

# Do It Right: Developmentally Appropriate Beliefs and Practice of Jordanian Kindergarten Teachers

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## **Abstract**

*The purpose of this case study was to explore how 5 kindergarten teachers reflected developmentally appropriate beliefs in practice at urban public schools in the north of Jordan. Developmentally Appropriate Practice (DAP) is a research-based framework for early childhood education that focuses on vital development of the child as a human being and the educative practice that promotes child development as described by National Association for the Education of Young Children (NAEYC). The participants in this case study included 5 kindergarten teachers who volunteered after being identified as a purposeful group to participate in this study. This case study sought to answer the research central question, how do 5 kindergarten teachers reflect developmentally appropriate beliefs through teaching practice at urban public schools in the north of Jordan? The central research question was followed by five research sub-questions. Data were collected through classroom observations, teacher interviews, and documentary materials. The interviews were audio-taped and transcribed verbatim. Interview transcripts, observations, and field notes were analyzed to provide a rich, thick description (Geertz, 1973). Data analysis revealed five themes that were identified from the cases regarding the explored DAP beliefs and practice by the kindergarten teacher included: (a) beliefs guide practice; (b) enhanced learning and development; (c) ensured success; (d) achieved challenges; and (e) reflected upon obstacles to DAP. These themes were composed into a narrative description that corresponded with the findings to the research questions. Lessons learned from this study may be transferable to other kindergarten teachers interested in improving DAP practice (Lincoln & Guba, 1985).*

**Keywords:** DAP, beliefs and practice, Jordan, case study, kindergarten.

## **1. Introduction**

Educational practices are most effective when attuned to the way children develop and learn (Bredekamp & Copple, 1997; Copple & Bredekamp, 2007). The root of interest and concern for young children and how they learn started with Plato. This Athenian philosopher's notion was that younger children should be educated differently from older children (Spodek, Saracho & Pellegrini, 1998; Wolfe, 2002). Comenius (1592-1670), Locke (1632-1704), and Rousseau (1712-1778) advocated more child-centered and naturalistic approaches to education. Pestalozzi (1746-1827) and Owen (1771-1858) organized infant schools to begin education and care for the youngest children (Spodek et al., 1998; Wolfe, 2002). Additional historical advocates for the youngest of children included: Pestalozzi's student, Friedrich Froebel

(1782–1852), Father of Kindergartens, and then John Dewey and Ella Flagg Young, Caroline Pratt, Maria Montessori, and Patty Smith Hill, the key founder of the National Association Nursery Education (NANE) which now exists as the National Association for the Education of Young Children (NAEYC), and many others (Lascarides & Hinitz, 2000; Wolfe, 2002).

Currently, early childhood educators are becoming increasingly aware of what and how children learn and are concerned with promoting the physical, social, cognitive, emotional, and moral aspects of development and learning (Kostelnik, Soderman, & Whiren, 2004). In order to achieve programs that enhance this kind of learning, educators in the National Association for Education Young Children (NAEYC) founded the concept of Developmentally Appropriate Practice (DAP) (Bredekamp, 1987; Bredekamp & Copple, 1997; Copple & Bredekamp, 2009). In the 1997 revision of their Position Statement, Bredekamp and Copple added references to include diversity, making general statements about social and cultural contexts. In 2007, Bredekamp and Copple expounded more in-depth about the need for teachers to recognize the richness of diversity by being more inclusive of children representing varied cultures, special needs, and ethnicities that young children bring into educative settings.

DAP is related to best practice for Early Childhood Education (ECE). Developmentally Appropriate Practice (DAP) is a framework for education (Aldridge, Emfinger, Martin, 2006). A framework provides the big picture and serves as a general guideline proposed by a professional organization or group that describes the most basic way in which instruction should be delivered (Thomas, 2004). DAP focuses on the child as a developing human being and as a lifelong learner (child-centered). The framework helps early childhood educators recognize the child as an active participant in the learning process; a participant who constructs meaning and knowledge through interaction with others, including families, teachers, materials and the environment. Developmentally Appropriate Practice (DAP). DAP is described as a framework for education that focuses on the child from birth to age 8 as a developing human being and life-long learner (child-centered) (Aldridge et al., 2006; Copple & Bredekamp, 2009). According to Copple and Bredekamp (2009), the concept of developmentally appropriate practice was not new, having been used by developmental psychologists for more than a century. Furthermore, the historical roots of Developmentally Appropriate Practices (DAP) date back to the early 1900s when the International Kindergarten Union (IKU) appointed 19 experts to determine how children developmentally learn and how to teach young kindergarten children to meet their developmental needs. As a result, three reports were identified. One report advocated highly structured, teacher-directed instruction. The second report advocated play-based, and child-initiated practice. The third report was a compromise of the other two reports (Aldridge & Goldman, 2007).

According to Aldridge and Goldman (2007) and Kostelnik et al. (2004), the DAP position statement was developed in 1986 by the National Association for the Education of Young Children (NAEYC) in response to the trend of pushing academic learning further and further down to preschool level. DAP guidelines were written “to provide guidance to program personnel seeking accreditation by NAEYC’s National Academy of Early Childhood Program; the accreditation criteria call for developmentally appropriate activities, materials, and expectations” (Bredekamp & Copple, 1997, p. v). The original 1987 position statement included both age and individually appropriate dimensions (Bredekamp, 1987) and addressed the needs of young children from birth to age 8.

In 2009, the NAEYC position statement on DAP was revisited. The NAEYC position statement focused on the most effective practices to promote children’s learning and development (Copple & Bredekamp, 2009). As a result, the NAEYC DAP statement position of 2009 was a response to build new knowledge to guide teaching practices for the youngest learners in rapidly changing contexts in which early childhood programs operate. These contexts included the growing role of public schools and the increasing focus on narrowing the achievement gap in lower socio-economic contexts, especially in ethnically diverse

settings. Children living in poverty are more likely to become the elementary students who are negatively affected by the achievement gap, thus the focus on equity with pre-K and kindergarten children in lower socio-economic settings (Copple & Bredekamp, 2009). Furthermore, in 2005 NAEYC revised its Early Childhood Program Standards that identified the key components of quality programs and continued the emphasis on educational practices that reflect knowledge of development in the revised documents (Copple & Bredekamp, 2009).

