

**EFFECTIVE LITERACY RESOURCES TO SUPPORT ADOLESCENT PARENTS  
ENSURING KINDERGARTEN READINESS FOR THEIR CHILDREN**

by

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CERTIFICATION OF THESIS/PROJECT CAPSTONE WORK

We, the undersigned, certify that this project entitled EFFECTIVE LITERACY RESOURCES TO SUPPORT ADOLESCENT PARENTS ENSURING KINDERGARTEN READINESS FOR THEIR CHILDREN by ANDREW CASTELLANO, Candidate for the Degree of Master of Science in Education, Literacy Birth to Grade 12, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.

  
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**ABSTRACT**

Adolescent parents often lack the skills needed in order to provide their children with the proper supports that promote efficient growth in several areas dealing with early literacy skills such as letter identification, vocabulary, and phonological awareness. When these children then enter school, they have not acquired the skills they need to be academically successful. To address the problem of adolescent parents needing more support to help foster early literacy skills at home, the research question focused on what are effective resources teachers can provide adolescent parents to help support early literacy practice at home as well as how can teachers show these parents how to use them effectively on their own? To answer that question, an extended literature review and research synthesis were completed and produced multiple findings. The findings were; adolescent parents needed more support in order to provide a larger amount of involvement with their child, letter identification, letter sounds, phonological awareness, vocabulary, lap reading, and concepts about print were the skills adolescent parents should have practiced with their children before kindergarten, adolescent parents required more strategies in responsive parenting and behavior management plans, and with the right support systems in place, adolescent parents could foster a proper at home literacy environment. These findings were the foundation of the professional development project presented through a multimedia application for adolescent parents. This application allowed parents to receive the guidance they needed in order to practice the literacy skills needed for Kindergarten.

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## Chapter 1: Introduction

### Statement of the Problem

Mollborn and Morningstar (2009) stated that adolescent pregnancy has become an urgent crisis in America. Several researchers (Domenico & Jones, 2007; Killebrew, Smith, Nevels & Weiss, 2010) noted that the adolescent pregnancy rate in adolescents was reported to be the highest in western civilization, with 4 out of every 10 pregnancies being from women under the age of 20. This means that nearly 12,000 females under the age of 15 become pregnant each year. Teen pregnancy has not only posed economic burdens, but also has been a commonly cited reason for high school dropouts among adolescents. Berry, Shillington, Peak and Hohman (2000) stated that adolescent parents often complete less schooling. Rothenberg and Weissman (2012) supported Berry and colleagues claim and found that 7 out of 10 adolescents who had a child in high school did not graduate.

Lewin, Mitchell, and Ronzio (2013), as well as, Arrow and Finch, (2013), Sommer et al. (2000) and Hotz, McElroy, and Sanders (2005) also found that with a lack of education, additional family support, and socioeconomic factors, adolescent parents lacked the necessary skills in order to support their children in several areas of development. Schools have also faced challenges to improve both teaching and learning, with a major emphasis on on school readiness and learning cognition of young children (Bailey, 2014). Due to this increase in rigor, there are more children entering kindergarten who do not possess the basic literacy skills expected when starting school. Students who have not been prepared or equipped with early literacy skills at home prior to starting school are at more risk for delays in academic achievement, more

specifically, in the areas of literacy (Friesen, Butera, Kang, Horn, Lieber, & Palmer, 2014). The problem related to this topic is that adolescent parents required more support to help foster early literacy skills at home due to a lack of education, resources, and proper developmental supports at home.

The lack of support in home literacy practices for children with adolescent parents led to the research question: what are effective resources teachers can provide adolescent parents to help support early literacy practice at home as well as how can teachers show these parents how to use them effectively on their own? The most effective way to address the question of effective literacy resources would be to do an extensive literature review which will be used to determine what resources are the most helpful for adolescent parents as well as determine a way can educators teach them how to use the tools efficiently through a professional development, multimedia resource.

### **Background**

Through teaching Kindergarten at a charter school in the city of Buffalo, I am familiar with the standards and benchmarks set for children in the areas of phonemic and phonological awareness. Through the initial screenings and assessments, I have also noticed more students not having basic skills in literacy. After meeting and conferring with the parents, I saw a common trend with the students who had low academic achievement, often had adolescent parents. It was from these observations that I wanted to find a way to help support these parents through resources that would be most conducive to their lifestyle.

### **Terminology**

There were key terms which were used in this proposal and may require clarification.

The first term was adolescent. When conducting the research, the Literacy Candidate focused on adolescents ranging from 13-17 years old. Responsive parenting is another important term that refers to an interaction between caregivers and their children that deals with the acceptance of a child as a unique individual while acknowledging their own set of needs and interests (Guttentag et al., 2014). The term kindergarten readiness refers to the skills a child needs in order to adapt to the different domains of kindergarten. These domains include behavior skills, academics, vocabulary, and appropriate social interactions (Hartman, Winsler, & Manfra, 2016). Phonological awareness is a term that refers to hearing sounds in spoken language. Phonemic awareness is the ability to hear and manipulate individual sounds in words. Phonics is a method of teaching the predictable relationship between English sounds (phonemes) and symbols (graphemes) to decode words.

### **Theoretical Stance**

The theoretical stance that supports this research was the view of literacy and overall learning as being a zone of proximal development. According to Vygotsky, children can learn and develop through scaffolding and support from an adult or teacher (Hedges, Flier-Stout, & Hanh, 2016). Hedges et al. (2016), also stated how Vygotsky's theory connects to teacher and parent partnerships where it stated that teachers better understand and connect to a student when the teacher has a better understanding of that student's background. Meaning, the teacher can instruct and scaffold more efficiently when the teacher knows more about the student's homelife. This was represented in the research by showing the effects of how student's development can be impacted based on what the child is being taught at home. If a child is being scaffolded to master a specific skill, then eventually they will be able to complete the task on their own. Furthermore,

teachers need to be more equipped with background knowledge of each student so they can provide the proper scaffolding. If the teacher knows a student is coming from adolescent parents, the teacher will have a more effective curriculum in place to fit the specific needs of that student. Without scaffolding, the students or child will have delays in being able to accomplish and reach that specific area of development.

The proposed research synthesis is aligned with the International Reading Association (IRA) *Standards for Reading Professionals* (2010). Several of the Standards addressed the component of literacy development and influences on it. For example, this candidate was addressing Standard 1; Foundational Knowledge by showing an understanding of the profession and the currently shared content of the reading field, which is subject to change over time as new knowledge. The candidate also addresses Standard 2; Curriculum and Instruction by showing research that supports how literacy development should inform teaching practices and selection of materials. This article also uses evidence-based instructional strategies that help compliment a balanced and motivating reading and writing program. Lastly, Standard 6; Professional Learning and Leadership is also shown by the candidate by showing how to be inclusive and collaborative across parents or guardians, the community, and all school staff when providing effective strategies to adolescent parents.

