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Challenges to the Implementation of Developmentally Appropriate Practices in Early Childhood Education

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MA in Education: Early Childhood Education

Challenges to the Implementation of Developmentally Appropriate Practices in Early Childhood
Education

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Abstract

Early childhood educators are faced with making many impactful decisions daily. The implementation of developmentally appropriate practices (DAP) in the learning environment is one of these many decisions. Developmentally appropriate practice in the early childhood learning setting refers to the framework that helps teachers to provide an environment, activities, and materials which intentionally meet children's current level of development. While many early childhood educators believe in the concept of DAP, barriers are often encountered which prevent the implementation of DAP in the learning environment. In order to provide children with a DAP learning environment, teachers must first recognize and understand that these barriers exist. The focus of this paper was to investigate research to find what types of barriers to the implementation of DAP exist in early childhood environments both in the United States and in other countries. Studies showed that the three most common barriers to the implementation of DAP in the early childhood learning environment to be personal and environmental constraints and teacher training (Heisner & Lederberg, 2011; Sahin-Sak, Tantekin-Erden, & Pollard-Durodola, 2018).

Keywords: barriers, challenges, developmentally appropriate practice (DAP), implementation, early childhood

Challenges to the Implementation of Developmentally Appropriate Practices in Early Childhood Education

The decisions that early childhood educators make daily regarding the implementation of developmentally appropriate practice (DAP) can have an impact on both teaching methods and the learning environment. Educators must consider the organization of the learning environment, planning an engaging curriculum, and the adaptation of teaching strategies to best fit the needs and goals of both individual children and the group (Copple & Bredekamp, 2009). The choice to implement DAP is also one of these impactful decisions. Many early childhood educators understand the importance of DAP, the impact that it can have on the learning environment, and the role educators take in providing a developmentally appropriate learning environment and experiences. Often, even with the best intentions, early childhood educators encounter barriers to the implementation of DAP. Researchers conducted studies which help early childhood educators recognize some of the personal and environmental barriers that may be encountered in the implementation of DAP in the learning environment (Sahin-Sak et al., 2018). Barriers noted in these studies included personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak et al., 2018). Studies conducted in foreign countries, including Canada, Cyprus, England, Hong Kong, Jordan, India, Switzerland, and Turkey showed that while there may be variations to the teaching environment, many of the same barriers exist in the implementation of DAP (Abu-Jaber, Al-Shawareb, & Geith, 2010; Chan, 2016; Cobanoglu, Capa-Aydin, Yildirim, 2019; Hegde & Cassidy, 2009; Perren, Herrman, Iljuschin, Frei, Korner, & Sticca, 2016; Pyle & DeLuca, 2017; Rose & Rogers, 2012; Sahin-Sak, et al., 2018; Sakellariou & Rentzou, 2011). It is imperative for early childhood educators to recognize barriers that may be encountered in attempts to implement DAP teaching practices and with

providing a DAP learning environment. Before educators can implement DAP in the learning environment or begin to recognize the barriers to its implementation, an understanding of DAP is necessary.

Copple and Bredekamp (2009) state that teachers should use the DAP framework provided in the National Association for the Education of Young Children (NAEYC) Position Statement to help provide "...high-quality experiences for children, birth through age 8" (p. 33). Providing these experiences to children by using DAP in the early childhood learning environment involves educators intentionally meeting children at the current developmental level (NAEYC, 2018). To use and understand DAP, educators should have a knowledge of how children develop and grow in each developmental domain including social, emotional, physical, and cognitive (Copple & Bredekamp, 2009). Educators must also have a knowledge of what is both individually and culturally appropriate (NAEYC, 2018). With this knowledge, educators can help the children to achieve goals by providing challenging materials and activities which help to attain the next level of development. Through the use of DAP, educators learn about individual children and use that information to plan the environment and activities. While planning for the environment and activities, educators must keep the individual needs, as well as the needs of the group, in mind (Copple & Bredekamp, 2009).

Even though educators may have an understanding and desire to use DAP in the learning environment, barriers may impede this process. Researchers have conducted studies both qualitative and quantitative, which help early childhood educators become aware of the various types of barriers that may influence current and future practices. As stated previously, these barriers are not limited to educators in the United States. Results of studies conducted in foreign countries such as Canada, Cyprus, England, Hong Kong, India, Jordan, Switzerland, and Turkey,

showed that educators in those early childhood education systems also face barriers, such as differences in beliefs, untrained educators, and a system that does not or is unable to provide support or materials that promote a DAP learning environment (Rose & Rogers, 2012).

Developmentally appropriate practice is important to the field of early childhood education because it provides educators with the framework to make decisions and help children meet individual goals, while also being cognizant of the whole group of children. Through the implementation of DAP, educators use the knowledge and understanding of child development, across all developmental domains, to recognize children's current developmental level and to guide progress towards children's goals (Copple & Bredekamp, 2009). A review of research showed that barriers to the implementation of DAP in the learning environment do exist. By becoming aware of and understanding these barriers, educators can find the help, support, and encouragement needed and possibly seek further training or education to help them overcome the barriers faced when implementing DAP. Through the discussion of previously completed research studies, early childhood educators will be able to gain a better understanding of what types of barriers impact implementation of developmentally appropriate practices for early childhood educators.