In the 2009 position statement, “excellent and equity” was placed at the center of the argument. DAP guidelines described the kinds of decisions that effective teachers make by enacting DAP with young children in their classrooms. Furthermore, the intention to expand by including the diverse social and cultural contexts was considered in this revision. In the current guidelines, instead of using the terms Developmentally Appropriate Practice /Developmentally Inappropriate Practice (DAP/DIP), NAEYC replaced it with DAP/ in contrast (Copple & Bredekamp, 1997; 2009). The belief behind the change was that it is harmful to label the opposite of DAP examples as incorrect or wrong because “as differences in culture can cause people to view the same practice differently” (Copple & Bredekamp, 2009, p. xi). Consequently, the current DAP guidelines (2009) are intended to draw attention to practices that require careful consideration. Teachers of young children who enact DAP respect each child’s social and cultural context. They know each child as an individual. DAP teachers respectfully utilize the richness of each child’s diversity to promote optimal development in each domain, consider the child’s interests and learn from each of them. Moreover, in the current NAEYC statement, practices for kindergarten are a separate statement for the first time. In the previous position, kindergarten was merely the last year of pre-school or the first year of elementary school (Copple & Bredekamp, 2009).

According to Copple and Bredekamp (2009), the DAP definition has four components that: (a) meet children where they are and enable them to reach goals that are both challenging and achievable; (b) reflect the practices that are age appropriate, individually appropriate, and that are appropriate and respectful for the culture and context; (c) ensure that experiences and goals are challenging enough to promote children’s interest and progress, and (d) build on the knowledge and research of how children learn and develop. Moreover, DAP requires teachers to make intentional decisions in the classroom to promote children’s development and learning by enacting practices that: (a) create a caring community of learners; (b) teach to enhance development and learning; (c) plan curriculum to achieve important goals; (d) assess children’s development and learning; (e) and establish reciprocal relationships with families (Copple & Bredekamp, 2009).

The framework of Developmentally Appropriate Practice (DAP) is derived from what early childhood educators knew from research and experience about how children learn and develop (Copple & Bredekamp, 2009). Specifically, principles of DAP are based on several theories that view intellectual development from the constructivist, interactive perspectives of Piaget and Vygotsky (Aldridge & Goldman, 2007; Bredekamp & Copple, 1997), and Bronfenbrenner (Bredekamp & Copple, 1997; Goldstein, 2008).

A caring community, one area of DAP, was addressed by Nowak-Fabrykowski (2010). Nowak-Fabrykowski investigated the techniques that kindergarten teachers utilized in order to create caring community. The purpose of this study was to describe how kindergarten teachers taught caring in their classroom. In order to collect the data, 200 questionnaires were sent to kindergarten teachers in Cleveland (Ohio) and Buffalo (New York). The questionnaires consisted of four open-ended questions. However, only nine questionnaires from the first city and eight questionnaires from the second city were returned to the researcher. Thus, qualitative analysis was conducted in order to achieve the purpose of the research study. As a result, three themes were identified; “ways teachers show that they care; ways children show that they care; and the programs and books they use in teaching caring” (Nowak-Fabrykowski, 2010, p. 445).

Moreover, each theme was supported with some examples from teachers' own experiences while they developed caring dispositions.

Education is one of the most important sectors of concern and attention for the Jordanian government. Jordan is considered a pioneer in its focus to promote preschool (kindergarten) in the Middle East. This focus is indicated by enrollment rates in preschool (Kindergarten 1 KG1 for 4 years children, Kindergarten 2 KG2 for five years children which increased from 28% to 51% between 1990-2008 (United Nations International Children's Emergency Fund (UNICEF), 2009). In 1994, a Department of Kindergartens was established in the Ministry of Education in Jordan. The Ministry of Education then established kindergartens in public schools in 1999-2000 as an implementation of the Education Act No. 3 of 1994. Specifically, 15 Kindergarten classes for KG2 students were established and integrated into the public school system in 1999-2000 (Four, Hajjar, Bibi, Chehab, & Zaazaa, 2006; Ministry of Education (MoE), 2011; Roggemann, & Shukri, 2010). These 15 classes represented 375 boys and girls and 15 kindergarten teachers. On average, there are 25 students in each kindergarten class. The number of public kindergartens expanded in the academic year 2009-2010 to include 833 kindergarten classrooms which are attended by more than 16,000 young boys and girls. The Ministry established a phased plan and was expected to introduce about 40 new kindergarten classes for the next academic year 2010-2011 (MoE, 2011). Before this government initiative began in 1994, kindergartens in Jordan were operated by the private sector (MoE, 2011).

Early Childhood Education in Jordan was specifically addressed in 1999 when Her Majesty Queen Rania Al-Abdullah commissioned a team of Jordanian professionals, representing different areas of expertise in dealing with young children, to develop a National Plan for Early Childhood Development (ECD) and the national strategy for children and families for the period of 2004–2013 (National Team for Early Childhood Development, 2000; UNICEF, 2009). The plan emphasized a commitment to promote the protection of the rights of each child and increase public awareness of childhood issues (Roggemann & Shukri, 2010). This plan took into account the basic principles of children's rights and justice for those in the United Nations Convention on the Rights of the Child (UNICEF, 2009).

Despite the attention, legislation, and concern of the Jordanian government for developing the most effective and developmentally appropriate curriculum for young Jordanian children (Roggemann & Shukri, 2010), research to inform best practice or DAP for its young children is still limited. Most specifically, for Jordanian kindergarten children, the research on DAP is inadequate (Abu-Jaber, Al-Shawareb, & Gheith, 2010). According to researchers, there are just two research studies conducted in Jordan (Abu-Jaber et al., 2010; Haroun & Weshah, 2009). In general, there are debates about how to implement DAP effectively and apply its principles in the Jordanian kindergarten classroom (Hegd & Cassidy, 2009). Therefore, understanding how Jordanian kindergarten teachers' developmentally appropriate beliefs are represented by their teaching practice will help inform the planning process and contribute to the most effective and optimal learning developmental environments for young Jordanian children.

Previous inquiry into kindergarten teachers' perspectives on DAP conveyed that, in spite of kindergarten teachers tendencies to state that they believe in the principles of developmentally appropriate practice in general (Haroun & Weshah, 2009; Kim, Kim, & Maslak, 2005), many of kindergarten teachers still struggle between beliefs and enacting beliefs in practice in the classroom (Abu-Jaber et al., 2010; Haroun & Weshah, 2009; Hegd & Cassidy, 2009; Lee & Tseng, 2008; & Liu, 2007).

