen, Poikkeus, Vilijaranta, Lyyra, Leskinen, Tolvanen, & Nurmi, 2012). Some studies revealed that good teaching can compensate for the negative impact of inappropriate parental practices (Kiuru, et al., 2012). Therefore, quality early childhood education that is conducted by quality early childhood teachers is especially important for disadvantaged children coming from families with low socio-economic (SES) status (Yurt, & Demiriz, 2014; Fontaine, Torre, & Grafwallner 2006; Levenstein, Levenstein, & Oliver 2002). Especially for children coming from disadvantaged families, early childhood teachers are the only sources children can acquire scientific attitudes, behaviors and concepts. Therefore, early childhood teachers should set good examples with their scientific attitudes and behaviors toward children. Teachers should be consistent in their attitudes, behaviors and answers.

Piekny and Maehler (2013) found that if evidence children receive from outside is perfectly consistent with each other, children can reason correctly about the outcome of the process. For example, if children see ten pictures of different children who chew gum and have tooth decay, they are able to reason that the gum causes tooth decay. However, if there is non-covariation among evidence, for example, among ten children who are chewing gum; if two of them do not have tooth decay, children could not actualize the same reasoning process. In another study, Croker and Buchanan (2011) have found that prior knowledge affects children's scientific reasoning process. Children who are younger than five years old tend to hold onto their prior knowledge when they encounter new information that is inconsistent with their prior knowledge. They are not capable of considering new information and working on it (Croker, & Buchanan, 2011). These studies revealed that children's scientific thinking processes depend upon outside factors. There should be consistency in outside factors to support children's scientific thinking development. Therefore, teacher explanations about factual events and scientific facts have to be consistent to support children's scientific thinking development.

Science aims to understand, explain the world and control events (Karasar, 2014). Religion has similar function. Both disciplines aim to assist human beings in their endeavor to understand and explain life. Harris and Koenig (2006) suggested that children conceptualize unobservable scientific and religious entities in a similar fashion. Although their subject matter and aims are the same, science and religion have a fundamental difference: religion uses the concept of God to understand and explain everything that is unknown to the humans. Wenger (2001), for instance, claimed that religious adults employed God as a "wild card" to explain all phenomena that are inaccessible to them. Wenger's work interestingly shows that preschoolers come up with fewer divine explanations compared to third graders, who in turn provide fewer explanations attributed to God compared to college students. In other words, God is not a particularly strong factor in the reasoning process of small children because of the highly abstract and complex nature of the divine. Unless children are specifically instructed about divine matters, they are not likely to resort to God in their reasoning. One of Wenger's (2001) findings was that those college students who displayed a higher degree of religious belief provided fewer scientific explanations for specific events compared to those who had a lower degree of religious belief. This may have to do with the fact that explanations based on any form of the divine will have the power to explain everything without necessarily resorting to physical evidence, which inhibits scientific thinking. On the other hand, Woolley and Van Reet (2006) argue that the presence of a scientific environment facilitates the factuality judgments of four and five year-olds. In another study, Vaden and Woolley (2011) have found that children originating from less devout families came up with more natural explanations than children that had religious parents. In summary, the complex and abstract nature of the concept of God leads kindergarten children to avoid using it in forming their factuality judgments unless they are inculcated with religious sentiments and information by adults. Hence, the predominance of religious reasoning may thwart scientific thinking. Therefore, it is reasonable to expect teachers to explain happenings and to answer children's questions in a scientific manner rather than a religious one. Thus, teachers would lay foundations for development of scientific attitudes, behaviors and thinking skills.

As we mention above, development of reasoning and scientific thinking are affected by environmental conditions. Children have difficulties making scientific inferences when there is inconsistency among outside data. Therefore, teachers should always be loyal to scientific attitudes and facts while they are assisting children with explanations and answers. For example, when children ask their teachers about people having conversations with animals, teachers should explain to them that this cannot happen in real life. However, if a teacher gives a scientifically inconsistent response such as, "Normal people cannot speak with animals, but God bestows some special powers to prophets, therefore they can speak to animals," such an inconsistency would harm children's reasoning process and scientific thinking development (Croker, & Buchanan, 2011; Piekny, & Maehler, 2013). Inconsistency between religious and scientific reasoning can harm the development of children's scientific attitudes and scientific thinking skills. Therefore, teachers should embrace guidance of science throughout the whole education process.

