ASSESSMENT OF FOUNDATIONAL LITERACY, NUMERICAL SKILL AND SCHOOL READINESS AMONG ANGANWADI CHILDREN

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CERTIFICATE

This is to certify that the thesis entitled "***Assessment of foundational literacy, numerical skill and school readiness among Anganwadi children"*** is a research work carried out by Krishnendu M.U under my guidance and supervision.

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I hereby declare that this dissertation entitled " Assessment of foundational literacy, numerical skill and school readiness among Anganwadi children" is a bonafide record of research work done by me under the guidance and supervision of Smt. NImmy jacob and has not been previously submitted by me for the award of degree, diploma or recognition elsewhere.

Place: Ernakulam KRISHNENDU.M.U

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KRISHNENDU. M. U

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INTRODUCTION

CHAPTER 1

INTRODUCTION

“It is easier to build strong children than to repair broken men.”

-Frederick Douglass

Early childhood provides opportunity of child’s holistic development and build foundation for their future. Early childhood is a critical period of development for literacy and numeracy. It is an important skill of children for their development. Preschool age children are very energetic, enthusiastic, curious and interested to know about people, object and around the word. Experience of first five year of life influence social emotional, Cognitive and language development of children. Brain development occurs during the period so that early experience is the building blocks for educational achievement.

Literacy is defined by UNESCO as the ability to recognize, understand, interpret, create, communicate, compute, and use printed materials in a variety of circumstances. (UNESCO, 2006, Education for All: Global Monitoring Report). Literacy entails more than just reading and writing skills. It refers to the information, skills, and abilities competencies that enable people to think critically, communicate effectively, cope with change, and solve issues in a range of situations in order to attain personal objectives, expand their knowledge and potential, and actively participate in society. (Sanwal)

Numeracy refers to the capacity to solve issues and meet the demands of daily life in complicated social circumstances by applying quantitative knowledge and skills. A young person must be able to think and communicate quantitatively, make sense of data, have spatial awareness, grasp patterns and sequences, and recognize circumstances where mathematical reasoning can be applied to solve issues in order to have this skill.

Early literacy and numeracy skills are not only necessary for learning, but they are also associated with higher quality of life, personal well-being, national stability, and prosperity, and they are critical for educational outcomes later in life. Strong literacy and numeracy skills assist children in learning, experimenting, reasoning, and creating, as well as being active and informed citizens

who contribute socially, culturally, and economically. Children's academic progress and motivation are hindered by the lack of learning opportunities during the early stages of acquiring literacy and numeracy, resulting in further underachievement. Literacy and numeracy provide several benefits for individuals, families, communities, and society as a whole. Literacy and numeracy which impact the later life outcome of children. And it hold a person in every stage of their life. Poor literacy may cause school dropout, unemployment and poor social and emotional development.

Foundational literacy and numeracy described as a child's ability to read simple texts and answer simple math problems (such as addition and subtraction). It is strong foundation for elementary school to do basic arithmetic and language activities. Gave better future for children and additional support for their later stage development. It is a foundations of lifelong learning and full participation in society. One of the key focuses of the NEP 2020 is foundational literacy and numeracy.

National Policy on Education (NEP, 2020) foundational literacy and numeracy, which includes the ability to read and interpret basic text as well as the capacity to perform basic addition and subtraction with Indian numbers. Numerous studies suggest that once kids fall behind with the foundational literacy and numeracy in the existing educational system, they tend to stay on a flat learning curve for years, unable to catch up. So many bright children have become trapped in this tragic black hole, unable to escape. This has become a key reason for many students not attending school or dropping out entirely.

The NEP, 2020 also emphasizes /the importance of confronting this situation front on and acting quickly so that basic learning can be done in schools and all kids can benefit from a high-quality education. The achievement of foundational literacy and numeracy for all children must become a national priority right away. Students, as well as their schools, instructors, parents, and communities, must be immediately supported and encouraged in order to assist carry out this critical goal and mission, which is the foundation for all future learning.