The new demand to focus increased effort on the development of young children's academic skills has changed the goals and expectations for early childhood education (Goldstein, 2007, 2008; Hatch, 2005; & Hogue 2008). Goldstein's qualitative case study (2007) investigated the change of the expectation and mandate standards issue with focus on two kindergarten teachers' efforts to establish practices that balance

the major findings of the literature review were that there was empirical evidence regarding the effect of DAP. (Dunn, Beach, & Kontos, 1994; Haroun and Weshah, 2008).

Previous researchers tend to conduct studies related to developmentally appropriate practice quantitatively. However in reality there are multiple and complex factors that may contribute to the affect that DAP has on classroom practice and on young children (Hegd & Cassidy, 2009; Kim, Kim, & Maslak, 2005; Liu, 2007; McMullen., et al. 2006; McMullen, Elicker, & Goetze, 2006). Also teachers often hold misconceptions about the actual attributes of developmentally appropriate practice (Parker & Neuharth-Pritchett, 2006).

Further studies using observations of teachers' practices of DAP in early childhood programs have been recommended to enrich the previous quantitative findings in Jordan (Abu-Jaber et al., 2010; Haroun & Weshah, 2009; Liu, 2007; Szente, Hoot, & Ernest, 2002). Thus, a need exists to explore how the kindergarten teachers in Jordan indicate and enact DAP beliefs in classroom teaching practice. Understanding how the beliefs and practices of kindergarten teachers coincide may be transferable to kindergarten teachers interested in planning DAP principles to promote optimal child development and sound and effective learning activities. Moreover, the results may help policy and decision-makers, principals, and kindergarten teachers to plan effective and valuable pre-service and in-service teacher education programs and professional development opportunities.

Thus the purpose of this case study is to explore how 5 kindergarten teachers reflect and exhibit developmentally appropriate beliefs into practice in urban public schools in the north of Jordan. DAP is defined as a framework for early childhood education that focuses on the child. The child is the central focus and is envisioned as a developing human being (child-centered). Developmentally appropriate practices are intended to maximize all domains of child development, emotional, social, cognitive, physical, and moral as defined by the National Association for the Education of Young Children (Copple & Bredekamp, 2009). The following research central question guided the study:

How do 5 kindergarten teachers describe beliefs and reflect and implement developmentally appropriate teaching practices in urban public schools in the north of Jordan?

The following research sub-questions guided this study were:

1. What are the kindergarten teachers' beliefs that relate to DAP in urban areas in north of Jordan?
2. How do kindergarten teachers describe the ways in which they create a caring community of learning?
3. How do kindergarten teachers describe how they work to enhance development and learning?
4. What are the challenges that kindergarten teachers describe that they face in applying developmentally appropriate beliefs in practice?
5. What do kindergarten teachers describe as factors that encourage them to put developmentally appropriate beliefs into practice?

## **2. Importance of the study**

This study was important because there were no empirical qualitative studies found which directly addressed how kindergarten teachers described, implemented, and reflected beliefs into developmentally appropriate teaching practice in Jordan. The results of the study provided useful data and implications that may help in planning kindergartens' learning studies and activities, as well as designing appropriate professional development and preparation programs for kindergarten teachers. Moreover, the results may help kindergarten decision-makers and principals become more intentional when preparing pre- and in-service kindergarten teachers and developing teacher professional development to improve the

implementation of DAP. Furthermore, this study may provide examples of effective DAP practices and implementation.

### 3. Assumptions and limitations of the study

In this qualitative study, the researcher assumed: (a) the participants were willing to participate in this research, (b) the translated interview questions from English to Arabic by the researcher were acceptable and equivalent to the questions as they were posed in English, (c) the researcher's interviews and observations were accurate representations and reflections of the participants' experiences and beliefs, (d) teachers were able to understand and honestly answer the interview questions, and (e) the participants had prior knowledge and professional experience about developmentally appropriate practice.

Since the value of qualitative research lies in the particular descriptions and themes developed in a context of specific sites, generalizations from these findings to other individuals, sites, or places outside of those under the study cannot be made. There is no generalizing in qualitative research (Lincoln & Guba, 1985). However, information derived from the findings in the study might be transferable to other similar thinking kindergarten teachers or in settings that have the same type of philosophical and ontological beliefs. Moreover, the videotaped observations gave the researcher the opportunity to repeatedly watch teachers' implementation of practice, which offered rich opportunities to analyze teachers enacting practice in the classroom. An assumption was made that observation of teachers in their contexts, without the use of videotaping, might reveal different teaching practice. This study was limited to five public schools that have kindergarten classes in Jordan.

### 4. Research Method

Qualitative research was described as in-depth inquiry from the participants' perspective. Researchers aim to build an interpretation of participant's observations, discover how participants interpret the world around them and determine how this interpretation influences actions (Hatch, 2002; Merriam, 2002). Qualitative researchers typically collect the data set in the natural setting where experiences of the participants occur. According to Hatch (2002), "Qualitative research seeks to understand the world from the perspectives of those living in it" (p. 7). Qualitative researchers include fewer participants compared to quantitative researchers (Bogdan & Biklen, 2003; Hatch, 2002). As an instrumental case study, the researcher focused on the issue of the reflection the teachers' beliefs in practice and selected cases to illustrate this subject. The research study was carried out at five public schools at urban area in north Jordan. Five kindergarten teachers participated in this case. To maintain confidentiality, participants were asked to select pseudonyms to protect their identities. Table 1 outlines the demographics of the participants in this case.

**Table (1): case study participants' demographics**

School	Teacher	Educational level	Years of experience	Student number in the kindergarten	Kindergarten Purpose
1A	Ms. Noor	BA/ECE	10	26	Play
1B	Ms. Fatimah	BA/ECE	5	25	Develop all domains
1C	Ms. Rasha	BA/ EE	4	18	Place to learn
1D	Ms. Lyan	BA/ECE	4	15	Learning/ play
1E	Ms. Reem	BA/ECE	3	10	Prepare to school

The researcher conducted interviews, follow-up interviews (member checks), observations, and collect appropriate documents (such as lesson plans and assessment tools) in order to collect the appropriate data.

## 5. Data analysis

The interviews were transcribed using the audio recordings, and the observations were transcribed using field notes. Since the data were collected in Arabic, the transcripts were translated from Arabic to English. Each transcript was reviewed to identify “what” the participants stated when reflecting about DAP. Also, how the participants then enacted the beliefs that were stated. And reduced repeating, overlapping statements and group these statements into “meaningful units” – themes (Lincoln & Guba, 1985).

To ensure this study’s credibility, the researcher utilized five strategies as verification procedures which are (Lincoln & Guba, 1985): triangulation, member checking, peer debriefing, external auditor, and Thick rich description, (Geertz, 1973; 1983).