### **Rationale**

The research states that students who have early acquisition of vocabulary, letter recognition, and word part-knowledge have greater success in learning (Friesen et al., 2014). With the high standards of literacy achievement in schools, students who enter kindergarten with a stronger understanding of basic literacy skills will be more equipped for academic success in

the areas of literacy. Researchers (Jahromi, Umana-Taylor, & Updegraff, 2016; OBerlander & Black, 2011; Lewin et al., 2013) have indicated that children of adolescent parents are more likely to have delays in academic achievement. The skills of vocabulary development, letter recognition, and word part-knowledge were important skills that adolescent parents were not tending to at home with their own children (Friese, et al, 2014). This shows that adolescent parents require more support in order to foster early literacy skills at home that will in turn, help their children reach kindergarten readiness.

With an understanding in what type of backgrounds students are coming from, teachers will be able to conduct early intervention for students without the basic literacy skills expected when entering kindergarten Hedges et al. (2016). In addition to in-school support, teachers will also be able to offer additional resources to adolescent parents for more guidance at home. Teachers should provide resources that are not only effective, but also complement the lifestyle of these adolescent parents. This could be done in the form of a multimedia app for a smartphone containing a professional development sequence. Hatcher et al. (2018) and stated that electronically based tools and assessment systems were found to be beneficial when relaying information to adolescent parents. This could consist of videos of teachers modelling specific phonetic and phonological skills, books on tapes, and practice guides with corresponding activities.

## Chapter 2: Literature Review

A review of several empirical research studies were conducted in order to address the research question. These studies showed effective literacy resources teachers can provide to adolescent parents to support their children as well as determine a way educators can teach them how to use the tools efficiently through a professional development, multimedia resource. PsycINFO, ERIC database, and ERIC Institute of Education Sciences were the chosen search engines to find the articles to support the research question. First, resources showing the correlation between age of parent and lack of academic achievement of the child were found. The thesaurus was also used to see how the search engines defined the term adolescent and found the age was 13-17. The following keywords were used to search for peer-reviewed research: “adolescent parents and early childhood and behavior,” “adolescent mothers” or “adolescent fathers” or “young parent,” “early childhood or elementary and behavior,” “home literacy practices,” and “responsive parenting.” The studies used in this research help answer the essential question of this article covering five general groups. These categories included effects of adolescent parenthood, early literacy practice, parenting and literacy instruction intervention, Kindergarten readiness, and parent-teacher communication.

### **Effects of Adolescent Parenthood**

Overall, children of adolescent parents have been more at risk in the different areas of development. (Jahromi et al., 2016; Oberlander & Black, 2011; Mollborn & Dennis, 2012; Mollborn & Blalock, 2012; Bohr & BinNoon, 2014; Carothers, Borkowski, & Whitman, 2005; Sommer, et al. 2000). These developmental delays were more specifically found in the areas of

cognitive development regarding early literacy skills. Letter identification, phonological awareness, as well as overall oral vocabulary were areas that were found to have delays. Adolescent parents were found to be the least equipped among parents in comparison to older age groups, affecting their child's academics and behavior (Lewin, et.al, 2013). Studies also found that most families with adolescent parents make annual wages that place them in low-class. Children from low-income families were more likely to enter school with fewer early literacy skills than their middle-class peers (Bailey, 2014). With a lack of appropriate disciplinary action techniques, low socioeconomic status, and a need of proper educational guidance, adolescent parents require additional support at home in order to foster a home environment that is more conducive to their child's development.

Mollborn and Dennis (2012), examined the overall development of children of adolescent parents. The research showed that developmental disparities between adolescent parents' children and others were largely nonexistent at nine months but accumulated with age. Furthermore, having an adolescent parent predicted compromised development across several domains by age four and a half. There were three waves of data that were collected when the children were 9 months, 24 months, and 52 months old. These authors noted that developmental disadvantage of children from adolescent parents appeared later on in development and accumulated over time. According to the article, at 9 months and 2 years old, children of adolescent parents do not show significant delays in physical or cognitive development in comparison to those children without adolescent parents. At about 4 ½ years old however, children of adolescent parents show more delays in many cognitive areas, more specifically in the areas of literacy.

Another aspect of adolescent parenting was discussed by Oberlander and Black (2011). They compared caregiver involvement to determine if the children of adolescent mothers experience a greater risk of developmental problems than other children. This included delayed cognitive development, behavioral issues, and poor academic readiness. Adolescent parents from three urban hospitals in Baltimore, Maryland were recruited shortly after delivery and were under the age of 18. The study showed that maternal caregiving involvement was associated with fewer reported externalizing behavior problems and academic delays than shared caregiving.

Like Oberlander and Black (2011), Mollborn and Blalock (2012) investigated parental and nonparental child-care arrangements for children of adolescent parents' and its association with children's preschool reading, math, and behavior scores. The study used a sample of about 10,600 children born in 2001 from infancy through early kindergarten using parent interviews and direct assessment. The sample was drawn from all 2001 births registered in the National Center for Health Statistics vital statistics system based on a clustered, list frame sampling design. Children were sampled from 96 counties and county groups. The study showed that children in the parental care class had significantly lower reading, math, and behavior scores at 52 months compared to the other classes.

### **Early Literacy Practices**

Adolescent parents may also have an effect on early literacy practices (Mollborn & Blalock, 2012; Lewin et al. 2012; Luster, Bates, Fitzgerald, Vandenbelt, & Key, 2000; & Guttentag et al. 2014). The early acquisition of vocabulary, letter recognition, and word parts are common predictors of later learning success (Friesen, et al, 2014; Arrow & Finch, 2013; Saçkes, Isitan, Avci, & Justice, 2016). Research states that early literacy practice can play a critical role

in fostering early literacy growth in children (Friesen, et al, 2014). Mollborn and Blalock (2012) looked at parental and non-parental child-care arrangements for children and its association with children's preschool reading, math, and behavior scores. The study showed that children in the parental care class who did not have sufficient early literacy practice had significantly lower reading, math, and behavior scores at 52 months compared to the other classes. Research shows that children's phonological awareness skills can be significantly improved when parents practice developmentally appropriate skills at home. In addition to phonological skills, reading books together where parents engage children in conversation as well as provide opportunities for children to develop expressive vocabulary, print awareness, and even listening comprehension has been shown to be most effective in the early stages of development (Knopf & Brown, 2009). Being able to provide these types of effective learning opportunities that support early literacy skill development requires parents to have the necessary tools and resources available to them as well as open-communication to skilled professionals such as teachers and educators to ensure parents are using the tools appropriately (Friesen et al, 2014).