In order to avoid the learning crisis, the NEP 2020 recommends a stronger focus on foundational literacy and numeracy, as well as reading, writing, speaking, counting, arithmetic, and mathematical thinking throughout the preparatory and middle school curriculum, as well as a robust system of continuous formative/adaptive assessment to track and ensure each student's

learning. Education will not only focus on cognitive growth, but also on character development and the development of holistic and well-rounded persons with critical 21st-century abilities. For this reason, our educational system will move from a summative examination that mostly measures rote memorization skills to a more regular and formative assessment. The system will be competency-based, encourage children's learning and growth, and assess higher-order abilities like analysis, critical thinking, and conceptual clarity.

The Government of India's Ministry of Education has already launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) mission, which includes a detailed implementation guideline for states to ensure that every child in the country acquires foundational literacy and numeracy skills (FLN). (NEP 2020).

Individual child readiness, school preparedness for children, and the ability of the family and community to support optimal early child development are all factors in school readiness. Schools must be prepared to meet the needs of all students at all stages of preparation. Instead of being an exclusion criterion at the start of the formal educational experience, children's preparation for kindergarten should become an outcome indicator for community-based activities. Our new understanding of early brain and child development has revealed that modifiable aspects in a kid's early experience can have a significant impact on the learning trajectory of that youngster.

Readiness in the child, defined by:

• Physical well-being and motor development, including health status, growth, and disability;

• Social and emotional development, including turn taking, cooperation, empathy, and the ability to express one's own emotions;

• Approaches to learning, including enthusiasm, curiosity, temperament, culture, and values;

• Language development, including listening, speaking, and vocabulary, as well as literacy skills, including print awareness, story sense, and writing and drawing processes.

• General knowledge and cognition, including sound letter association, spatial relations, and number concepts. (High, 2008).

School readiness consist of five domains that is social, emotional, cognitive, physical and language development. Motor Development and Physical Well-being includes health, growth, and

impairments; physical abilities, including as gross and fine motor skills; and conditions before, during, and after birth are all covered in this domain. The ability of children to engage with others and their capability for self-regulation are referred to as social development. Children's emotional development involves their self-perceptions, their ability to understand and express other people's feelings, and their ability to interpret and express their own feelings. Communication and emergent literacy are included in this language development. Listening, speaking, and vocabulary are all aspects of communication. Print awareness, story sense, early writing, and the association of letters to sounds are all examples of emergent literacy. General Knowledge and Cognition area encompasses problem-solving skills as well as knowledge of specific objects and how the environment operates. Mathematical understanding, abstract thinking, and imagination are all part of the package. (Island, 2005).

School readiness benefits can be viewed on two levels: intrinsic and instrumental. Intrinsic benefits are those that benefit the recipients directly, such as children, families, and schools. Gains toward the broader development goals of social fairness and economic growth are referred to as instrumental benefits. The cost of school readiness is compared to the cost of inaction, which is the burden that individuals and society face. (A companion to the Child Friendly Schools Manual)

The importance of "a good start in life, in a nurturing and safe environment that enables children to survive and be physically healthy, mentally alert, emotionally secure, socially competent, and able to learn" was echoed in a 2012 international report from UNICEF, which nearly echoed the five domains outlined by the National Education Panel.

In other words, when these essential building blocks of safety, security, and ability to engage are in place, all children, regardless of cultural background, family, or school structure, benefit. School readiness, according to the report, is a difficult "result of the interplay between the child and a range of environmental and cultural experiences that enhance children's development outcomes. (Mead, 2016).

In India, Anganwadi is a government-sponsored child and maternal care development programme. It is mostly aimed at children aged 0 to 6. They began in 1975 as part of the Indian government's Integrated Child Development Services (ICDS) programme. Anganwadi Centre is a vital institution which ensures the nutrition and pre-school education of children aged 3-6 years. According to NEP 2020, Anganwadi co located with primary school.

The ICDS programme includes non-formal pre-school education as a significant component. This kicks off and causes the children's overall development. Anganwadi is the first stage in the educational process for young children, commencing their development in several areas and preparing them for better adjustment in regular schools.

