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Constructivist practices that positively impact literacy development and motivation in young children

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Constructivist practices that positively impact literacy development and motivation in young children

Abstract
Reading and writing achievement has been substantiated through the increased pressure on proficiency for both students and teachers as a result of the No Child Left Behind Act of 2001 (United States Department of Education, 2004). Educators engage in practices that may increase literacy scores for young children; however, these same practices may have a detrimental effect on student engagement and motivation. This study examined the characteristics of instructional approaches that are developmentally appropriate and inappropriate for preschool, kindergarten, and first grade children as well as those that positively affect motivation and engagement. Research through a review of current literature about developmentally appropriate literacy practices provided information about specific educational approaches and strategies that lead to student achievement and motivation.
Constructivist Practices that Positively Impact Literacy Development and Motivation in Young Children

A Graduate Review
Submitted to the
Division of Instructional Technology
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by
Sara Pruss
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This Review by: Sara Pruss

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has been approved as meeting the research requirement for the Degree of Master of Arts.

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ABSTRACT

Reading and writing achievement has been substantiated through the increased pressure on proficiency for both students and teachers as a result of the No Child Left Behind Act of 2001 (United States Department of Education, 2004). Educators engage in practices that may increase literacy scores for young children; however, these same practices may have a detrimental effect on student engagement and motivation. This study examined the characteristics of instructional approaches that are developmentally appropriate and inappropriate for preschool, kindergarten, and first grade children as well as those that positively affect motivation and engagement. Research through a review of current literature about developmentally appropriate literacy practices provided information about specific educational approaches and strategies that lead to student achievement and motivation.
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Chapter 1

Introduction

"One of the best predictors of whether a child will function competently in a school and go on to contribute actively in our increasingly literate society is the level to which the child progresses in reading and writing" (Neuman, Copple, & Bredekamp, 2000, p. 3). Students' abilities to read and understand what is read largely affects their school success (Vaughn, Levy, Coleman, & Bos, 2002). The National Association for the Education of Young Children (NAEYC) and the International Reading Panel (IRA) developed a combined position statement regarding the importance of and methods for developing reading and writing abilities in young learners. In their statement, these agencies emphasized that the most critical time for literacy development occurs between birth and eight years of age. Neuman et al. (2000) asserted that early childhood teachers have a significant responsibility to support literacy development based on current knowledge and research.

The significance of reading achievement has been substantiated through the increased pressure on proficiency for both students and teachers as a result of the No Child Left Behind Act of 2001 (United States Department of Education, 2004). This law not only requires proficiency in reading and writing among other academic areas, but also monitors behaviors including attendance and dropout rates, according to elementary school principal, J. Smith (personal communication, April 4, 2008). (Voluntarily leaving school prior to graduating is defined as dropping out in this review). A recent feature in Time indicated that one out of three high school students would not graduate (Thornburgh, 2006). In this feature, Thornburgh (2006) reported results of a survey
conducted by the Gates Foundation regarding one reason for dropping out; of 88% of
interviewees who claimed they had passing grades, more affirmed being bored as the
reason for leaving school, than experiencing difficulties in course work. At a time in
which dropout rates are reportedly large, the focus on improved school attendance has
increased greatly. If boredom is a factor for students dropping out, in order to encourage
students' consistent and intentional attendance in school, the purposes of a child's
education must be clear to the child, and the instructional methods must be motivating
from the onset. Regular attendance is essential to acquire new reading skills as well as to
practice the current repertoire. Motivating students will be key in improving attendance,
reading achievement, graduation rates, and success in society. Purpose-driven and
motivating reading instruction may potentially increase reading achievement and
attendance in school.

Rationale

The IRA and NAEYC suggested that goals and activities for enhancing young
children's development, reading or otherwise, be developmentally appropriate,
challenging, and supported by adults (Neuman, Copple, & Bredekamp, 2000). This
review of literature will provide an examination of research-based developmentally
appropriate best practices for young children across developmental domains and
specifically in the area of literacy development. Many educators of young children aim to
implement developmentally appropriate research-based best practices in the classroom or
child-care setting. In order to do so, an awareness of these theories and practices is
essential.
Predominantly supported and suggested by NAEYC (2008), *developmentally appropriate practices* (DAP) are implemented with a developmental approach in mind; that is, consideration of the learner’s abilities, needs, family characteristics, culture, and community settings are necessary to appropriately design curriculum (NAEYC, 2008). Children should engage in first-hand, active learning experiences to discover more about the world around them; these experiences should include physical and social interactions. Children should be allowed to represent this learning in ways chosen by them. The context of play, which is supportive of cognitive development, allows children to interact with the environment and others to practice new skills at the same time as trying out new and more challenging tasks. So not to discourage the learner, *scaffolding*, or support when the student is working just beyond his or her independent abilities, is encouraged by an adult or more capable peer to help the child advance to greater understanding of concepts.

In examining the literature about developmentally appropriate goals and instructional methods, many studies cite constructivist education as a fundamental theory for children’s learning. Evidence of growth in all areas of development with implementation of developmentally appropriate curriculum models utilizing the ideas of constructivist theory has been reported (Schweinhart & Weikart, 1997). When children construct personal knowledge and understanding, they integrate social, physical, and culturally transmitted knowledge (Neuman, Copple, & Bredekamp, 2000). Mason and Sinha (1993) and Riley (1996) indicated the importance of the child actively constructing his/her own knowledge, but similarly important are the adults who support the development of increased skills and understanding. The scaffolding, or support, called for
by the adult in the above statement refers to the need for instructional methods that are challenging, but doable, and instruction that elicits active engagement by learners. Activities, tasks, content, teaching styles, and motivational techniques that are inclusive of constructivist beliefs are likely to motivate young learners to participate, practice, and achieve in the area of reading (Bogner, Raphael, & Pressley, 2002; Freppon, 1991; Neuman & Fischer, 1995; Nolen, 2001, 2007; Turner, 1995). When students are motivated and have a positive reading disposition, this may have a direct and positive effect on their reading achievement (Sperling & Head, 2002).

Importance of Review

The acknowledgement and knowledge of research available to validate our instruction will continue to improve the overall education of young children. Information provided in this review has the potential to influence the quality of literacy instruction children receive as well as their levels of literacy achievement.

Purpose of the Review

The purpose of this review is to examine the existing research on the relationship between Developmentally Appropriate Practice(s) (DAP) or constructivism and instructional practices that effectively support literacy development in early childhood programs that include preschool, kindergarten, and first grade. (Some professionals in the field of early childhood education may not agree that constructivism and DAP are equivalent; however, in this review, they were considered to be the same.) In addition, the review will help readers determine which instructional practices are most effective in both motivating and supporting young children's reading and writing development.
Research Questions

This literature review analyzed studies of developmentally appropriate instructional reading and writing practices based on constructivist theories of learning and their relationship to student motivation and achievement for children in preschool, kindergarten, and first grade. I considered the following questions:

1. What are the characteristics and overall effects of constructivist and developmentally appropriate practices in preschool, kindergarten, and first grade?

2. Do these kinds of practices improve literacy skills and knowledge as well as motivation (emotional development) for preschool, kindergarten, and first grade children?

3. What can constructivist educators implement specifically to enhance literacy skills, knowledge, and motivation?

Definitions

Active learning – According to DeVries and Zan (2004), learning is active for children when they are “...mentally active in the context of physical activity” (p. 63) and attempting to solve a problem. The activities should be of authentic interest to the children, should “inspire active experimentation” (p. 62) and value errors and ideas, and should encourage cooperation among all classroom participants.

Constructivism – Neuman, Copple, and Bredekamp (2000) defined this as a “theory of knowledge suggesting that children are active learners who organize new information and relate it to their prior learning” (p. 123).

Constructivist education – This is application of the theory of constructivism and
"... can be summarized in three words: interest, experimentation, and cooperation" (DeVries, Zan, Hildebrandt, Edmiaston, & Sales, 2002, p. 35).

**IRA** – The International Reading Panel is the largest reading/literacy association in the world (Cowen, 2003).

**NAEYC** – The National Association of the Education of Young Children is the world’s largest organization “committed to fostering the growth and development of children from birth through age 8” (NAEYC, 2008; Neuman, Copple, & Bredekamp, 2000, p. 14).

**Scaffolding** – Scaffolding is an instructional practice used when a task is made easier for a learner with provision of guidance or assistance of a more able peer/adult; as the learner becomes more capable of doing the task, the amount of support given by the more capable peer/adult decreases (Bodrova & Leong, 2007).

**Zone of Proximal Development** – Lev Vygotsky created this concept and defined it (as cited in Bodrova & Leong, 2007) as a “distance between the actual development level as determined by the independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 40).

**Significance of the Study**

A study of the above-cited relationship between developmentally appropriate instructional reading practices and reading achievement will help educators be aware of the importance and necessity of methods to meet the unique learning needs of young children in literacy education. Although the relationship described above discussed reading achievement, for this review, both reading and writing will were studied and considered in literacy. It is important to determine what approach to learning is
developmentally appropriate, effective, and motivating for young children; it is equally important to understand if these practices motivate and engage children in becoming readers and writers. With increased motivation, students will be more likely to want to read. Guthrie, Schafer, and Huang (2001) and Jeul (1988) reported that children who read frequently were more skilled readers. Skilled readers will likely be active contributors to our increasingly complex society. Analysis of best practices in literacy for young children will result in higher quality programs that are inclusive of practices that will lead to improved achievements for children, specifically in the area of literacy development.

Theoretical Framework

A clear understanding of Developmentally Appropriate Practice (DAP) and the constructivist theory is necessary before evaluating the effectiveness of the implementation of diverse early childhood and reading instructional practices. NAEYC (1997) provided information about DAP. These practices are “... based on knowledge about how children develop and learn” (p. 9). Not only do these practices support development and growth of children, but they also focus on and show benefits of an individual’s growth into adulthood (Schweinhart & Weikart, 1997). DAP focus on individual qualities and growth as well as on group characteristics and growth to develop a “... peaceful, prosperous, and democratic society” (p. 8). Professionals providing DAP must consider the following issues: child development and learning; strengths, interests, and needs of individual children and groups of children; and the social and cultural context of children. The following domains of children’s development influence the others within the notion of DAP: physical, social, emotional, and cognitive. Practices may include instructional activities, relationships, goals, and classroom organization.
One of the most influential child development and learning principles that frames and informs DAP is that of the child being an active learner, utilizing physical, social, and cultural experiences to construct a personal understanding of the world (NAEYC, 1996). Intellectual developmental theories of interactive constructivism influenced NAEYC’s principles of developmentally appropriate practice. In NAEYC’s position statement, examples of DAP included, but were not limited to (as summarized in the rationale section) (a) providing children with choice in determining the content and processes in learning as well as how it is represented, (b) scaffolding the learning process by providing just enough assistance to move the child’s learning to a more complex level, (c) considering student interest and need in designing curriculum and activities, creating situations in which children construct their own learning, (d) and integrating developmental domains in instructional design.