Chapter Two: Review of Literature

Developmentally appropriate practice (DAP) is a framework used by early childhood educators to guide practices and plan for an environment that supports children in all areas of development and in achieving goals (Copple & Bredekamp, 2009). Through the implementation of DAP in the early childhood learning environment, educators intentionally meet children's current developmental level. For successful implementation, educators must have knowledge of how children develop across all developmental domains. By using DAP, educators learn about each child as an individual and can use that information to help plan for the environment and activities. Materials, activities, and teaching strategies are used to challenge children to attain the next level of development (Copple & Bredekamp, 2009). Educators support children in the attainment of the next developmental level by using strategies such as scaffolding, modeling, and asking open-ended questions. In addition, early childhood educators help to support children's learning through the building of positive, reciprocal relationships with both children and families, and by supporting children in the formation of relationships with peers (Copple & Bredekamp, 2009). The focus of this literature review was to discuss the barriers which impact the implementation of developmentally appropriate practices for early childhood educators.

Barriers to the Implementation of Developmentally Appropriate Practices

Teachers in the early childhood learning environment often understand the importance of using this framework and the impact that it may have in guiding teaching practices, but many often do not follow through with implementation (Cobanoglu et al., 2019). The review of both qualitative and quantitative studies showed that barriers exist, which prevent educators from the successful implementation of DAP in early childhood learning environments. Some of the barriers noted in these studies included—but were not limited to—personal constraints,

environmental constraints, and teacher training (Sahin-Sak et al., 2018). Research is not limited to practices occurring in the United States. Similar barriers related to personal constraints, environmental constraints, and teacher training, have also been noted in foreign countries (Rose & Rogers, 2012).

Personal Constraints

Research showed that teachers' beliefs about DAP often do not correlate to the practices that are taking place in the early childhood learning environment (Cobanoglu et al., 2019).

Various factors influence teachers' beliefs and practices. Factors noted by researchers included self-efficacy, a lack of professional development and training, teachers unaware of how to implement DAP in learning environment, and years of experience in the early childhood field (Chan, 2016).

Research conducted by both Cobanoglu et al. (2019) and Perren et al. (2016) showed that self-efficacy can affect teachers' beliefs related to both DAP and developmentally inappropriate practices (DIP). Cobanoglu et al. (2019) conducted a quantitative study of 251 participants. The participants worked in 62 public schools that ranged across eight districts within a city in Turkey. Of the participants, 78.1% worked in independent primary schools. The other 21.9% of participants worked in pre-primary elementary classrooms. Participants' experience ranged from 1-31 years and the average was 11 years. The education level of the participants was as follows: 90% had attained at least a bachelor of science degree and the other 10% held either Open University or Associate Education degrees. In addition, 98% of participants specialized in child development. Data was collected via the Teacher Belief Survey, the Teacher Self-Efficacy Scale for early childhood education, and the Teacher Efficacy Scale. The data was analyzed using structural equation modeling and item parceling. Results initially showed that teachers' beliefs

were associated with three aspects of teacher beliefs. These beliefs included "...self-efficacy for teaching, self-efficacy for parent involvement, and general teacher efficacy..." (Cobanoglu, 2019, p. 201). Of the three dimensions, it was found that teacher efficacy had the greatest correlation to teachers' beliefs about both DAP and DIP. Teachers who had a higher level of general teaching efficacy were more likely to have beliefs that support DAP than DIP. A limitation of this study included heavy reliance on the Western cultural view of DAP.

Research conducted by Perren et al. (2016) also showed a correlation between self-efficacy and teachers' beliefs about DAP. A qualitative study included 265 caregivers who worked with 0-4 year-olds in various Swiss early childhood learning environments. The participants were chosen using a convenience sample. Out of the 265 participants, 96% were female, 78.5% were Swiss, 17.7% were German, and 3.8% were identified as other. Of the participants—96 worked in a centre-based setting, 50 worked in a family-based daycare setting, 86 worked in educational playgroups, and 33 worked in other educational or care settings. The average years of experience working with children was 13.5 years, and the average number of time spent in early childhood training was 21.2 months. Out of the participants, 109 held a degree from a technical college or university, 135 had professional vocational training, and 21 had no degree or were still in training. The data in this study was acquired using a self-report questionnaire and was analyzed using the structural equation model and the generalized linear model. Results of this study showed that an educator's professional background may positively influence educational practices and be associated with teacher beliefs, and that "...self-efficacy is a stronger predictor of early childhood professionals' behavior than their attitudes" (Perren et al., 2016, p. 147). Researchers noted the following limitations of this study. Participation in the survey was voluntary and therefore data gathered may not be representative of the majority of

the sample. In addition, the survey was self-reported and social desirability could not be ruled out.