More than 15,000 Anganwadi centers are currently operational in Kerala's 120 ICDS blocks, out of a total of 152 blocks.(www.cds.ac.in)

Relevance of the study

Foundational literacy and numeracy are the ability to read simple text and answer simple math problems. It helps in the academic and personal success of an individual. School readiness provides an opportunity for a child's holistic development. If the children don't get foundational literacy and numeracy skills, it may affect their academic and future achievement. Lack of school readiness may cause school dropout. Anganawadis centers to provide non-formal education to children aged 3-6 years. Foundational literacy and numeracy skills practice started at 3 years old. Hence, the investigator felt it would be good to assess the foundational literacy and numeracy skills and school readiness of Anganwadi children.

Aim:

Assessment of foundational literacy, numerical skill and school readiness of Anganwadi children of Thrissur district.

Objective:

- To assess the level of foundational literacy and numeracy among preschool children of Anganwadi.
- To assess the school readiness among young children of Anganwadi center.

REVIEW OF LITERATURE

CHAPTER 2
REVIEW OF LITERATURE

Review of literature pertaining to the study entitled "**Assessment of foundational literacy, numeracy skills and School Readiness among Anganwadi children**" was discussed under the following headings;

2.1 Foundational literacy and numeracy skill

According to National Education policy (2020) the ability to read and write, and perform basic operations with numbers, is a necessary foundation and an indispensable prerequisite for all future schooling and lifelong learning. Attaining foundational literacy and numeracy for all children will thus become an urgent National mission, with immediate measures to be taken on many fronts and with clear goals that will be attained in the short term (including that every student will attain foundational literacy and numeracy by Grade 3). The highest priority of the education system will be to achieve universal foundational literacy and numeracy in primary school.

2.1.1Foundational literacy skill of preschool children

Sukhram and Hsu (2012) stated that early reading experience is critical in laying the foundations for students to develop the essential literacy skills that will help them succeed in school and in life. More importantly, early parental participation is essential for the development of reading skills.

According to Brown (2014) a high-quality early education is essential for all students' long-term academic success. When children are given opportunities to engage in purposeful, meaningful language and early print activities, they can build a strong foundation for literacy and reading development. Early literacy instruction provides developmentally appropriate settings, resources, experiences, and social support for preschool children, allowing early forms of reading and writing to flourish and develop into conventional literacy.

In the study by Tichnor-Wagner et, al. (2016) examined how home reading literacy environments might be related to reading achievement in kindergarten and first graders. Factors such as poor early literacy skills and living in poverty can put young students at risk for reading disability. While home literacy activities and access to literacy materials have been associated with positive reading outcomes for urban and suburban students, little is known about the home literacy environments of rural primary school children living in poverty and their relationship to basic reading skills for the vulnerable and unable struggling readers. Multilevel model analyses showed that home literacy activities and access to literacy materials were positively related to basic word reading skills, text comprehension, and spelling.

It was also found from the study conducted by Cetin et, al. (2018) aimed to identify the literacy skills of the pre-school children (phonological awareness, recipient language skill, writing awareness, writing preparation and name writing). The results also demonstrated that the pre-school education process positively affected the literacy skills of the children. The research also found out that gender and age are not a significant variable in the general literacy skills of children.

According to Morrison et, al. (2019) the foundation for success in school and later life is early language and literacy development during the preschool years (Morrison, Bachman, & Connor, 2005). Importantly, whereas children learn to speak naturally and without specific training, literacy development takes many years.

According to Lozy (2020) students who do not develop foundational literacy abilities in preschool are more likely to read below grade level in elementary school, putting them at a higher risk of future school failure, poverty, early mortality, and crime.

The study conducted by Cabell et, al. (2021) examined that the extent to which children's development and growth in oral language and literacy skills during the early childhood period predicted writing ability in the primary grades. The results contributed to the body of knowledge by showing that children's early skill levels and rates of improvement in oral language and decoding skills predicted later spelling and written composition in kindergarten and first grade.

2.1.2 Foundational numeracy of preschool children

According to Geary (2014) formal school predict their relative math achievement throughout school (Duncan et al., 2007; Ritchie & Bates, 2013) and their math competence upon leaving school Predicting employability and wages in adulthood (Bynner, 1997; Rivera-Batiz, 1992). The consequences of poor quantitative school entrance knowledge can thus be lifelong.