The idea of the child being an active constructor of knowledge corresponds with the key idea of the constructivist theory and is critical in understanding how children learn. The constructivist perspective, often referenced as constructivist education, is a psychological theory. Constructivist education is an educational approach in early childhood education (DeVries & Zan, 1994). This approach addresses the social, moral, affective, and intellectual domains of growth and development in children (DeVries & Zan, 1994). Jean Piaget and Lev Vygotsky researched and created a knowledge base for constructivist education. DeVries, Edmiaston, Zan, Hildebrandt, and Sales (2002) stated, “Constructivist education takes its name from Piaget’s research showing that children actively interpret their experiences in the physical and social worlds and thus construct their own knowledge, intelligence, and morality” (p. 35). Constructivist education, as
defined by DeVries et al., is “. . . interest, experimentation, cooperation” (2002, p. 35). According to Ernest (1995), Prawat (1996), and von Glasersfeld (1996), constructivism described practices that are student-centered, process-driven (as opposed to product-driven), loosely structured, based on students’ interests and needs, and highly interactive. Kamii and Ewing (1996) described constructivism as learning that occurs from “inside the child” (p. 260).

A basic understanding of the relationship between constructivism and DAP will support the reader in understanding the most appropriate reading instructional practices utilized in the early childhood classroom. The reader will understand these practices are conducive to higher levels of achievement, increased engagement, and greater motivation for learning to read and write.
Chapter 2

Methodology

I conducted the review of literature about constructivism, DAP, and literacy in a series of steps. The steps included locating research studies, analyzing their content, and drawing conclusions about their findings.

Location of Sources

The predominant sources for this review were electronic databases including ERIC, PsycARTICLES, or PsycINFO and citations of research within each study. Terms used for searches included: constructivism, constructivist practices, active-learning, child-centered, motivation, scaffolding, emergent and beginning reading, direct instruction, developmentally appropriate practices, literacy, young children, and teacher behaviors. There was a large amount of motivation literature found in psychology journals, whereas, many of the educational approaches and practices articles were located on ERIC and within education journals about reading or early childhood education. The Rod Library's Interlibrary Loan program for distance learners sent many articles electronically. I also obtained several books through interlibrary loan. Many articles and books used in the review included frequently referenced authors such as Turner (1995), Schweinhart and Weikart (1997), Neuman (1995, 2000), Freppon (1991; see also Dahl & Freppon 1995; Freppon & McIntyre, 1999), and NAEYC (1996, 2008). These authors had conducted a number of studies or made recommendations in the areas of literacy, engagement, or developmentally appropriate practices. A search using the authors' names returned many search results.
An additional method used for locating sources was personal communication with experts in the field of either literacy or constructivism. I made personal contact with some authors of studies I read as well as from experts at the University of Northern Iowa, including Dr. Penny Beed, Dr. Jill Uhlenberg, and Dr. Rebecca Edmiaston. Finally, I located many articles by reading and requesting the articles in the reference lists of studies.

Selection of Sources

There was an inadequate amount of current research (within the last 10 years) available specifically about constructivist literacy practices, so the criteria for resources used in conducting this review were expanded to be inclusive of research from the past 18-20 years. In addition, the number of studies available about kindergarten children was limited, so the expansion of age levels included preschool and first grade. (One study with relevant information included second graders.) Many studies examined different instructional settings: direct-instruction or skills-based and developmentally appropriate or Whole Language. Much of the research selected also included studies about the Whole Language approach, as many similarities were found between this approach and the DAP recommendations and the constructivist approach. The research pertaining to constructivist literacy practices was general (not describing specific activities, materials, objectives, etc.); therefore, connections were made between research-based guidelines of constructivism/ DAP and non-research supported recommended practices.

Criteria to Include Literature

I determined a set of criteria to include studies for the review: (a) Research was limited to studies conducted within the last 20 years, (b) research studies were taken
largely from peer-reviewed journals and well-known organizations (NAEYC, IRA), (c) the participants of the study needed to be in preschool, kindergarten, or first grade, and (d) the study needed to include at least one group of participants with a constructivist-like or developmentally appropriate classroom approach. The information included in those studies needed to answer one of my research questions stated in the previous chapter. I utilized some secondary sources, which included information compiled from primary research studies, in supporting information synthesized from the research (found in Chapter 4). These sources may have been one or two years beyond the 20-year inclusion criterion.

Procedures to Analyze Sources

Following initial location and reading of the selected resources, I completed an annotated bibliography for each study and included information about research questions, methodologies, results, and implications. The bibliographies were sorted into similar topics according to the research questions, and I compared and contrasted the findings of the studies to identify trends and themes. I utilized information about the participants, research methodology, results, and discussions in each of the studies for analysis of content and synthesis for classroom applications.
Chapter 3

Literature Review

A review of research will assist educators in validating the motivational and academic success of constructivist, developmentally appropriate instructional practices for young learners. Consideration of the effects of developmentally appropriate programs on the whole child will be discussed followed by a more specific examination of the relationship between developmentally appropriate and inappropriate practices and literacy achievement and motivation for children in preschool, kindergarten, and first grade. I will discuss specific, practical classroom implications for improving literacy achievement in the Recommendations section in Chapter 4.

Characteristics of and Children’s Achievement in Constructivist Instructional Environments

In order for teachers to provide young children with literacy instruction that is both appropriate and effective, as well as for children to be more authentically engaged in learning literacy skills and knowledge, a deeper understanding of constructivist and developmentally appropriate pedagogical knowledge is required. Pedagogy may include an understanding of how students develop and acquire knowledge, specific teacher behaviors, lessons and activities, and learning environments. Research validated the positive effects of constructivist instructional methods and/or DAP for young learners (Bogner et al., 2002; Burts et al., 1993; Cunningham, 2000; Frede & Barnett, 1992; Freppon, 1991; Freppon & McIntyre, 1999; Hirsh-Pasek, 1991; Huffman & Speer, 2000; Jambunathan et al., 1999; Manning & Kamii, 2000; Marcon, 1992, 1999; Neuman & Roskos, 1997; Nolen, 2001; 2007; Ricard et al., 2002; Ridley et al., 2000; Schweinhart,
The recommendations and guidelines provided by NAEYC for DAP (as outlined in Chapter 1 and described throughout the research review in Chapter 3) are recognized as widely accepted appropriate practices for early childhood education. Many researchers confirmed acceptance and use of the guidelines or tenets of DAP in the field (Burts et al., 1993; Cunningham, 2000; Hirsh-Pasek, 1991; Huffman & Speer, 2000; Jambunathan, Burts, & Pierce, 1999; Manning & Kamii, 2000; Marcon, 1993; Marcon, 1999; Neuman & Fischer, 1995; Neuman & Roskos, 1997; Ricard, Brown, & Sanders, 2002; Schweinhart, 2000; Schweinhart & Weikart, 1997a; Schweinhart & Weikart, 1997b; Stipek et al., 1998; Stipek, Feiler, Daniels, & Milburn, 1995; Wiltz & Klein, 2001).

"Specific curriculum models based on child-initiated learning activities are essential if preschool programs are to produce lasting benefits" (Schweinhart & Weikart, 1997a, p. 139). Just as child-initiated learning is a beneficial practice within the concept of DAP, additional practices are significant and recommended as described by NAEYC (2008) for preschoolers, kindergartners, and first graders. Teachers should consider not only group needs, but also the needs, interests, skills, and cultural backgrounds of individual students (NAEYC, 2008). Additionally, children should be actively engaged in many child-initiated learning experiences, so they are able to observe, participate in, draw conclusions from, and demonstrate their learning about phenomena around them. An integrated curriculum (across content and subject areas) allows students to form and adjust the schema they have for particular concepts. Strategic teaching can be an effective practice; however, children should have some direct experience with instructional
knowledge and skill content, so they are able to make the knowledge personally meaningful. Play can provide children with the direct experiences and active learning deemed appropriate by NAEYC. The context of play allows children the opportunity to interact with others while simultaneously trying out their ideas, as well as provides them with a risk-free environment to practice and extend new skills. Guidance from an adult in these contexts can support children’s understanding and skills becoming more complex.

DeVries, Zan, Hildebrandt, Edmiaston, and Sales (2002) also highlighted the idea of a cooperative atmosphere in which children can work with other children or adults.

Ethnographic and qualitative descriptions of DAP programs

Ethnographic and qualitative research can support the reader in understanding the practical implementation of DAP. Ricard, Brown, and Sanders (2002) looked at the age and individual appropriateness of five elementary classrooms, which were inclusive of students three to eight years of age, and learning centers within those classrooms that were designed with DAP in mind. The researchers assessed whether learning center standards were in accordance to NAEYC guidelines. The researchers analyzed the classroom environment by considering pedagogical strategies. They included strategies for teacher/student interaction (who directed the activities), promotion of student academic (language, creativity, math, and science) skills, and creation of a learning environment that met the diverse needs of children (discovery opportunities, etc.). The researchers found variations in levels of implementation of DAP; however, 50% of the classrooms consistently “…reflected a general positive climate conducive to socioemotional growth” (p. 12), as well as cognitive growth.
Cunningham (2000) also qualitatively studied the characteristics of constructivist education in practice, and she provided the reader with a rich description of constructivist curriculum. *Project Construct*, adopted by the elementary school at which her study took place, implemented constructivist teaching and learning principles. Children in this school engaged in process-oriented, integrated curriculum. The particular constructivist teacher under study had a “... proven track record with student achievement” (Introduction section, ¶ 2). Observations and interviews revealed the following findings, which are synonymous with the principles of DAP. The creation of a sociomoral atmosphere was cultivated through several teacher behaviors: mutual student-teacher respect through daily meetings; student autonomy through student decision-making about activity choices; and cooperation through group work, turn taking, and information sharing (Cunningham, 2000). The teacher considered children’s interests within the constructivist framework in that the students had choice of project work, reading materials, and games. She also participated in meetings, interviews, and observations to elicit information about children’s interests. Teachers made appropriate instructional decisions based on knowledge types: students learned mathematical knowledge in authentic problem contexts; students experimented with materials to determine relationships; and students engaged in investigation during project work. The teacher’s use of guiding questions and encouragement of students to share their thinking promoted children’s reasoning. In addition, this teacher selected challenging content to stimulate student interest and engagement as well as ensuring that materials allowed for a wide-range of abilities, encouraging students to prove solutions to problems, and creating opportunities for experimentation, research, and data analysis. She also provided children
with adequate time for investigations and flexibility with regard to planning, scheduling, and the complexity of the studies. Finally, this teacher used assessment (in the form of observation, questioning, and listening to children) and documentation to inform her instruction as well as to encourage students to assess their own learning. Based on the events described in this constructivist classroom (Cunningham, 2000), it can be concluded that a developmentally appropriate constructivist curriculum with its support of a rich language environment and numerous opportunities for choice, decision-making, and problem-solving must be a strong contributing factor to student’s academic achievement” (Discussion and Conclusions section, ¶ 3).