The participants were asked to provide pseudonyms for use in the study, and were given an informed consent stating the method of data collection, specific procedure to collect the data that they signed to participate. Education Department and gatekeepers’ permissions were asked prior the contacting of the participants. The audio tapes were stored in a locked cabinet. All audio-taped interviews and artifacts (video tapes) will be destroyed after one year after the completed the study. However, for this research the university’s Internal Review Board (IRB) approval was the most important.

## 6. Research findings

Based on the analysis of all data sources including interviews, videotaped observations, and the documentary materials, I identified five major themes regarding DAP beliefs and practice of kindergarten teachers: (a) beliefs guide practice; (b) enhanced learning and development; (c) caring community; (d) ensured success; and (e) reflected upon obstacles to DAP. The identified major themes and associated subthemes that emerged from the first case are listed below (see Table 2).

**Table (2): Themes / Subthemes**

Themes / Subthemes				
Beliefs Guide Practice	Enhanced Learning and Development	Caring communities	Ensured Success	Reflected upon obstacles to DAP
Focus on play Focus on whole child Child-center Important of DAP	Implementing effective teaching understanding and reaching all children’s varied needs planning grouping children evaluating learning and development	Set relationship Classroom discipline Physical environment Role of religion	Professional Development Commitment to kindergarten Support	Parent awareness Time No assistant Interruptions during the day. Size of the classroom Girls- boys’ relationship

### 6.1. Beliefs guide practice.

According to analysis of the kindergarten teachers’ interviews, videotaped observations, and documental materials, several beliefs toward DAP were identified as a guide for a teacher’s practices in the

kindergarten classroom. A focus on play, focus on whole child, child-centered orientation (constructive approach), and importance of DAP and the purpose of the kindergarten were the beliefs that guided kindergarten teachers' work with the children in north of Jordan.

**6.1.1. Focus on play.** Play was the most important belief that guided the practice of all of the kindergarten teachers in north of Jordan. While the practice was varied among Jordanian kindergarten teachers, all of them believed in the important role of play in teaching young children. Ms. Noor stated, "I do believe the best practice is that the practices that depend on play and work with children as active learners who can learn if they have the opportunity to do so." For her, DAP meant the practices that focus on play. She stated, "play...play...play, this is my focus. Play is the life of the children. I cannot ask the children to stay at their seat." Ms. Fatimah also believed that the role of kindergarten was to help children grow and develop in every way. She focused on play by using learning centers and considered these centers to be a way she could achieve DAP practice in her class. She thought she could improve and nurture all developmental domains within each of her children. So noted the following:

*I think there are different practices that developmentally appropriate practices, such as the playing in the centers. For example when children play with the blocks in the blocks centers they develop and improve their cognitive thinking and abilities. Also, when they play in the dramatic play center (we call it in Arabic to translate kitchen center) they develop their language and social relationships. The music center develops the art sense, and the computers develop the physical domain. So I think the centers system in the classroom helps in improving the children's development in all domains.*

Ms. Noor's classroom was full of the children's movement. In the interview, she said the following, "I do believe that the play is the most important in developmentally appropriate practices, so I think the kindergarten children learn through play." Also, she used free play to develop the children's physical domain and to help her transition the children from one educational activity to another. She used five minutes after each activity to transition children from one activity to another in free play. As stated by Ms. Noor:

*I believe in the important role of play in teaching for children at this stage. Also I think when I use play in my class all children engage and do not get bored. Actually I use play at all day...they learn much by this way. I usually teach everything for children through play. I found that using play as way in teaching young children is very effective.*

The strong value of play was not universal among the teachers from north of Jordan. For Ms. Rasha, there was no role for play in her classroom. She just had 20 minutes for children to play in the playground, and that time was required in her daily schedule as recess time. Also, Ms. Reem only allowed children to play in the learning centers for 20 minutes once she finished all of the planned objectives. Children saw the centers for free play but seldom were able to play in them.

**6.1.2. Focus on the whole child.** Kindergarten teachers believed in DAP as an approach that focused on the whole child. This belief also guided their practice in the kindergarten classroom. Ms. Fatimah considered her children to be the center of the teaching and learning process. This consideration was reflected in her work with children. She utilized many activities and different types of playing to engage children in the classroom. According to Ms. Fatimah:

*I teach, interact, and engage children in activities for learning, but at the same time, I consider to improve and develop the child's entire development in every domain. And then between each activity, children can play different games or can play at these centers.*

She said that as a kindergarten teacher, she had to consider all developmental domains of the child. But she recognized that social development was the most important area, “I do believe it is more important than the cognitive development area for this age and stage.” She further noted, “I think developmentally appropriate practice meant that the practice that focuses on the whole child and developing the all domains such as the cognitive, physical, emotional, social, and language development.”

For Ms. Reem, DAP also meant a focus on the whole child. She stated, “Also, I do believe I have to take care of all developmental domains, emotional, psychological, cognitive, and social developmental domain.” Similarly, Ms. Rasha considered DAP as the practice that develops the whole child. She said:

*I think developmentally appropriate practice meant that the practice that focuses on the developing the all domains such as the cognitive, physical, emotional, social, and language development nurtures and enhances children’s abilities to prepare them for the next level of school.*

**6.1.3. Child- centered practice.** Kindergarten teachers varied in their beliefs concerning the role of the students in the classroom. For example, Ms. Noor considered her children to be the center of the teaching and learning process. This view was reflected and noticeable in her work with children. She utilized many activities and different types of play that engaged children in learning in the classroom. Based on the videotaped observations, the activities and playing strategies were all child-centered approaches in Ms. Noor’s classroom. Children were very active in the classroom. She said:

*I do believe that the children have to be the center. What children find of interest and choose to focus on in the classroom is what I want for them. I am here for them. Children like to move and play, so all of my activities are child centered; my role in the class is as facilitator and helper for children and to be sure they are safe and feel secure. So all of my activities and strategies are focused on children and their active roles in the class.*

**6.1.4. Importance of DAP and the Purpose of kindergarten.** The purpose of kindergarten was another subtheme that I identified. This subtheme reflected kindergarten teachers’ beliefs about Developmentally Appropriate Practice and, as a result, directed their practice in the classroom. For Ms. Fatimah, the purpose of kindergarten was not to fill the child’s brain with information. She believed that the role of kindergarten was emotional and social preparation for them to be ready for the next level of schooling, rather than forcing them to learn to read and write.