Research conducted showed a possible correlation between self-efficacy and teachers' developmentally appropriate beliefs, in addition to a possible incongruency between teachers' developmentally appropriate beliefs and practices (Chan, 2016). A mixed-method study conducted by Chan (2016) in Hong Kong included 35 teachers, three principals, and five early childhood specialists. The participants were chosen from three different regions in Hong Kong. The educators were chosen from "government-aided, non-profit" kindergartens located within the three different regions (p. 420). Of the 35 educators, nine years was the average of years of experience. Data was collected through a five point Likert-type scale, individual interviews, and focus group discussions and later analyzed using triangulation. Results of this study showed that teachers were likely to endorse developmentally appropriate teacher beliefs but that practices in the classroom did not reflect beliefs. The incongruency was found to be related to teachers not understanding fully how to implement these practices in the classroom due to lack of professional development. It was also found that parental expectations hindered attempts, as parents were focused on the learning outcomes rather than the learning process. Limitations to this study included a small sample size and the lack of parental interview by researchers.

Wen, Elicker, & McMullen (2011) found similar findings in the mixed-method study of 58 midwestern, head teachers from early childhood programs in two counties. Teachers, who had an average of 9 years of experience, worked with children ages 3-5 years old. Of the teachers, 14% held a high school diploma or General Education Diploma (GED), 26% held a Child Development Associate (CDA) or associate's degree, 44% held a bachelor's degree, and 16% held a graduate level degree or above. Participants were recruited via letters sent to licensed

child care centers within the two counties. Data was collected through observation in the classroom, the Teacher Beliefs Survey, and the Early Childhood Professionals Questionnaire. Data was analyzed using the Early Childhood Teacher Behavior Observation instrument, time-sampling strategies, component factor analysis, and correlation analysis. As with the Chan (2016) study, researchers found that teachers' self-reported beliefs regarding DAP were stronger than their DAP practices. Researchers also found a link between teachers' professional training and years of experience and their beliefs and practices. Teachers who had more professional development and more experience in the field, were more likely to carry out DAP (Wen et al., 2011). Limitations of this study noted by researchers included small sample size and observations being focused on teachers rather than children.

Research regarding DAP beliefs and practices is not limited to currently practicing teachers. Sakellariou and Rentzou (2011), conducted a quantitative study of 68 female pre-service kindergarten teachers who were enrolled in early childhood education courses in a Cypriot university. As part of the educational program, these students spent one week in a kindergarten classroom implementing what had been learned in the classroom setting. Students practiced in both urban and suburban kindergarten classrooms, 88% in urban and 12% in suburban. Data was collected through the Teachers Beliefs Scale and the Instructional Activities Scale and analyzed using bivariate correlations. Results revealed that participants in this study reported higher developmentally appropriate beliefs than developmentally appropriate practice. Researchers noted that a limitation of this study included data collected solely by self-reported information.

Job satisfaction and work climate. Teachers who use a child-centered style of teaching, allow children to learn through the exploration of the learning environment. The

teacher's role in this type of learning is to support exploration and learning. It is thought that when early childhood educators feel increased job satisfaction, educators may be more apt to use child-centered teaching practices (Hur, Jeon, & Buettner, 2015). Research also showed that an increase in job-related stress does not directly correlate with a decrease in child-centered practices (Jeon, Kwon, Walsh, Burnham & Choi, 2019). Rather, teachers who experience an increase in job-related stress reported an increased level of child-centered beliefs (Hur et al., 2015). Child-centered beliefs can also be affected by an educator's professional motivation (Jeon et al., 2019).

Jeon, et al. (2019) conducted a qualitative study of 207 participants. The participants worked in center-based programs and have attended state required in-service trainings. The participants were chosen through convenience sampling and were recruited by in-service teacher trainers. Of the participants, 67 held a bachelor's degree or higher, 24 held an associate's degree, 78 had some college level classes, 36 had completed a high school diploma or GED program, and 1 had some high school education. One participant's education level was not reported. The data in this study was collected through self-administered questionnaires, a screening tool for depression, five-point rating scales measuring motivation, a modified version of the Child Care Worker Job Stress Inventory, the Parental Modernity Scale, and the Teacher Beliefs Scale which measured DAP beliefs. The data was analyzed using bivariate correlations, path analysis, and model of fit using multiple indices. Data from this study showed that teachers' depressive symptoms were linked indirectly to child-centered beliefs through professional motivation. As teachers' depressive symptoms increased, job-related stress increased and professional motivation decreased. Results also showed that job-related stress did not directly affect teachers' beliefs and practices. Rather, teachers' increased depressive symptoms and decreased

motivation may have an indirect link to teachers' job-related stress and beliefs. This research contradicts previous research by Hur et al. (2015). Limitations of this study, noted by researchers, included lack of longitudinal data and the use of all teacher-reported data both for teacher beliefs and depressive symptoms.