An additional study by Stipek, Daniels, Galluzzo, and Milburn (1992) characterized preschool and kindergarten programs from children of diverse ethnic and socioeconomic backgrounds with the use of Early Childhood Environment Rating Scale (ECERS) (Harms, Clifford, & Cryer, 1998), which is used to assess program quality based on selected NAECY DAP standards. The researchers identified a positive social context cluster, which included child-initiative, teacher-warmth, and positive control behaviors. Characteristics of this cluster included more child-choice and diversity in activity and material selection; a play-like atmosphere; more social interaction; nurturing, respectful, and responsive teachers; positive approaches to maintaining student engagement, and the absence of threats, punishment, and ridicule.

The teacher-directed instruction cluster included academic emphasis, performance pressure, and evaluation stress. Subject matter differentiation (not integration), academic focus for large amounts of time, closed-ended tasks in which there was only one correct answer, and lack of instruction within the context of personally
meaningful activities characterized these programs. In addition, teachers in this cluster were more likely to give negative student evaluations and criticize errors as well as use threats or punishment to motivate children’s success. They gave rewards frequently for evaluation results. Results in the Stipek et al. (1992) study revealed that, on most occasions, if programs were low on the positive social climates scale, they were likely high on teacher-directed instruction scales and vice versa. A stronger emphasis on academic success seemed to prohibit a positive social context, which is more congruent with DAP beliefs.

Effects of DAP programs on overall development

Other research studies discussed below have gone beyond qualitatively describing DAP programs. They have investigated the effects, largely on academic and socio-moral development, of developmentally appropriate and inappropriate programs for preschool, kindergarten, and first grade students (Burts, Hart, Charlesworth, DeWolf, Ray, Manuel, & Fleege, 1993; Frede & Barnett, 1992; Huffman & Speer, 2000; Schweinhart, 2000; Schweinhart & Weikart, 1997a, 1997b).

The classic, ongoing High/Scope Perry Preschool Studies (Schweinhart, 2000; Schweinhart & Weikart, 1997a, 1997b), which commenced in 1967 and continued to follow the lives of its participants into adulthood provided evidence for the success of these practices. The findings of these studies were specifically convincing for young children living in poverty; however, they can likely be generalized to benefit all children since DAP addresses the needs, interests, skills, and cultural backgrounds of individual children (Huffman & Speer, 2000). The participants in the study were 68 young children in three different preschool curricular models including the Direct Instruction (DI)
Model, the traditional Nursery School model, and the High/Scope model. The programs differed with respect to degrees of teacher- and child-initiation and the structure within which children learn. In the DI Model, teachers planned each lesson; the only materials in the classrooms were teacher guides and student workbooks to address skills acquisition in language, math, and reading (Schweinhart & Weikart, 1997a, 1997b). The traditional Nursery School model was theme-based, and the emphasis was on social rather than intellectual skill development. The final model, the High/Scope (HS) model, was based on Piaget’s theory of constructivism, similar to the basis of DAP. There were additional congruencies between DAP and the High/Scope model: children engaged in active learning activities within this curriculum; they initiated their own activities and plans; and the teachers considered all areas of development (physical, emotional, social, and cognitive) in curriculum planning.

The findings of the study of the HS participants through age 23 indicated that the DI group did not, for any variable, have an advantage over the HS or nursery school curriculum groups (Schweinhart & Weikart, 1997a, 1997b), as it did in the year of and following the study. A likely cause for discrepancies in the social outcomes of the DI group may have been due to program goals: the goal of the DI model was for children to acquire academic skills, but not social skills or knowledge.

Although the DI group outperformed the nursery school and HS groups on intellectual performance to year consecutively, the year of and they year after the program, the HS model proved more effective in years following. More HS students graduated from high school and received fewer years of special education (Schweinhart & Weikart, 1997a & b; Schweinhart, 2000). Effects on socio-emotional development also
illustrated the success of the child-initiated HS curriculum model: the HS group had the fewest number of arrests while the DI group reported more felony arrests than any other group. The DI group also reported a greater number of emotional impairments. The HS group had 31% of its participants married and living with their spouses, whereas, the DI group had 0%, and the Nursery school group had 18%. Results from the study of the HS participants through age 40 contributed to the overall perceived success of the HS programs (Schweinhart, n.d.):

The major conclusion of this midlife phase of the Perry Preschool research study is that **high-quality preschool programs for young children living in poverty contribute to their intellectual and social development in childhood and their school success, economic performance, and reduced commission of crime in adulthood** (bold in original text). This study confirms that these findings extend not only to young adults, but also to adults in midlife. It confirms that the long-term effects are lifetime effects. (p. 5)

Additional comparisons of the overall academic achievement of students in DAP programs with students in no programs or programs of low quality indicated that students in DAP programs do perform better academically in the early elementary grades, as Frede and Barnett (1992) and Schweinhart (2000) have suggested. Frede and Barnett (1992) specifically studied children receiving no preschool programming and children enrolled in DAP preschool programs. Their findings suggested that children in public schools inclusive of DAP classrooms did, in fact, show higher achievement than children not enrolled in high quality programs.
Overall academic achievement is evidenced more often in DAP programs than in Developmentally Inappropriate Programs (DIP). Burts et al. (1993) studied the academic achievement of first graders from diverse socioeconomic (SES) and ethnic backgrounds by reviewing their report cards. Several findings were noteworthy. High SES students performed better (on overall academic averages) than low SES students in DIP classrooms while in DAP classrooms, there were no differences found between high and low SES students. It is possible that this finding is because DAP classrooms are more effectively individualized instructional activities; consequently, each student received the instruction he/she needed according to the benchmarks. Also significant was the finding that low SES children in DAP classrooms had higher overall academic averages than low SES children in DIP classrooms. "These results do not support the idea that using more formal academic methods will result in higher achievement as believed by some parents and professionals" (p. 30). The more formal academic methods in this study (found in the DIP classrooms) seemed to produce lower overall achievement scores. Huffman and Speer (2000) reported similar findings. At-risk students in DAP classrooms performed better in measures of reading and math.

Marcon (1992, 1999) conducted additional, highly similar studies of combined academic, social, motor, and adaptive achievements. She studied the child-initiated, academically driven, and middle-of-the-road (a combination of each classroom) classrooms of preschool-aged children from diverse backgrounds with the use of teacher ratings. Across both studies, children in middle classrooms had consistently lower scores on measures used. Children in the academically driven classrooms scored higher on measures of adaptive behavior, communication, and socialization. Comparatively,
children in the child-initiated classroom scored higher on measures of adaptive behavior, communication, and motor skills than middle-of-the-road programs. When the researchers reviewed district progress reports, the child-initiated classroom children had "...significantly higher grades overall" (Marcon, 1992, p. 526) when compared to the middle-of-the-road classrooms. Comparisons of basic skills between child-initiated rooms and academically driven rooms revealed that students in child-initiated rooms performed better in all areas including science and math, verbal skills, social and work habits, and physical skills.

Stipek et al. (1998) and Stipek, Feiler, Daniels, and Milburn (1995) provided further support of positive academics in DAP classrooms and negative socio-emotional findings in DIP classrooms. These researchers studied the sociomoral development and academic achievement of children in programs with differing levels of basic-skills orientations (BSO) (Stipek et al., 1998), and programs that were identified as either child-centered or didactic (Stipek et al., 1995), respectively. Researchers examined student motivation in terms of preference for risks, dependence on adults, affect, persistence, anxiety, and pressure for performance. Children in classrooms that were less BSO performed better on puzzle solving tests (Stipek et al., 1998); in the child-centered classrooms, children performed better on measures of numbers and math (Stipek et al., 1995). Although kindergarten children from more BSO classrooms performed better on general achievement measures, preschool children from classrooms that were less BSO performed better in the Stipek et al. (1998) study. Regarding socio-emotional effects, Stipek et al. (1998) revealed that children expressed a more negative affective stance and had higher ratings of stress levels. Stipek et al. (1995) reported similar findings: children
in more didactic classrooms had less confidence in their abilities, had lower expectations for success, were more dependent on adult approval, had less pride in their work, and reportedly worried more about school.

Just as studies of overall academic and developmental effects on young children have favored the implementation of DAP, studies of students’ socio-moral and emotional development in DAP and DIP classrooms have shown that DIP have more negative effects on students. Preschool students from affluent families displayed lower levels of creativity, perceived competence, and attitudes toward school in DIP classrooms (Hirsh-Pasek, 1991). (Those same DIP classrooms had no positive lasting effects on student academic skills.) Conversely, Jambunathan, Burts, and Pierce (1999) found that DAP classrooms have been shown to enhance preschool students’ perception of peer acceptance. Jambunathan et al. (1999) reported, “It can be implied that the use of more developmentally appropriate teaching strategies will encourage the children to feel positively about learning and working cooperatively with peers, instead of feeling threatened, competitive, or stressful when trying to accomplish tasks” (Discussion Section, ¶ 3 – note, printed as HTML, so no page number available in this format).

A final study, conducted by Wiltz and Klein (2001), investigated the socio-emotional effects of child-care classroom types on four- and five-year-old children from middle to upper class families. ECERS (Harms, Clifford, & Cryer, 1998) ratings helped researchers identify low quality or high quality classrooms. Low quality (LQ) classrooms were characterized by “more structure, less rich play, less child choice, more direct teaching, and a greater predominance of large group activities” (Wiltz & Klein, 2001, pp. 215-216). High quality (HQ) classrooms had a wider variety of activities and materials
for use as well as a "... developmental approach to learning" (p. 216). Additionally, teachers in these rooms provided children with more opportunities for decision-making. The curriculum in the HQ classrooms was created largely by the children’s curiosity, and it was carried out primarily with children’s active involvement in "small, informal groups" (p. 216).

Results from the study (Wiltz & Klein, 2001) indicated that children in both HQ and LQ locations preferred and identified play (any choice or self-selected activity) as their favorite activity. The quality of the play, however, differed in the classrooms; HQ classrooms provided children with more opportunity to choose their play as well as allowed them more time to do so. “Children’s primary dislikes in both high and low quality settings revolved around teacher mandated activities and social and disciplinary concerns” (p. 228). Wiltz and Klein asserted, “Classrooms that emphasize predominantly teacher-directed, large group activities that focus on rote memorization may establish patterns that say school is disengaging and tedious” (p. 232).

Active student engagement within an activity allows students to form personal connections and hypotheses about the content they are studying (NAEYC, 2008). Higher levels of engagement, then, would seemingly increase levels of student achievement. Ridley, McWilliam, and Oates (2000) studied student levels of engagement in classrooms for infants up to five years of age. They compared the engagement levels of children in developmentally appropriate programs to those in developmentally inappropriate programs, as identified by the Infant/Toddler Environment Rating Scale (ITERS) (Harms, Cryer, & Clifford, 1990) and ECERS (Harms, Clifford, & Cryer, 1998). The researchers concluded centers that were more developmentally appropriate had a mean of 92%
engagement levels; whereas, centers that were less developmentally appropriate had only 85% engagement. The researchers called this “statistically significant and noteworthy” (Ridley, McWilliam, & Oates, 2000, p. 140).