Friend, Smolak, Liu, and Poulin-Dubois (2018) found that parents must begin early literacy practice at home in order for their children to be fluent readers and writers. Children must possess essential literacy skills that directly connect to the many components of literacy. Research has found six main variables that have a strong connection to reading and overall academic success. These variables consist of letter identification, phonological awareness/phonemic awareness, word-study/phonics, vocabulary, fluency, and comprehension (Tindall & Nisbet, 2010; Friesen et. al, 2014; Schmitz, & Loy. 2014). Of these skills, letter identification, vocabulary, and early phonics practice are skills that can begin in the home before

starting school. Without a proper basis of foundational skills when entering kindergarten, students are more likely to experience delays in reading and writing. According to Jahromi and colleagues (2016), children with developmental delays by preschool age show increasing intellectual deficits as they get older. The children were assessed using multiple assessments. These included a letter-word identification assessment, an applied problems assessment, and a picture vocabulary assessment as well as the Peabody Picture Vocabulary Test-IV which are all designed to assess the different components of literacy.

### **Parenting and Literacy Instruction Intervention**

Numerous authors (Guttentag et al., 2014; Roxas, 2008; Berry et al., 2000; Carothers et al., 2000; Bohr & BinNoon, 2014; Friesen et al, 2014; Rothenberg & Weissman, 2002 & Stetson et al., 2012) found that adolescent parents needed interventionary support in order to ensure early literacy development, basic health care needs, emotional support, and behavioral/disciplinary strategies. These basic needs were major factors in promoting academic success and overall development in children. These researchers found that interventions that focused on enhancing the parent-child relationship yielded the most positive results. Guttentag et al. (2014); Berry et al. (2000) and Rothenberg and Weissman (2002) discussed the idea of responsive parenting and how it needed to be a major component to home interventions for adolescent parents.

Berry et al. (2000), as well as, Rothenberg and Weissman (2002) found that responsive parenting during infancy was most critical. On the other hand, Guttentag et al. (2014) and Landry, Smith, Swank, and Guttentag (2008) described the importance of consistency in responsive parenting across both infancy and early childhood in order to achieve optimal

performance in cognitive and social development. When a child felt that their needs were met with love and support, the child's behavior improved because a sense of trust and close bond was developed, self-regulation was learned, and the child became more receptive to at home learning. Lewin et al. (2013) found that adolescent mothers were less verbal, less sensitive, less involved, and less responsive to their children than were older parents. Adolescent parents also used more violent or physical disciplinary techniques such as spanking which resulted in more behavioral issues and delays in emotional and cognitive development. Lewin and researchers (2013) continued to state that adolescent parents were not as prepared for optimal parenting in terms of discipline and early literacy skills in comparison to older parents 25 years or older and would benefit from at home interventions and support.

According to Guttentag and colleagues (2014) in terms of intervention, best outcomes were achieved when programs included frequent at home visits which focused explicitly on teaching parents to attend to children's signals and appropriate responses. When parents showed improvement in responsive parenting, more curricular instruction was able to be implemented. Video modeling and parent self-reflection produced positive results during interventions. The curriculum used in the interventions also included educational videotapes featuring mothers with similar backgrounds to the study participants. The videos demonstrated specific target skills such as letter identification, phonological awareness, and shared reading, guided discussion and questions to ensure parents' understanding of the concepts, direct coaching of parents' use of the key skills and strategies during videotaped interactions with their children, supporting adolescent parents to critique their videotaped behaviors, and planning for integration of target lessons into daily ongoing interactions with their children.

**Kindergarten Readiness**

Researchers Friend et al., (2018), Hatcher, Nuner, and Paulsel, (2012), and Graziano, Garb, Ros, Hart, and Garcia, (2016) investigated the increased demands and rigour found in elementary schools for children entering Kindergarten. Hatcher et al., (2012) also stated that preschool children should enter kindergarten having some familiarity with print, letter and sound recognition, and beginning writing skills. Other factors involved in Kindergarten readiness include following rules and routines, taking turns, and communicating personal needs and feelings. Oberlander and Black (2011) and Hatcher et al. (2012) stated that adolescent parenthood results in poor academic readiness for kindergarten resulting in delays in several skills relating to reading. These researches stated that adolescent parents need more support in order for them to be able to more efficiently prepare their children for school.

Friend et al (2018), as well as, Hatcher et al. (2012), also stated the importance of vocabulary development for Kindergarten readiness. Friend et al. (2018) and Hatcher et al. (2012), suggested that early vocabulary acquisition predicts language and reading achievement in the beginning years of school. Jahromi et al (2016), Knopf and Brown (2009), and Lewin et al. (2013) stated that adolescent parents are the least equipped when it comes to developing oral vocabulary because of a lack of shared reading and exposure to authentic vocabulary-enriching experiences. This means not just reading aloud, but having children actively participate in the reading through discussions, call and response, repeated readings, and asking questions throughout the reading. Knopf and Brown (2009) state that unfortunately, adolescent parents do not know how to appropriately interact with their children around the literature. Adolescent

parents need more support when it comes to implementing more beneficial reading experiences at home to better prepare their children with the skills they need for Kindergarten.

### **Parent-Teacher Communication**

Many authors (Ozmen, Akuzum, Zincirli, & Selcuk, 2016; Stetson, Sinclair, & Nix, 2012; Fagan & Lee, 2011; Guttentag et al. 2014; Landry et al., 2008; Roxas, 2008) found that parent-teacher communication provides many benefits to teachers, the school, and most importantly parents. Ozmen et al., (2016) continued to state that by means of communication, mutual trust between the school and parents develops and mutual support towards encouraging student learning increases. Adolescent parents required additional support from their children's teachers which is only possible with efficient communication between school and home. Ozmen and colleagues (2016) stated that effective communication especially at the kindergarten level should inform, enlighten, and train adolescent parents with the skills necessary to ensure the success of their children. With a strong sense of communication between parents and teachers, teachers will be able to more effectively provide the necessary support and resources to adolescent parents based on trust and a basic understanding of the students' needs.

Ozmen et al., (2016) noted that environmental conditions were also pertinent to efficient parent-teacher communication and developing programs that utilize environmental space allows more opportunities for parental support from the teachers. Ozmen et al., (2016) and Stetson et al., (2012) found that the facilitation of online or in-person seminars, support groups, or even home visits are effective measures to secure a positive relationship between teachers and parents as well as ensure that adolescent parents are receiving the necessary support they need.

Furthermore, Ozmen et al., (2016) stated that it is important for teachers to continuously be looking for new communication methods and strategies in order to develop cooperation from adolescent parents.

### **Summary**

Oberlander and Black (2011) found that adolescent parents need to be provided with additional support in order to ensure proper growth in the different areas of development, specifically the areas related to literacy. After close examination, those studies were organized into five main categories. These categories included effects of adolescent parenthood, early literacy practice, parenting and literacy instruction intervention, Kindergarten readiness, and parent-teacher communication. These categories ultimately work to help answer the essential research question.