In a quantitative study conducted by Hur et al. (2015), 522 participants were chosen from a group of 323 early education and care programs in the Midwest who participated in the state's Quality Rating and Improvement System (QRIS). Researchers set out to show that there are elements in the work environment that can affect teacher centered-beliefs and be a barrier to the implementation of DAP. The information in this study was obtained using a Likert scale questionnaire to measure job-related satisfaction and stress and a Modernity Scale to measure child-centered versus teacher-centered beliefs. After using exploratory and confirmatory factor analysis along with correlational analysis, researchers concluded that a teacher's sense of collegiality and influence were positively correlated with satisfaction and negatively correlated with stress. Researchers noted that increased job-related stress was associated with increased levels of child-centered beliefs. Researchers also noted that this could be due to the way teachers' stress was measured in this study. They also found that teachers' sense of influence in the program was positively associated with child-centered beliefs. Researchers noted the following limitations of this study: data was self-reported by teachers, findings were correlational, and the participants were chosen from child-care centers in one state, which voluntarily participated in the QRIS.

Job satisfaction, along with the work climate of early childhood educators, played a role in the use of DAP (Adcock & Patton, 2001). A qualitative study of 10 teachers from an urban Texas school district—where test scores are emphasized—examined differences that occurred in

classrooms between teachers who use developmentally appropriate teaching practices and teachers who use an academic-only curriculum. The study also examined whether factors such as the views of teachers, teaching practices, and systemic constraints affected teaching practices. Factors also included: pressure felt from higher level teachers, freedom of instructional decision making, and a lack of understanding of the benefit of child-centered practices for children (Adcock & Patton, 2001). The methodology used included: focus groups, interviews, and classroom observations. The analysis of data, using thematic sorting and coding, resulted in emerging themes that included: “trends and issues, developmentally appropriate practice, play, and systemic constraints” (Adcock & Patton, 2001, p. 197). Results of this study showed that there are systemic constraints that do affect the practices of early childhood educators in the classroom.

Nelson (2000), conducted a qualitative study where four teachers, who worked with varying ages and abilities of children, were interviewed and observed. The teachers’ job duties varied, and included a kindergarten teacher, a first-grade teacher, a kindergarten/first grade mixed teacher, and a junior high special education teacher. The teachers’ work environments also varied in level of support of DAP. After the completion of interviews and observations, the researcher used a coded chart to document both appropriate and inappropriate practices. The results of this study showed that teachers’ stated beliefs are often not reflected in teaching practices. It also showed that even though there are environmental factors that influence a teacher’s implementation of DAP, personal factors had more of an effect.

Some factors listed by early childhood educators that affect the work climate include unsupportive co-workers, administration, and families, and lack of materials and budget (Adcock & Patton, 2001; Nelson, 2000). Educators, who work for administrators and with co-workers

who do not understand DAP and its importance, often end up feeling that they are working in a constrained environment (Adcock & Patton, 2001). Educators may also feel restricted by the inability to provide input regarding the curriculum that is used. In addition, the mandated curriculum often does not allow for the use of child-centered practices by educators (Adcock & Patton, 2001).

Environmental Constraints

Along with personal constraints, educators are also faced with environmental constraints which hinder DAP implementation (Sahin-Sak et al., 2018). In a developmentally appropriate learning environment, children should have the opportunity for hands-on exploration of the environment and materials, to engage with peers, and to participate in developmentally appropriate activities (Parker & Neuharth-Pritchett, 2006). Providing this type of learning environment is often met with barriers due to curriculum and budget constraints. Along with these factors, educators also felt pressure to prepare children for standardized or high-stakes testing (Brown & Feger, 2010). The results of these tests are often related to or correlate with funding that the school receives, accreditation status, and teachers' evaluations (Brown & Feger, 2010). In addition to pressures related to standardized or high-risk testing, educators also often felt pressure from teachers in the upper grades (Rose & Rogers, 2012).

In school districts, such as a public-school district in Texas, educators are required to use a mandated curriculum and to have students take part in state-mandated testing (Brown & Feger, 2010). A qualitative case study review by Brown & Feger (2010), focused on three of the nine teachers chosen to participate in an original study that took place in Texas public school classrooms. Data was collected through interview and collection of documents, such as syllabi. The data was coded, analyzed through triangulation, created into a research text, and transformed

into this article. This article mentioned the high-stakes test known as the Texas Essential Knowledge and Skills (TEKS) and the fact that teachers in these districts must use a mandated curriculum. It was shown, that during placements, pre-service teachers noted that many of the early childhood teachers observed and worked with were using teacher-directed methods to teach the content of the TEKS rather than using child-centered practices. The results showed that teachers' use of DAP was affected by the high-stakes reforms of policy makers, the pressure for children to perform well on state-mandated testing, and the lack of autonomy in the use of curriculum.