In a study by Aunio et, al. (2015) investigated how early numeracy skills develop in kindergarten-age children. The results showed that differences in mathematics skills among children are already visible in kindergarten before formal primary education in mathematics starts. The early numeracy skills measured, namely, relational skills in a numerical context and counting skills, were weaker over the kindergarten year in low-performing children, and, although their skills improved, they did not catch up to their average peers.

It was also found from a study by Magargee & Beauford, (2016) to examine whether an early childhood intervention using an explicit and transparent number naming system has an enduring benefit for English- and Spanish-speaking children in their mathematical achievement related to number sense, by accelerating their acquisition of numeracy concepts and place value recognition.

It was found that Children who acquire numeracy and place value skills in early childhood have demonstrated consistent superiority in mathematics performance, as measured by internationally standardized assessments. The one specific element of associating the symbolic representation of numbers with their explicit numerical name demonstrated a basic knowledge and understanding at an earlier age than is currently taught in schools in the United States. Children in the pre-kindergarten and kindergarten grades demonstrated the ability to learn numeracy and place value

concepts. This early acquisition of key concepts is carried throughout elementary school as higher achievement in other mathematical concepts.

A study conducted by Nelson and McMaster (2019) assessed the effects of early numeracy interventions for students in preschool and early elementary: A meta-analysis. The result of the study showed that students who received early numeracy interventions improved their math scores more than their peers who did not receive the same type of teaching. Given that kindergarten performance predicts later mathematics performance, and students who enter school with poor mathematical understanding tend to fall behind their peers, the early years of school represent a critical window for closing the gap in foundational early numeracy skills between low and high performing students.

According to Chen et.al, (2020) a growing body of evidence has shown that math skills are as important as reading skills in predicting a child's academic success (Duncan, Dowsett, Claessens, Magnuson, Huston, Klebanov, & Sexton, 2007)). Low numeracy skills are usually associated with illness and poorer health care (Parsons & Bynner, 2005). Therefore, early identification of children at risk for poor math skills becomes crucial for the education system and teachers in the classroom. Currently, tests focus primarily on math skills taught in school, which does not address the fundamental processes that enable children to acquire educational skills, such as arithmetic fluency. Numerical quantities and their association with numeric symbols are considered to be one of the fundamental skills for children's early math learning.

Ghazali & Ashari, (2020) proposed by Children's numeracy refers to the ability to perform basic arithmetic operations, understand the simple mathematical ideas, and apply the knowledge and skills in mathematics to daily life. It requires an understanding of the ability to process, interpret and communicate numbers in a way that is appropriate to a diverse context

Ghazali (2020) stated that the basic math skills required for arithmetic include numbers, data representation, shapes and space, counting, measuring, spatial knowledge and also basic math operations. Computing in everyday life integrates the world around us as a mathematical world by examining numbers around us, performing matching, classification, seriation activities, and pattern recognition. Evans (2000) further points out that arithmetic is not about acquiring a large number of decontextualized mathematical facts and procedures, but rather arithmetic is about practical

knowledge, which should not be confused with practical at a low level. Or procedural knowledge. The term “practical knowledge” here refers to knowledge.

A study conducted by Ghazali et, al. (2021) aim of this study is to establish current views and ideas on children’s computational development through three forms of representation: manipulative, symbolic and static. Strong links between early numeracy skills and later school success, it is crucial to identify and address the knowledge gap in early numeracy. The results indicate that preschool children are more likely to use symbolic representations when solving a specific task. This study provides perspectives on how different representations can be used as pedagogical and assessment strategies to address children’s readiness for mathematics instruction at the elementary school level

2.1.3 Importance of developing foundational literacy and numeracy skill

A study by Purpura & Napoli (2015) found that advanced aspects of numeracy are dependent on the successful acquisition of early skills, this developmental process does not occur in isolation from other academic factors. Early literacy skills are intertwined with the acquisition of early numeracy skills, particularly at the informal numeracy and numeral knowledge phases were assessed on measures of print knowledge, vocabulary, informal numeracy, and numeral knowledge. Results indicated that the relation between language and numeral knowledge is fully mediated by informal numeracy skills and the relation between informal numeracy skills and numeral knowledge skills is partially mediated by print knowledge.