**Effects of Adolescent Parenthood.** Researchers Jahromi et al., 2016; Oberlander & Black, 2011; Mollborn & Dennis, 2012; Mollborn & Blalock, 2012; Bohr & BinNoon, 2014; Sommer et al. 2000; Carothers, Borkowski, & Whitman, 2005; Lewin, et.al, 2013; and Bailey, 2014 found that adolescent parents lacked the basic and necessary skills to support their children in the various stages of development.. The findings from Mollborn and Blalock 2012 show that adolescent parents need more support in order to provide sufficient and effective literacy practice early on in their home environments. The areas in cognitive development, specifically those regarding early literacy skills were areas that showed the most amount of delays.

**Early Literacy Practices.** Many authors (Mollborn & Blalock, 2012; Lewin et al. 2012; Guttentag et al. 2014; Luster et al., 2000; Friesen, et al, 2014; Arrow & Finch, 2013; Saçkes, et al., 2016; Knopf & Brown, 2009; Friend et al. 2018; Tindall & Nisbet, 2010; Schmitz, & Loy,

2014) stated that early literacy practice is a major predictor of academic success in children. The findings also showed that adolescent parents do not demonstrate sufficient enough of the essential early literacy practice at home.

**Kindergarten Readiness.** Researchers (Friend et. al, 2018; Hatcher et al., 2012; Graziano et al., 2016; Oberlander & Black, 2011; Jahromi et al., 2016; Knopf and Brown 2009; Lewin et al., 2013) showed how adolescent parents need more support in order for their children to have the skills they need to be prepared for school. Vocabulary enrichment, shared reading, and letter and sound identification were skills that are needed in order to be ready for kindergarten. Various elementary schools and at home environments were studied and researched to view what skills and instruction adolescent parents needed more support in.

**Parent-Teacher Communication.** Several authors (Ozmen, et al., 2016; Stetson, et al., 2012; Fagan & Lee, 2011; Guttentag et al. 2014; Landry et al., 2008; & Roxas, 2008) stated that there are numerous communication means that teachers can benefit from, such as internet technology, private interviews, conferences, and group meetings. Teachers need to use multiple modes of communication so that adolescent parents are given the supports they need to better instruct and care for their children at home. This research helps answer the question for this report.

**Parenting and Literacy Instruction Intervention.** Guttentag et al.; (2014); Roxas, (2008); Berry et al., (2000); Carothers et al., (2000); Bohr and BinNoon, (2014); Friesen et al, (2014); Rothenberg and Weissman, (2002); Stetson et al., (2012); and Landry et al., (2008) described how adolescent parents are said to need more support at home in order for them to

acquire the necessary skills they need to better instruct and parent their children. Responsive parenting and the phases of development that is optimal for intervention is also discussed. These researchers describe effective curriculum, targeted lessons, and video recordings in order to effectively relay the information and supports to these adolescent parents.

## **Chapter 3: Methodology**

### **Introduction**

With the increased academic demands of kindergarten (Hatcher, et al. 2012), it became clear that adolescent parents need more support in order to maintain early literacy practice at home to ensure Kindergarten Readiness for their children. Children of adolescent parents tended to show delays in several developmental domains, including behavior and intellectual functioning and on average, these children exhibit typical development as infants but show increasing intellectual deficits by preschool age Jahromi et.al, (2016). With this knowledge, teachers will be able to offer extra support and assistance to these parents as well as provide guidance in ensuring that these resources are used efficiently. When appropriate communication is used, teachers and adolescent parents will be able to help prevent their students from entering kindergarten without the necessary skills needed to be successful in Kindergarten (Stetson et al, 2012). An extensive review of literature was conducted in order to answer the question of what are effective resources teachers can give to adolescent parents to help ensure kindergarten readiness. This chapter gives an explanation of the data collection process, the data analysis, and data synthesis. The data collection section explains how the studies in this report were found. The data analysis section investigates the research studies that were collected and identifies similar themes that were presented throughout the research. The synthesis section provides a summary of what was found as a result of the data analysis.

### **Data Collection**

The following databases were searched: PsycINFO, ERIC database, and ERIC Institute of Education Sciences. The following keywords were used to search for peer-reviewed research:

“adolescent parents and early childhood and behavior.” The search engine yielded in 127 possible results however, most of the results were articles regarding behavior in adolescent children and the relationship with their parents. Then the descriptors “adolescent mothers” or “adolescent fathers” or “young parent” “early childhood or elementary and behavior” were used. This resulted in 43 articles pertaining to the intended research question..Effective literacy practices and ways to conduct them at home was also an area that needed to be researched. The descriptors, “home literacy practices” were chosen and 76 possible results were found. The search was then narrowed to show “multimedia strategies” which then showed 50 possible results. The term “responsive parenting” was then searched with a result of 31 peer reviewed articles. After close examination, the research was eventually narrowed down to 33 articles which were used for this report.

The findings range from the years 2008 to 2018 and take place across the United States, as well as Mexico, Vietnam, and Canada. These articles and their results will help answer the essential question of this report to help determine what strategies will be most effective for adolescent parents and how can teachers help them use them. With continued research, common themes were identified throughout the articles leading to the four main categories of adolescent parenthood, early literacy practice, parenting and literacy instruction intervention, Kindergarten readiness, and parent-teacher communication. It is with these categories that the Literacy Candidate was able to conduct a more intensive analysis of the research that will be discussed in the following section.

## Data Analysis

The studies selected and categorized were used to more closely examine the recurring themes found in the data. Further analysis of these themes lead to new findings in the study, highlighting specific skills that children of adolescent parents need to know, and what is the best way to instruct their parents so that they will be able to do it efficiently. The themes from the literature which were effects of adolescent parenthood, early literacy skills, parenting and literacy instruction intervention, Kindergarten readiness, and parent-teacher communication, showed skills that can be taught by the adolescent parents independently, skills that can be taught by the parent through modelling, and skills that need to be taught through teacher interventions.

**Effects of Adolescent Parenthood.** Nine studies (Jahromi et al., 2016; Oberlander & Black, 2011; Mollborn & Dennis, 2012; Mollborn & Blalock, 2012; Bohr & BinNoon, 2014; Sommer et al. 2000; Carothers, Borkowski, & Whitman, 2005; Lewin, et.al, 2013; Bailey, 2014), five studies (Oberlander & Black, 2011; Mollborn & Dennis, 2012; Bohr & BinNoon, 2014; Sommer et al., 2000; and Carothers et al., 2005) described certain skills that needed to be taught through a *Teacher Intervention*. These researchers found that adolescent parents were not equipped with the necessary skills to foster a thriving at home literacy environment due to a lack of resources, disciplinary techniques, and poor behavior management strategies. The skills described by these researchers refer to specific parenting and behavior management techniques that need to be directly taught through a *Teacher Intervention*. The other four studies (Jahromi et al., 2016; Mollborn & Blalock, 2012; Lewin et al., 2013; Bailey, 2014) described skills that can be taught *independently* by the parent. These studies showed that some skills can be taught by adolescent parents at home without modelling or teacher interventions. These skills that can be

taught *independently* can help fill in the gaps of development for these children.

