JIMMA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES

DEPARTMENT OF PSYCHOLOGY

THESIS ON

PARENT-CHILD INTERACTION, SCHOOL ENVIRONMENT, AND CHILD READINESS WITH ACADEMIC ACHIEVEMENT IN LANGUAGE AND MATHEMATIC: WITH REFERENCE TO PINYUDO TOWN, GOG WOREDA (DISTRICT), GAMBELLA, ETHIOPIA.

BY

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JAN, 2021

JIMMA, ETHIOPIA

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A THESIS TO BE SUBMITTED TO THE EDUCATION AND BEHAVIORAL SCIENCE DEPARTMENT OF PSYCHOLOGYIN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF ARTS IN DEVELOPMENTAL PSYCHOLOGY

JAN, 2021

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LETTER OF APPROVAL

This is to certify that the thesis prepared by Aballa Olock Okwier entitled **"parent-child interaction, school environment, and child readiness with academic achievement in language development and math's skills".** In addition, submitted in partial fulfillment of the requirements for the Degree of Master of Arts in psychology with the regulation of the University and meet the accepted standard with respect to originality and quality.

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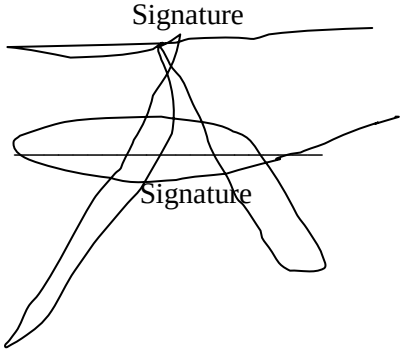
Tamirie Andualem Adal		February 17, 2021
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Acknowledgements

First and foremost, I would like to express my deep gratitude to my main advisor Dr. Berhanu Nigus and Co supervisor Aregash Hassen (PhD) for their invaluable guidance and collaborations throughout this research. Without their constructive advice and support this thesis would never been the way it is now. My thank goes to them once again for their comments and feedbacks on draft till final version.

Secondly, I am extremely grateful to my parents specially, my adopted mother Akoth Okal and my brother Abwolla Olock for their love, caring and sacrifices and supporting me with all my needs to accomplish my study successfully. I would also like to thanks Jimma University for supporting me financially that has provided me fund to complete my thesis and my thanks also goes to Anywaa zone and Gog district for supporting me financially that has provided me fund to complete schooling and cover my living expense at Jimma University. More importantly I would also like to express my gratitude to all data collectors Mr Ojullu Owitti and interviewee participants for sharing their times and views with me during field visit.

Finally, I would like to express my deep gratitude to my friend Mr Piter John for his support, advice and encouragements during the course of my studies in this long journey at Jimma University. I am so grateful once again to thank my entire friend who has been praying, encouraging and supporting me all the time.

DECLARATION

This is to certify that the title entitled "**interaction parent-child, school environment, and child readiness and with academic achievement in language and math skills in Gog district, Gambella regional state, Ethiopia"** is accepted for partial fulfillment of the requirements of Master degree of Science in developmental psychology by the school of graduate studies in Jimma university college of education and behavioral sciences department of psychology.

This genuine work is carried out by Aballa Olock under the guidance by Dr. Berhanu N and Phd Aregash Hassen and everything in this research work has been pull acknowledged.

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ACRONYMS AND ABBREVIATIONS

ERS: Early Reading Skill

CR: Child Readiness

FDRE: Federal Democratic Republic of Ethiopia

UN: United Nations

UNICEF: United Nations Children Fund

UNESCO: United Nation

NGACBP: National Governors Association Center for Best Practices

CCSSO: Council of Chief State School Officers

ECS: Education Commission of the States

ECCE: Early Childhood Education and Care

NGO: Non Governmental Organization

MoE: Ministry of Education

MoWA: Ministry of Women‟s Affairs

MoH: Ministry of Health

Abstract

This research is designed to examine several of the links between the parent–child interaction, school environment, and child readiness. Mixed method design and purpose sample technique and multiple regressions, correlation was used to measure the positive and negative resulted. The study involved 300 mothers with their children and 50 teachers sample from 1245 populations within five primary school by using parent-child relationship scale, bracken school readiness assessment, and level of school environment as a measures of relationships. The result indicated that parent child interaction and school environment has positive change on child readiness in language and math skills development. There is no significant difference on gender academic achievement in language and math of grade one students. As the result showed increasing the interaction between parent and child, school environment also encouraging the increasing of child readiness with language development and math's skills achievement before starting formal school

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1. Introduction

1.1. Background of the study

Academic achievement of students especially at the elementary school level is not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of youths in particular and the nation in general. Learning outcomes have become a phenomenon of interest to all and this account for the reason why scholars have been working hard to untangle factors that militate against good academic performance (Aremu&Sokan, 2002). Academic achievement of learners has attracted attention of scholars, parents, policymakers and planners. Adeyemo (2001) opined that the major goal of the school is to work towards attainment of academic excellence by students. According to him, the school may have other peripheral objectives but emphasis is always placed on the achievement of sound scholarship. Besides, virtually everybody concerned with education places premium on academic achievement; excellent academic achievement of children is often the expectation of parents (Osiki, 2001).

In recent years, state policymakers have emphasized the need to improve children's reading and literacy skills early on because a lack in this essential skill is a strong predictor of low student performance and increased high school dropout rates. While the emphasis on reading proficiency and literacy skills is critical, research shows that the development of mathematics skills early on may be an even greater predictor of later school success. Early knowledge of math not only predicts later success in math, but also predicts later reading achievement even better than early reading skills (Education Commission of the States (ECS), 2013). Early ideas about readiness focused on the characteristics of individual children, including their age, maturity and/ or academic skills (Kagan & Rigby 2003; Snow 2006). As a result, children were labeled as 'ready' or 'unready' for school. With the advent of the then US President Bush's United States National Education Goal that '... all children in America will start school ready to learn' (National Education Goals Panel 1991)

According to Vygotsky (1962) language plays two critical roles in cognitive development as it is the main means by which adults transmit information to children and Language itself a very powerful tool of intellectual adaptation. Galindo & Sheldon (2012) stated that, the connections between the home and school environment, including communication between the two settings,

positively impacts the child's development and educational success. Schickedanz (1999) stated that, the interactions that young children have with such literacy materials as books, paper, and crayons and with the adults in their lives are the building blocks for language, reading and writing development.

Marchant et *al. (*2001) found that, home environment of families is thought to be a crucial setting for academically preparing children for school and for fostering their academic achievement. Ferguson et *al*. (2007) showed that, learning opportunities at home are considered as a critical period for children to acquire school readiness. Baker et *al*. (2012) in the conducted studies it is seen that effective parenting and stimulating environments provided at home are shown as the strongest indicator of school readiness.Dunst et *al*. (2006) found that, Families can engage in everyday learning activities, even with very young children, and help them to develop lifelong motivation, persistence, and a love of learning if parents can participate with their children in early literacy activities, such as pointing to and naming objects, storytelling, and reading. Gadsden (2003) says that, greater parental involvement at early stage in children's learning, positively affects the child's school performance including higher academic achievement.Golombok et *al*. (2006) showed that, single parents as well as adoptive parents, foster parents, and other parents who do not have a link to their children through genetics or pregnancy can also develop positive relationships and strong attachments with their children. Bradley (2002) found that, parenting practices such as reading to children, using complex language, responsiveness, and warmth in interactions are all associated with better developmental outcomes. Literacy and mathematical competencies are important prerequisites not only for academic achievement in school, but also for later career. Claessens et *al*. (2009) stated that, early assessment of these skills is preferable, as specific precursors of later literacy and mathematical competencies such as early vocabulary or counting skills are important predictors of academic performance in school.Unutkan (2003) in addition, it has been proven by several researches that emotional maturity of a child, language improving activities at home and school, cognitive activities are important for a successful school start.Majzub& Rashid (2012) stated that, a ready child will adapt better to primary school.

Pianta et *al*. (2007) stated that school readiness level that children acquired during preschool period is a predictive factor while beginning primary school successfully. Duncan et. *al*. (2007)

also found that it has a lasting impact during primary school. Li-Grining et *al*., (2010) found that, Children who start school with more positive approaches to learning and better academic skills have a better chance than others who do not possess the same readiness qualities to succeed in school. So that, school readiness is a measure that shows the preschoolers are prepared to succeed in school.