A study conducted by Rose and Rogers (2012), found that pre-service student teachers in England also faced similar external barriers to the implementation of DAP in the learning environment. The qualitative study participants included 100 early education students chosen from four cohorts from two universities in England, who were all taking specialist early years focusing on children ages 3-7 years. The data was collected through written, reflective accounts and reflective questions asked during recorded narratives. The data was analyzed using triangulation, member checks, and comparative methods used to look for confirmatory patterns. The results of this study showed that student teachers face challenges to the implementation of DAP in England. One of the challenges discussed included pressure from those above them to maintain student performance to maintain the school's high reputation for achievement. From this study, student teachers who attempted to implement a play-based curriculum felt 116 sources of pressure. Of the 116 sources referenced, 58 participants cited pressure from the government, 34 cited pressure from other staff and teachers, 24 cited pressure from parents. The sources of pressure included government, other staff, teachers, and parents. Because of the pressures that student teachers faced, it felt as though expected practice conflicted with principles. Results also

concluded that these pressures are not unique to the United States and are found in other countries as well. It also showed that not only practicing teachers face these challenges, but student teachers do as well.

Pyle and DeLuca (2017) conducted a mixed method study of 10 kindergarten teachers from Ontario, Canada. Originally, 67 potential participants fully completed an online survey using a Likert-type scale to determine demographic information. From this group of 67 potential participants, 10 teachers were chosen from two different public school systems. Data was collected through observation, field notes, photos, videos, and the completion of a survey using a Likert-type scale. Data was analyzed through content analysis and open-coding. Results of this analysis showed a variance in teachers' beliefs about purpose of play. Forty-two percent of participants believed that play in kindergarten classrooms supported the development of children's social skills, 50% believed that play was necessary for building social skills but that it also increased children's academic skills, 8% believed the primary goal of play was academic learning. While teachers in this study valued play-based, developmentally appropriate learning, mandated academic standards posed a challenge to its implementation in classrooms. A limitation of this study noted by researchers included the study being limited to kindergarten teachers in Ontario and data not being reflective of teachers outside of this area.

California legislators implemented transitional kindergarten programs within school districts as an attempt to provide four year-old children, who were not age eligible for kindergarten, with a child-centered learning environment that balanced the academic standards and rigorous expectations of kindergarten. Maniates (2016) conducted a qualitative study of two teachers, two administrators, and one instructional coach. The teachers each taught in a self-contained classroom which were both at different sites. Data was collected through interviews,

field notes, and observations and was analyzed using triangulation and a cross-case matrix. Results of this study showed how two teachers were able to maintain developmentally appropriate practices in the learning environment while also beginning to prepare children for the academic rigors of kindergarten. A limitation to this study included a small sample size.

Educators have noted high-stakes reforms, pressures for students to perform well, and the loss of autonomy as barriers to the implementation of DAP in the learning environment. In addition, educators have also noted limitations of the physical environment and lack of materials as barriers (Sahin-Sak et al., 2018). The lack of resources and materials is an issue that is not only experienced by early childhood educators in the United States. After learning more about DAP and wanting to implement DAP in the learning environment, many teachers found a lack of resources and/or materials available for the successful implementation of DAP. This led to frustration for educators and the inability for successful implementation of DAP in the learning environment (Sahin-Sak et al., 2018).

Research conducted by Hegde and Cassidy (2009) showed barriers found in the learning environment which impede the implementation of DAP. The participant group of this qualitative study included 12 teachers—three from each zone of Mumbai. All participants in this study were female and varied in age from 22-54 years old. The years of experience for the group of participants ranged from 3-22 years. Data was collected through self-constructed interviews which used open-ended questions and was analyzed using the constant comparative method and cross case analysis. From these interviews, researchers identified six themes that included challenges that Indian early childhood educators face in the implementation of DAP. Two of these challenges included constraints on play and lack of material. Early childhood educators in India found that after training and feeling encouraged to implement DAP in their learning

environments, they were met with the frustration of the lack of materials and equipment that provide children with the opportunity to participate in a play-based, DAP curriculum.

Additionally, educators were met with resistance from parents who were uncooperative or challenged the school philosophy about play (Hegde & Cassidy, 2009). The findings also showed that class size influenced attempts to implement DAP. Individual class sizes were as large as 70 students. With that number of students, educators are unable to individualize instruction (Hegde & Cassidy, 2009). A limitation of this study was the difficulty in making comparisons between schools in India and those in the United States.

A qualitative research conducted by Sahin-Sak et al. (2018) in Turkish early learning environments, also noted challenges with the learning environment. This study included four participants who were selected through the use of a convenience sample. Of the four teachers, two taught in public schools and two taught in private schools. All participants worked with children ages 5-6 years. One had knowledge of DAP, while the other three did not. The age range of the participants was between 29-35 years of age and teaching experiences ranged from 7-12 years. The data in this study—collected from October to December—was collected through classroom observations, interviews, and document review. The data was then analyzed through coding and the finding of themes. The findings of this study showed that teachers' beliefs are more developmentally appropriate than their practices. Results also showed that the reason for this was the limitations of the physical environment, including the physical condition and resources available. Educators in this study tried to maintain DAP movement activities through attempts to balance sedentary activities with the incorporation of more energetic types of movements (Sahin-Sak et al., 2018). This type of movement was noticed only indoors and this type of DAP movement was not occurring outdoors. Limitations to providing children with

developmentally appropriate movement activities included inadequate space for outdoor playgrounds, which may be combined with the lack of developmentally appropriate materials for outdoor play (Sahin-Sak et al., 2018). A limitation noted by researchers of this study was the small sample size.