**Early Literacy Skills.** Eleven studies (Mollborn & Blalock, 2012; Lewin et al. 2012; Guttentag et al. 2014; Luster et al., 2000; Friesen, et al, 2014; Arrow & Finch, 2013; Saçkes, et al., 2016; Knopf & Brown, 2009; Friend et al. 2018; Tindall & Nisbet, 2010; Schmitz, & Loy, 2014), six (Tindall & Nisbet, 2010; Friesen et al., 2014; Mollborn & Blalock, 2012; Lewin et al., 2013; Schmitz & Loy, 2014; Friend et al. 2014) found skills that parents can practice with their child *independently*. The researchers found that these skills are easy to practice and can be major predictors of early readers. The other five studies (Luster et al., 2000; Guttentag et al., 2014; Arrow & Finch, 2013; Sackes et al., 2016; Knopf & Brown, 2009) discuss skills that parents can do with assistance from some *modelling*. The authors found that certain reading habits has led to some developmentally inappropriate reading experiences for young children. This shows the need for modelling these skills to ensure that adolescent parents are maximizing their child's reading and literacy experience. The researchers found that videos of teachers or even other parents who have received the training of the skills needed to be provided to adolescent parent so they can reference how these skills can be executed properly.

**Kindergarten Readiness.** Seven studies were analyzed (Friend et. al, 2018; Hatcher et al., 2012; Graziano et al., 2016; Oberlander & Black, 2011; Jahromi et al., 2016; Knopf and Brown 2009; and Lewin et al., 2013). Two studies, (Friend et al., 2018 & Hatcher et al., 2012) identified skills that can be taught by the parent *independently*. The authors found that to ensure Kindergarten readiness, parents can begin practice with language and vocabulary early on in development with little to no assistance. These researchers also looked at language acquisition, and how adolescent parents need to practice early on in their child's development. Both studies

found links between vocabulary and language acquisition and basic reading skills (letter identification and sound recognition) which can be practiced at home *independently*.

Four studies (Graziano et al., 2016; Knopf & Brown, 2009; Lewin et al., 2013; Jahromi et al., 2016) identified skills that can be taught through *modelling*. These studies found that some skills, especially phonological awareness are not always easy for children to develop and also difficult for parents to teach with no training or modelling. Parents can use picture cards, household objects, and electronic devices to practice these skills however because of the skills complexity, the researchers for this section claimed that *modelling* of these skills is necessary for adolescent parents to avoid improper pronunciations or incorrect sounds altogether.

One study (Oberlander & Black, 2011) described skills that must be taught through *teacher interventions*. In regards to classroom routines and taking turns for Kindergarten readiness Oberlander and Black, (2011) found that adolescent parents need more support in order for them to be able to more efficiently prepare for these skills. The study looked at how intervention can increase overall quality of child care and successful child development compared adolescent parents with no support. The researchers also found that at home intervention provided a safe environment for learning, where the adolescent can practice and gain confidence in the parent role.

**Parent-Teacher Communication.** Of the six studies (Ozmen, et al., 2016; Stetson, et al., 2012; Fagan & Lee, 2011; Guttentag et al. 2014; Landry et al., 2008; & Roxas, 2008) analyzed in this category, two (Fagan & Lee, 2011 & Roxas, 2008) discussed skills that should be taught through *modelling*. These studies looked at social supports for adolescent parents and found that adolescent parents would benefit from observing *modelling* of cooperately parenting that shows

active engagement from parents and their children. Although Roxas, 2008 studied specifically multi-racial adolescent parents, the findings aligned with Fagan and Lee, (2011) stating that through proper communication with teachers, adolescent parents needed more opportunities to view proper at-home literacy work and engagement with children through *modelling*.

The remaining four studies (Ozmen et al., 2016; Stetson et al., 2012; Guttentag et al., 2014; Landry et al., 2008) found skills that must be taught through *teacher interventions*. These studies looked at how adolescent parents required additional support from their children's teachers which is only possible with direct communication between school and home. The studies found that the facilitation of online seminars can be done, however *teacher interventions* through in-person seminars, support groups, and home visits were most effective.

**Parenting and Literacy Instruction Intervention.** All nine studies (Guttentag et al.; 2014; Roxas, 2008; Berry et al., 2000; Carothers et al., 2000; Bohr & BinNoon, 2014; Friesen et al., 2014; Rothenberg & Weissman, 2002; Stetson et al., 2012; Landry et al., 2008) in this category discussed skills that must be taught through *teacher interventions*. The researchers found skills that were deemed to be unfit for proper overall development of their child and led to less of a growth in literacy skills. These researchers found that adolescent parents who received at home *teacher interventions* showed increases in a range of parenting behaviors such as better verbal communications and non-physical punishments. These studies also found that the interventions should consist of thorough pre-observations of the home, specific and individualized behavior management plans, modelling and guided practice of these skills, and follow up observations to ensure the skills are continuing to be practiced correctly. When *teacher interventions* are implemented, a more conducive literacy environment will be able to take place

at home.

Figure 1 provides a summary of the data analysis results of skills taught by parent independently, skills taught through modelling, and skills taught through teacher interventions in each of the five major themes.

Table 1  
*How Skills for Adolescent Parents Should be Taught*

Skills	Skills Taught by Parent (Independent)	Skills Taught Through Modelling	Skills Taught Through Teacher Intervention
Effects of Adolescent Parenthood		X (4)	X (5)
Early Literacy Skills	X (6)	X (5)	
Kindergarten Readiness	X (2)	X (4)	X (1)
Parent-Teacher Communication		X (2)	X (4)
Parenting and Literacy Instruction Intervention			X (9)

This table shows that 11 studies found skills that can be taught by the parents independently, 15 studies found skills that can be taught through modelling, and 19 studies found skills that must be taught through teacher interventions.

## Synthesis

Through the synthesis of the data the issue of how parental involvement influenced the implementation of specific literacy skills and overall development of the child was addressed. The researchers studied how parental involvement impacted the way important literacy skills were being taught to adolescent parents (see Table 2).