Indeed, many characteristics of the home environment, including attachment security and continuing sensitive care, verbal stimulation, access to educational material in the home, and specific parental practices such as reading with the child, have been linked to School readiness (Belsky&Fearon, 2002; Bradley & Caldwell, 1984; Britto, Brooks-Gunn, & Griffin, 2006; Connell &Prinz, 2002; McLoyd, 1998; Reese, Cox, Harte, &McAnally, 2003; Stipek& Ryan, 1997). Sloat et *al*. (2015) found that, Children's academic success and early reading success is founded on emergent literacy knowledge and skills from birth to age 4 years which in turn is underpinned by oral language skills. (ECS, 2013) stated that, in the earliest years of a child's education—from birth through 3rd grade—set the foundation upon which future learning is built. Stated that, while there are many other equally important skills that children need in order to be ready for kindergarten (e.g., social emotional), research continuously fingers literacy and math skills development as the hallmark for future academic achievement.

In fact, the widely accepted Common Core State Standards (K–12) chose to focus on literacy and math skills because proficiency in these skills helps students build skill sets that are used in other subjects. National Governors Association Center for Best Practices [NGACBP],Council of Chief State School Officers [CCSSO], 2010). "Early math skills in 5-year-olds are the single greatest predictor of later achievement. (ECS, 2013) "Research shows that doing more mathematics increases oral language abilities, even when measured during the following school year Coulson (2016). As children move from preschool into kindergarten and the primary grades, instruction focused on phonemic awareness, letter recognition, segmenting words into sounds, and decoding printed text will support later reading competence (NAEYC & IRA, 2009).

1.2 Statement of the problem

Despite significant strides registered in achieving education for all globally, the greater majority of children are, however, most disadvantaged and are either at risk of educational exclusion or underachievement and early drop-out (UNESCO, 2006) particularly in resource scarce parts of the world. According to Wood head & Moss(2007), these challenges have generally been conceptualized as problems of „school readiness.‟ Low enrolment rates, poor attendance, grade repetitions, high drop-out rates, and widespread underachievement during the early grades all signal that a school system is not achieving the goal of „readiness for children.

Moreover, according to the estimations of the 2013/14 Education For All Global Monitoring Report, some 250 million primary-school-age children around the world, 130 million of whom have spent at least four years in school, were not able to meet the minimum learning standards in reading and mathematics (UNESCO 2015). Many researchers stated that, Poor home learning environment, in short term, has been associated with poorer language development, deficits in school readiness and impaired cognitive development by the age of 3 (Evans et al., 2010; Trentacosta et al., 2008; Vernon-Feagans, Garrett-Peters, Willoughby, & Mills-Koonce, 2012). In the long term, it is associated with poor academic achievement at school and lower levels of education, employment and earnings in adulthood (Pungello, Iruka, Dotterer, Mills-Koonce, &Reznick, 2009; Pungello et al., 2010).

Rouse et *al*. (2005) suggested that to be Success in school is determined by a range of basic behaviors and abilities, including literacy, numeracy, ability to follow directions, working well with other children and engaging in learning activities. Burchinal et al. (2006) as it found that, Language skills at school entry were also found to be a association between social risk and school achievement. NICHD Early Child Care Research Network, 2005a; Scarborough, 2001, Storch& Whitehurst, 2002) showed that, information about how children acquire reading and math skills points to the importance of specific academic skills, but also indicates that more general cognitive skills, particularly oral language and conceptual ability, may be increasingly important for later mastery of more complex reading and mathematical tasks.

ECS (2013) stated that, while the emphasis on reading proficiency and literacy skills is critical, research shows that the development of mathematics skills early on may be an even greater predictor of later school success. Early knowledge of math not only predicts later success

in math, but also predicts later reading achievement even better than early reading skills. The child whose home language is other than English tend to enter kindergarten with lower reading and mathematics skills. These children also tend to have continued gaps in achievement throughout their school careers (Fryer & Levitt, 2006; Halle, et. al., 2009; Yeung& Conley, 2008). Children who start school with more positive approaches to learning and better academic skills have a better chance than others who do not possess the same readiness qualities to succeed in school (Li-Grining et al., 2010). Early childhood programs need to bridge gaps between home and school, leading to better adjustment to primary school and higher achievement levels (Woodhead and Moss, 2007). Many researchers state that, poor performance in kindergarten forecasts poorer performance throughout the academic and life trajectory (Alexander, Entwisle, & Dauber, 1993; Baydar, BrooksGunn, Furstenberg, 1993; Duncan et al., 2007; Gutman, Sameroff, & Cole, 2003).

There is evidence that parents and teachers socialize children differently regarding mathematics. Boys receive more attention and encouragement in math from parents and teachers (Eccles, et al. 2000; Watt, 2004). Girls have earlier development and better language skills than boys that may disappear between 3-5 years (Toivainen, Papageorgiou, Tosto, &Kovas, 2017). Galsworthy et al., 2000) Argue that although gender differences in early language ability exist, they are predominantly small and account for a small share of variance in children's language.

Research suggests that children whose families have fewer resources tend to have much lower levels of language development by the time they are four years of age based on the nature of the home language environment (Hart &Risley, 1995; Hoff, 2003; Roberts, Jurgen, &Burchinal, 2005). Studies consistently revealed that primary school children in Ethiopia have serious language problems and lack basic skills of reading and writing in all languages. These include mother tongue which is medium of instruction, Amharic which is the federal working language and English which is considered as the language of science and technology. It was also pointed out that English language is a serious challenge for many subject teachers as well as for those teachers teaching English as a subject. Most of the study participants, majority of the primary school students tend to have little motivation, interest and commitment in their education. It was reported that students did not possess adequate literacy, numeracy and skills required to continue their secondary education. The study further revealed that absenteeism,

inadequate student support system and heavy household chores/child labor are still common problems that affect quality of the education (EGRA, 2010; NLA, MOE, 2013).

Furthermore there is no research has conducted in Gambella region on child early readiness in language and math's skills. For that reason researcher decided to study the child readiness in language development and math's when children entry grade one for formal school. Therefore it is an obligation to study to meet the national goal on education and filling the gap on child readiness problems in language and math's skills.

1.3. General objective

This study was devoted to bringing light to the child under achievement in school. There is only one major objective for this study this is to:

- To Examined the links between parent–child interaction , school environment, and child readiness with academic achievement in language and mathematic academic of grade one students

1.4. Specific objectives

- To identify the relationship between child readiness and academic achievement in language and math skills of grade one students
- To examines whether child enter primary school with the skills in language and math
- To examines the gender different with academic achievement in language and math of grade one students
- To find out the relationship between school environment and academic achievement in language and math of grade one students
- To find out the importance of parent-child interaction, school environment, and child readiness with academic achievement in language and math of grade one student.

1.5. Significances of the study

Even though, there is a well understanding about the important of language and math to help children to be successful in school and reach their full potential, Even if many researches were conducted in schools/organizations and in different part of the world, there had been limited researches on academic achievement on language and math carried out in Gambella and its

remote periphery which involve the targeted woreda (district) where this study took roots. In one way or the other, this manifests that there is knowledge gap about the language and math skills children in the area. The logical basis for this study was to create opportunity for preschoolers children living in Pinyudo town prepare to be ready to rich in language or literacy and math skills entering to formal school or primary. Therefore, conducting this research was more necessary for it:

Disclose the problems of interaction of parent-child, school environment, child readiness and on academic achievement of language or literacy and math in Pinyudo town, Gog district.Simplify understanding of important of interaction parent-child relationship,school environment, readiness and on academic achievement of language and math development during preschool age. Bring to light the possible devastating life with regard to school failure and economic disadvantages in future life.Make researchers, regional or woreda (district) education officers, child affairs offices and key personnel in NGOs much cognizable of the academic achievement problems of preschoolers such as literacy and language development. Suggest based on the findings constructive and productive directions that may assist practitioners to design support services of literacy and language development of child in order to be ready for primary successes and later achievement in life. Create the awareness of home language and math environment for the researchers, regional educational Bureau and Gog woreda education Bureau of child affairs offices and NGOS, caregiver on math and language development.

1.6. Scope of the study

This study was explored the interaction of parent-child relationship, school environment, child readiness and on academic achievement which limits to the language and math development. Understanding importance of literacy or language and math skills for children will help other professionals, social workers, concerned government sectors, researchers to accumulate knowledge and plan services to meet the multidimensional needs of preschoolers in that particular research site and elsewhere. Specifically, the research was theoretically limited to the children literacy development and language. Whereas, geographically the study was strictly limited to Pinyudo, Gog woreda's town and five primary schools due to constrain like time, finances, and security related issues.

1.7. Definition of key terms

- **Parent:** mother or father and other caregiver who are committed to his/her child to interact and learn from their relationship
- **Child:** six to seven years old child
- **School environment:** School Environment mean, is the school settings that promote student curricula, student health, and promote students school success
- **Child readiness**: School readiness is defined as a measurement of how well the child has mastered key development domains before they enter primary school. It encompasses all the basic aspects of a child's development – gross motor, social skills, emotional behaviors, intellectual and cognitive behaviors (Smart, Sanson, Baxter, Edwards & Hayes, 2008).
- **Academic achievement:** measure of knowledge gained in formal education usually indicated by test scores, grade, grade points, average and degrees. Here, the achievement level of the student is judged by the marks that the students have scored in the quarterly examinations.