Teacher Training

Studies have taken place that have shown that some types of training can increase an educator's developmental appropriateness by decreasing their contrasting beliefs (Heisner & Lederberg, 2011). A quantitative study of 126 participants who worked either as childcare providers or teachers in state-licensed, center-based settings conducted by Heisner & Lederberg (2011) showed a variance in results. Methods used to collect data related to teachers' beliefs and practices, included the Teacher Beliefs and Practices Survey, Instructional Activities Scale and Early Childhood Survey of Beliefs and Practices. Through the analysis of data, using multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) results showed that there was a strong correlation between teachers' self-reported beliefs and practices. Additionally, analysis of data showed that an increase in education through the attainment of a CDA correlated with an increase in self-reported developmentally appropriate beliefs and practices. Limitations of this study noted by researchers included a small sample size and limited geographic area, the lack of observation to find whether changes in classroom practices occurred, and lack of documentation of which teaching methods were used by instructors.

Similarly, Abu-Jaber et al. (2010) conducted a qualitative study of 285 female educators in Jordan, who were chosen randomly, to examine teachers' beliefs towards DAP. The educators in this study held some type of higher education degree—75 held an associate degree, 185 held a bachelor's degree, and 25 held master's degrees. Data was obtained through questionnaires that

used a Likert-type scale and was analyzed using independent T-test and analysis of variance. Data showed a slight difference in teachers' beliefs towards teaching based on teachers' education level. The data was further analyzed through ANOVA and showed the largest difference occurred between teachers who held an associate degree and those who held a bachelor's degree. As with the previously discussed study by Heisner & Lederberg (2011), this difference is attributed to those who have obtained a higher level of education having more training and exposure to DAP in their courses (Abu-Jaber et al., 2010).

In addition to a contrast in educational level, beliefs related to DAP may be affected by a lack of professional development and in-service training (Han & Neuharth-Pritchett, 2010). A qualitative study, conducted by Han & Neuharth-Pritchett (2010), of 62 female teachers and teacher's assistants who taught in state-funded preschool programs in the southeast of the United States used data from the following self-reported tools: Teacher Attitude Inventory, the Teacher Beliefs Scale, and the Teacher Practices Scale to examine teacher beliefs and practices. Through reverse coding and ANOVA, researchers found that teacher assistants were more likely to support DIP than the teachers and that teachers were more likely than the assistants to endorse or agree with DIP in the classroom environment. This difference was likely attributed to the difference in education level between the teachers and the teacher assistants. In addition, findings noted that the difference may be attributed to the assistants having less of an opportunity to attend professional development and in-service trainings. Researchers suggested the data collection being self-reported and unable to be connected to observation as a limitation of this study.

In addition to data collected regarding teachers already in the field, studies have also been conducted related to preservice teachers and DAP (Cunningham, 2014). Cunningham (2014)

conducted a mixed-method study of 10 Caucasian, female college students at a mid-western, four-year university. All students were of junior or senior status and enrolled in an early childhood program. Data was collected through surveys, observations, student-reflections, field notes, and discussions. Students completed surveys to gauge the level of confidence related to DAP. To begin, students analyzed materials, both developmentally appropriate and inappropriate, and planned a curriculum. Next, students were required to incorporate the developmentally appropriate materials in planned lessons and activities. Finally, students completed a field assignment where materials, lessons, and activities were implemented in a primary school classroom. Through the process of this experience, students gained more confidence in selecting developmentally appropriate materials and the ability to plan and implement developmentally appropriate lessons and activities. Research showed that students who participated in more hands-on, student-centered learning regarding DAP, may be more confident in their abilities and better able to recognize barriers faced in the implementation of DAP in future learning environments (Cunningham, 2014). Limitations of this study noted by researchers included the small sample size, the use of only one college, and data being collected only for two semesters.

Conclusion

Educators must have a knowledge of child development in order to attempt the implementation of DAP in their learning environment (Copple & Bredekamp, 2009). Through the use of DAP in the learning environment, teachers plan for an environment, materials, and activities that support children at their current developmental level. Educators also use strategies to help children meet their goals and attain the next level of development (Copple & Bredekamp, 2009). The review of literature supports the claim that barriers impact the implementation of

DAP by early childhood educators. Barriers noted through the review of literature included personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak, et al., 2018). Through an awareness of these barriers, early childhood educators can reflect upon current practices to see how these barriers impact current attempts at the implementation of DAP in their learning environment.