Table 2

### *Parental Involvement and How Skills for Adolescent Parents Should be Taught*

Skills	Skills Taught by Parent (Independent)	Skills Taught Through Modelling	Skills Taught Through Teacher Intervention
Effects of Adolescent Parenthood		<ul style="list-style-type: none"> <li>● *Jahromi et al., (2016)</li> <li>● *Mollborn and Blalock, (2012)</li> <li>● *Lewin et al., (2013)</li> <li>● Bailey, (2014)</li> </ul>	<ul style="list-style-type: none"> <li>● *Oberlander and Black, (2011)</li> <li>● *Mollborn and Dennis, (2012)</li> <li>● *Bohr and BinNoon, (2014)</li> <li>● Sommer et al., (2000)</li> <li>● Carothers et al., (2005)</li> </ul>
Early Literacy Skills	<ul style="list-style-type: none"> <li>● *Tindall &amp; Nisbet, (2010)</li> <li>● *Friesen et al., (2014)</li> <li>● *Mollborn and Blalock, (2012)</li> <li>● *Lewin et al., (2013)</li> <li>● *Schmitz &amp; Loy, (2014)</li> <li>● *Friend et al. (2014)</li> </ul>	<ul style="list-style-type: none"> <li>● *Luster, et al., (2000)</li> <li>● *Guttentag et al., (2014)</li> <li>● *Sackes et al., (2016)</li> <li>● *Knopf and Brown, (2009)</li> <li>● Arrow and Finch, 2013</li> </ul>	

Kindergarten Readiness	<ul style="list-style-type: none"> <li>● *Friend et al., (2018)</li> <li>● *Hatcher et al., (2012)</li> </ul>	<ul style="list-style-type: none"> <li>● *Knopf and Brown, (2009)</li> <li>● *Lewin et al., (2013)</li> <li>● *Jahromi et al., (2016)</li> <li>● Graziano et al., (2016)</li> </ul>	<ul style="list-style-type: none"> <li>● *Oberlander and Black, (2011)</li> </ul>
Parent-Teacher Communication		<ul style="list-style-type: none"> <li>● *Fagan and Lee, (2011)</li> <li>● *Roxas, (2008)</li> </ul>	<ul style="list-style-type: none"> <li>● *Ozmen at al., (2016)</li> <li>● *Guttentag et al., (2014)</li> <li>● *Landry et al., (2008)</li> <li>● Stetson et al., (2012)</li> </ul>
Parenting and Literacy Instruction Intervention			<ul style="list-style-type: none"> <li>● *Guttentag et al. (2014)</li> <li>● *Roxas, (2008)</li> <li>● *Berry et al., (2000)</li> <li>● *Carothers et al., (2000)</li> <li>● *Bohr and BinNoon, 2014</li> <li>● *Friesen et al., (2014)</li> <li>● *Rothenberg and Weissman, (2002)</li> <li>● *Stetson et al., (2012)</li> <li>● *Landry et al., (2008)</li> </ul>

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*Note.* \* = Researchers that studied parental involvement.

The synthesis of the data presents a new finding that a *higher amount of parental involvement* plays a major role in child's development, more specifically with the acquisition of literacy

skills. Furthermore, adolescent parents show less involvement with their children and require more support in order to ensure that they are providing an efficient amount of support. Several researchers in each of the five main categories discuss the lack of involvement in adolescent parents and its effects on their children.

**Effects of Adolescent Parenthood.** Three studies (Oberlander & Black, 2011; Mollborn & Dennis, 2012; Bohr & BinNoon, 2014) that discussed skills that must be taught through teacher intervention and three researchers (Jahromi et al., 2016; Mollborn & Blalock, 2012; Lewin et al., 2013) discussed skills that can be taught through modelling found that adolescent parents do not provide sufficient support and attention to their children in the early years of development. These researchers found that a lack of involvement was particularly common in emotional and psychological support that impacted students development in several areas specifically in the areas of literacy. This shows that a *higher amount of parental involvement* directly impacted the acquisition of literacy skills and other various areas of development.

**Early Literacy Skills.** Four studies (Luster, et al., 2000; Guttentag et al., 2014; Sackes et al., 2016; Knopf and Brown, 2009) that discussed skills that can be taught through modelling and six studies (Tindall & Nisbet, 2010; Friesen et al., 2014; Mollborn & Blalock, 2012; Lewin et al., 2013; Schmitz & Loy, 2014; Friend et al. 2014) that discussed skills that can be taught independently found that a *higher amount of parental involvement* is crucial in establishing strong early literacy practice in the home. The researchers found direct correlations between early language/vocabulary development and early literacy and reading achievement. These skills are fostered through communication and engagement between parents and children. These

necessary interactions and their effects show that a *higher amount of parental involvement* played a major role in developing early literacy skills.

**Kindergarten Readiness.** Two studies (Friend et al., 2018 & Hatcher et al., 2012) that discussed skills that can be taught independently by the parent, three studies (Knopf & Brown, 2009; Lewin et al., 2013; Jahromi et al., 2016) that discussed skills that can be taught through modelling, and one study (Oberlander & Black, 2011) found that in order to ensure kindergarten readiness, a *higher amount of parental involvement* is crucial. The researchers looked at the specific skills that show what a child needs to do in order to be ready for kindergarten. The skills print letter and sound recognition, beginning writing skills, following rules and routines, taking turns, and communicating personal needs and feelings are all skills that can be fostered early at home. The researchers found that with a *higher amount of parental involvement*, these skills can be met in time for Kindergarten.

**Parent Teacher Communication.** Two studies (Fagan & Lee, 2011 & Roxas, 2008) that discussed skills that can be taught through modelling and three studies (Ozmen et al., 2016; Guttentag et al., 2014; Landry et al., 2008) that discussed skills that must be taught through teacher interventions found that a *higher amount of parent's involvement* with their child's school and teacher are necessary in order to efficiently support literacy acquisition. These researchers found that adolescent parents and their children benefit from consistent communication with their child's teacher. This communication allows for the parent to be more involved in their child's learning which carries on through to continue the learning at home.

**Parenting and Literacy Instruction Intervention.** Nine studies (Guttentag et al., 2014; Roxas, 2008; Berry et al., 2000; Carothers et al., 2000; Bohr & BinNoon, 2014; Friesen et al, 2014; Rothenberg & Weissman, 2002; Stetson et al., 2012; Landry et al., 2008) that discussed skills that must be taught through teacher intervention looked specifically at responsive parenting. The researchers found that emotional style interactions between the parent and the child were extremely beneficial and supported many areas of development particularly skills regarding literacy. These researchers also found that adolescent parents lack the skills they need in order to provide a sufficient amount of these types of necessary interactions. The need for these emotional exchanges show that a *higher amount of parental involvement* is necessary in order for adolescent parents to be successful.