Ms. Fatimah also identified the importance of DAP and her belief was reflected and implemented in her work with the children. She said that believed DAP was very important for the kindergarten teacher in order to help children develop to their full potential cognitively, socially, emotionally, and physically. She indicated that once the teacher implemented DAP in the classroom, children were helped to understand their feelings. She used different strategies with children in order to accomplish this goal. She and her children sang songs, played and danced in order to help them develop in each developmental domain. Ms. Noor also provided opportunities for children to play because for her play was the purpose of kindergarten. She did not believe that kindergarten was the place for children to learn in a traditional way or to learn to read and write. She suggested that if there was no time for play in kindergarten, it was not real kindergarten. In the words of Ms. Noor, “What is the importance of the kindergarten if the children do not play? If the kindergarten teachers focus on teaching children to memorize, this is not kindergarten.”

Despite the above findings from the interviews, triangulation with the data sources revealed that Ms. Rasha and Ms. Reem had no clear theory or belief regarding DAP. The other data collected revealed weak beliefs and weak DAP practice by these two teachers.

In conclusion, several beliefs about DAP were identified as a guide for teachers' practice in the kindergarten classroom. Focus on play, focus on the whole child, child-centeredness, and importance of DAP and the purpose of kindergarten were beliefs that guided teachers' work with kindergarten children. Each teacher had her own beliefs that guided her practice. At the same time, each teacher reflected and implemented these beliefs in different ways in classroom practice. For example, Ms. Noor indicated that DAP meant that teachers have to focus on intentional and free play, so she implemented play in her class at all times. She suggested that children need to play and move because of their age level, so she reflected and implemented play and activity in her teaching practice in the classroom. For Ms. Fatimah, DAP meant focusing on the whole child, so she addressed all areas of development in her teaching practices in the classroom. She implemented learning centers to improve the children's' growth in developmental domains. She focused on both learning and development of children in her practice. While DAP meant focus on the whole child for Ms. Rasha, she just implemented teaching practice to enhance the learning process. This practice was based on her belief that the role of kindergarten was to help children to learn foundational skills for first grade. Moreover, all of the teachers expressed a belief that they have to follow child-centered approaches in teaching kindergarten children, but the implementation of this focus differed among them.

## **6.2. Enhanced learning and development.**

Enhanced learning and development was another theme that I identified during the analysis of the inter-data sources. Several subthemes were identified during data analysis that I considered an essential part of enhancing children's' learning and development, including: (a) checklists not testing, (b) flexibility, (c) teaching strategies, (d) understanding and reaching all children's varied needs, (e) grouping children to maximize learning, and (f) planning were the most successful procedures used to enhance and improve children's development and learning. These factors were identified from raw data sources. Interviews, videotaped observations, and documents revealed that the focus varied among kindergarten teachers to enhance and improve learning and development of children.

**6.2.1. Checklists not testing.** In order to assess the children's learning and development, all of the participants used their observations rather than any type of test for school readiness. They collected data regarding the development of children by using checklists that were developed to assess all developmental domains in addition to children learning. According to Ms. Reem, "I use observations and fill the specific checklists. I do not use testing or informal assessment to evaluate my children." Based on collected assessment tools, there were several checklists. Each checklist had been developed in order to assess skills or characteristics, depending on the type of checklist and its purpose. For example, if the checklist was built to assess learning letters, the checklist contained different skills to be observed by the teacher such as writing, reading, painting, and tracing the letter.

Furthermore, Ms. Noor used observations to assess children's social development. She stated:

Also, in social development I focus on engaging children with the guests or visitors and with each other in the class. And then observe how they deal in several situations to assess their social development. So if I have shy, aggressive children, or 'normal' children, I observe how they have socially and emotionally developed.

Ms. Rasha also used observations rather than testing. She said,

*Since we have checklists in order to evaluate students' learning, I use my observation to fill out that checklist. Also, I observe the improvement of children in achieving lesson plans. I focus so much on the low achieving children... I know that the low achieving children need more help*

**6.2.2. Flexibility.** Ms. Noor, Ms., Lyan, and Ms. Fatimah were flexible in their classroom practice. They suggested that working with children required more focus on the children and how to improve learning for each child's total development. In order to follow the recommended schedule, they said that they would have to teach a subject-oriented curriculum, and in this way they would not be able to improve all children's development in every area at the same time.

Ms. Fatimah indicated that working with children required more focus on each child's development and learning and how to improve and enhance the capacity for growth and development individually. She stated: I do have flexibility in dealing with my planning so even if I plan for short term and the next day I maybe decide to change some activity to fit with children's situations so I go back and fix that in my short and long term planning. For example, sometimes I write in my long term plan that the first unit will take me three weeks. Then in the real world it may take me four weeks so I go back to my plans and change and modify it.

**6.2.3. Teaching strategies.** Ms. Noor and Ms. Fatimah both shared that they did not like to teach young children by particular subjects. They both held the belief that children learn new information holistically. Because of their holistic view of learning they depend on integrating all of content areas together when teaching young children. Both teachers chose certain activities and games so that the children would have the opportunity to learn varied disciplines simultaneously while progressing developmentally as well.

**6.2.3. Understanding and reaching all children's varied needs.** It was very important for teachers to understand children's needs and interests. Four out of the five participants in the first case knew that children need to have freedom in movement. Children need tenderness, and a feeling of safety and caring, however, Ms. Rasha did not seem to fully comprehend the needs of her students. She thought that children needed to be polite and disciplined at this age.

It was obvious that Ms. Fatimah understood her children's needs. She knew that children need to feel safe and comfortable in the classroom. She added that she needs to understand her students' problems in order to help them. She shared with me her story with a special student's needs.

**6.2.4. Grouping to maximize the learning.** Grouping the children was another strategy that participants utilized to enhance learning and development of children. The participants used different strategies to group kindergarten children. Mixed ability group was one strategy that all of them used in grouping the children. Ms Fatimah said this, "I group the students so each group has different levels....children at advanced levels, low levels and typical levels." She used this strategy because she believed that children who are advanced could help the lower level students. Also, Ms. Noor advocated the same strategy in grouping the children, "I use mixed ability strategies to group the children. At the same table there are children at advanced levels and lower levels. Children at advanced levels help lower level children." She considered the children's achievement in her grouping strategy, "I group the children according to individual differences."

### **6.3. Caring communities.**

Setting up good relationships, classroom discipline, physical environment, and the role of religion were the subthemes that were identified within the larger theme of creating caring community. The following descriptions explain how the five teachers characterized these subthemes.