In summary, because of their limited abstraction capacity, children cannot fully recruit scientific methodology and scientific reasoning to sustain their theories. Therefore, they rely on outside information. The outside information should be consistent. Teachers are one of the most influential outside factors in children's lives. This is especially true for children who are coming from disadvantaged environments (Eryaman, 2007; Fontaine, Torre, and Grafwallner 2006; Levenstein, Levenstein, & Oliver 2002). Teachers are role models and reliable sources of information for children. Teachers should promote scientific attitudes, behaviors and thinking in their classrooms. In order to be consistent they should rely on scientific reasoning in their explanations and judgments rather than religious reasoning. They should set good examples for their children in terms of scientific thinking and reasoning. This would contribute to the development of scientific thinking skills of children (Dejonckheere, Van De Keere, & Mestdagh, 2010). On the other hand, if teachers display inconsistency when they are answering children's questions about religious miracles or if teachers rely on religious reasoning rather than scientific, they may thwart scientific thinking development of children (Vaden & Woolley 2011; Woolley, & Van Reet 2006). Therefore, it is important to know teachers' responses when they face religious content and questions. It would be beneficial to know early childhood teachers' beliefs about unscientific events for in-service education and teacher education program designers. Thus they can know where to focus on promoting scientific thinking in teachers and prospective teachers. The purpose of this study is to examine the impact of religion on Turkish early childhood teachers' factuality judgments and reasoning. Along with the main purpose, the following sub-questions will be explored in this study.

1) Are Turkish early childhood teachers' factuality judgments about religious miracles related to their reasoning type (natural, religious, uninformative) about their judgment?

2) Are Turkish early childhood teachers' factuality judgments about religious miracles related to their decision on reading same story to their children (students)?

3) Are Turkish early childhood teachers' factuality judgments about religious miracles related to how would they reason their answer if their children (students) ask them about the same miracle?

Several studies have been conducted in Turkey on teachers' scientific attitudes and behaviors (Cavas, and others, 2013; Tanel, 2013; Topcu, 2013; Turkmen, 2011). These studies used attitudes scales such as Science Teaching Attitude Scale to measure participants' scientific attitudes. These scales do not question the impact of religion. Therefore, scientific attitudes of teachers or prospective teachers who participated in these studies were always strong. Only Topcu (2011), in his study in which he investigated Turkish elementary student teachers' epistemological beliefs, found that although all teachers asserted that knowledge changes, they also frequently referred to the unchanging nature of religious knowledge. He explained this finding by acknowledging Turkish society's Muslim characteristics. Therefore, any inference that we would make about scientific attitudes or behaviors of prospective teachers without considering the impact of religion would be misleading. This study is of great importance because of its originality, currency and relevance.

Methodology

Participants

This study's population included Turkish early childhood education teachers from thirty different cities in Turkey. A hundred and eight early childhood teachers participated the study. Of these teachers, 14 were male (13%), and 94 were female (87%). Participants' ages ranged from 19 to 45, with a mean age of 26.22 (SD= 4). Professional experience of the participating teachers ranged from 1 to 13 years, with a mean of 3.75 (SD= 2.74) years. Of the 108 teachers 85 (78.7%) had four years or less teaching experience, 23 (21.3%) had more than four years of teaching experience.

The Procedure

The investigator publicized the purpose of the study via social media (facebook). The investigator also visited several kindergartens that s/he had been conducting other studies. Teachers who wished to participate then contacted the investigator, who provided them with a detailed description of the research process. Participants gave informed consent. Participants responded four questions about a religious story "Stick of Moses".

In Islam prophet Moses also accepted as prophets and they are considered as Muslims. For a Muslim prophet Moses were Muslims. According to Koran Islam Prophet Hz. Muhammed did not present miracles. Therefore, investigators recruited stories of prophet Moses. In this story Moses is hitting this stick on the ground and water starts to flow from a dry fountain. Early childhood teachers read the story and responded to the following questions: 1) Can Moses run water from a dry fountain just by hitting his stick to the ground? 2) If yes, why? If no, why not? Please explain your answer with one sentence. 3) Would you read this story to your children in your classroom? 4) How would you respond to your children in your classroom if they come and ask you "could Moses flow water from a dry fountain just by hitting his stick to the ground?" Please explain your answer with one sentence.