The studies reviewed thus far have not only illustrated the implementation and characteristics of the DAP approach, which is synonymous with constructivist beliefs, but they have also verified the overwhelming success of these programs in terms of academic as well as whole-child (socio-emotional and motor) achievement. Use of these practices for educating young children is highly supported by research. Research on the characteristics and overall findings of the constructivist, DAP approach conveyed a number of overarching themes. The classrooms in the qualitative research on DAP displayed considerable amounts of student choice and direction of activities as well as topics of study (instead of teacher-directed or chosen). Those classrooms also utilized authentic or real-life situations for learning and teaching. Teachers implemented individualized instruction by considering the needs, backgrounds, and interests of children. Additionally, teachers in those studies planned for active engagement in and construction of concepts/skills in a play-like atmosphere. Finally, students in those classrooms engaged in peer collaboration frequently.

**Literacy Achievement and Motivation in Opposing Instructional Settings**

Researchers have also generally studied constructivist principles in literacy methods for preschool, kindergarten, and first grade (Bogner et al., 2002; Burts et al., 1993; Freppon, 1991; Freppon & McIntyre, 1999; Hirsh-Pasek, 1991; Huffman & Speer, 2000; Manning & Kamii, 2000; Marcon, 1993; Neuman & Roskos, 1997; Nolen, 2001; 2007; Stipek et al., 1992; Stipek et al., 1995; Stipek et al., 1998; Turner, 1995; Wharton-
McDonald et al., 1998). If developmentally appropriate practices have been so successful for so many children, educators should consider their implementation specifically for literacy instruction. The literature reviewed in this section will help readers determine whether DAP specifically enhance student acquisition of literacy skills and knowledge (including pre-reading and writing skills as well as emergent and beginning reading and writing skills). The findings in the literature did not reveal achievement in any one overarching area of literacy skills or knowledge. The literacy achievements investigated varied according to grade level and measures used to determine effectiveness of program.

Not only did I investigate student achievement, but I also explored student motivation and engagement. Several researchers recognized the important role of these behaviors in student achievement. Marcon (1993) asserted that the cycle of negative feedback in which children in academically driven classrooms were engaged “could be devastating to their motivation and future performance” (p. 528). In further support of a concern for student motivation and emotional development, Stipek, Daniels, Galluzzo, and Milburn (1992) reported, “child choice associated with child-centered approaches is presumed to foster intrinsic interest and learning” (p. 2). Katz (1987) also cited a concern about teacher-directed instruction weakening children’s intrinsic motivation to learn. A small review of program type on student motivation or emotional development is included as well to address researchers’ concerns about traditional instruction. (A full review of how program type influences student motivation is beyond the scope of this document.)
Definitions of literacy instructional approaches

When I conducted the search for literature about constructivist practices, I located minimal research specifically for constructivist or developmentally appropriate literacy practices; therefore, I investigated other literacy approaches. Some approaches, such as Whole Language or holistic approaches, were similar to or had characteristics of developmentally appropriate practices. Some approaches examined the effects of child-initiated and developmentally appropriate environments. Those approaches were included in the review of literature on achievement of students engaged in DAP. Often times, researchers compared skills-based approaches to less traditional approaches.

A number of researchers explored specifically the effects of the Whole Language (WL) approach (Bogner, Raphael, & Pressley, 2002; Dahl & Freppon, 1995; Fischer & Hiebert, 1990; Freppon, 1991; Freppon & McIntyre, 1991; Manning & Kamii, 2000; Turner, 1995) or more holistic approaches to teaching literacy (Neuman & Fischer, 1995). A brief understanding of the WL approach is necessary before considering the effects of these approaches on literacy achievement.

In WL approaches, students learn both oral and written language within meaningful and practical situations that demonstrate the uses of literacy (Neuman & Fischer, 1995; Turner, 1995). Teachers do not provide instruction in contrived or isolated situations. Harste, Woodward, and Burke (as cited in Turner, 1995) asserted that children should first understand the purposes and functions of literacy before they learn about its elemental parts. Harste et al. also stated that WL approaches “... give children the instructional lead” (p. 414). Materials in these approaches were authentic: “books, environmental print, recipes, letters, directions, newspapers, journals, etc.” (Turner,
Whole Language educators taught skills within the context of authentic uses of literacy, such as shared readings of children’s literature and other reading materials, writing opportunities, and other incidental situations throughout the school day (Manning & Kamii, 2000). Teachers provided students in WL classrooms with a choice in reading content/materials as well as writing topics (Dahl & Freppon, 1995). Freppon (1991) studied a literature-based classroom and validated its similarities to the WL approach. Teachers modeled meaning-making strategies (rather than isolated skills acquisition) and provided cooperative reading events. In addition, children made connections to prior knowledge during lessons. Isolated skills instruction was not a characteristic of this classroom instruction. Whole language instruction, as described above, can be identified as developmentally appropriate through its use of authentic learning situations, acceptance of cooperative learning situations, use of student interest or need to guide instruction (as evident through teaching skills on an as needed basis), and use of varied materials and activities.

In contrast, systematic, hierarchically-ordered instruction often characterized skills-based classrooms (Freppon & McIntyre, 1999). There was typically a predetermined sequence by which to teach skills; students frequently engaged in individual work, which consisted of drill and practice (Freppon, 1991; Freppon & McIntyre, 1999). Studies I reviewed labeled these classrooms as skills-based, traditional, didactic, developmentally inappropriate, or teacher-directed.

**DAP effects on literacy achievement**

The debate about which of these instructional methods, DAP (including WL) or DIP (including traditional or Skills-Based), was most effective was explored. While
skills-based instruction has been shown to be effective for some literacy skill acquisition (Dahl & Freppon, 1995), the DAP approach has been more effective as indicated by measures of reading and motivation and engagement. A few research studies explored literacy achievement independent of motivation and engagement levels.

Freppon (1991) studied average first grade students' understandings of the nature and purposes of reading in literature-based (which the researcher maintained was similar to WL) and skills-based (SB) classrooms. Interviews revealed that students in both literature-based and SB rooms were using phonics knowledge and sounding out words when reading; however, the literature-based classroom students had and used a greater variety of strategies in reading, had more metacognitive knowledge, and wanted to make meaning of what they were reading. Children in these WL rooms used structural, visual, and meaning cues to solve unknown words compared to SB students who used mostly structural and visual information. The SB class merely saw reading as reading words accurately. Their primary reading strategy was sounding words out. These findings indicated that WL students had a better understanding of reading as a communicative purpose; it had meaning. If the purpose of reading is to glean information (read to learn), the WL students were more successful in that they were reading to make meaning, not only to read words correctly.

Other researchers have investigated the effects of the WL approach as well. Manning and Kamii (2000) conducted a study of kindergarten children in two classroom types: instruction occurring out-of-context through worksheets and isolated skills activities (similar to skill-based instruction), and instruction occurring in the context of books, shared reading, writing demonstrations, songs, and poems (similar to WL).
Findings revealed 73% of the in-context students completed the year writing at higher levels (which was inclusive of higher levels of invented spelling) and had fewer children regress during the school year; whereas, only 32% of the out-of-context group performed at higher levels. Reading progress indicated that the in-context learning group surpassed the out-of-context group in reading words/sentences assessment. The researchers suggested that when children have not constructed a theory based on other learning or prior knowledge, they learn disconnected, isolated bits of information. Students can easily forget this information, as it is not integrated with prior knowledge and understanding. The WL, or in-context, learning approach supports children’s active construction of knowledge built on prior understandings and authentic use of skills and knowledge.

Huffman and Speer (2000) and Burts et al. (1993) also evaluated the literacy achievement of kindergarten and first grade students in DAP and DIP classrooms. Their studies had similar findings: first graders from DAP classrooms in the Burts et al. study had higher grades in reading than children in DIP classrooms. Measures of reading skills (such as letters and words) in DAP classrooms in the Huffman and Speer study (2000) revealed that children in moderate (as opposed to low) “...DAP classrooms scored significantly higher in the spring semester on letter-word identification. This was not the case for low DAP classrooms” (p. 179).

**DAP effects on literacy achievement and socio-emotional growth**

Several studies explored the achievement effects of literacy instruction as well as the impact it had on students’ socio-emotional growth, which for this study will also include motivational and engagement behaviors. Some researchers studied feelings of
confidence, stress, acts of persistence, and avoidance as part of research on motivation and engagement levels of students. These feelings led to either increased or decreased levels of motivation and/or engagement in literacy activities in various studies reviewed.

Hirsh-Pasek (1991) studied preschool children in academic environments to evaluate their emotional well-being as well as academic gains in letter, word, and number recognition. Highly academic preschools had no lasting effects on academic skills beyond preschool. Not only were they ineffective for academic achievement, including literacy, but they were also found to have children who demonstrated less creativity, greater test anxiety, and less positive attitudes about school when compared to environments with less academic focus.

Studies of preschool and kindergarten students’ academic achievement (including literacy skills) and socio-emotional growth assisted researchers in determining the effects of two learning approaches: DIP or DAP (Stipek, Feiler, Daniels, & Milburn, 1995; Stipek et al., 1998). Findings for preschoolers were congruent with Hirsh-Pasek’s (1991) study. Results showed there was little academic benefit from the more structured, direct teaching methods. Students in less-child-centered classrooms did not score as well on measures of oral vocabulary (Stipek et al., 1998) as students in more child-centered classrooms did. Likewise, these same students in basic-skills classrooms performed worse on motivation measures. These students had lower perceptions of their abilities, less pride in their achievements, and lower expectations for success. In addition, students in basic skills oriented classrooms were more dependent on adults, and they worried more about school.
Freppon and McIntyre (1999) investigated the skills and affective stances of six first-grade children in two instructional settings each: skill-based and constructivist-based whole language. Pre-tests on literacy skills assisted in pairing the students (one from each classroom type) by skill/knowledge level: high, medium, or low. In the SB classrooms, children received instruction according to a predetermined sequence. Children in WL classrooms, on the other hand, selected their own activities, used children’s literature frequently, and read regularly in any group size. Students in WL rooms received some explicit instruction in reading and writing skills. Field note data and audiotape recordings verified that children in the constructivist-based WL classroom persisted longer in reading and seemed more positive when completing a challenging reading passage. When compared to SB classroom, the children in WL classroom had more strategies and applied them more consistently.