**6.3.1. Setting up good relationships.** Setting up good relationships with students and with students' families while building a good relationship between students, were concerns of all five of the public school teacher participants. Additionally, they worked to change any negative relationships that they perceived

between the girls and boys. In order to build good relationships with students' families, they invited all families to the classroom at the beginning of the year to discuss their teaching strategies and beliefs. All of the teachers observed set-up means for ongoing communication. All public kindergarten programs have Parent Participation programs. Mothers are welcome to visit and spend time with children at the school, help in various ways, and share in the educational process. Ms. Noor noted that she had a good working relationship with her students' families. She stated:

*Usually I set the program with the date and the parent's name at the beginning of the year when we meet them. The participation in the classroom is just for mothers not fathers, (this is our tradition as you know). Fathers can come and ask about their children in the school, but as a girls' school which is operated by females and within our culture it is unacceptable to have men as helpers in the classroom.*

Thus, all of the teachers had a good working relationship with the children's families that began to develop at the beginning of the school year. In spite of the good relationships, teachers and parents had some conflicts regarding beliefs as to what and how children need to be educated in school.

Being familiar with the community's culture and traditions helped the teachers to build a sound relationship with parents and families. Ms. Fatimah mentioned that being born, growing-up, and living in the same community helped her to build an effective relationship with students' parents and families.

**6.3.2. Classroom discipline.** At the beginning of the school year, Ms. Fatimah and Ms. Noor engaged all of the children in a discussion to set the classroom rules. Following the discussion of the rules, they collaboratively made the rules as pictures in order to get the children to be able to understand and read the statement. Since most of the children at this stage cannot read the words, they can comprehend pictures that were placed in the classroom. Ms. Fatimah described this approach to setting the rules as follows:

Regarding the role of rewards and punishments in classroom discipline, all five teachers in north Jordan used tangible rewards for children in the classroom. They suggested that children needed rewards to keep them active and working. Some rewards that they utilized were stars, candy, presents, and many more types of rewards. Regarding punishment of children, all of them stated that they did not like to use punishment for children

#### **6.4. Ensured success.**

According to the data analysis, I identified three factors that helped kindergarten teachers in north Jordan to succeed in reflecting and implementing DAP beliefs in practice. Professional development, commitment to kindergarten children, and support were the subthemes of the ensured success theme.

**6.4.1. Professional development.** All of the kindergarten teachers working in the public schools were expected to have the same training sessions. The training sessions included: (a) basic level of teacher training for new kindergarten teachers to introduce many parts of the curriculum; (b) Training Sessions of the National Interactive Curriculum; (c) Wisconsin training sessions "work with little children." In this session, the historical development of early childhood education; children's age appropriate characteristics, developmental needs, learning strategies, learning difficulties, behavioral issues, and environmental characteristics of a kindergarten classroom were presented. Different programs for young children such as Head Start, Montessori, and the Bank Street approaches were discussed during this session; (d) training sections about Sesame Street were for two days. In this session, they discussed the safety issues on the road. The team gave the kindergarten teachers' an agenda that had Sesame street characters that they could use to

get children to express their feelings; (e) International Organization for Standardization (IOS) training was another section for kindergarten teachers about international accreditation.

Moreover, there was annual supervision of the kindergarten classes and observations to review how kindergarten teachers work with kindergarten children. Administrators checked to determine if teachers provided a secure, healthy, and safe classroom environment. Ms. Noor noted that having all of the professional development sessions helped her to build positive beliefs and attitudes about being a kindergarten teacher. According to Ms. Noor:

*I really feel that the training workshops were very beneficial for me. It helps me to see where the children are, their needs, and developmental levels so I can build on what I know. Also we saw and discussed different or several a good models with which to work. Some of models are from the USA.*

**6.4.2. Commitment to kindergarten children.** Ms. Fatimah mentioned that it was her love to work with children. Ms. Fatimah identified another factor that helped her to succeed as a kindergarten teacher and communicated it this way, “I think my desire and passion to work with children... children that I love; I love children so much and also the feelings that I have to be a good and successful kindergarten teacher encourages me to be perfect.” Patience was another issue that helped Ms. Fatimah to be successful while functioning in the kindergarten setting, “I was known as a patient person. I know that I am very patient with children.” Videotaped observations of Ms. Fatimah supported this finding.

In the videotaped lessons, it was obvious that she had a strong relationship with children, and the children loved her as well. She noted that children desire to do their best and that was why she thought that she had to work with each one of them. She indicated:

*I think the most important thing which made me successful in working with children is loving the children and my commitment to their education. I feel that this is the best work I can do. I love the children so much and I do believe that they deserve a good teacher to help them learn and develop. Also I feel lucky because my students love me as well.*

**6.4.3. Support.** All of the participants considered support from students’ parents, the principal, and from the educational supervisor as factors that encouraged them to implement and reflect beliefs into practice. Ms. Fatimah had a support system from her students, parents, the principal, and from her educational supervisor.

### **6.5. Reflecting upon obstacles to DAP.**

Another theme identified was the obstacles and barriers to implementing DAP beliefs. The kindergarten teachers explained obstacles to implementing beliefs included lack of parental awareness, relationships between boys and girls, physical size of the classroom, not having assistants, challenges of providing a safe and secure environment, and lack of funding for resources. These were the most frequent barriers that three of the kindergarten teachers expressed.

**6.5.1. Parent awareness.** Lack of parental awareness was one challenge for the participants in the first case. Ms. Fatimah stated that at the beginning of every year she had problems with the parental beliefs regarding how she works with the kindergarten children. She said:

*Some parents push me to start teaching their children to read and write very early. They expect me to focus on the academic issues. They want me to give their children homework. They want me to keep children working or studying all evening at home until they go to sleep.*

She also added that “many parents believed that the kindergarten is just the place for children to learn to read and write.”

**6.5.2. Boys-girls relationship.** Teacher participants in north Jordan discussed a negative relationship between the girls and boys in all of the kindergarten classrooms. This negative relationship between the students made for some challenges for the kindergarten teachers to establish and build a good relationship in the classroom. Ms. Rasha said, “to be honest with you, the boys dislike the girls so much that they hit them and steal their pencils. Actually this makes many challenges for me.” Also, she stated that she was still working to change this kind of relationship between her students. Ms. Lyan also stated, “the boys do not like to sit at the same table with girls. They do not want to play with them.”