2. Literature Review

This chapter presents the review of related literatures on the parent-child relationship, school environment, child readiness, and academic achievement, gender different on language & math skills. Academic achievement is a cumulative process involving both mastering new skills and improving already existing skills (Entwisle& Alexander, 1990; Pungello, Kuperschmidt, Burchinal, & Patterson, 1996). As the many scholars stated above, the parent is a child's first and most important teacher, and the home environment is the primary classroom from birth until the onset of formalized schooling. Because, children spend countless hours constructing knowledge outside the classroom and these learning experiences create a foundation for lifelong academic success. When there is a quality and quantity of parent-child language interactions often impact early vocabulary development (Carter et *al*, 2009).

2. 1. The interaction of Parent-child relationship

Early ideas about readiness focused on the characteristics of individual children, including their age, maturity and/ or academic skills (Kagan & Rigby 2003; Snow 2006). As a result, children were labeled as 'ready' or 'unready' for school. That is why US President Bush's United States on National Education Goal stated that '... all children in America will start school ready to learn' (National Education Goals Panel 1991). The researchers Brooks-Gunn &Markman (2005) on early childhood studies have shown that the mother–child relationship and proximal processes of parenting account for a significant amount of variance in children's reading and math skills in kindergarten.

Parenting including the mother–Bronfenbrenner's (1986) ecological theory argues that warm, cognitively stimulating home environments set the stage for optimal academic achievement and represent the most salient and enduring context for development during the first five years of life. Within this context, proximal processes such as mother–child interactions can attenuate or enhance opportunities for optimal academic achievement (Bronfenbrenner, 1979, 1986; Bronfenbrenner& Morris, 1998).

Exposure of children to reading and reading material is one early parental behavior that has repeatedly been shown to contribute positively not only to early reading skills Van &Steensel (2006) but also to early child language. Bio-ecological theory suggests that experiences within

the home often facilitate the emergence of academic skills that lay the foundation for kindergarten success. Activities like shared book reading, quality of warm, and responsive of early parenting have been linked to enhanced reading and math performance Baker et *al*., (2012) Downer &Pianta (2006); McWayne et al., (2004); and Iruka, 2009).

The journey to literacy learning for children begins in the home. When thinking about the role of family, it is important to remember that the parent is the child's first teacher. Parents serve a critical role in building early literacy and language skills with their children, both prior to and while children are receiving formal schooling Korth& Marshall (2009). Parents play a very important role in the transition process, and should be seen as key collaborators in organizing and supporting the transition of their children to primary school (Griebel&Niesel (2006), Margetts, 2007; (Dockett et al., 2010). The quality of the home literacy environment was associated with vocabulary in first grade (Van Steensel, 2006). Maternal responsiveness and the feedback children receive in their interactions with adults have also been shown to predict early language skills Hirsh-Pasek&Burchinal, (2006). Finally, regular reading in the first 3 years of life in low income families was shown to predict later vocabulary and general cognitive skills (Raikes et *al*., 2006).

2.2. School environment

According to Mick Zais (2011), School Environment means the extent to which school settings promote student safety and student health, which may include topics such as the physical plant, the academic environment, available physical and mental health supports and services, and the fairness and adequacy of disciplinary procedures, as supported by relevant research and an assessment of validity. The National Research Council's Committee on the Prevention of Reading Difficulties in Young Children likewise recommends providing environments that promote pre-literacy skills for all preschool children (Snow et *al*., 1998). Similarly, the National Association for the Education of Young Children and the National Council of Teachers of Mathematics (2002) on issued a joint statement that advocated for high-quality mathematics education for children ages 3-6.

In order to fully grasp the importance of what children need to become literate, it is vital to understand the concept of emergent literacy. Wolfe and Nevills (2004, p. 8) describe emergent literacy skills, or "early childhood readiness skills" as the skills that children acquire early in

childhood that prepare them for successful reading upon entering school. One of the key features of the school environment is the teacher. It is well established that teacher quality plays an important role in the delivery of quality curriculum and student achievement in the early years (Early et al. 2006; NICHD Early Child Care Research Network 2005). Positive teacher–child relationships are noted as a key factor in children's school success (Hamre & Pianta 2001). Teacher–child relationships are bidirectional, with both teachers and children contributing to the nature of the relationship (Rudasill et al. 2006). When teachers and children have some common background, such as culture or language, teachers tend to view children positively (Saft & Pianta 2001). Positive relationships between families and teachers promote children's engagement with school and create school success (Department of Education Science and Training 2005).

2.3. Child readiness

Children's readiness for school: Success in school is determined by a range of basic behaviors and abilities, including literacy, numeracy, and ability to follow directions, working well with other children and engaging in learning activities Rouse, Brooks-Gunn &Mclanahan (2005).Early literacy skills predict later reading and writing fluency, and more extensive language development Bowman et al. (2000). Children who struggle with early reading tasks develop negative attitudes toward reading and tend to avoid it as an unpleasant task, which contributes to a negative cycle of less time spent in reading activities and further decreasing reading skills (Lonigan, 2006).

Unprepared Childs are more likely to become school dropouts, teen parents, engage in crime and have poor jobs Children readiness can predict future school performance – less ready children are more prone to academic, behavioral and emotional problems (Duncan, Dowsett&Claessens, 2007). Ready child will adapt better to primary school Majzub& Rashid (2012). Because school readiness is a measure of overall development, it also indicates how well the child has acquired abilities and milestones. A less ready child will have social, health and physical problems when participating in school activities (Majzub& Rashid, 2012).

According to the National Education Goals Panel **(NEGP)framework**, there are five dimensions of **children's readiness for school**: physical health, social/emotional development, approaches to learning, language, and cognitive development. It should be noted that while these dimensions are not orthogonal at kindergarten entry, each is theoretically and empirically distinct

(Kagan et *al*., 1995). In characterizing children's school readiness, each of the five dimensions is necessary but not sufficient. **Physical well-being and motor development** encompass characteristics such as rate of growth, physical fitness, and chronic conditions such as diabetes, disability, malnutrition, fine motor skills, gross motor skills, and self-care abilities (Kagan et *al*., 1995). **Social development** includes the ability to form positive relationships with teachers and peers. **Emotional development** includes aspects of self-concept and self-efficacy, the ability to express feelings appropriately, and sensitivity to others' feelings. Approaches to learning include openness and curiosity to tasks and challenges, task persistence, imagination, attentiveness, and cognitive learning style (e.g., being better able to process information through listening vs. observing/reading). **Language development** can be separated into two components: verbal language and emergent literacy. Verbal language includes listening, speaking, social uses of language (e.g., using social conventions and manners), and spoken vocabulary. Emergent literacy includes prerequisite skills for the development of reading and writing. Such skills include an interest in books and stories, print awareness (e.g., understanding that text represents spoken words), understanding that stories follow a standard sequence, and emergent writing (e.g., scribbling in a way that imitates writing). **The fifth and final dimension of school readiness is cognition and general knowledge.** This dimension encompasses knowledge of the properties of objects (e.g., color, weight, and movement); an understanding of the relationships between objects, events, or people (e.g., being able to determine how two objects are different); and the acquisition of the conventions of society or school-learned knowledge (e.g., knowing one's name and address, or being able to count by rote) (Kagan et al., 1995).

2.4. Academic achievement in language and math skills

According to (Kagan et al., 1995) Language development can be separated into two components: verbal language and emergent literacy. Verbal language includes listening, speaking, social uses of language (e.g., using social conventions and manners), and spoken vocabulary. Emergent literacy includes prerequisite skills for the development of reading and writing. Such skills include an interest in books and stories, print awareness (e.g., understanding that text represents spoken words), understanding that stories follow a standard sequence, and emergent writing (e.g., scribbling in a way that imitates writing). Thus, it is important to examine early home learning experiences in the first three years of life, when, for most children, the home still exerts the predominant influence on child language and cognitive development.

Language skills at school entry were also found to be a protective factor moderating the association between social risk and school achievement Burchinal et al., (2006). Information about how children acquire reading and math skills points to the importance of specific academic skills, but also indicates that more general cognitive skills, particularly oral language and conceptual ability, may be increasingly important for later mastery of more complex reading and mathematical tasks. Basic oral language skills become critical for understanding texts as the level of difficulty of reading passages increases (NICHD Early Child Care Research Network, (2005a); Storch& Whitehurst (2002). Likewise, mastery of foundational concepts of numbers allows for a deeper understanding of more complex mathematical problems and flexible problem-solving techniques (Baroody 200).