The Freppon and McIntyre (1999) study used information from a cross curricular comparison study conducted by Dahl and Freppon (1995) to investigate how kindergarten and first grade students from low SES backgrounds interpreted beginning literacy instruction (including both reading and writing) in both SB and WL classrooms. Quantitative findings showed that from pre- to post-test, the WL group scored higher on tests of written knowledge than SB students, except in the area of phonics. Freppon and McIntyre (1999) noted the following patterns:

1. While both curriculum groups showed growth in phonics awareness (letter-sound relationships), WL learners were better able to apply those relationships in connected writing.
2. Each student enjoyed literature; however, children in SB classrooms were only passively engaged in literature. Teachers encouraged WL learners to participate actively in read alouds by making predictions and asking questions; there was discussion about the story throughout the reading, which gave students the opportunity to construct meaning from the story.

3. When learners in both classroom types experienced reading difficulty, the coping strategies differed. WL students often sought the help of peers in an attempt to maintain the meaningfulness and continuity of the activity. Contrastingly, SB students engaged in avoidance and passivity.

4. WL learners, on all levels, viewed themselves as readers and writers and held sustained attention in literacy work. That was only true of the proficient SB learners.

The essential difference between the curriculum groups in Dahl and Freppon’s (1995) study was the extent of application of skills in which students engaged; WL students applied more phonics relationships during reading and writing, had a more positive attitude toward literacy, and expressed more interest in themselves as literacy learners. The researchers stressed the importance of student attitudes and interest: “Acquiring the disposition for learning may be the most critical occurrence in the early grades” (Dahl & Freppon, 1995, p. 72).

**Characteristics of motivating literacy contexts**

Dahl and Freppon (1995) recognized the significance of a positive disposition in literacy learning. Classroom context, which is inclusive of the literacy tasks children experience, can affect a disposition for learning. Tasks, while designed for skill or
knowledge acquisition, can also help students establish the purpose and use of literacy, reveal its authenticity, allow for meaning making, illustrate a variety of purposes, and affect students' positions about literacy. Literacy tasks can have motivational consequences on students; motivation to be literate can improve a learner's disposition for learning (Turner, 1995). According to Turner certain characteristics of tasks positively affected student motivation: challenge, autonomy, personal interest (selection and persistence; goal setting), and social collaboration.

The context in which tasks are presented is critical to student engagement and learning. Vygotsky (as cited in Turner, 1995) signified the idea that "cognitive processes are best learned when situated in specific, meaningful contexts" (p. 410). Turner (1995) again endorsed the idea of meaningful contexts for literacy learning. "Classroom context influences students' developing conceptions of literacy and their willingness to engage in literacy behaviors" (Turner, 1995, p. 410). In order to understand the different effects of tasks in SB and WL classrooms, Turner looked at how tasks differed across curricular contexts, how those tasks affected students' motivation (willingness to put forth time and effort), and how those tasks influenced students' understanding of literacy purposes. Through observations and interviews with students, Turner identified all tasks as either open or closed tasks. The tasks reviewed in her study stimulated different levels of literacy learning. Open tasks were characterized by student selection of necessary information or processes to solve a literacy problem; these tasks elicited metacognition, decision-making, and higher levels of thinking. Conversely, Turner labeled teacher-directed tasks as closed tasks; the teacher determined the information and processes for
learning in which students engaged. There was one correct solution, so this limited
decision-making opportunities for the student.

Results indicated that teachers in skills-based classrooms assigned closed tasks
more often; these tasks supported student mastery of skills and automaticity (Turner,
1995). WL classrooms utilized open tasks more often; these allowed for student
construction of emergent literacy skills and concepts. Open tasks also proved to elicit
more reading strategy use, more volitional control, and increased persistence. WL
students, therefore, used more strategies in reading, as the teacher included more varied
learning strategy instruction, which likely met the needs of individual students. WL
students also had more opportunities for collaboration. WL students were more aware of
the purposes and functionality of literacy. Turner (1995) emphasized the importance of
open tasks: “Classroom tasks that establish literacy as a higher-level cognitive activity
with communicative and pleasurable goals are more likely to succeed in melding literacy
learning and engagement” (p. 437).

An additional descriptive study reviewed did not specifically compare one type of
classroom to another; however, it qualitatively defined exemplary literacy instruction.
Classroom examples of high quality literacy instruction in this research contained some
principles of constructivist education. Wharton-McDonald, Pressley, and Hampton
(1998) collected data on teachers whose children demonstrated high levels of reading,
writing, and engagement, as evident through reading levels, writing levels, and
involvement/engagement in activities. Highly effective teachers combined DAP
principles with other more traditional instructional principles to deliver engaging
instruction. Teachers provided opportunities for authentic reading and writing, but also
provided explicit instruction in a balanced and integrated manner (when individuals or groups of students needed it throughout all content areas). Students received scaffolding to ensure they had necessary assistance for completing a task without frustration. Teachers encouraged self-regulation. Wharton-McDonald et al. (1998) reported, “Students in these classrooms read [and heard] whole texts and wrote whole compositions, which motivated the learning of parts. They also learned to process the parts [individual skills], which they then applied to whole texts and compositions” (p. 123). This study’s findings again reinforce the use of some constructivist principles for literacy education.

Conceptions of literacy are constructed in classrooms, regardless of instructional methods. Classroom contexts implicitly teach children about the functions and importance of literacy (Nolen, 2001), and they are important to students’ developing motivation to become literate. Nolen (2001, 2007), Neuman and Roskos (1997), and Bogner, Raphael, and Pressley (2002) considered what motivated young learners’ literate behaviors. Bogner et al. (2002) specifically found that WL environments encouraged natural interest for young children. Their findings revealed that student-centered, developmentally appropriate classrooms were effective in motivating the learning of literacy skills and knowledge.

Bogner et al. (2002) analyzed motivational and engagement mechanisms teachers used in terms of teaching styles and classroom content. Many motivational and engagement techniques found in Nolen (2001, 2007), Neuman and Roskos (1997), and Bogner, Raphael, and Pressley (2002) were included in these pedagogical categories.
Several characteristics of teacher instructional style motivated students, according to these studies. One method for motivating students found in all four studies (Bogner et al., 2002; Nolen, 2001; Nolen, 2007) was that of creating opportunities for student autonomy or student choice of topic, activity, or process. Another largely motivating mechanism mentioned in each study (Bogner et al., 2002; Neuman & Roskos, 1997; Nolen, 2001; Nolen, 2007), also identified as a developmentally appropriate practice by NAEYC (2008), was that of providing opportunities for collaboration or social interaction. This strategy increased learning from peers and allowed for fewer opportunities for ability comparison. Teachers also had flexibility in how students carried out an activity, which included the amount of time needed and materials chosen to complete the activity (Nolen, 2001). Classroom teachers provided scaffolding or support to ensure children's increasing learning of more complex knowledge without frustration (Bogner et al. 2002; Neuman & Roskos, 1997; Nolen, 2001). Teachers and students created connections across curricular areas (Bogner et al., 2002). Adults possessed gentle/caring and inviting mannerisms (Bogner et al., 2002).

A number of aspects of classroom content contribute to student engagement in literacy: An aspect of content that motivated students found in each of these studies (Bogner et al. 2002; Neuman & Roskos, 1997; Nolen, 2001; Nolen, 2007), as well as in recommendations by NAEYC (1996), was that of connecting literature activities to real life. Motivation also contributed to reading and writing connected texts about self-selected topics or for authentic reasons (Nolen, 2001; Nolen, 2007). Teachers providing consideration of student interests for activities or lessons (Nolen, 2001; Nolen, 2007) and using complex content, texts, or challenging activities (Bogner et al., 2002; Nolen, 2007)
were also found to be motivating. Teachers created game-like or play situations for teaching or practicing content and skills to motivate students (Bogner et al., 2002; Neuman & Roskos, 1997). In addition, when teachers provided a clear purpose for an activity, concrete experiences with content, and a model of enthusiasm and interest, students were more likely to be engaged (Bogner et al., 2002).

_Achievement in direct instruction methods_

The vast majority of studies reviewed here supported the use of DAP for academic achievement and socio-emotional growth. A few studies, however, defended the effectiveness of teacher-directed or basic skills oriented instruction for some isolated literacy knowledge and skills, although not for motivation and/or engagement.

Though Dahl and Freppon (1995) reported findings in favor of WL classrooms for children's phonics growth, responses to literature, strategies to cope with difficult learning experiences, reading processes, and writing tasks, they contrastingly found that children in WL kindergarten classrooms scored lower in a phonics written language assessment. Stipek et al. (1998) and Stipek et al. (1995) also found that kindergarten students in the less developmentally appropriate (basic-skills oriented) classrooms performed better on tests of letter/reading achievement (Stipek et al., 1995) than did students in more child-centered classrooms. Stipek et al. (1998) reported the gains in reading for BSO classrooms were significantly greater than children in less BSO classrooms. The authors [Stipek et al., 1998] perceived reason for the better performance on literacy measures was that the measures of basic skills were very similar to the activities and lessons conducted in the classrooms.
There is research available that pointed to the success of direct instruction and more teacher-directed instruction; however, the articles analyzed in this review highlighted very few positive correlations between literacy achievement and teacher directed instruction. A complete review of literature about the success of direct instruction and teacher-directed instruction was beyond the scope of this document.

Implementation of Instruction to Enhance Literacy Achievement and Motivation

While the findings in the studies review supported DAP, researchers did not always fully describe those practices. In a few qualitative studies, researchers provided descriptive accounts of classrooms and teachers implementing DAP (Cunningham, 2000; Ricard et al., 2002; Stipek et al., 1992; Wharton-McDonald et al., 1998). Although some researchers provided some specific approaches for DAP instructional methods, such as writing workshop and play-based centers (discussed in the Recommendations section below), many research studies pointed to DAP generally as the recommended approach. NAEYC (2009) provided explicit guidelines for literacy instruction (specifically, reading [including letter and sound knowledge] and writing skills) in preschool, kindergarten, and the primary grades. I found the practices, discussed below in NAEYC’s (2009) newest edition of DAP, significant and very descriptive for use in the early childhood classroom.

The old edition of NAEYC guidelines (Bredekamp & Copple, 1997) provided the general information about DAP used to conduct the review; however, the new DAP guidelines provided by NAEYC (Copple & Bredekamp, 2009) provided clear links to recommended literacy practice, and supported the development of an answer to the third research question. These descriptive accounts of DAP in preschool, kindergarten, and the primary
grades will help me to answer my third research question as well as to help me and other early childhood professionals identify a number of specific practices to implement.

*Preschool DAP literacy instruction.* According to Copple and Bredekamp (2009), children should hear stories in a variety of genres read aloud to them each day. During those read alouds, teachers should enhance children’s vocabulary with intentionality. A library center should include high-quality literature that contains a reflection of students’ culture, gender, race, etc., as well as different genres. In addition, children should experience sound games and play with words to enhance students’ phonological awareness. Students should engage in writing by sharing ideas while the teacher/adult records what the student has dictated. Children are encouraged to write known sounds in words; teachers should accept their developmental spellings as valuable attempts at writing. Teachers should encourage writing by providing a variety of materials in many play areas; they also encourage children to write for a variety of purposes. Children learn letter and sound knowledge by attending to letters and sounds in important print sources (such as their names) and engaging in text by observing the teacher’s efforts to model conventions of print.