**6.5.3. No assistants.** Not having an assistant was expressed as a challenge by Ms. Noor, Ms. Lyan and Ms. Fatimah but not by Ms. Rasha, since she had another kindergarten teacher in her classroom. Ms. Reem had just 10 students in her classroom. So for Ms. Rasha, having an assistant was one factor that helped her succeed in her educational career of teaching kindergarten children. However, all of the kindergarten teachers in Jordan had no aides to help them in the classroom. Ms. Rasha’s situation was an exception. With 26 students in the kindergarten class and no one to assist, Ms. Fatimah had another challenge. She stated:

*I do not have anyone to help me in the classroom. We do not have teacher assistants in the schools in Jordan... I do not have any time for rest. I do not have time for eating or drinking. I keep working with children from 7:30 until 12:30.*

Moreover, she added that there was not anybody to help her in cleaning the classroom. She said that she cleaned it three times every day, and that was extra work for her.

**6.5.4. Size of the classroom.** The physical size of the classroom was one barrier that Ms. Rasha reflected upon in her beliefs and in practice. She stated, “actually my classroom is very small. I cannot recognize the centers. My class size is very small and I cannot change the organization of classroom. I have three tables so I divided the students to three groups.” That classroom size was a challenge affecting Ms. Noor’s and Ms. Rasha’s beliefs and practice. Ms. Noor focused on intentional and free play in the classroom. She needed more space to be able to implement this belief effectively. In her words, “The centers are very close so I do not have enough space to apply my beliefs in accordance to play. I would like it if the class is bigger.” She also compared her class with the other classes in other public schools. She said, “if I want to compare the size of my classroom with the others kindergarten classes in other schools it is really small.”

**6.5.5. Interruptions during the day.** Ms. Noor, Ms. Fatimah, and Ms. Lyan mentioned most professional development sessions that were mandatory and offered by the Education Department were during the school day time. When teachers had to leave the students for professional development or for other reasons, teachers who are not qualified worked with the kindergarten children. Ms. Noor said, “also, when I go to visit another teacher in another school, I leave my children with somebody who may be not qualified to work with children.” She indicated that she would like professional development sessions held during the summer. She suggested another alternative was pre-service training instead of during the school day. Both alternatives would work better for the children. She said, “I think that we have to have some pre-service training or have professional development opportunities during the summer holiday.” She actually could not stand to leave her children because it disrupted everything with the children, and was not good for children themselves.

**6.5.6. Find and fund the resources.** Ms. Rasha, Ms. Reem and Ms. Lyan stated that there was a shortage of necessary resources. Teachers have to purchase many resources with their own money. Ms. Rasha said, “I have to buy some resources from my own money. But I cannot do this all of the time as this will cost me so

much money.” Ms. Noor pointed out that teachers need help to find appropriate educational resources for kindergarten children. She suggested the Education Department provide some examples or Internet access in the schools so teachers can look for the good resources. Ms. Lyan said, “I would like if there was a professional development session that discusses different resources that we can use in specific subjects, not just talking about resources in general.”

**6.5.7. Safe and secure environment.** Ms. Fatimah mentioned that she had problems with the playground. It was not secure and safe for children to play. For example, they had a sand area or sandbox which was still in process of being set up. If the children fell, they would be hurt; so the playground was not safe. She stated: Thus, my students are not able to play outside, and since we do not have a gymnasium that is also an obstacle for me to develop the physical domain for the children. The students have to stay in the classroom all the time.

## 7. Discussion

The data analysis revealed five emergent themes related to exploring the DAP beliefs and practices of the kindergarten teachers in north Jordan: (a) beliefs guide practice; (b) enhanced learning and development; (c) established caring community; (d) ensured success; and (e) reflected upon obstacles to DAP. These themes helped the researcher to answer the central research central question, “How do 5 kindergarten teachers describe beliefs and reflect and implement developmentally appropriate teaching practice in urban public schools in the north of Jordan?” The following discussion reports the major findings related to each research sub-question and mirrors the reviewed literature

1- What are the kindergarten teachers’ beliefs that relate to DAP in urban area north of Jordan?

Data analysis revealed that Kindergarten teachers believed in DAP in general (Abu-Jaber et al., 2010; Haroun & Weshah, 2009; Kim et al., 2005). However, Several beliefs toward DAP guided teachers’ teaching practice in the kindergarten classroom. Data analysis revealed teachers’ beliefs predict their practice (Kowalski, Pretti-Frontczak, & Johnson, 2001; West, 2001). According to analysis of the interviews, observations, videotaped observations, and the documentary materials, several key tenets of DAP were identified as a guides for teacher’s practice in the kindergarten classroom. These beliefs that guided kindergarten teachers’ practice in north Jordan included focus on play, focus on the whole child, child-centeredness, and the importance of DAP in educating young children.

Each teacher had her own specific beliefs that guided her practice. Even when two or more teachers shared the same belief, each one had her own way to practice that belief in the classroom. However, two participants still struggled between their DAP beliefs and their implementation of these beliefs (Hegde & Cassidy, 2009; Lee & Tseng, 2008). Specifically, their theoretical underpinning for practice was not clear within their thinking, and they had no clear theory regarding working with children and “hold misconceptions about the actual attributes of developmentally appropriate practice” (Parker & Neuharth-Pritchett, 2006, p. 65). Their lack of a theory and misunderstandings were reflected in their inconsistent beliefs and in their developmentally inappropriate practices evident in their work with the children.

While the rest of participants; (three kindergarten teachers) strongly believed and clearly demonstrated their theory regarding DAP. This finding supported Parker and Neuharth-Pritchett’s (2006) contention external factors such as accountability, high stakes testing, parental pressure, parental involvement, financial resources and administrative policies shape teachers’ beliefs and practice in the classroom. Another reason for lack of consistency in DAP may be the kinds of the professional development that kindergarten teachers had. (Kim et al., 2005; McMullen, 1999).

Play was the most important belief that guided practice of kindergarten teachers. While the practice was varied among kindergarten teachers, all of them believed in the important role of play in teaching children. According to Copple and Bredekamp (2009), play is an important DAP principle because “play is an important vehicle for developing self-regulation as well as for promoting language, cognitive, and social competence” (p.14). Additionally, Curwood (2007) explained, “Play is the necessary work of children” (p. 31). According to Segal (2004), “The children who thrive enter school with strong communication skills. They are confident and self-assured, adept at making friends, persistent, creative, and excited about learning. These are the qualities that children acquire through play” (p. 33). Three types of play were illustrated in teaching kindergarten children ; (a) intentional play, (b) free play, and (c) pretend play. Copple and Bredekamp (2009) indicated several kinds of play that teachers can engage the children with in order to promote their learning and development in all domains; dramatic play, constructive play, game with rules, object play, and physical play.