Supportive communicative interactions beginning at birth and continuing throughout early childhood encourage language development, an important precursor to literacy development (Dickinson &Porche, 2011; Vukelich, Christie, &Enz, 2002). Reading to children, providing books and writing materials, and talking to children about letters and writing are all experiences that encourage the development of print awareness and the importance of written language (Roberts, 2008; Sénéchal, 2006).

2.5. Gender differences in math skills

There is evidence that parents and teachers socialize children differently regarding mathematics. Boys receive more attention and encouragement in math from parents and teachers (Eccles, et al. 2000; Watt, 2004). Mothers also tend to encourage math activities for boys more than girls, and this in turn predicts boys' greater participation in math activities (Simpkins, Davis-Kean, &Eccles, 2005). The researchers Penner&Paret (2008) argue that variation in gender differences in math scores may be due to variation in gender stereotypes or the transmission of cultural resources within groups.

2.6. Gender differences in language skills

Girls have earlier development and better language skills than boys that may disappear between 3-5 years Toivainen et al. (2017). There are a number of studies indicating a small but consistent female advantage in early language development (Wallentin, 2008). another finding of (Eriksson et al., 2012) on gender differences in language development suggest that girls develop language faster than boys: girls are found to speak earlier, acquire the grammar of the language

faster, use longer utterances and express a larger vocabulary throughout infanthood, toddlerhood and early childhood. Galsworthy et al., (2000) Argue that although gender differences in early language ability exist, they are predominantly small and account for a small share of variance in children's language.

As the consistently studies revealed that primary school children in Ethiopia have serious language problems and lack basic skills of reading and writing in all languages. These include mother tongue which is medium of instruction, Amharic which is the federal working language and English which is considered as the language of science and technology (EGRA, 2010; NLA, MOE, 2013). This indicated that child readiness in language and math's skills for children is not meted in Ethiopia.

2.7 Theoretical framework

2.7. 1. Vygotsky theory of socio-cultural

The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. Vygotsky believed everything is learned on two levels. **First**, through interaction with others, and then integrated into the individual's mental structure. Every function in the child's cultural development appears twice: first, on the social level, and later,on the individual level; first, between people (inter-psychological) and then inside the child(intra-psychological). This applies equally to voluntary attention, to logical memory, and to theformation of concepts. All the higher functions originate as actual relationships between individuals. (Vygotsky, 1978, p.57) **Second** aspect of Vygotsky's theory is the idea that the potential for cognitive development is limited to a "**zone of proximal development**" (ZPD). This "zone" is the area of exploration for which the student is cognitively prepared, but requires help and social interaction to fully develop (Briner, 1999). A teacher or more experienced peer is able to provide the learner with "scaffolding" to support the student's evolving understanding of knowledge domains or development of complex skills. Collaborative learning, discourse, modeling, and scaffolding are strategies for supporting the intellectual knowledge and skills of learners and facilitating intentional learning.

Socio-cultural theories place the social environment at the very centre of learning, and without which, the "development of the mind is impossible" (Cole &Wertsch, 2001 p 4).

- This is because learning is mediated. Vygotsky proposed that in the learning process, experts use tools to mediate learning.
- Cognitive development is not a direct result of activity, but it is indirect; other people must interact with the learner, use mediatory tools to facilitate the learning process, and then cognitive development may occur.
- These tools are "psychological" (Vygotsky, 1978 p 53) in nature, in that they are used to express thinking, and include language, signs, symbols, texts and mnemonic techniques.
- **The most significant socio-cultural tool is language**, as it is used to teach tool use and is vital in the process of developing higher psychological functions (Karpov, 2003; Rogoff, 1990; Gall et al, 2004).
- Mediator tools are first seen externally as the expert teaches the learner how to use the tool, then internally as the learner begins to use the tool in performing other activities.
- In the internalization process, the tools modify and transform the learners' thought processes as they begin to use these new tools to express their thinking.
- Thus, the impact of the social environment on learning can be seen in that the experts select and teach tool use and this affects the way that the learners express their thinking Cole &Wertsch (2001).

2.7. 2. Attachment theory

Attachment theory is the joint work of John Bowlby and Mary Ainsworth (Ainsworth &Bowlby, 1991). Attachment is the emotional bond between children and their caregivers (parents or otherwise). Caregiver attachment formation is a normative event. All children form attachments to their caregivers, even those who do not receive adequate care; thus, attachments vary in quality Ainsworth et al., (1978); Bowlby (1958, 1969, 1973, 1980, 1988). Ainsworth (1982, 1989)pioneered attachment theory, which describes the dynamics of the interpersonal relationships' that contribute to continuities in adaptation throughout the lifespan. secure child attachments promote positive outcomes including pro-social beliefs (Catalano et al., 1996), self-esteem, and life satisfaction in adolescence (Greenberg, Siegel, & Leitch, 1983), and higher levels of social competence (Rice, Cunningham, & Young, 1997), psychological well-being as well as social and emotional adjustment in early adulthood Al-Yagon&Mikulincer, (2004). The link between parental attachment security and school success has also been investigated. Secure preschoolers tend to have higher attention skills and develop better reading/pre-reading skills and

attitudes toward reading compared with insecurely attached preschoolers Bergin & Bergin (2009); Moss & St-Laurent (2001). After they enter school, insecure children show lower verbal and math abilities, reading comprehension, and overall academic achievement than securely attached children Granot&Mayseless (2001).

3. Research design and methodology

3. 1. Research design

In order to accomplish the specific objectives of this study mixed research design were used. According to Hauser-Cram et al, (2009), the exclusive use of quantitative measurement would narrow our understanding of the phenomena and hence the complementary quantitative-qualitative method appears to be the default design in ECCE researches. Quantitative research (i.e., a positivist paradigm) has historically been the cornerstone of social-science research. Purists call for researchers to "eliminate their biases, remain emotionally detached and uninvolved with the objects of study and test or empirically justify their stated hypotheses" (Johnson &Onwuegbuzie, 2004, p.14).

3.2. Data of the study

To achieve the purposes of this study, two ways of data sources were paid attention to the primary and secondary sources. Primary data was collect from mothers and their children. Secondary data were gathered from various published research works, documents, research reports and other pertinent academic materials and Books.

3.3. Research area

Gambella people's national state is one of the nine regions in Ethiopia. Gambella is located to the west of the country. The region is bounded by Oromia to the north east; southern nation, nationalities and peoples' state (SNNPS) to the south and south Sudan to the west. This study was carried out in Gog woredas' town (Pinyudo) in Gambella.Gogweredais located within Anywaa zone with the total population of 24,763 of which 11,503 are men and 13,360 are women. Accordingly, 10,674 are living in urban and 14,089 are living in rural areas. Hence, Gog woreda is the second most populated woreda next to Gambella town woreda in Anywaa zone.

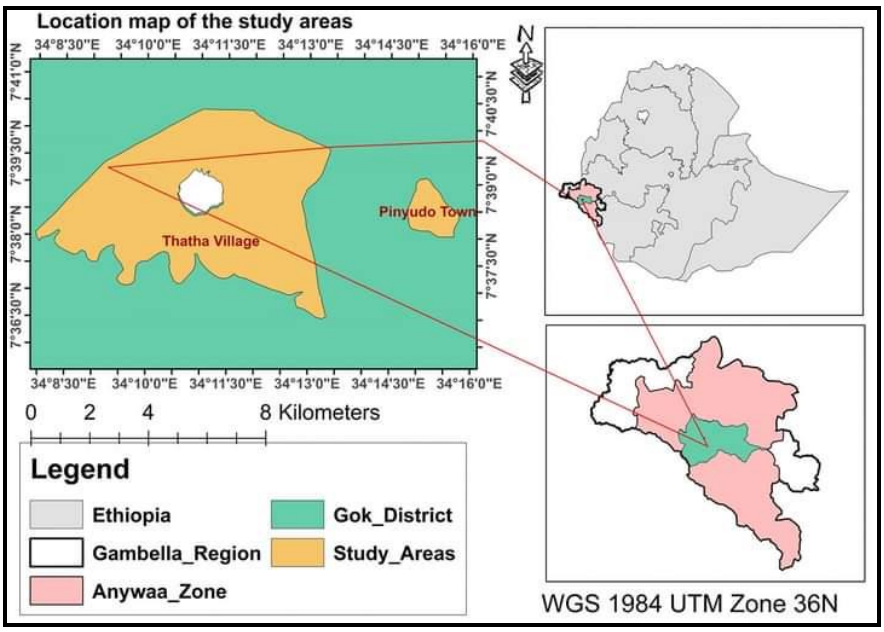

Figure 1 location map of Gog district, Gambella regional state

3.4. Target Population

The study targeted primary school entry children at age of 6-7 in foster family and places located within Pinyudo towns' in five primary school (dippa, oleny, pwol-jay, gilo bethel, and agengnga) for the primary data to build up the research findings.