*Kindergarten DAP literacy instruction.* Many of the same practices for preschool described above are appropriate for kindergarten students; however, several additional recommended practices will enhance their knowledge and skills (Bredekamp & Copple, 2009). Teachers encourage kindergarten children to read familiar and repetitive books (read to them during read alouds) during independent reading times. Teachers provide children with experiences in phonological awareness, but they also include explicit instruction in areas of phonemic awareness, by drawing attention to individual phonemes.
To enhance writing instruction, teachers give children opportunities to draw and write about self-selected topics. Children are encouraged to use some conventions in writing in addition to developmental spelling. Children also learn about writing by engaging in class-generated writing and rereading. During these shared writing experiences, children learn about how to record sounds in words. Finally, to enhance story comprehension, teachers encourage students to connect background knowledge, or schema, to newly learned content. Guided discussions, predictions, retellings and dramatizations also improve students' developing comprehension abilities.

*Primary DAP literacy instruction.* In the primary grades, NAEYC (Copple & Bredekamp, 2009) continued to encourage a focus on phonological awareness and writing, similar to preschool and kindergarten, but they also placed more emphasis on word and print knowledge as well as comprehension development. Children in the primary grades should have a regularly scheduled time to read self-selected books, but they should also hear books read aloud and be engaged in discussions about those books. Teachers need to implement phonemic awareness and phonics lessons within a balanced literacy program and individualize instruction to meet the needs of specific students. Primary grade students should receive opportunities to write about self-selected topics as well as write in content areas within the writing process framework. Teachers should use a variety of writing instruction strategies: modeling, sharing, and assessing writing samples for specific writing qualities. Children should engage in social collaborations with peers to provide feedback on writing skills. To support children's word learning, teachers might engage in formal and informal instruction by helping children build new words and think about word meaning. Finally, teachers enhance primary grade students'
comprehension skills by teaching about text structures and features through enlarged text/charts and students’ reading materials and comprehension strategies through guided discussions. Teachers use information books, chapter books, and other rich literature sources to teach key concepts, knowledge, and vocabulary.

Just as the above sections describe multiple appropriate practices for each age level, some developmentally appropriate approaches, including literacy-based play centers, writing workshop, and projects were described by researchers. A brief description of each, as well as some supporting research, will help the reader glance into some specific and effective instructional strategies.

*Play-based literacy or literacy-enriched play centers.* One of NAEYC’s core considerations for DAP is play (Copple & Bredekamp, 2009). “Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence” (Copple & Bredekamp, 2009, p. 14). The NAEYC position statement (Copple & Bredekamp, 2009) cited that when adults scaffolded imaginative play, it contributed to children’s self-regulation as well as cognitive, linguistic, social, and emotional growth. Copple and Bredekamp (2009) emphasized the importance of a teacher’s role in making sure play situations and materials are equivalent to children’s potential. Some researchers also recognized the obvious usefulness and appropriateness of play. Researchers have studied the implementation of play in classrooms (Saracho, 2001; Saracho, 2002; Vukelich, 1994; Wiltz & Klein, 2001); in those studies, the teachers set a structure for children’s play by scaffolding the play with either their personal involvement, selection of materials, or modification of the environment.
Vukelich (1994) studied kindergarteners' abilities to read environmental print in one of three experimental groups. One group of students was exposed to context-appropriate environmental print through play with peers in enriched play settings (enriched with meaningful and authentic print as well as dramatic play props); another group received that same exposure to environmental print with peers but also interacted with a knowledgeable other (adult) who wove those words into the interactions. The final group played in non-enriched settings absent of environmental print and adult interactions. When researchers asked children to read words within the context of the enriched play setting, those who had received adult support read significantly more words than children interacting with peers only in the enriched setting and more than children in the non-enriched settings did. Vukelich (1994) stressed that children who were both exposed to print and engaged in social interactions with more knowledgeable others learned more. The researchers also pointed out that children need freedom to explore materials, need to play for the purpose of play, and must be able to decide how, what, and for how long they play in these settings. Vukelich's study emphasized that teachers should not only allow children to play, but the play should be purposeful and intentional. Teachers need to provide structure and enrichment in those play settings.

Saracho (2002) similarly studied the roles of adults in play settings. She determined that adults take on six roles to promote literacy while interacting with children during play: discussion leader, storyteller, examiner, instructional guide, informer, and learning center monitor. When engaged in these roles, educators should utilize professional knowledge and skills as well as "employ the principles, practices, and theory of literacy and early childhood education" (2002, p. 33). Again, this study stressed
the critical role of adults during play. A variety of skills and knowledge can be enhanced with adult support.

Just as adults can enrich play centers for children's developing literacy abilities, materials in and characteristics of the play context can enhance play for children as well. Saracho (2001) reported that classroom structure, including daily routines and environmental aspects, contributed to literacy development. Language centers included language activities, a library, and writing centers in which children engaged in sequencing stories, dictating stories, listening to familiar stories, reading picture books, and discussing questions about stories. Literacy-enriched play centers in the study included math activities, block center activities in which children engaged in problem solving and reading road signs, dramatic play, and manipulation centers. Researchers observed a variety of literacy behaviors in each of the above centers: reading environmental print, following directions, reading pictures, symbolic play, vocabulary development, reading letters, identifying sounds, writing stories, and learning about directionality. Again, adults can influence student learning by planning for the integration of literacy experiences in play opportunities.

Neuman, Copple, and Bredekamp (2000) provided a variety of appropriate and research-based contextual and instructional suggestions for enhancing literacy development in *Learning to Read and Write*. To enrich dramatic play, the authors provided suggestions for literacy-related props used in dramatic play. Props in this list may allow children to see how adults in real life use reading and writing. The authors provided a full list of literacy-enriching props to use in dramatic play; however, a few easily obtained suggestions appealed to me: newspaper ads, appointment books,
calendars, file folders, telephone books, signs from stories, menus, order pads, computer keyboards, and paper of assorted sizes and shapes. The authors also suggested labeling and captioning important places in the learning environment (inside and outside).

Researchers supported the benefits and appropriateness of play in the classroom to enhance a variety of literacy skills and knowledge (Neuman, Copple, & Bredekamp, 2000; Saracho, 2001, 2002; Vukelich, 1994; Wiltz & Klein, 2001). Some developmentally appropriate approaches, however, provide a focus on more specific literacy skills. Specifically, children can develop writing skills and motivation during the writing workshop format.

**Writing workshop.** Researchers found aspects of writing workshop, such as self-selected writing topics, extended periods for writing, author’s chair, and conferencing, in classrooms implementing DAP. Nolen (2007) studied teacher characteristics in classrooms that motivated student literacy behaviors. She found that when teachers increased student choice and control over what to write, students were motivated to write. Children had opportunities to write authentic texts for genuine purposes. Wharton-McDonald, Pressley, and Hampton (1998) studied teachers whose students had high levels of achievement in reading and writing as well as high levels of engagement. Some of the most effective teachers provided students with authentic writing opportunities and used the writing workshop approach for instruction.

The writing workshop instructional approach addresses many writing skills and integrates a variety of teaching strategies (scaffolding, peer collaborating, modeling, etc.); however, a brief description of this instructional method might stimulate teacher interest and/or support understanding of how it may be an appropriate constructivist practice to
implement in the early childhood classroom. Schulze (2006) stated, "Writing should be taught within the context of meaningful, authentic writing opportunities that teach it as a process" (p. 25). Although Schulze wrote about kindergarten students specifically, the structure and goals of writing workshop would be the same for first grade students. Teachers can make adaptations and use components of writing workshop in a preschool learning environment. Schulze (2006) provided a description of writing workshop:

In a writing workshop, teachers immerse children in independent, meaningful writing on a daily basis. Kindergartners are allowed the responsibility to practice writing on their own initiative, with minimal guidance from their teacher and classmates. In a writing workshop, kindergartners are allowed to choose their own topics and are taught to be responsible and to assess their own work. (p. 25)

When the main principles of writing workshop are implemented, many components of DAP can be seen. Students have more choice and control about their topics and forms of writing, which may enhance interest and motivation for writing. Teachers can provide individualized instruction in the form of scaffolding as they conference with students about writing pieces. Students are engaged in the authentic uses of literacy as they write for real purposes. They also receive feedback from and can collaborate with peers as they share writing. Opportunities for connecting prior knowledge of content and skills are enhanced during writing workshop, whether guided by students or teachers.

Projects. Cunningham (2006) cited projects as an approach used by the teacher in her qualitative study of a constructivist classroom. Wiltz and Klein (2001) discussed projects as a way to integrate curriculum, children's interests, and development of basic
skills in their investigation of HQ child-care environments. NAEYC (2009) also named projects as an instructional approach for children in early childhood settings. Copple and Bredekamp (2009) identified projects as a way to integrate curriculum. Children can obtain content and skill knowledge by engaging in projects, but they can also develop social and emotional skills. Katz (1987) also supported the use of projects in order to foster children’s choice (which supports student engagement) and collaboration.

Katz and Chard (2000) stated that project work “... promotes children’s intellectual development by engaging their minds in observation and investigation of selected aspects of their experience and environment” (p. 2, italics included in original text). Projects allow students to make connections between familiar skills and content as well as to connect newly acquired information to current schema (Copple & Bredekamp, 2009). Katz (1987) described projects as group work that usually focuses on a particular theme, concept, or topic chosen by the teacher, students, or both. Projects involve many types of work over a period of time (days, weeks, etc.), and they can take up a large or minimal part of the curriculum. The make-up of the group may be static or changing depending on the tasks involved. Katz described three phases in project work. The planning phase includes developing plans and procedures for gathering materials and executing the investigation. Students construct things, complete investigations, conduct observations, or develop reports/pictures for others during the second phase of projects. During the final phase of project work, students extend elements of the project and role-play or present information learned.

There are multiple goals and benefits of project work (Katz & Chard, 2000). Projects stimulate academic growth through highly engaging situations. Projects allow
students to apply skills learned in other situations. Children are intrinsically motivated to be involved in project work as the projects revolve around student interest and choice. Children may choose from a variety of teacher-selected activities. Project work allows children to use their current knowledge and work toward a more complex understanding or skill base. Finally, the child and the teacher are accountable for learning; children can learn to assess their own learning; therefore, they become more self-regulated.

Consideration of literacy opportunities in project work is necessary. Katz and Chard (2000) indicated, "... project work provides many opportunities for children to apply the rudiments of the basic literacy and numeracy skills they are developing" (pp. 35-36). Students and teachers have opportunities to read and be engaged in information texts as they conduct research in the planning phase of the project. This phase requires a variety of literacy skills: comprehension, decoding, reading fluency, and vocabulary development. In addition, during the construction of project work and observations, students may engage in writing and/or recording information they have learned. During each of these phases, children experience the true purposes and forms of literacy not only for the sake of literacy, but also for the project work itself.