Participants received 2 points for a negative response (no he cannot flow water from a dry fountain, and no I would not read this story to my children) to first and third questions and 1 points for an affirmative (yes he can flow water from a dry fountain, I would read this story to my children) response. For assessing the responses received from question #2, the investigator adapted the categories set forth by Vaden and Woolley (2011), which are 1) *uninformative* responses (e.g. no answer, "I don't know," or otherwise illogical/uncodable responses), 2) *natural* responses (e.g. "there are scientific methods to find water," and "these things do not happen in real life") 3) *religious (magical)* responses (e.g. "God bestows special powers to prophets). For assessing the responses received from #4, the investigator added a fourth category, 4) *literary* responses (this is a story and such things happen in the stories) and a fifth category, 5) avoiding responses (I would change subject). Two arbiters independently coded each response. An interrater reliability analysis using the Kappa statistic was performed to determine consistency among raters. The interrater reliability for question #2 the raters was found to be Kappa = 0.94 ($p < .0.001$) which yielded a very strong agreement. The inter-rater reliability for question #4 the raters was found to be Kappa = 0.90 ($p < .0.001$) which yielded a very strong agreement. Disagreements were resolved through discussion.

Results

A series of chi-square tests of independence were performed to examine the relationship between teachers' factuality judgment about Moses action and their reasoning for their answers, their classroom application and how would they respond to their children if their children ask them about religious dilemma. The results of descriptive statistics regarding the factuality judgment (run water from a dry fountain just by hitting his stick to the ground) and reasoning (why or why not?) were as follows: Of the 108 participants 89 (82.4%) responded to the first question for "Moses Stick" affirmatively and 19 (17.6%) of the participants responded negatively. Of the 108 participants 90 (83%) provided religious, 17 (16%) natural and 1 (1%) uninformative reasoning for their factuality judgment. The results of descriptive statistics regarding #3 (would you read this story to your children in your classroom?) and #4 (how would you respond to your children in your classroom if they come and ask you, "could Moses flow water from a dry fountain just by hitting his stick to the ground?) were as follows: Of the 108 participants, 31 (29%) responded to the third question affirmatively and 77 (71%) of the participants responded negatively. On the other hand, of the 108 participants provided 6 (5.5%) uninformative, 17 (15.8%) natural, 62 (57.4%) religious, 4 (3.7%) literary and 19 (17.6%) avoiding responses respectively.

Table 1: *Cross-tabulation of Factuality Judgments and Reasoning*

Can Moses make fountain run water	Reasoning					
	Uninformative	Natural	Religious	Total	χ^2	Φ
Yes	0	1	88	89	88.02	0.0001
No	1	16	2	19		
Total	1	17	90	108		

Table 1 shows the results of chi-square tests calculating the relationship between factuality judgment (question #1) and participants' reasoning for their factuality judgment (question #2). The relationship between these variables was significant χ^2 (2, N = 108) = 88.02, p = 0.0001. Among 89 participants who accepted factuality of scientifically untenable act 98.8% of them provided religious reasoning for their responses, only 1.2% of them provided natural reasoning. Among 19 participants who do not accept factuality of scientifically untenable acts 89% of them natural, 10% provided religious and 1% provided uninformative responses respectively. It is reasonable to assert that participants who recruited religious reasoning displayed greater tendency to accept factuality of scientifically untenable acts than participants who recruited natural reasoning.

Table 2: *Cross-tabulation of Factuality Judgments and Teacher Application*

Can Moses make fountain run water	Would You Read This Story to Children				
	Yes	No	Total	χ^2	Φ
Yes	28	61	89	.17	0.264
No	3	16	19		
Total	31	77	108		

Table 2 shows the results of chi-square tests calculating the relationship between factuality judgment (question #1) and participants' classroom application (question #3, reading Moses's story in the classroom). The relationship between these variables was not significant χ^2 (2, N = 108) = .12, p = 0.264. Among 89 participants who accepted factuality of a scientifically untenable act, 68.5% of them responded negatively and 31.5% positively to the third question which was about reading Moses's story in the classroom. On the other hand, among 19 participants who do not accept factuality of scientifically untenable acts, 84% of them responded negatively and 16% affirmatively to the same question. It seems that most of the participants are aware that the abstraction capacity of early childhood children are not developed enough to understand religious stories. Although it was not asked, 15 participants mentioned that the concept that was covered in Moses's story was beyond children's abstraction capacity.