3.5. Sample

According to Driscoll & Pianta (2011), 174 mothers with their children's are more accurate based on the scale and age. 174+174=348 sample size. But now due to shortest of time I was taken 300 only as sample size from mothers and their children. 50 teachers for school level environment questionnaire are the respondents. Ten teachers from each school were taken to be respondents. Purposive sampling refers to a method of selecting participants because they have particular features or characteristics that will enable detailed exploration of the phenomena being studied (Frost, 2011). An investigation of a phenomenon that is rare may in itself define the boundaries of the relevant samples. Therefore, it is clear that age set (refer samples section) determine the sampling technique to be employed. Thus, purposive sampling was employed. Purposive sampling is one of the many qualitative sampling techniques which pick participants according to preselected criteria relevant to a particular research questions.

3.6. Instruments and Procedures

Child-parent interaction scale develop by Driscoil and painta (2011) and Bracken school readiness Assessments, and school level environment questionnaire were use as a data collection instruments .While interviewing the field note was used to record the physical and facial expression of the participants based on their willingness. The mentioned data gathering tools are believed to be relevant to provide accurate data that could strengthen findings or results at the end of the study.

Reliability: Test-retest stability found to be adequate to excellent across time for all age groups. Mean that reliability is base on post test to be caring out

Validity: Content was reviewed by panel of experts, also compared to state standards for early childhood curriculum. Mean that the scale was review by many experts and pound valid for first grade prediction. (Panter, J. E. and Bracken, B. A. 2009)

3.6.1. Interviews guide

An unstructured interview was used. According to Mack, Woodsong, Kathleen, Macqueen, Greg,& Namely, (2011) in-depth interview is a technique designed to elicit a vivid picture of participant's perspective on the research topic.

3.6.2. Focus group guide

Focus group discussion interviews are often used to supplement other qualitative data, but they can be basic data collection strategy of a qualitative study (Amos, 2002). Hence Amos asserts that researchers from any of the qualitative paradigms can utilize focus groups discussion as method to collect data. Focus group discussions consist of a set of individuals with similar characteristics or having shared experiences who sit down with moderator to discuss a topic. Focus group discussion provides different kinds of information than can be generated from individual interviews and observation (Amos, 2002).

3.7. Procedures of method of data analysis

The collected data was enter into a computer and analyzed accordingly using Statistical Package of Social Science (SPSS 20) software. Multiple regression statistics analysis,

correlation, and finally, data from quantitative were analyzed statistically and interpreting by using qualitative.

3.8. Ethical considerations

Respect for participants and the use of non-discriminatory language are ethical issues that must be observed (Creswell, 2012). Now, the informed concern of all the research participants was taken as verbal form and I proceed by explanation of the kind of research I intended to do. I was maintaining strict confidentiality about the information that will obtained from the informants. No information about the personal details exposed in any records to other individuals without the informant's consent. Informant will provided with reasons for the study procedures as well as the findings of the study if they demand. I accepted the fact that the informants have freedom to decline to participate or to withdraw from the study process. I was not made use of hidden cameras without the permission of the informants. And finally, throughout the research process I make sure that the identity of the research participants is not revealed

4. Result and discussions

4.1. Gender different with academic achievement in language and math of grade one students

In order to determine the difference in academic achievement in language and math of grade one students among gender (Male and Female), an independent- sample t-test was conducted to compare whether there is a statistical significant difference in academic achievement among gender.

4.1Gender different with academic achievement

Table4.1 of gender difference

Sex of respondent	N	Mean	Std.	T	DF	Sig.
Male	75	58.48	8.394	-1.405	148	.162
Female	75	60.43	8.555			

As indicated in Table 4.1 above, there is no significant difference in male and female on academic achievement in language and math of grade one students. Male (M=58.48, SD=8.394) and Female (M= 60.43, SD= 8.555); t =-1.405, p=0.162 (two-tailed). The mean difference in male and female regarding academic achievement in language and math of grade one students is 1.94. This shows that there is no significant different regarding academic achievement in language and math of grade one students between male and female students.

4.2. parent-child interaction, school environment, and child readiness with academic achievement in language and math of grade one students

A correlation analysis was conducted to establish the relationship between parent-child relationship, school environment, child readiness and academic achievement in language and math of grade one students; this helped to test the hypotheses of the study and show the degree of relationship between the independent and dependent variables. By using Child-Parent Relationship Scale (CPRS)The CPRS (Pianta, 1992) self-report instrument completed by mothers and fathers that assesses parents' perceptions of their relationships with their sons and daughters, (child readiness)Bracken School Readiness Assessment-Third Edition Measures a child's exposure to concepts necessary for learning at school. Assesses a child's understanding of 85 foundational academic concepts (i.e., in the categories of colors, letters, numbers/counting, sizes/comparisons, and shapes), and School Level-Environment Questionnaire (SLEQ)

measuring school environments, and the interaction of teachers with students.The purpose of doing correlations was to allow the study to make a prediction on how a variable deviates from the normal. Pearson correlation was used to determine if there was a significant, positive association between each independent variable and student academic achievement. Pearson correlation is a measure of the degree of association between two variables which are both measured in either the interval or ratio scale. Its value ranges from -1.0 to +1.0, with bigger absolute values indicating stronger relationship; the sign denotes the direction of association. A positive correlation indicates that as one variable increases, the other also goes up; meanwhile a negative correlation suggests that as one variable increases, the other correspondingly goes down (Saunders *et.al*, 2009

4.3: Correlation

Table4.3 of correlation

Variables		Child readiness	Parent-child relationship	School environment	Academic achievement
Child readiness	Pearson Correlation	1	.333**	.288*	.434**
	Sig. (2-tailed)		.000	.043	.000
	N	150	150	50	150
Parent-child relationship	Pearson Correlation	.333**	1	.483**	.718**
	Sig. (2-tailed)	.000		.000	.000
	N	150	150	50	150
School environment	Pearson Correlation	.288*	.483**	1	.452**
	Sig. (2-tailed)	.043	.000		.001
	N	50	50	50	50
Academic achievement	Pearson Correlation	.434**	.718**	.452**	1
	Sig. (2-tailed)	.000	.000	.001	
	N	150	150	50	150

Based on the output of the correlation matrix; child readiness(r=0.434, p=0.000), and School environment (r=0.452, p=0.001) have moderate positive relationship with academic achievement in Language and Math's with reference to Pinyudo town. On the other hand Parent-child relationship (r=0.718, p=0.000) have strong positive relationship with academic achievement in Language and Math's with reference to Pinyudo town, Gog Woreda.

4.4. Multiple Linear Regression Analysis

Multiple regression analysis was then conducted to find out the effect of parent-child relationship, school environment, and school readiness on academic achievement in language and math of grade one students. It gives more detailed analysis as it enabled the examination of the influence of each of the independent variables on dependent variables, controlling for all other factors. It also allowed the researcher to determine the combined effect of the variables (Gay, Mills, &Airasian, 2006). Multiple linear regression analysis is a well-known statistical technique which fits a relationship between one dependent and more than one independent variable. In this section and the subsequent sections on regression results, the coefficient of determination (R square) was used as a measure of the explanatory power to show how the independent variables explain the dependent variable. The F statistics (ANOVA) was used as a measure of the model goodness of fit. Pearson correlation and the regression coefficient summary were used to explain the nature of the relationship between the dependent and independent variables. The significance levels of the regression results were also taken into account for proper interpretations.

4.4.1: Assumption of multiple linear regression analysis

Certain assumptions must be tested and met in order for the results of multiple regression analysis to be useful. It assumes that variables have normal distributions and that the relation between the dependent and the independent variable is linear when all other independent variables are held constant. Observations of the visual representations of the histogram, scattered plot, and partial plots were used to check the assumptions of normality and linearity for the dependent variable (academic achievement). The result showed that the assumptions of multiple linear regressions was satisfied (Appendix C).

To test the normality assumption the histogram of residuals was used to check the extent to which the residuals are normally distributed. The residuals histogram in figure 4.1, Appendix C, shows us fairly normal distribution for the variable. Thus, based on these results, the normality of residuals assumption is satisfied for the dependent variable academic achievement. To check the linearity assumption in multiple linear regressions the normal P-P plot was used, the plot shows all observed values somewhat spread along the straight diagonal line. Figure 4.2 Appendix C.

shows us most of the observed values are spread very close to the straight line; there is high likelihood that the data are normally distributed and linear. To check homogeneity assumption scatter plot of the residuals against the predicted values was used to indicate whether the homogeneity of variance assumption is met. If it is met, there should be no pattern to the residuals plotted against the predicted values. In figure 4.3 appendix C, shows there is no clear pattern, which suggests homogeneity of variance assumption is met.