**Summary of Findings**

Although there was some evidence of literacy growth in environments that employed less developmentally appropriate practices, a majority of the studies reviewed here supported the implementation of more constructivist and child-centered practices in literacy instruction. Research also suggested that DAP fostered more positive levels of motivation and engagement. The literature did not present a pattern in terms of which skills were most effectively attained with which instructional method (DAP or more
teacher-directed); however, the research convincingly pointed to DAP for preschool, kindergarten, and first grade. The skills and knowledge students learned in each grade differed greatly in complexity and in terms of the conventionality of skills and knowledge learned and applied. Effectiveness of DAP methods for each grade level in the research reviewed supported its use.

Tenets of constructivist education found effective in literacy instruction

Professional organizations well known in the field of literacy provide support for constructivist practices in teaching and motivating literate behaviors for young children. The IRA, National Council of Teachers of English (NCTE), and the Northwest Regional Educational Laboratory (NWREL) co-published research-based guidelines in Building a Knowledge Base in Reading (Braunger & Lewis, 1998). Many of the core understandings teachers possessed of children learning to read were congruent with the NAEYC's beliefs of how children learn. The studies examined in this review validated Braunger and Lewis's (1998) guidelines for reading presented here. (The authors used the terms reading and literacy interchangeably in the guidelines.)

Educators should design curriculum and instruction for literacy based on the understandings of how children learn, but they must also specifically consider the knowledge and skill demands of literacy learning. Reading “... is an active, cognitive, affective process” (Braunger & Lewis, 1998, p. 5). Children construct meaning through active engagement with written text. This core belief in literacy instruction was supported by NAEYC's recommendation for active learning. Braunger and Lewis also identified the need for awareness and activation of student background knowledge and prior knowledge (schema) to enhance their ability to engage in literacy activities. Constructivist education,
based on some theories by Piaget and advocated by NAEYC, also recognizes the significance of children's background knowledge in learning. Research findings synthesized by Braunger and Lewis also illuminated the need for social interaction in the literacy instructional environment. Social interaction with either peers or adults provides children with models of what reading and writing look like as well as guidance and support in developing more complex skills. The idea of social interaction is inclusive of the concept of scaffolding, also supported by NAEYC's fundamental beliefs about how young children learn. Another concept found by the authors that is congruous with constructivist education is that reading and writing develop together. When students use skills in one skill area, they become stronger in other skill areas. For example, when students increase skill complexity in decoding during reading, encoding a written message becomes easier as well. NAEYC supports the idea of an integrated curriculum, so children are able to make connections among content as well as see the authentic use of skills and knowledge in other contexts. A final constructivist idea presented in the core understandings of learning to read (Braunger & Lewis, 1998) is that "children can learn successful reading strategies in the context of real reading" (p. 44). Not only did Braunger and Lewis provide research to support this finding, but so too did the analysis of WL contexts in this review. Children need the opportunity to interact with a variety of text types across curricular areas and within authentic contexts.

Other core understandings presented by Braunger and Lewis (1998) in this literature review were similarly found effective. They reported that engagement in a task is the key to becoming a successful reader. Another finding was that children learn best when teachers implement strategies that provide a model and demonstration of literacy
knowledge, strategies, and skills. Finally, teachers facilitate literacy development most effectively in rich literate environments (including experiences, resources, and models).

"Motivation is essential to engagement during a literacy event" (Braunger & Lewis, 1998, p. 33). Braunger and Lewis also stated, "If children are not engaged in reading, their ability to read will not develop" (p. 34). Several factors led to motivation and engagement and were compatible to developmentally appropriate practices. They included providing children with experiences that challenge, allow choice, and allow for collaboration. Personal connections to text fostered motivation and engagement as well.

Effective teachers also implemented a variety of instructional strategies based on best practices, knowledge of individual students' needs and abilities, concern for grouping, and content considerations (a need for explicit or implicit instruction) (Braunger & Lewis, 1998). Again, the authors identified scaffolding as a teaching strategy effective in reading instruction, as it allows for individualization of content and skills instruction. Appropriate instructional models supported by Braunger and Lewis included explicit instruction (using authentic texts instead of special instructional texts to teach strategies/skills), shared reading (and writing), reading aloud, guided reading (and writing), and independent reading (and writing). Consideration of what children need is a principle supported by NAEYC as well as a factor in implementing a developmentally appropriate curriculum.

Rich physical and social environments are supportive of literacy learning for young children (Braunger & Lewis, 1998). Concrete and authentic literacy materials foster literacy learning as do interactions between peers and adults. Physical environments must include literacy materials and activities for children to use literacy
tools and skills. Materials might include library collections, writing tools, and varied texts (genres, complexities). Braunger and Lewis signified the importance of storybook reading: children can develop language structures and enhance vocabulary; when children actively participate in conversations about books, they are engaged in an intellectual manner; they also develop comprehension. Respectful and sensitive (individually and culturally) social environments, complimented by the physical environment, can increase achievement as well.

Although Braunger and Lewis (1998) shared other understandings for teaching reading, the ideas discussed here are particularly analogous to NAEYC’s recommendations for not only developmentally appropriate practices, but also those specific to literacy instruction. The information provided in this review provides support for the type of instruction teachers should implement in early childhood classrooms, specifically instruction addressing literacy development. Not only do developmentally appropriate practices enhance literacy learning, but they also support higher levels of engagement and motivation for literacy learning.
Chapter 4

Conclusions and Recommendations

The purpose of this study was to investigate the characteristics and effects of constructivist programs and practices on young children's literacy achievement and motivation or engagement. Findings from the investigation and synthesis of those findings were reported in Chapter 3. Constructivist practices are inclusive of and derived from the guidelines of developmentally appropriate practice, which is supported and recommended by NAEYC. The review of literature greatly indicated the successfulness of these developmentally appropriate practices for literacy instruction. Many researchers conducted studies comparing developmentally appropriate programs or instructional practices with developmentally inappropriate practices, and nearly all researchers in this review found DAP to be more successful for children's overall achievement, as well as specifically in the area of literacy and for motivation (Bogner et al., 2002; Burts et al., 1993; Cunningham, 2000; Frede & Barnett, 1992; Freppon, 1991; Freppon & McIntyre, 1999; Hirsh-Pasek, 1991; Huffman & Speer, 2000; Jambunathan et al., 1999; Manning & Kamii, 2000; Marcon, 1992, 1999; Neuman & Roskos, 1997; Nolen, 2001; 2007; Ricard et al., 2002; Ridley et al., 2000; Schweinhart, 2000; Schweinhart & Weikart, 1997a, 1997b; Stipek et al., 1992; Stipek et al., 1995; Stipek et al., 1998; Turner, 1995; Wharton-McDonald et al., 1998; Wiltz & Klein, 2001). A brief summary of the results of each review question will help the reader identify the questions posed for this research.

Conclusions

To remind readers of the research questions, each question researched in the review is restated below. Conclusions drawn from the literature follow.
What are the characteristics and overall effects of constructivist and developmentally appropriate practices in preschool, kindergarten, and first grade?

Found in the qualitative research studies in this review, the characteristics and overall effectiveness of those developmentally appropriate programs and practices in preschool, kindergarten, and first grade, explored in question one, closely resembled the recommendations by NAEYC (1996) as well as Bredekamp and Copple (1997, 2009). Students in DAP classrooms experienced considerable amounts of student choice in activities. Teachers used real-life and authentic learning situations in the classroom for discussion and instruction. Those educators also reflected on the needs, backgrounds, and interests of each child in order to deliver individualized instruction meeting children where they were functioning. Students were highly engaged in activities, as teachers designed instructional activities in a play-like atmosphere. Teachers also planned for peer collaboration and interaction on a frequent basis.

Do constructivist practices improve literacy skills and knowledge as well as motivation (emotional development) for preschool, kindergarten, and first grade? The literature reviewed for question two, to determine whether constructivist practices specifically improved literacy skills, knowledge, and motivation largely supported the success of developmentally appropriate practices in literacy instruction and achievement. Most researchers found that when educators implemented principles of developmentally appropriate or constructivist education, students were more likely to attain higher levels of literacy achievement as well as possess higher levels of engagement and motivation (Bogner et al., 2002; Butts et al., 1993; Freppon, 1991; Freppon & McIntyre, 1999; Hirsh-Pasek, 1991; Huffman & Speer, 2000; Manning & Kamii, 2000; Marcon, 1993;
Neuman & Roskos, 1997; Nolen, 2001; 2007; Stipek et al., 1992; Stipek et al., 1995; Stipek et al., 1998; Turner, 1995; Wharton-McDonald et al., 1998). Although there was not a common literacy skill researched, such as sight-word identification, comprehension, writing, or phonemic awareness, researchers found DAP to be more effective than DIP for overall literacy achievement. The constructivist practices implemented in classrooms also contributed to increased levels of motivation and engagement.

What can educators specifically implement to enhance literacy skills, knowledge, and motivation? The literature reviewed for question three included research studies as well as descriptive accounts of useful strategies (which were inclusive of constructivist principles) for literacy instruction. While the findings in the review supported DAP, researchers did not always fully describe those practices. In a few qualitative studies, researchers provided descriptive accounts of classrooms and teachers implementing DAP (Cunningham, 2000; Ricard et al., 2002; Stipek et al., 1992; Wharton-McDonald et al. 1998). Although some researchers provided some specific approaches for DAP instructional methods, such as writing workshop, project work, and play-based centers, many research studies pointed to DAP generally as the recommended approach. NAEYC (2009) provided explicit guidelines for literacy instruction (specifically, reading [including letter and sound knowledge] and writing skills) in preschool, kindergarten, and the primary grades. Resounding ideas throughout NAEYC’s recommendations included teachers reading aloud daily in a variety of genre with high-quality literature, attending to vocabulary and phonological awareness, engaging students in writing, and explicitly teaching students how to comprehend what they read or hear. These activities should be created with consideration of student interest, need, and choice in mind. (The old edition
of NAEYC guidelines [Bredekamp & Copple, 1997] provided the general information about DAP used to conduct the review; however, the new DAP guidelines provided by NAEYC [Copple & Bredekamp, 2009] provided clear links to recommended literacy practice, and supported the development of an answer to the third research question.) These descriptive accounts of DAP in preschool, kindergarten, and the primary grades also helped me to answer my third research question. In addition, these answers supported me, and likely other early childhood professionals, in identifying a number of specific practices to implement.