Table 3: *Cross-tabulation of Factuality Judgments and Teacher Response to Children*

	How Would You Explain if Children Ask							
Can Moses make fountain run water	Uninformative	Natural	Religious	Literary	Avoiding	Total	χ^2	Φ
Yes	6	4	59	2	18	89		
No		13	3	2	1	19	53.77	0.0001
Total	6	17	61	4	19	108		

Table 3 shows the results of chi-square tests calculating the relationship between factuality judgment (question #1) and participants' explanations for children if children in their classroom ask about the factuality of the act of Moses (question #4). The relationship between these variables was significant χ^2 (2, N = 108) = 53.77, p = 0.0001. Among 89 participants who accepted factuality of scientifically untenable act provided 6.7% uninformative, 4.5% natural, 66.3% religious, 2.2% literary, 20.3% avoiding responses respectively. Distribution of the responses of the 19 participants who did not accept factuality of scientifically untenable act was as follows: 68% natural, 15.8% religious, 11% literary and 5.2% avoiding. It is possible to claim that there is a relationship between teachers' factuality judgment and how they would respond to children's questions about miraculous religious matters. Teachers who accepted factuality of religious miracles provided religious explanations much more than teachers who did not accept factuality of religious miracles.

Discussion

Through asking early childhood teachers about their judgment, reasoning and how would they react if they encounter with during their teaching practices regarding a scientifically untenable happening, this study was carried out to examine Turkish early childhood teachers' scientific attitudes in the face of a religious dilemma. To face early childhood teachers with a religious dilemma was necessary because religion contains scientifically untenable acts and deeds such as miracles performed by prophets or God. Therefore, to be consistent in their scientific attitudes and behaviors, teachers should follow the guidance of science even when they face contradiction between science and religion. This is especially important for early childhood children because their abstraction capacity does not allow them to fully recruit scientific process and to run their own inductive and deductive reasoning process (Piaget, 1928; 2006; Vygotsky, 1995). Therefore, children cannot scientifically prove the facts and learn them by themselves. Children rely on outside data about the factuality of acts, deeds, happenings and concepts (Fender, & Crowley, 2007; Harris, 2007; Piekny, & Maehler, 2013; Sharon & Woolley, 2004). Studies have revealed that prior knowledge affects children's scientific reasoning and when outside data is perfectly consistent with other data, children can reason correctly (Piekny, & Maehler, 2013; Croker, & Buchanan, 2011). Therefore, teachers should be consistent in their attitudes, behaviors and responses. Teachers are not just transmitters of knowledge; Teachers are role models for children, especially for very young children. Teachers' beliefs, attitudes, and behaviors affect their students' attitudes and behaviors (Chan, 2006; Denham, Bassett, & Zinsser, 2012; Goleman, & Guo, 1998). For example, if a teacher's response to children's factuality questions about a scientifically untenable act differ according to the character of the story, this would thwart development of children's scientific attitudes and behaviors because there will be inconsistency between teachers' responses. Findings revealed that the vast majority of the participating early childhood education teachers accepted factuality of scientifically untenable acts because of religious reasons. Teachers used religious reasoning to justify their responses. Furthermore, most of them stated that they would make religious explanations to their children if their children ask them a factuality question about a religious miracle. Therefore, it is reasonable to claim that when these teachers encounter a scientific fact that contradicts with their religious belief, they

would tend to stick with their belief rather than learning the new scientific fact. Favoring religious belief and accepting it as a fact without any proof contradicts with scientific attitudes and behaviors we mentioned earlier such as being open minded and skeptical, not accepting anything as a fact without questioning, depending on evidence in one's judgments, being flexible, depending on logical grounds which are supported by evidence in your inferences, and accepting new evidence to modify your inferences (Buaraphan, 2010; Çorlu, & Çorlu, 2012; Tanel, 2013; Yurt, & Demiriz, 2014).

In summary for these two main reasons, these findings are alarming. First of all, kindergarten children trust their teachers (Thornberg, 2008; 2007). Teachers are role models for their students. Therefore, their inconsistent behaviors could distort trust in the teacher-student relationship and promote the occurrence of negative behaviors such as lying (Thornberg, 2008, 2007). If teachers advocate scientifically-untenable acts and explain them without evidence or any scientific reasoning, they would set a negative example for children in terms of development of scientific attitude and thinking. Teachers' consistency is also critical for the development of the scientific reasoning process of children because children depend on outside information and prior knowledge in their process of making factual judgments (Croker, & Buchanan, 2011; Piekny, & Maehler, 2013). Dejonckheere, Van De Keere, and Mestdagh, (2010) suggested that teachers should teach children a scientific thinking circle that involves rephrasing the problem, thinking about different solutions and selecting solution strategies, and focusing on the relationship between results and operations, and the problem formulation established in the first step. If inconsistency occurs between teachers' behaviors and what they teach, it would be harmful for children's scientific development (Croker, & Buchanan, 2011; Piekny, & Maehler, 2013).