Chapter Three: Research Summary and Conclusions

Children's growth and development across all domains is supported through the use of developmentally appropriate practices (DAP) by educators in the early childhood learning environment. DAP serves as a model for educators to help guide practices and plan for the environment, materials, and activities (Copple & Bredekamp, 2009). The implementation of DAP in the learning environment allows educators the opportunity to learn about children, both as individuals and as a group (Copple & Bredekamp, 2009). Through the use of DAP, educators recognize where children are at developmentally and use strategies such as scaffolding, modeling, and asking open-ended questions to help achieve the next goal or developmental level (Copple & Bredekamp, 2009). While educators may understand the importance of implementing DAP in the learning environment, attempts at implementation are often met with barriers (Heisner & Lederberg, 2011; Sahin-Sak, et al., 2018).

Barriers to the Implementation of Developmentally Appropriate Practices

The use of DAP in the early childhood learning environment provides educators with a framework, in which best practices are used, to provide children with a quality education (Copple & Bredekamp, 2009). Attempts at the implementation of DAP by educators are often met with barriers. A review of literature showed the types of barriers that impact the implementation of DAP by early childhood educators (Sahin-Sak, et al., 2018). Some of the barriers noted in research included—but were not limited to—personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak, et al., 2018). Research showed that these barriers are not limited to the United States. Rather, they are also experienced by educators in foreign countries (Rose & Rogers, 2012). Through an awareness and understanding of these barriers, educators can reflect upon current practices to

find if these barriers prevent the implementation of best practices in the early childhood learning environment.

Personal Constraints

A combination of both qualitative and quantitative research showed that teachers' beliefs often do not correlate to the practices taking place in the learning environment and that various factors influence teachers' beliefs (Cobanoglu et al., 2019). The factors influencing self-efficacy included a lack of professional development and training, years of experience, and teachers not fully understanding how to implement DAP (Chan, 2016). Research also revealed that self-efficacy may also affect teachers' developmentally inappropriate practices due to lack of understanding, professional development, and field experience (Perren et al., 2016).

Job satisfaction and work climate. Research conducted, showed factors related to job satisfaction and work climate that affect educators' implementation of DAP (Hur et al., 2015). Results of this research showed that educators who felt an increase in job satisfaction were more likely to use child-centered practices (Hur et. al. 2015). Researchers also noted that an increase in teachers' stress and depressive symptoms can also negatively affect professional motivation and child-child centered beliefs (Jeon et al., 2019). Adcock & Patton (2001) found that systemic constraints affect the practices of early childhood educators in classroom environments. The constraints included pressure felt from higher level teachers, freedom of instructional decision making, and a lack of understanding of the benefit of child-centered practices for children (Adcock & Patton, 2001). Finally, Nelson (2000) found that teachers' stated beliefs are often not reflected in their teaching practices. Even though there are environmental factors that influence a teacher's implementation of DAP, personal factors had more of an effect (Nelson, 2000).

Environmental Constraints

Researchers revealed environmental constraints that limit early childhood educators' implementation of DAP in the learning environment, both in the United States and in foreign countries (Rose & Rogers, 2012; Sahin-Sak et al., 2018). Studies conducted showed that teachers felt pressure from school staff and policy makers for students to perform well on state-mandated tests and maintain the school's status of being a high achieving school (Rose & Rogers, 2012). In addition, teachers felt a lack of autonomy in use of curriculum and felt hindered by required academic standards (Brown & Feger, 2010). A study by Maniates (2016), showed that the implementation of transitional kindergarten programs allowed teachers to maintain developmentally appropriate beliefs and practices, while preparing children for kindergarten. Research also showed lack of material and equipment, large class sizes, and resistance from parents who disagree with play-based learning, as environmental constraints (Hegde & Cassidy, 2009). It was also found that environmental constraints were not only felt by practicing teachers; they were felt by preservice teachers as well (Rose & Rogers, 2012).

Teacher Training

Studies conducted showed that an increase in education, professional development opportunities, and attendance at trainings can increase an early childhood educators' developmental appropriateness by decreasing their contrasting beliefs (Heisner & Lederberg, 2011). Research showed that an increase in training and exposure to DAP may increase beliefs towards DAP (Abu Jaber et al., 2010). Research also revealed that pre-service teachers who participated in more hands-on, student centered learning in teacher preparation courses, were more confident in their abilities and felt more prepared to recognize barriers to the implementation of DAP in future learning environments (Cunningham, 2014).

Conclusion

Developmentally appropriate practice provides educators with the framework needed to provide the children with an environment that supports them not only as a member of the group, but also as individuals (Copple & Bredekamp, 2009). Through the knowledge of child development, educators help children develop across all domains of development. Educators help children to attain current goals and also challenge those children to meet goals that are just beyond the current level of development (Copple & Bredekamp, 2009). Many educators are met with barriers to their attempts at implementation of DAP in the learning environments. Barriers encountered included personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak et al., 2018). These barriers are not unique to teachers in the United States (Rose & Rogers, 2012). Research showed that educators in foreign countries found similar barriers to attempts at implementation of DAP in their learning environments (Abu-Jaber et al., 2010). Through an awareness and understanding of these barriers, educators can find help, support, encouragement, and training or education to help overcome the barriers which may impact the implementation of DAP in the learning environment.