## **Chapter 4: Results and Application**

### **Results of the Review**

After an extended literature review and an analysis and synthesis of the data was completed, four new key findings were determined. The first finding was that adolescent parents needed more support in order to provide a higher amount of involvement with their child. When adolescent parents were more responsive to their children's needs, their children were more likely to improve in several areas of development, more specifically skills in literacy. The age range for adolescent parents discussed in the literature review and analysis and described in this chapter are the ages of 13-17 years old. The second finding was letter identification, letter sounds, phonological awareness, vocabulary, lap reading, and concepts about print were skills adolescent parents should practice with their children before kindergarten. The third finding was that adolescent parents required more strategies in responsive parenting and behavior management plans in order to create a more conducive at home environment. The fourth finding was that with the right support systems in place, adolescent parents can foster a proper at home literacy environment that gives their children the skills they need to be ready for Kindergarten.

### **Application of the Results to a Professional Development Project**

The findings from this study were most beneficial to adolescent parents. This was helpful to adolescent parents so that they are able to supply their child with the skills they need to be successful in Kindergarten. These findings also supported these parents by giving them more effective behavioral management techniques. These findings were presented in the form of a mobile app. With an increased use in technology, this design was meant to be more applicable to the lifestyle of adolescent parents.

**Design of the Professional Development Project**

The design of this professional development project was in the form of a mobile app. Upon downloading this application, a brief demonstration of how to navigate through the different pages along with a description of the intentions for this application was shown. The mobile app had the targeted skills set up on the homescreen so that parents could select the skill they were going to practice (see Appendix A). When the parents selected a specific skill, the lessons were set up in a sequential order with labelled age ranges so that parents would know when it was an appropriate time to start practicing these skills with their children. When the parents selected one of the skills, a brief description video of the skill was shown. The activities and resources were then presented through embedded graphics and different interactive videos. Parents simply followed the steps provided and would conduct the activity accordingly. If this was a skill that could be done independently by the parent, then they were presented with the necessary materials and the parents proceeded with the activity. If this was a skill that needed to be modelled first, parents were able to select a video that modelled that targeted skill. This ensured that the parents were teaching their children correctly and the children were receiving the optimal amount of instruction. Each skill came with a list of possible ways to practice to make sure their children were engaged and a checklist that helped parents monitor their child's progress. Contact information of a trained educator was also available if the parents had any questions or if they would like to setup a time for at home interventions.

**Literacy Coaching Project Goals and Objectives.** The goal of this professional development project which was presented as a mobile app was to be sure adolescent parents were provided with the tools they needed to ensure their children were ready for Kindergarten.

This app aimed to not only inform adolescent parents of the skills their children needed in kindergarten, but also strategies in how to implement them efficiently. Ultimately, the main objective of this project was to ensure that children who come from adolescent parents come to Kindergarten with the skills they needed to be successful.

**Proposed Audience and Location.** The proposed audience of this professional development project were adolescent parents who have young children under the age of five, or before the age of Kindergarten. School districts sent a flyer out to all households in the district with information about the app. Any family that had young children were able to have access to the app if desired. This flyer contained the name, logo, and directions on how to download the free app onto any electronic device. A Facebook page and a Twitter account were also created with the same information as the flyer. These two platforms also had updates about the application and group chats for other parents to communicate with other families on the app and ask any questions or voice any concerns they may have had about the applications different features. These social media platforms were most compliant to the lifestyles of the selected age range for adolescents 13-17 years old.

**Proposed Project Format and Activities.** The proposed project format for this professional development was a mobile app with six main sections. Each section had the selected early literacy skills that adolescent parents could practice with their children. These sections included a page for each of the following; letter identification, letter sounds, phonological awareness, vocabulary, lap reading, and concepts about print. Each skill and activity had the recommended age range at the top so that the parents knew when it was appropriate to start practicing these skills with their children. These skills also had a description of what the skill

was and any other necessary directions. If the skill was something that could be taught by the parent independently, then they were given the directions and the parent could begin. However, if this was a skill that needed to be modelled first, a video of a trained individual was shown that demonstrated how to teach the skill properly. To make sure the parents were compliant to the application, parents were also required to submit a video on the app that showed them instructing the skill as well as their child demonstrating the skill correctly. After a video was submitted, parents then received a response from an educator that reviewed the video. This response stated whether or not the child was demonstrating an efficient understanding of the targeted skill, and further feedback for the parent.

**Proposed Resources for Project.** Proposed resource for this project was any electronic device. This included a smartphone, laptop, ipad, Kindle, or desktop computer. Since technology is becoming increasingly more prominent in today's society, it was important that this app was accessible in various pieces of technology. Since many adolescent parents have smartphones or some piece of technology already, it was ideal that this professional development project was easily and readily accessible.

**Proposed Evaluation of Project.** To evaluate this professional development project, there was also a section on the app to complete an online survey (see Appendix B) to assess the effectiveness and usefulness of the app. Users were asked to assess the ease of navigation and ability to find the skills they needed. Parents also assessed the effectiveness of the actual activities and the clarity of directions and instructional modelling videos. A Skype video message was also linked in the app so that parents could record their answers online and submit the video message through the application.

**Project Ties to Professional Standards**

The proposed professional development was aligned with the International Reading Association (IRA) *Standards for Reading Professionals* (2010). Several of the Standards were addressed through the implementation of this app. Standard 1; Foundational Knowledge was addressed by showing an understanding of the profession and the currently shared content of the reading field, which is subject to change over time as new knowledge. Standard 2; Curriculum and Instruction was also addressed by showing research that supported how literacy development should inform teaching practices and selection of materials. This professional development project used evidence-based instructional strategies that helped support a conducive and high-functioning at home literacy environment. Lastly, Standard 6; Professional Learning and Leadership was also shown which allowed this application to be inclusive and collaborative across parents or guardians, the community, and all school staff when effective strategies were provided to adolescent parents.

## **Chapter 5: Discussion and Conclusion**

### **Overview of Study and Findings**

With an increase in adolescent pregnancy, smaller amounts of parental support, and more rigorous expectations for incoming Kindergarten students, children of adolescent parents were entering school less prepared and equipped with the necessary early literacy skills expected in Kindergarten (Mollborn & Morningstar 2009; Lewin et al., 2013; Bailey, 2014; Friesen et al., 2014). These factors showed that children of adolescent parents were at more of a risk for delays in academic achievement specifically in the areas of literacy. Therefore, adolescent parents required more support to help foster early literacy skills at home due to a lack of education, resources, and proper developmental supports at home (Luster, et al., 2000; Guttentag et al., 2014; Sackes et al., 2016; Knopf and Brown, 2009). The lack of resources for home literacy practices for children with adolescent parents led to the research question: what are effective resources teachers can provide adolescent parents to help support early literacy practice at home as well as how can teachers show these parents how to use them effectively on their own? In order to answer that question, an extended literature review and research synthesis were completed and showed four findings. The first finding was that adolescent parents needed more support in order to provide a larger amount of involvement with their child. When adolescent parents were more responsive to their children's needs, their children are more likely to improve in several areas of development, more specifically skills in literacy. The second finding was that letter identification, letter sounds, phonological awareness, vocabulary, lap reading, and concepts about print are the skills adolescent parents should be practicing with their children before kindergarten. The third finding was that adolescent parents require more strategies in responsive

parenting and behavior management plans in order to create a more conducive at home environment. The fourth finding was that with the right support systems in place, adolescent parents fostered a proper at home literacy environment that gave their children the skills they needed to be ready for Kindergarten. These findings led to the professional development project of a multimedia app provided adolescent parents with the tools they needed to practice the skills necessary for their child to be ready for Kindergarten.