Evans & Hares (2021) point out that students around the world are conspicuously lacking in basic literacy (FLN) skills. This paper examines the potential channels through which FLN investments and skills—which most systems teach in the early grades of elementary school—may affect later schooling and later life outcomes, and the existing evidence for each channel. Find evidence that school careers are widening between students who master FLN skills in the first grades and those who do not, although other factors may also explain the widening gaps. Find mixed evidence for the return of FLN skills on income and other adult outcomes. Discuss new evidence from high-income countries that suggests that investments in preschool and early elementary school may not yield the highest returns, and new evidence from low- and middle-income countries that ranks

FLN investments among investments in other skills. Also discuss political barriers to FLN investment. FLN skills are clearly essential to a growing, just society, but allocating investment in these and other skills – and timing that investment, in early elementary school or later in an individual's education – requires clear thinking about relative returns of these investments and the challenges in their implementation.

According to Ghosh (2021) Learning crises occur when children between the ages of three and eight cannot cope with the school learning methods in our country. Children who fall behind are always left behind. The National Education Policy 2020 has prioritized early learning for future learning. West Bengal Government has developed a solid program to achieve universal FLN in all primary schools and Anganawadis. In the 2020–21 budget, the government has proposed hiring 1,500 para-teachers in primary schools to improve PTR. Inequality in the quality of education is one of the main problems faced by students in rural schools. To address this discrepancy, the government has launched an initiative to set up 100 English secondary schools in rural areas for the underprivileged and economically disadvantaged. The dropout rate has decreased over time; According to records (WB-DISE), the primary school dropout rate is 1.5% statewide, compared to 4.1% nationally. The population of West Bengal in the zero to six age group is 11.07%. To learn early and ensure quality child care, the government established Shishu Aloy, a model ICDS center.

Kan et, al. 2022 found that In Afghanistan, 93% of children cannot read a simple text by the age of 10. Education is not available to everyone, especially for girls and children in remote areas. A form of community-based education, called Accelerated Learning Centers (ALCs), can help close the distance barrier and meet the needs of out-of-school children and girls. In May 2021, an assessment of foundational literacy and numeracy skills of ALC students and nearby government school students was conducted. Results show that children at ALCs are learning at similar levels or better compared with children who attend government schools. This report provides insight into practices to improve education in rural areas in Afghanistan

2.2 Anganwadi – A place for child development

A study by Asha (2014) on the efficiency of Anganwadi centers in providing services to beneficiaries and the factors affecting the efficiency noted that the Integrated Child Development Scheme (ICDS) is one of the world's largest and most unique early childhood care and development programs in India. This study found that 5% of Anganwadi centers were highly

efficient, 63.5% efficient and 31.5% inefficient. The factors such as educational status of Anganwadi workers, labor status, infrastructure facility, logistics facility, supervision, intersectional coordination, health agency support, and community involvement showed a statistically significant association with the efficiency of Anganwadi centers. Infrastructure and logistical facility, supportive care and the level of education of the Anganwadi staff are the important factors required to improve the service delivery of an Anganwadi center. In addition, the coordinated work with the health department, the local self-government and of course the involvement of the community in all phases of health activities contribute to the quality of service.

Ang et,al. (2019) proposed that Anganwadi is a holistic health and education initiative that provides basic health care, nutrition and educational programs to rural mothers and children. It is part of the Indian Government's Integrated Child Development Services (ICDS) Scheme, introduced in 1975 and is today one of the largest child development initiatives in the world. The early developmental years of children aged 0–6 years are spent in an Anganwadi or equivalent early learning center that influences children's physical, emotional and intellectual development. A child not only engages in active learning but also engages in passive learning from its physical and environmental surroundings which are manifested in the architectural design of the building.