Studies have revealed that the presence of a scientific environment facilitates the factual judgments of young children, and the reverse was true for a religious environment (Woolley & Van Reet, 2006; Vaden & Woolley, 2011). One of the most effective environmental factors in children's development is teachers. Teachers are one of the basic components of education. The impact of teacher quality (characteristics) on children's development has been very well documented (Cote, et al., 2013; Cabell, et al., 2011; Denham, Bassett, & Zinsser, 2012; Unutkan, 2007). The most effective component of quality early childhood education is qualified early childhood teachers (Croninger, Rice, Rathbun, & Nishio, 2007). Some studies revealed that good teaching can compensate for the negative impact of inappropriate parental practices (Kiuru, et al., 2012). Therefore, as early intervention studies have revealed, good quality early childhood education that is conducted by good quality early childhood teachers is especially important for disadvantaged children coming from families with a low socioeconomic (SES) status (Yurt, & Demiriz, 2014; Abbott-Shim, Lambert & McCarty 2003; NICHD, 2002; Lee et al. 1990). The average education per person in Turkey is six years (Benmayor, 2013). In Turkey 8% of women are still illiterate. In 2014 Turkish Statistical Institute conducted a survey about religious tendencies of Turkish people. Their findings yielded that 99.2% of the Turkish public considered themselves as Muslim. Sixty-five percent of the participants stated that "piety determines my life" (TUİK, 2014). When we put all these facts together, we can see that environment in Turkey is dominantly religious. In many cases, kindergarten will be the first place for children where reasoning would depend on science rather than religion. However, if teachers' and parents' religious reasoning promote each other, children would learn the superiority of religion over science. Although most of the participants stated that they would not read Moses's story (religious story) in the classroom, 56% of the participants reported that they would provide religious reasoning if children ask them about religious miracle happen in the religious. Furthermore, 18% of the participants noted that they would avoid responding children's questions in such a situation. This finding is consistent with studies revealed that teachers' beliefs about science affected their classroom practices (Buaraphan, 2010; Heisner, & Lederberg, 2011; Tsai, 2007; Turkmen, 2013). Findings yielded that in many cases Turkish children lack scientific perspective when they encounter a religious story.

As we mentioned above, teachers are role models for children. For a five year old child who is living in a disadvantaged environment, his or her early childhood teacher might be the only source of

modeling scientific thinking, the only person in whom he or she can observe scientific attitudes. Therefore, early childhood teachers should set good examples with their scientific attitudes and behaviors to children.

In summary, this study revealed that Turkish early childhood teachers' religious beliefs have impact on their factuality judgments and how they explain phenomenon. Early childhood teachers preferred religious reasoning instead of scientific in the face of a religious dilemma. Several studies have shown that through intervention it is possible to influence prospective teachers' scientific attitudes and perceptions (Çorlu, & Çorlu, 2012; Tanel, 2013). Therefore, it is reasonable to suggest providing in-service education on the nature of science, epistemology, the philosophy of science, the historical development of science, and scientific thinking, through which teachers can acquire scientific attitudes and practice scientific discussions. Thus, they can internalize science and understand that science is not an isolated discipline that is practiced in universities, but rather, in secular life it is the core of everyday living. With these educations teachers can also realize the possible impacts of their attitudes on children's acquisition of scientific attitudes and behaviors.

Limitations and Future Studies

There are several limitations of this study. This is a self-report study. Although we can make inferences according to our data, we do not know our participants' actual behaviors. Therefore, future studies should try to reach observational data that will be gathered in a real kindergarten setting. Only 108 early childhood teachers participated the study. Even though nothing had been asked about their identity, many teachers shy away from the study just because it contains a religious story. Turkey is a secular country. However, since 2002 an Islamist government is in power. Hence, the past decade has witnessed an increasing tension between secularists and anti-secularists, which complicates the process of identifying the religious beliefs of individuals. Teachers are afraid of being a target for both sides. In the future, the study can be conducted with more participants. There are several scales that measure scientific attitudes and the scientific skills of teachers. However, these scales do not question the impact of religion. Therefore, future studies could compare teachers' responses to the scales and religious situations. Experimental and longitudinal studies can compare scientific development of children with religious reasoning versus scientific reasoning.

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