2- How do kindergarten teachers describe the ways in which they create a caring community of learning?

A “caring community of learning” is one of the key areas of DAP that needs teacher’s intentional decisions in order to support children’s learning and development (Copple & Bredekamp, 2009). Copple and Bredekamp (2009) proposed five components necessary to create positive caring community and build positive relationships between children and adults, teachers and families, and among children: (a) each member of the community is valued by others so children learn to respect and acknowledge the differences; (b) children construct their own meaning of the world through the opportunities of communication and interaction with other children and adults; (c) each member in the community respects and is accountable to the other members; (d) the physical environment is maintained to protect the health and safety of learning community members; and (e) the teacher ensures the overall social and emotional climate is positive (pp. 16-17).

Nowak-Fabrykowski (2010) proposed six caring stages which are: (a) caring for self, (b) caring for family and relative, (c) caring for friend, (d) caring for strangers who are in need and ask for help, (e) caring for strangers who are in need and do not ask for help, and (f) planning and initiated caring for strangers in need. Three subthemes emerged from the broader theme of “caring communities.” The participants tried to create caring communities using the following common factors: setting up a good relationship, attending to classroom discipline, and addressing the role of the physical environment. Additionally, in the second site, the role of religion emerged. The 10 kindergarten teachers in this study worked very hard to establish and strengthen good and positive relationships of three types: (a) teacher-parents/families relationship, (b) teacher-children/students relationship, and (c) child-child relationship.

3. How do the kindergarten teachers describe how they work to enhance development and learning? In order to enhance and improve children’s learning and development, the kindergarten teachers used different procedures. The most successful procedures used to enhance and improve children’s development and learning were: (a) implementing effective teaching, (b) understanding and reaching all children’s varied needs, (c) planning, (d) grouping children to maximize learning, and (e) evaluating learning and development. McMullen (1999) and Ray and Smith (2010), both suggested strong professional development can be a factor in DAP implementation. Finally, DAP was founded as an American term and framework for educating young children and has been part of early childhood practice in the U.S. since 1986 (Bredekamp & Copple, 1997). Since that time, DAP beliefs, practices, and effects have interested many researchers, educators, and policy makers in the U.S. On the other hand, the interest in DAP is very new in Jordan. DAP was introduced into Jordan in 2008, about one decade after the beginning of the public kindergarten movement in Jordan. “Teachers are still relatively new to working with DAP and are concerned that parents

might exert too much influence over program content, thereby causing practitioners to do what families prefer even if they disagree with it as early childhood professionals” (Abu-Jaber et al., 2010, p. 71).

It was found that the participants who had good and ongoing professional development and had more years of experience with teaching early childhood were more able to implement DAP in teaching young children. These findings supported previous research that suggested teachers with more years of experience are much strongly entrenched in developmentally appropriate practice. Often the strength of practice is related to the influence of ongoing professional development in early childhood, not because of the number of years in the field (McMullen, 1999).

4- What are the challenges that kindergarten teachers describe that they face in applying developmentally appropriate beliefs in practice? According to analysis of data, there were several common challenges to implementing DAP beliefs. data analysis revealed that each site had its own particular challenges. Having no assistants, interruptions during the day, size of the classroom, the girls-boys’ relationship, lack of funds, Lack of parent awareness, difficulty finding educational resources, and making the environment secure and safe, were unique subthemes identified as challenges for kindergarten teachers in north Jordan. This finding supported previous research study findings about the pressures teachers had from parents (McMullen, 1999; Parker & Neuharth-Pritchett, 2006; Szente et al., (2002); Zeng & Zeng, 2005). Szente et al., (2002) found that teachers and parents had a range of differences, as well as some similarities on DAP beliefs.

5- What do kindergarten teachers describe as factors that encourage them to put developmentally appropriate beliefs into practice? Analysis of the data revealed three factors helped the participants in Jordan to succeed in reflecting DAP beliefs in teaching practice. The three factors were: professional development, commitment to kindergarten, and support.

The kinds of professional development offered were different, but professional development emerged as an important factor. All the professional development was mandatory and was offered and presented in the educational department for all the kindergarten teachers around the country. The differences in the amount and richness of professional development opportunities available to teachers may explain the finding that the some kindergarten teachers reflected DAP more professionally than other kindergarten teachers in Jordan (McMullen, 1999; Ray & Smith, 2010; Zeng & Zeng, 2005).

All participants indicated that they had the support of the principal and the students’ parents or families and that this support encouraged them to use DAP in teaching children. This finding supports pervious research studies (Ray & smith, 2010; West, 2001; Zeng & Zeng, 2005). The participants added that the encouragement and support of their educational supervisor as another factor that encouraged them to implement their beliefs in teaching kindergarten. The commitment to kindergarten children was another factor that both sites shared, in spite of the differences in the extent of the commitment between participants.

## 8. Implications for practice

Understanding these kindergarten teachers’ developmentally appropriate beliefs and practice helps advocates, administrators, and teachers plan→ best practices for young children. The following are some suggested implications that were derived from this study:

1. School administrators should consider the multiple forces and external factors that influence teachers’ implementation of DAP;
2. Teachers need professional development regarding the balance of DAP and state curriculum standards;
3. Pre-service teachers need to be exposed to the benefits of DAP as best practice to educate young children. They should learn how to use DAP in teaching and have opportunities to observe teachers using DAP effectively in the classroom;

4. Professional workshops regarding DAP are needed for teachers and parents;
5. Professional workshops offering DAP procedures for evaluating children's development in social, emotional, and physical domains are needed;
6. Child developmental theory courses at the university level are needed to focus on the implementation of theory in teaching practice;
7. The last recommendation is directed toward the Educational Department and to the principals in Jordan. Administrators need to discuss with the teachers the challenges of implementing DAP and allow them to change the kindergarten classroom organization. Also, administrators need to help teachers to find and fund the important resources that help them in their work with children.

### **8. Recommendations for future research**

The following are some recommendations for future research that were derived from this study:

1. Research that explores the professional development opportunities offered to teachers and how professional development helps teachers realize the suitability and application of DAP in teaching young children;
2. Studies of parent(s)/families and teachers' beliefs about best practice and whether it is linked to the particular aspects of DAP;
3. Further case studies to explore the reasons behind the negative relationships between the boys and girls in Jordanian kindergartens;
4. Research exploring pre-service teachers' knowledge, beliefs and practices;
5. Examine DAP in primary elementary schools (1st-3rd grade) in Jordan.

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