Identification and Synthesis of Insights

Concurrent with my review of literature about DAP and DIP, several significant ideas became clear to me. A very obvious notion was that DAP is the recommended approach for instruction in literacy, so I considered that idea as I reflected on my own practices. My practices vary along a continuum of teacher-guided to child-guided practices. I teach some skills, such as phonemic awareness, in a teacher-guided manner and others, such as writing, in a more balanced or child-guided format. The Marcon studies (1992, 1999) in the review found that children in classrooms of teachers who utilized middle-of-the-road teaching practices performed lower than children in both DAP classrooms as well as children in teacher-directed classrooms. I contemplated whether this combination of instructional strategies is having a detrimental effect on the learning of my students, as it did in the Marcon studies, or whether it is an effective practice, knowing that I am implementing a balance of instructional strategies. NAEYC (2009) contended that both child-guided and teacher-guided experiences could be significant and effective for student learning if they "deeply engage children’s minds" (p.
NAEYC also reported that each instructional approach works when learning requirements are considered. For example, if children are to learn about the life cycle of plants, the teacher-guided practice of direct instruction may not be the most appropriate way for children to most effectively and engagingly learn about life cycles. The sequence of knowledge in which children learn and the nature of the knowledge should inform the teacher which approach or in what combination the approaches will be most effective. Teacher-guided practices can be developmentally appropriate when educators consider children’s interests, needs, and background knowledge. This information will provide teachers with tools to plan developmentally appropriate curricular experiences.

In addition to the need for consideration of the nature of knowledge to determine the most appropriate instructional approach, I also had to think more about sequencing and connecting my instruction. The new NAEYC DAP statement (2009) placed more emphasis on the sequence of instruction and learning within a curriculum. “In many areas of development and learning, some concepts and skills logically come first and others build on them [(e.g., the understanding of the alphabetic principle lays the foundation for reading)]” (p. 42). When teachers are aware of the order in which skills and knowledge are learned, they are able to plan student experiences so they more effectively meet students where they are. In addition, scaffolding becomes a more effective strategy, as the teacher knows where to lead the child next.

The importance of connections among curricular foci is one useful insight that may significantly affect my instructional quality as well. Copple and Bredekamp (2009) underlined the effectiveness of student-made connections. “Young children learn best when the concepts, vocabulary, and skills they encounter are related to something they
already know and care about when the new learnings are themselves interconnected in meaningful, coherent ways" (Copple & Bredekamp, 2009, p. 42). As I plan for and deliver instruction, I need to not only consider students’ content knowledge, but also how the skills they need to learn connect to what they already know how to do. NAEYC (2009) supported this idea in its list of principles of child development and learning that should inform practice: all domains of development are interrelated. Learning in one area influences what happens in other areas of development. Encouraging children to be aware of what is in their schema and providing them with ways to access that information and connect it to new or other bits of information/skills will enhance their metacognitive abilities.

Lastly, I considered the idea of motivating student literacy behaviors. Prior to this review, I believed I was responsible for finding mechanisms to motivate student learning and engagement. I believed I had to do the motivating for the children. The review of literature, however, has led me to believe developmentally appropriate approaches will foster natural curiosity, motivation, and engagement. Copple and Bredekamp (2009) emphasized that educators should recognize “...children’s natural curiosity and desire to make sense of their world and gain new skills” (p. 158). Use of this information will guide teachers in designing learning opportunities that are highly engaging instead of using curriculum development or instructional time to design external reward systems as motivators. Some of the specific practices discussed in the Recommendations section utilize children’s natural curiosity and individual interests to engage children in knowledge and skill building. Copple and Bredekamp (2009) also suggested several simple ideas to enhance motivation for literacy. Classroom libraries should contain high-
quality literature in a variety of genres. Adults should read to children daily and model an enthusiasm for reading. Teachers should utilize books with topics of interest to students and use that literature to engage students in discussions about the book’s ideas.

**Recommendations**

Based on review of the literature and insights drawn from the conclusions, I can make a number of recommendations. Most importantly, early childhood professionals should be very familiar with *Developmentally Appropriate Practices in Early Childhood Programs (3rd ed.)* (2009) published by NAEYC. This document not only thoroughly describes principles of DAP but it also specifically recommends practices for literacy for children of all ages. A deep understanding of constructivist theory and DAP will help educators in implementing DAP literacy practices specifically outlined in NAEYC’s document (Copple & Bredekamp, 2009) as well as creating and adapting instructional approaches that adhere to those recommendations.

An additional recommendation for early childhood literacy educators is to stay current in research that deals with early childhood literacy by keeping informed about well-known authors and instructional approaches. Continued professional development in research-based developmentally appropriate strategies will support teachers’ growing knowledge of literacy education in early childhood. So, too, will active engagement in organizations such as NAEYC as well as subscribing to journals in the areas of literacy and early childhood research continue to increase the amount and depth of knowledge we hold in these areas.

Recommendations for practice in the classroom come not only from Copple and Bredekamp’s (2009) revised document about DAP, but they also come from research
(Cunningham, 2000; Nolen, 2007; Saracho, 2001; Saracho, 2002; Vukelich, 1994; Wharton-McDonald et al., 1998; Wiltz & Klein, 2001) and secondary sources (Katz, 1987; Katz & Chard, 2000; Neuman, Copple, & Bredekamp, 2000; Schulze, 2006) that are supported by research. These recommendations include use of developmentally appropriate principles, such as allowing children to direct learning by attending to their learning needs and current interests. That information may be useful in creating developmentally appropriate curriculum and instruction. Play-based literacy centers or play centers with literacy materials in them may engage students in the authentic uses of literacy as well as allow children to collaborate with and learn from their peers. Writing workshop will allow students to write for authentic reasons and about topics of student choice, which can be intrinsically motivating. Finally, projects might be an effective and engaging approach for teachers to utilize in the classroom. Not only do projects allow students to learn content area subject matter, but they projects also naturally call for students to engage in literate behaviors for multiple purposes.

**Future Projects/Research**

The research reviewed here provided information about general literacy achievement in the context of DAP; however, research was limited about specific areas of literacy achievement. The lack of specific research did not allow for conclusions about how to best design specific skill instruction. The material in this review encompassed literacy skills learned in preschool through first grades. The complexity of skills differs greatly in each of these grades, and the importance of those skills is critical, as this time is most significant for building a solid foundation in literacy. The research provided a general theme of developmentally appropriate practices in the literature; however, few
specific practices were linked to achievement in specific areas of literacy skills or knowledge. More studies comparing DAP and DIP focusing on one of the following skills would benefit the early childhood field: letter and sound learning, word learning, writing skills and knowledge, decoding skills, comprehension, etc. Consideration and study of specific instructional practices to teach each of these skills would be more informational to educators, administrators, and other decision-makers in curriculum and instruction. Although NAEYC (2009) provided guidelines for implementing DAP, including some guidelines for literacy, knowledge of research-based literacy instructional practices for skills at each grade level would be more descriptive and useful for educators.

The literature reviewed in this study mentioned or very briefly discussed a few specific approaches for instruction: writing workshop, the project approach, and play-based literacy centers. Additional studies on the effects of these constructivist practices at each grade level could assist educators in determining their effectiveness and learn exactly how to implement them. A larger research base is essential for each of them. A study of the skills learned in each would also be beneficial.

A final topic of research that would benefit our field is that of how constructivist practices, including those above, align with benchmarks. In the era of increased teacher accountability and emphasis on reduction of achievement gaps, consideration of benchmarks and standards is essential. Qualitative research studies would provide educators, administrators, and other decision-makers with descriptive accounts of how these strategies and approaches align with benchmarks and standards. Studies that prove
increased achievement as well as information about how to support benchmarks through instruction might extend the amount of DAP utilized in schools.

**Educational Policies**

NAEYC (Copple & Bredekamp, 2009) provided recommendations for policy considerations that complement the ideas of this review. NAEYC recommended funding and development of a professional development system for educators to enhance understanding and implementation of high quality DAP. It is my belief that not only should there be professional development and funding for in-service educators on DAP, but also that pre-service teacher education programs should require a more intense study of and practicum experiences in DAP. In addition, there should be a greater focus on differentiating instruction, so new teachers are better able to meet the needs of all students. In-service teachers should receive ongoing training in these areas as well.

Similarly, in literacy methods classes, pre-service teachers should practice in and experience proven high-quality classrooms that implement DAP and have high rates of literacy achievement. Placement coordinators need to provide greater consideration to student placements in practicum experiences. Not only should pre-service teachers experience these classroom types, but in-service teachers should also engage in regular observations and cooperation with classroom teachers implementing high quality DAP literacy instruction.

The importance of the early childhood years and the impact that early education can make on young children is recognized at a national level, as is seen through educational policies supporting early education. A final policy consideration would provide direct support for educators in implementing DAP in literacy instruction.
Government provisions for education consultants for early childhood classrooms may help ensure fidelity of implementation of DAP. These consultants would be available for modeling, consultation, interventions, etc.

*Teacher Practices of Self and Others*

The most important conclusion from this study that will affect my practices, is that DAP do, in fact, improve literacy achievement. I need to examine my current literacy practices, determine which are DAP and DIP, and develop alternatives to inappropriate practices in my curriculum and instruction. In order to develop those alternatives, I will need to continue to search for and reflect on research and other resources that provide information about constructivism and DAP. Throughout the review process, I gathered many secondary sources that are inclusive of specific ideas for curricular design and implementation. I will need to consider how those fit with what I know about DAP as well as what my district and state benchmarks require.

Collaboration with literacy strategists, grade-alike colleagues, and my principal will help this process be credible and accepted. Within the process of reflecting on my own practices, I will need to consider the real-life and authentic uses for literacy. The reasons that our society uses literacy will need to become the purpose for each experience I provide children. Additionally, continued observation of student interests will help guide my decisions about the content of instruction.

Action research in my classroom may be another practice in which I might engage. Currently, I implement play-based literacy centers in my classroom; however, I do not consistently assess their effectiveness. I will need to determine the success of those centers in terms of literacy achievement. As I utilize those centers to help children
attain and practice literacy skills and knowledge, I will need to consider the goal for each center and track each child's progress on the skill. One other item to track periodically during literacy centers will be engagement. Tracking progress and engagement will allow me to adjust the center's materials, procedures, or goals so they are developmentally appropriate, effective, and engaging.

Another practice I would like to attempt and research in my classroom is the Project Approach, as it provides children with integrated learning experiences. Integrated curricular experiences provide children the opportunity to make connections with prior knowledge and to alter or validate their schema with newly acquired knowledge (Copple & Bredekamp, 2009). This is an approach I have never implemented, so I would not only keep track of the process in which it is carried out, but I would also track and monitor the progress students make toward learning objectives and benchmarks. This approach will address knowledge and skills in literacy, math, science, and social development.

As academic expectations continue to increase for children at an earlier age, accountability for success is also mounting for educators. A reflection of teaching practices is necessary for all teachers in the early childhood field to determine whether those practices are, in fact, effective for all children. Inquiry of more effective and appropriate practices will help teachers better understand how children learn and achieve, both individually and as a larger group. Developmentally appropriate instructional methods may be the solution to the negative consequences of the push down effect of greater academic expectations. Those same practices may counteract the lack of motivation some students possess. Based on the research reviewed above, researchers found that these developmentally appropriate practices would also positively increase the
literacy achievement of young children. Teachers in the field should be stimulated to seek out highly effective instructional methods, motivated to execute these methods, and eager to engage in ongoing learning about new highly-engaging, age-appropriate, effective instructional approaches.
References