A common problem that arises in multiple regression analysis is also multi-collinearity. This basically means that two or more of the independent variables being used are highly correlated with each other and in effect measure the same thing. This makes it difficult to identify the unique relation between each predictor variable and the dependent variable (Urdan, 2005). The collinearity statistics for this study revealed that none of the Variance Inflation Factors were above 10 for each independent variable. In research this is said to be an acceptable number to test for multi-collinearity as any number above 10 would be cause for concern. The tolerances are all above 0.2. If a variable has collinearity tolerance below 0.2, it implies that 80% of its variance is shared with some other independent variables (Table 4.9).

4.4.2: Regression analysis

Regression analysis was conducted to empirically determine whether independent variable was a significant effect of academic achievement in Language and Mathematics.

Table 4.4.2 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.837[a]	.700	.681	4.89495

Regression results in table 4.4.2 indicate the goodness of fit for the regression between academic achievement and independent variable was satisfactory. The adjusted R squared of 0.681 indicates that 68.1% of the variances in academic achievement can be explained by the independent variables such as school readiness, parents-child relationship and school environment. The remaining variances on the dependent variable could be explained by other explanatory variables not included in this study.

4.4.3 ANOVA

Table4.4.3 of ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2572.788	3	857.596	35.792	.000[a]
Residual	1102.184	46	23.961		
Total	3674.972	49			

From table 4.4.3, it is apparent that the regression model was significant using 'between the academic achievements and the independent variables. An F statistic of 123.45 and a probability value of 0.000 clearly indicate that the model was significant.

4.5 Regression analysis on academic achievement in language and Math's

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Variables	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(constants)	-9.074	7.005		-1.29	.202		
child readiness	24.816	4.411	.492	5.626	.000	.852	1.174
Parents-child relationship	7.013	1.426	.471	4.918	.000	.712	1.405
School environment	1.436	1.618	.083	.887	.379	.752	1.330

*Indicates significance (p-value<0.05).

In this study, three explanatory variables were identifying to determine a significant difference on academic achievement at 5% level of significance. The estimated regression model was Academic achievement = -9.074+ 24.816 child readiness + 7.013 Parents-child relationship + 1.436 school environment. Hence, the coefficient explains the average amount of change in dependent variable that is caused by a unit of change in the independent variable. Accordingly, the unstandardized beta coefficients (β) tell us the unique contribution of each factor to the model. A small p-value (<0.05) indicate the predictor variable has made a statistically significance contribution to the model. On the other hand, a high p-value (p >0.05) indicate the predictor variable has no significant contribution to the model (George and Mallery, 2003).Table 5.3 shows all the p-value for independent variables is less than 0.05 and all the β values are positive, that shows child readiness and Parents-child interaction have a positive effect on

academic achievement in language and math skills of grade one students. The largest beta coefficient was 24.816, which was for child readiness. This means that this variable makes the strongest unique contribution of 24.816 times higher to explain the students' academic achievement, when the variance explained by all other variables in the model was controlled. The Beta value for parents-child relationship was resulted in beta coefficient of 7.013, indicating that independently they made the second contribution on the effect of academic achievement in language and math skills of grade one students. The Beta value for school environment was resulted in beta coefficients of 1.436, indicating that independently they made the third contribution on the effect of academic achievement in language development and math's skills of grade one students. This indicates an increase in child readiness, parents-child relationships, and school environment were facilitating the academic achievement of students in language and math skills of grade one students.

5. Qualitative discussion and results

The result obtains from the variables also supported by the interviews. Do you read to your child at home? According to the data obtain from the interviewees *it's difficult to say we read to ours children's, because most of the parents do not know how to read*. Very interesting response from the one of interviewee is that, she said that, *we know the important and the results of learning, but we don't engage more on reading to children, because most of us are uneducated. Simply, we send them to school for learning and expect good result at the end of the school.* It is only teacher's work to teach children to become ready for school? Or parents also part of the works. *Yes, parents also are part of the process, because it's the parent who send child to school, provide school materials for their children's, even school fee and child care.*

Regarding to interview the teachers for the school environment there are some Response from the teachers about which are very interesting. Do you think that children are ready when they inter grade one? Responses and comment from some teacher about school, one of them response that, *there is big challenge for new grade one entry, because, there is a problems of zero class in our woreda (district), most students come to school without any knowledge about A B C, and mathematic skills because they never learn in zero class as a foundation for grade one readiness.* Pre-school should be second step for children for developing fundamental basis before formal school as it suggest by Many scholars a range of curricula can be used to improve language and learning outcomes for children via pre-schools (e.g. High Scope, Curiosity Corner, Incredible Years) (Chambers, et al., 2010; Girolametto, Weitzman, & Greenberg, 2006; International Society on Early Intervention, 2014; The National Evaluation of Sure Start Team, 2007).

As it is point out by some responded that, Child readiness is the results of preschool start, if children start learning A B C, mathematic in preschool they will be ready when start grade one.

Figure 3teachers after discussion on child readiness problems at Oleny primary school Aballa (2021)

Why child are not start from zero class? Some give their opinions on the interview by responded that, *because of lack of financial for their children's.* That is why they wait till years of grade one entry reach to avoid school fee for their child. Due to financial from many parents fail to register the name of their child at the private school. Due to the limitation of classes from the private school, those who come late for registration may fail to register even though they have enough money to pay for child. So, lack of many private preschool also another factor the child readiness to enter grade one.

Class size also one factor for child readiness, because if there is one hundred and thirty in one class can decrease the quality of teaching, class room management, and teaching method said by teachers during interviews and discussion on child readiness to achieve positive result at school when start grade one.

Figure 4 photo of grade one student at Oleny primary school Aballa (2021)

6. Discussion

6.1. Gender difference

From the study finding there is no significant difference in male and female on academic achievement in language and math of grade one students. Male (M=58.48, SD=8.394) and Female (M= 60.43, SD= 8.555); t =-1.405, p=0.162 (two-tailed)as indicated in Table 4.1. The mean difference in male and female regarding academic achievement in language and math of grade one students is 1.94. This shows that there is no significant different regarding academic achievement in language and math of grade one students between male and female students. This matched with the study carried out by Galsworthy et al., (2000) Argue that although gender differences in early language ability exist, they are predominantly small and account for a small share of variance in children's language.

6.2 correlations between school environment and child readiness achievement in language and math's skills

Based on the output of the correlation matrix; child readiness(r=0.434, p=0.000), and School environment (r=0.452, p=0.001) have moderate positive relationship with academic achievement in Language and Math's with reference to Pinyudo town. Based on other study not only the child readiness, but the interactions between child and school also have great influence on child success in school as it stated by Woodhead and Moss (2007) that, children's readiness and later success at school is influenced not only by their own abilities, but also by the readiness of the school. The result of this study also in line with (Janus, 2007) who stated that, Children's school readiness has been conceptualized as the skills and knowledge children need when they enter school in order to learn effectively in the school environment. Children's readiness for school is the children's success in school which is determined by a range of basic behaviors and abilities, including literacy, numeracy, and ability to follow directions, working well with other children and engaging in learning activities (Rouse, Brooks-Gunn and Mclanahan 2005).

6.3 correlation of interaction of parent-child and child readiness achievement in language and math's skills

On the other hand Parent-child relationship (r=0.718, p=0.000) have strong positive relationship with academic achievement in Language and Math's with reference to Pinyudo town, Gog Woreda.Building up on the previous study showing that home environment are significantly predictive of later language skills (Hoff &Tian, 2005; Snow, Tabors, & Dickinson, 2001; Tabors, Roach, & Snow, 2001). Another study also reveal that, Children's academic success and early reading success is founded on emergent literacy knowledge and skills from birth to age 4 years (Sloat et al. 2015) which mean that, the interaction between parent and child at home have a great role on parent-child reading in developing the cultural capital that underlies subsequent school success (De Graaf et al. 2000).

Successful acquisition and development of mathematics skills and concepts is a critical aspect of children's early academic growth (Baroody, Lai, & Mix, 2006; Jordan, Hanich, &Uberti, 2003). So, interaction of parent and child during early years is the most important of child foundation for later success in school, economic advantages of their future outcome and protect the child from unwanted life outcome as it matched with the studies carried out by (Duncan et al., 2007; Lubinski&Benbow, 2006) Early mathematical performance is one of the strongest predictors of later academic and career outcomes Children who are less prepared for school are more likely to become teen parents, engage in criminal activity, and have a job that did not survive (Schweinhart 2003).Positive interactions between families and schools increase children's success in school settings and support ongoing family involvement in the child's education (Colombo, 2004; Galindo & Sheldon, 2012).