### **Significance of the Findings**

The findings of this study were significant to adolescent parents so that they had the confidence and skills to create a more stable and literacy-rich at home environment. This study found that when adolescent parents exhibit higher amounts of parental involvement, child behavior and academic achievement specifically surrounding the areas of literacy improved (Luster, et al., 2000; Guttentag et al., 2014; Friesen et al., 2014). The research used in this study found that adolescent parents benefitted from more support to ensure that they were administering proper and efficient at home literacy practice. These findings were significant so that more children who came from adolescent parents were entering school with the skills they needed to be successful.

### **Limitations of the Findings**

There were some limitations to the findings of this study. One limitation was the time frame in which the study took place. This study was completed in a smaller amount of time in order to fulfill certain academic requirements. An extended period of time to investigate more research and expand on the results would have made findings more reliable. Another limitation was that age was the primary factor that was used in the research. Areas such as socioeconomic

status and sexual orientation of the parents were not taken into account.

### **Conclusion: Answer to the Research Question**

The research question for this study was, what are effective resources teachers can provide adolescent parents to help support early literacy practice at home as well as how can teachers show these parents how to use them effectively on their own? After conducting this study, four findings were determined: that adolescent parents needed more support in order to provide a larger amount of involvement with their child; that letter identification, letter sounds, phonological awareness, vocabulary, lap reading, and concepts about print are the skills adolescent parents should be practicing with their children before kindergarten; that adolescent parents require more strategies in responsive parenting and behavior management plans in order to create a more conducive at home environment; and that with the right support systems in place, adolescent parents can foster a proper at home literacy environment that gives their children the skills they need to be ready for Kindergarten. Together, the findings provide an answer to the research question. Through the use of a multimedia application, adolescent parents can be provided the necessary tools to ensure their children are ready for Kindergarten. These resources are provided so that adolescent parents can teach these skills independently or teach the important skills after explicit modelling. With the proper guidance, progress monitoring, and efficient accountability measures, adolescent parents can provide their children with the skills they need to be academically successful when they enter Kindergarten.

### **Recommendations for Future Research**

After a review of this study's findings and limitations, three recommendations for future research can be determined. The first recommendation is that factors other than age are

researched when looking at effects of adolescent parenthood such as socioeconomic status and sexual orientation. The second recommendation is that more time is allotted to research more resources that are essential for establishing early literacy skills at home. This would include more strategies and exercises that would be most conducive to the lifestyle of an adolescent parent. A third recommendation is to research if and how other schools and communities are supporting adolescent parents to see if more strategies could have been implemented. If there were specific expectations that were being outlined by local schools, it would be beneficial for those skills to be included in the professional development.

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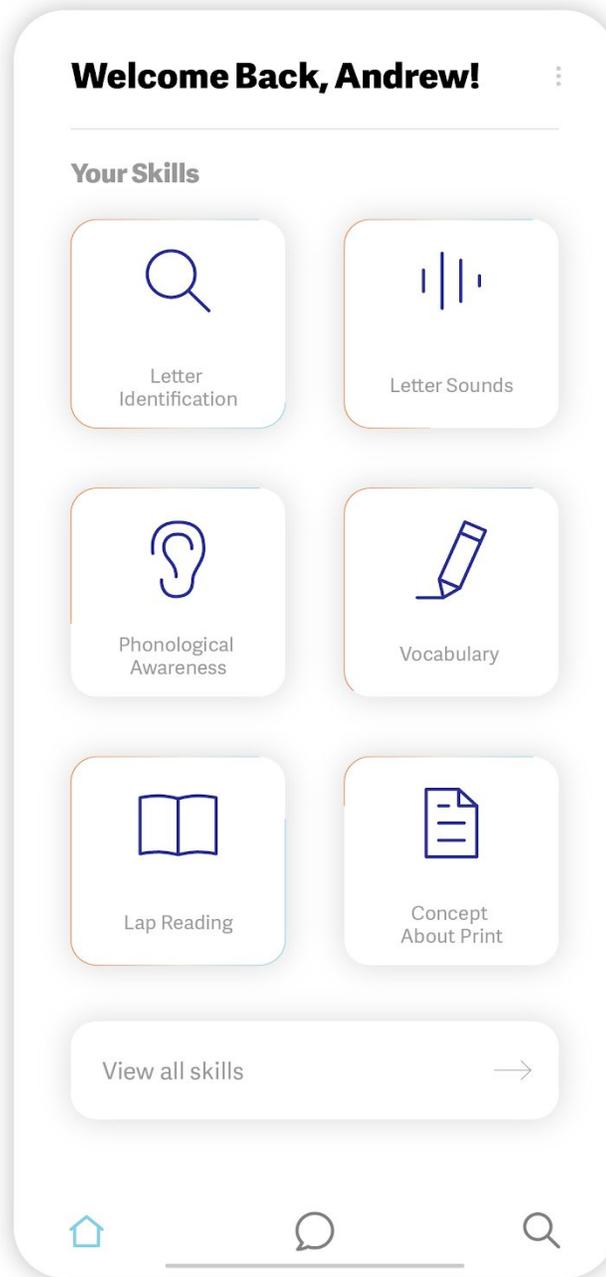
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**Appendix A: Format of Professional Development**

\* Above is the homepage for the application. Upon viewing an initial tutorial, this screen is what the parents would see in order to select and practice the targeted skill. Within each of the skill icons, directions, resources, activities, progress monitoring charts, and modelling videos are included. Parents simply follow the directions and activities of each skill through the guided steps provided.

## **Appendix B: Evaluation of Professional Development**

### Evaluation Survey From Multimedia Application

1. Was this app easy to use and to navigate through the different skills?
2. Were you able to find the skills and activities you needed?
3. Were the modelling videos helpful when learning how to teach these skills?
4. What activities did you try? Which ones did your children enjoy?
5. Were the directions for each activity clear and easy to administer?
6. Are there any resources, activities, or websites you have seen or heard of that you would like to be added to the app?
7. What would you like to change or add to this app to make it better?

\* A Skype video message will be linked in the app so that parents can record their answers online and submit the video message through the application.