Chapter Four: Discussion and Applications

Developmentally appropriate practice (DAP) is important to the field of early childhood because it provides a framework that is used by early childhood educators to guide decision making, material selection, activity planning, and to implement strategies in the learning environment (Copple & Bredekamp, 2009). Copple & Bredekamp (2009), state that educators should use DAP to provide "...high-quality experiences for children, birth through age 8" (p. 33). Through the use of DAP, educators learn about the children in their care as individuals and as members of a group (Copple & Bredekamp, 2009). To provide children with a developmentally appropriate environment, materials, and activities, early childhood educators need to be aware of how children develop across all developmental domains (Copple & Bredekamp, 2009). With this knowledge, educators can learn where children are at developmentally and how to best support them to reach goals and the next level of development (Copple & Bredekamp, 2009). To support children and help them reach goals and attain the next level of development, early childhood educators use strategies such as modeling, scaffolding, and open-ended questions (Copple & Bredekamp, 2009). While educators may understand the importance of DAP, have developmentally appropriate beliefs, and want to implement DAP in the learning environment, barriers are often encountered. Qualitative and quantitative studies have been conducted that explore the answer to the question; what types of barriers impact the implementation of developmentally appropriate practices for early childhood educators?

Research shows that barriers exist to the successful implementation of DAP by early childhood educators (Sahin-Sak et al., 2018). The barriers include personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak et al., 2018). Research also shows that these barriers are found in other countries and are not limited to

the United States (Rose & Rogers, 2012). Through this study of research, educators can gain an awareness of what types of barriers exist and how those barriers may affect the implementation of DAP in the learning environment. By obtaining knowledge about these barriers, educators will be able to reflect upon beliefs related to DAP and whether they are reflected in the learning environment. Educators can also advocate for more training, professional development opportunities related to DAP, and a work environment that supports a developmentally appropriate learning environment. Through the knowledge of these barriers, educators can work to overcome them and provide a learning environment, teaching practices, materials, and activities that reflect developmentally appropriate practices. Although research conducted revealed that these barriers exist, there were also limitations noted in the studies reviewed. To help guide future research regarding the barriers that impact the implementation of DAP for early childhood educators, the limitations were reviewed and ideas for possible future research studies are being explored.

Possible Future Research

The focus of two studies was pre-service teachers who were enrolled in courses related to early childhood education at four-year universities (Cunningham, 2014; Sakellariou & Rentzou, 2011). While participants in both studies showed an awareness of DAP, neither of the two studies discussed to what extent DAP is emphasized and taught in teacher training courses. Possible future studies could explore teacher training programs, both at community/technical colleges and four-year universities, and whether or not students are being exposed to and how familiar students are with the DAP framework. Researchers could also examine course offerings and syllabi for evidence of coursework related to DAP. Further research conducted could then

examine longitudinally, whether or not an exposure to DAP in college affects practices in the early childhood learning environment.

Further suggestions for future research would be to include more male participants in studies regarding DAP and investigating what is considered developmentally appropriate in foreign countries. A limitation noted in many studies reviewed, where gender of participants was specified, is the lack of male participants (Sahin-Sak et al., 2018). Of the 2,837 participants, only 17 were male. By including more male participants, researchers would have another dimension to include for contrasting and comparison of data collected. Additionally, future studies are needed to gain a better understanding of whether Western DAP meshes with what is considered developmentally appropriate in foreign countries. Research conducted in foreign countries often cites Western DAP as a guide for practices (Cobanoglu et al., 2019). Educators who strive to implement this Western framework in foreign learning environments, may meet further barriers due to cultural differences (Hegde & Cassidy, 2009).

Conclusion

Through successful implementation of DAP in the early childhood learning environment, educators provide children with a high-quality environment where teaching strategies, materials, and activities are planned for intentionally (Copple & Bredekamp, 2009). Even with the best intentions, educators encounter barriers to the implementation of DAP. This capstone paper set forth to answer the research question: What types of barriers impact the implementation of developmentally appropriate practices for early childhood educators? The review of literature revealed the following barriers: personal constraints, environmental constraints, and teacher training (Heisner & Lederberg, 2011; Sahin-Sak et al., 2018). Barriers related to personal beliefs include self-efficacy, a lack of professional development and training, and teachers being

unaware of how to implement DAP in the learning environment (Chan, 2016). Along with personal beliefs educators face barriers related to environmental constraints. Those barriers include budget and curriculum restraints, pressure to prepare children for state-mandated, standardized testing, and pressure from teachers in higher grade levels (Rose & Rogers, 2012). Finally, research shows that through an increase of teacher training, educators' contrasting beliefs may be decreased and correlate with an increase in developmental appropriateness in the learning environment (Heisner & Lederberg, 2011). With a knowledge and understanding of these barriers and how they may affect DAP, educators can reflect upon their current practices related to DAP and find support and training to help overcome any encountered barriers. Through the successful implementation of DAP in the early childhood learning environment, educators will use best practice to provide a high-quality learning environment for the children in their care.

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