Academic achievement is a cumulative process involving both mastering new skills and improving already existing skills. Information about how children acquire reading and math skills points to the importance of specific academic skills, but also indicates that more general cognitive skills, particularly oral language and conceptual ability, may be increasingly important for later mastery of more complex reading and mathematical tasks. Basic oral language skills become critical for understanding texts as the level of difficulty of reading passages increases (NICHD Early Child Care Research Network, 2005a; Scarborough, 2001).

7. Conclusions and recommendation

7.1 Conclusion

The finding of this study were suggested that, enhance interaction of parent child and school environment have strong positive influence on language development and math skill achievement and child readiness and school environment also have moderate influence of child academic achievement in language and math's skills development. But, there is no significance influence on gender different in language development and math skills on child academic achievement. Furthermore, the finding of this study suggest that more attention should be paid to the interaction of teachers and parents to bring more enhancing on child readiness and need strengthen ties the between home and school for successful.

School psychologist also, need to take their part to help parents and teacher to encourage them the importance of parent child relationship and school environment on child language development and math skills academic achievements. Facilitating parent to increase their reading, storey telling, math skills concepts, and all plays activities abilities for their children be successfully in their readiness.

7.2 Recommendation

Because, child who are not ready when starting grade one at primary will not be successful as they compare with ready child when start. Specially, when they are not develop language and math skills, because Poor reading and mathematics skills are linked to unsuccessful in school as many studies have demonstrated the connection between early language development, math skills and later performance success. In order to make children more successful in school, psychologist parents, teachers, and government should work on the following issues to implement them.

- Ψ Because ready children's have great contribution to the their success at school government should emphasis more on pre-school for all children to start formal school ready to learn through language and mathematic abilities.
- Ψ To protect the children from failing at school, parents or caregiver needs their positive interaction with their children's by teaching them language and math concept skills. Because, Even though some factors are associated to school failure like Poverty, the

study shown that, language-rich environment may ‘defy the odds of socio-economic circumstance’

- Ψ School psychologists can play a number of important roles in the promotion of child readiness by creating awareness on language development and math’s skills for parent and teachers on early academic difficulties and success.
- Ψ Psychologist should caring training and consultation with primary school teachers and administrators around issues of child readiness promotion and early identification of at-risk child, and increased recognition of the important role of parental engagement both in home and school settings as a means of promoting academic and social skills development on language development and math’s skills.
- Ψ Exposure of children to reading and reading material is one early parental behavior that to contribute positively not only to early reading skills, but also to early child language development. As it suggest by (Landry, SwanSmith, Assel, & Gunnewig, 2006) that successful intervention programs with a focus on the early years and improved child language before school entry have shown positive contributions to early school success.
- Ψ Child readiness only is not enough; it need ready family, ready community, and ready school for more success at school.
- Ψ Because there is no gender difference as a result of this study; parent, teachers, and community should interaction positively to both girls and boys regardless of sex in difference interventions.
- Ψ In order to achieve this goal called child readiness for school, psychologist, government and NGOs also need to take their part to meet the needs of child before starting their formal school; by supporting the parents with material and awareness creation on child readiness
- Ψ In order to reduce poverty in long run everybody need to work on child readiness for all of these reasons, early exposure to reading and math’s concept skills may be one of the more potent learning experiences of early childhood and later success at school.

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Appendix1

Jimma University

College of education and behavioral sciences

Department of psychology

Jøøapïïdhö,

Pwøcmodwøngdöckipermanothöörupïëcmoikiduö.Pïëcmoiajiingkiper nee dwättömaroobwörëkijøøapïïdhöyipaac nee ngäckikøøre.Nyengkikanynyakäldhaanhøyiekärjïëö nee göörï.Gïnuduuï di gwøøkiper nee bajootdhaanhømørkiper nee bëëttï a joode.Pïëcmoi bee kwörëariew.Manadikwøng bee peri ,barietgi bee pïëcmomanynyikiper nee løgi .man paththapääröni di løkpïëcmokarekimopaakare, manynyagø nee duuïkikøørmanotïïyïpaaackarecøøn. Noothöörïgø , or cangrangngødøøcwalladagømoongoodööngnikkärïpäängö.

1. **Demographic information**

- **dhak:** 1 dïcwøø 2 dhaagø
- **cwiiri:** 1 20-25 2 25-35 3 35-45 4 45 above
- **göör :** 1 certificate 2 diploma 3 degree 4 MA/MS 5 none
- **Monthly income:** 1 100- 500 2 500 -1000 bïrrï 3 2000 -3000 4 4000 -kimaal

2. **Child- parents relationships scale**

Caaathkøøtluupmoinaa**15**ninäkrømadwättö mar nyilaalkingattapïïdhö. Kwaanini beer oolømimananäkïïnujïëybäättëkimananäk I kärjïëybäättë.

(1) karapäänynyönabärë

(2) (2) paaadïërï

(3) (3) enadïër

(4) (4) kikwörmøøkpäänynyapäänynyö

(5) (5) päänynyapäänynyödöc

No	Items	Alternatives				
1	Mëërkidwättömo beer aanywaangøkinyilaalmara	1	2	3	4	5
2	Nëënönicoothcoothaanikinyaarawangäbökidëëtwa	1	2	3	4	5
3	Nyilaalmarajwöm di manynyøkibaanga, ninäkmoenogoottø	1	2	3	4	5
4	Nyilaalmarayiebamïnnïkimëëcdëëra wall kanyo gut aani	1	2	3	4	5
5	Nyillalmaradwättömarwakigøpereeetïëönileth	1	2	3	4	5
6	Kanyonäkmonyilaalmarayaapwøø, kännöki met ecjïrë	1	2	3	4	5
7	Nyilaalmara jap dëërënywaangenywaangøkiaani	1	2	3	4	5
8	Nyilaalmaralaaragoottøkiaaninijöötjaak	1	2	3	4	5
9	Jöötdöc man laarawärkiduutjïnyilaalmara , mo diet kijwöttö mare	1	2	3	4	5
10	Nyilaalmarakanyoköömagø , parabëëdönooogoottø	1	2	3	4	5
11	Pwönynyilaalmarateek mar dëëraathöörë	1	2	3	4	5
12	Kanyo en nyilaalmara I jwöttömoba beer, ngäänganiwaenayiekanymoyiebäärkicängmanateek	1	2	3	4	5
13	. Jwöttö mar nyilaalmarakiperabadïët / laarawïïttökikanymoyieciekdöc	1	2	3	4	5
14	Nyilaalmaramwöngökiaani / adimaangøkiteek nee gïnmaanynyetïëajïrë	1	2	3	4	5

Appendix 2
Jimma University

College of education and behavioral sciences

Department of psychology

Dear teachers,

Thank you so much for your willingness to complete this questionnaire. This questionnaire is designed to collect data for examine theschoolinwhich you work and your actual working environment or all the activities of learning environment. There is no need to write your name or your address. Make sure that your response will be kept confidential, so that nobody will identify you and your behavior. The questionnaires have two sections. First section is about your demographic information. The second is about questions you are going to answer. Please, this is not a test so there is no correct or wrong answer, you have to respond only what is actually practice or done in your school and what is actually not done. At the end, check that you have completed all the questions.

1. **Demographic information**

- **Sex:** 1 male 2 female
- **Age:** 1 25 2 25-35 3 35-45 4 45-55 5 55- above
- **Education level:** 1 certificate 2 diploma 3 degree
- **School:** 1 private school 2 government school.

2. **School Level-Environment Questionnaire (SLEQ)**

Instructions: The following statements are to be considered in the context of the school in which you work and your actual working environment. Think about how well the statements describe your school environment. Indicate your answer by giving marks in the most appropriate response.

No	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Teachers design instructional programs					

	together.	1	2	3	4	5
2	Most students are -well-mannered and respectful to the school staff.	1	2	3	4	5
3	Instructional equipment is not consistently accessible.	1	2	3	4	5
4	Teachers are frequently asked to participate in decisions.	1	2	3	4	5
5	New and different ideas are always being tried out.	1	2	3	4	5
6	There is good communication among teachers.	1	2	3	4	5
7	Most students are helpful and cooperative with teachers.	1	2	3	4	5
8	The school library has sufficient resources and materials.	1	2	3	4	5
9	Decisions about the school are made by the principal.	1	2	3	4	5
10	New courses or curriculum materials are seldom implemented.	1	2	3	4	5
11	I have regular opportunities to work with other teachers.	1	2	3	4	5
12	Students in this school are well behaved.	1	2	3	4	5
13	Video equipments, tapes and films are readily available.	1	2	3	4	5
14	I have very little to say in the running of the school.	1	2	3	4	5
15	We are willing to new teaching approaches in my school.	1	2	3	4	5
16	I seldom (rarely) discuss the needs of	1	2	3	4	5

	individual students with other teachers.					
17	Most students are motivated to learn.	1	2	3	4	5
18	The supply of equipment and resources is not adequate.	1	2	3	4	5
19	Teachers in this school are innovative.	1	2	3	4	5
20	Classroom instruction is rarely coordinated across teachers.	1	2	3	4	5
21	Good teamwork is not emphasized enough at my school.	1	2	3	4	5

Appendix 3

Jimma University

College of education and behavioral sciences

Department of psychology

Dear students,

Thank you so much for your willingness to complete this questionnaire. This questionnaire is designed to collect data to examine child readiness entrancing in grade one. There is no need to write your name or your address. Make sure that your response will be kept confidential, so that nobody will identify you and your behavior. The questionnaires have two sections. First section is about your demographic information. The second is about questions you are going to answer. Please, check that you have completed all the questions.

3. **Demographic information**

- **Sex:** 1 male 2 female
- **Age:** 1 6-7 2 8-9
- **School:** A private school B government school

4. **Child readiness questionnaire**

No	Colors	Mastery	Not mastery	
1	Red			
2	Blue			
3	Green			
4	Black			
5	Yellow			
6	Pink			
7	Orange			
8	Purple			
9	White			
10	Brown			

No	Letters	Mastery	Not mastery	
1	A			
2	W			
3	X			
4	S			
5	K			

6	H			
7	Q			
8	D			
9	M			
10	I			
11	B			
12	E			
13	T			
14	I			
15	J			

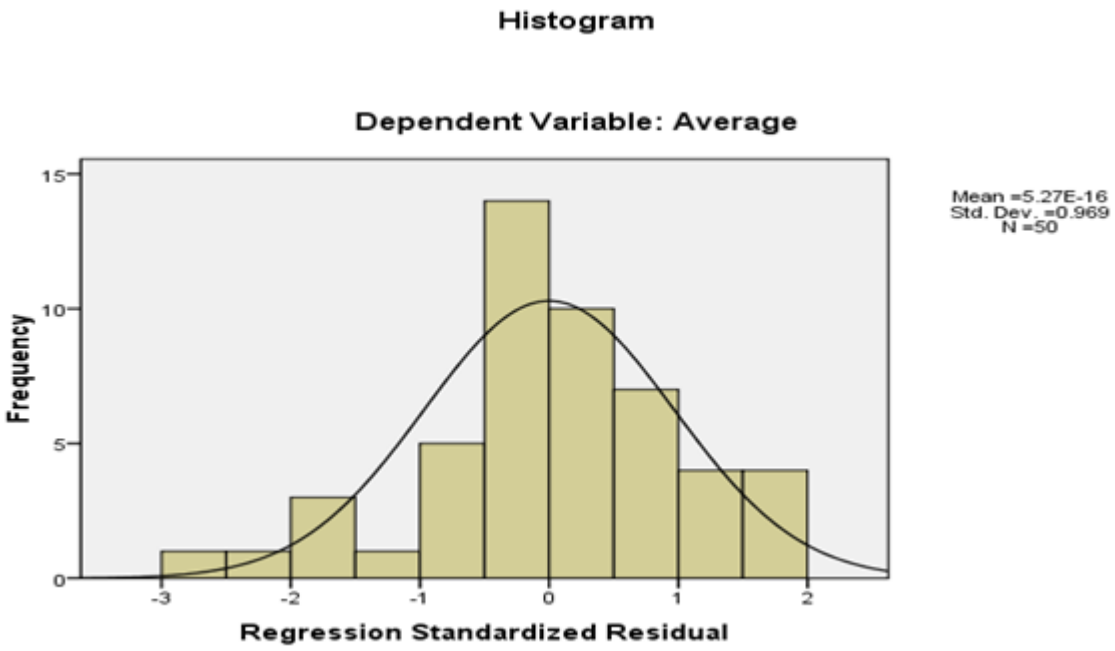
No	Numbers/counting	Mastery	Not mastery	
1	One			
2	Three			
3	Two			
4	Four			
5	Zero			
6	Three			
7	Six			
8	Nine			
9	Five			
10	Seven			
11	Eight			
12	Six			
13	Nine			
14	Forty-one			
15	Eleven			
16	Ninety-five			
17	Twenty-seven			
18	Fifty-three			

No	Sizes/comparisons	Mastery	Not mastery	
1	Big			
2	Small			
3	Long			
4	Little			
5	Not the same			
6	Sort			
7	Match			
8	Different			
9	Tall			
10	Deep			
11	Large			
12	Same			

13	Alike			
14	Wide			
15	Exactly			
16	Other than			
17	Similar			
18	Equal			
19	Thin			
20	Narrow			
21	Unequal			
22	Shallow			

No	Shapes	Mastery	Not mastery	
1	Star			
2	Heart			
3	Circle			
4	Line			
5	Square			
6	Triangle			
7	Cone			
8	Round			
9	Diamond			
10	Oval			
11	Rectangle			
12	Check mark			
13	Row			
14	Pyramid			
15	Cylinder			
16	Cube			
17	Curve			
18	Column			
19	Diagonal			
20	Angle			

Appendix 4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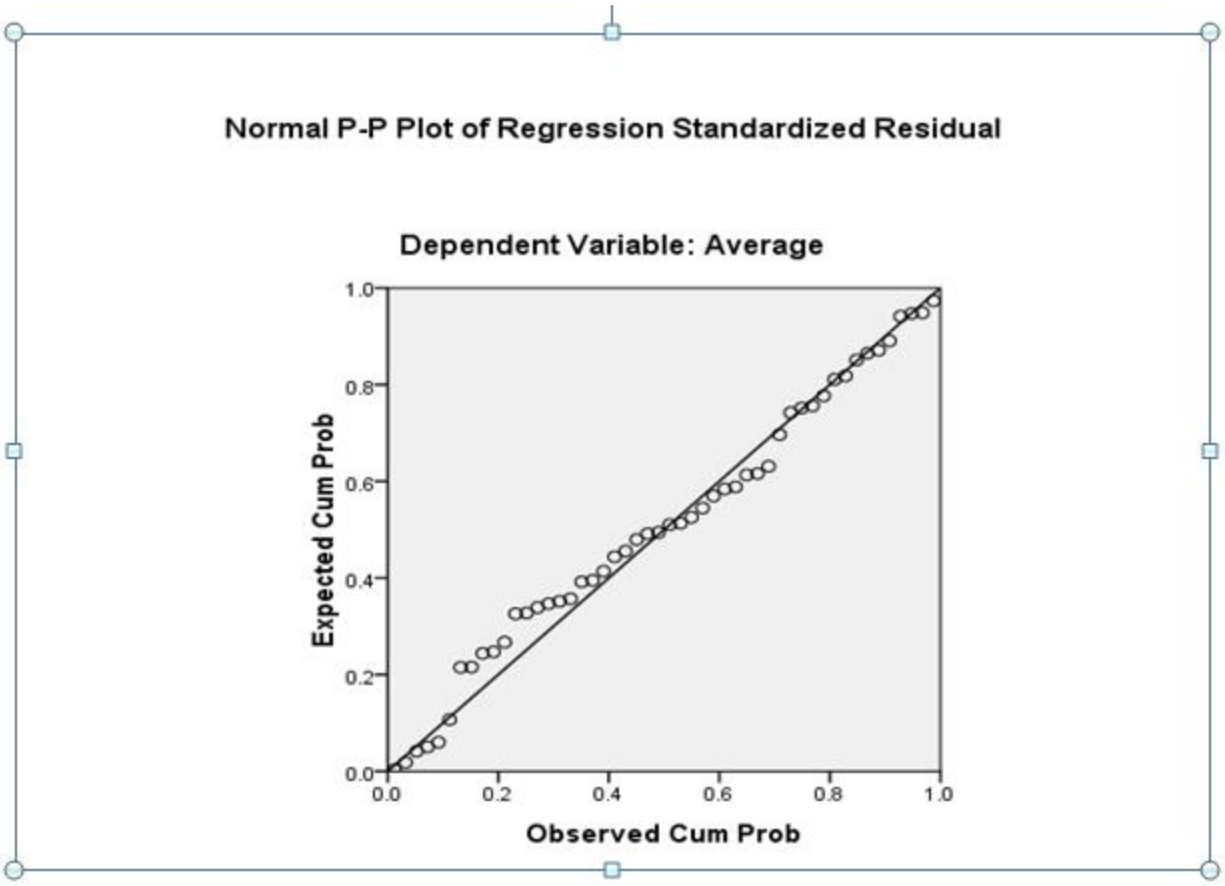
Std. Dev. =0.969
N =50
Frequency
15
10
5
0
-3
-2
-1
0
1
2
Regression Standardized Residual



Scatterplot