According to Jairam and Chopra (2020) Integrated Child Development Scheme (ICDS) currently runs seven thousand seventy six projects in India, benefiting children between ages of 3 to 6 years every year through non formal preschool education. Relevance of providing children the facility of preschool education is to help them grow holistically and laying sound foundation for formal learning. Moreover, children during these years are more receptive towards learning with rapid brain development. Quality in preschool education affixes their learning capacities through learning opportunities.

In a study by Dhinwa et, al. (2020) to evaluate the present condition of Anganwadi Centers (AWCS) in terms of infrastructure and found that the AWCs have limited infrastructure and equipment's to carry out health-related activities. In ten out of seventeen AWCs, buildings had cement/concrete roofs and the rest of them had asbestos sheets roof. Only five of them had playgrounds and majority of them were without weighing machine, tap water, toilet and electricity facility.

According to Mohanta (2020) Anganwadi system (AWS) is a type of care center for rural children and their mothers to battle with the problems of child hunger and malnutrition. The basic job of an Anganwadi center is to provide for basic schooling knowledge, health care and nutrition etc. in the rural parts of Indian society which are still considered as backward and are devoid of the basic knowledge about a decent and healthy life.

George et al (2021) point out India, in spite of having the world's largest youth population, it has been struggling a lot with the lack of efficient implementation of various policies in the health care system. Since majority of India's population is still residing in the villages, which have a greater say in the overall development of the nation but they are left untouched most of the times either due to improper implementation of the policies or hindrances in the process of development of health care system. Anganawadis are India's backbone in delivering the healthcare that everyone in country can access to it, by focusing on nutritional supplementation, women's health and so on.

2.3 Significance of School readiness

According to Ursache et, al. (2012) self-regulation and the development of school readiness and academic competence in early childhood. It focuses on the relationships between the development of cognitive aspects of regulation—termed executive functions and defined as skills used to regulate information and organize thought into goal-directed activities—and the development of reactivity and regulation in stimulus-driven emotions, attention, and physiological stress response systems. It examines a bidirectional model of cognition-emotion interaction in the development of self-regulation, in which executive control of thought and behavior develops top-down in reciprocal and interactive relationship to the bottom-up influences of emotions and stress reactivity. The bidirectional model is examined in the context of innovative preschool interventions that aim to promote school readiness by promoting the development of self-regulation

The study conducted by Becker et, al. (2018) Complex physical activities, outdoor play, and school readiness among preschoolers. High quality educational settings play a crucial role in preparing a child to enter kindergarten, but little work has explored how outdoor play and complex physical activity outside school and childcare settings promote school readiness among preschoolers. Results showed participating in complex activities significantly moderated the relationship

between times in outdoor play with school readiness, with time in outdoor play positively related to school readiness for children who participated in two or less complex activities.

According to Józsa and Barrett (2018) Children who start school without basic skills often continue to show lower achievement throughout schooling. Most current assessments of school readiness focus on early measures of academic skills, such as literacy and numeracy. Although these skills are useful in predicting school success

According to Williams et al (2019) school readiness encompasses the readiness of the individual child, the readiness of the school for children, and the ability of the family and community to support optimal early childhood development. It is the responsibility of schools to meet the needs of all children at all levels of preparedness. Children's kindergarten readiness should become an outcome measure for a coordinated system of community-based programs and supports for the healthy development of young children. Our fast-growing knowledge of early brain and child development has shown that modifiable factors in a child's early experience can profoundly affect that child's health and learning trajectory. Social, emotional, cognitive, and physical development that may have been significantly reduced or eliminated through early identification and attention to the needs of children and families. A strong correlation between social-emotional development and school and life success, combined with alarming rates of preschool displacement, point to the urgency of exploring opportunities to support social-emotional development and address behavioral problems early. Pediatric primary care providers have access to the youngest children and their families. The American Academy of Pediatrics offers many opportunities for pediatricians to work with other stakeholders to improve the physical, social-emotional, and educational health of young children.

2.4 Assessment of early literacy and numeracy skill

According to Purpura & Lonigan (2015) numeracy assessment tasks that measure the skills and concepts identified as key to early mathematics development by the National Council of Teachers of Mathematics and the National Mathematics Advisory Panel —as well as critical developmental precursors to later mathematics skills noted in the Common Core State Standards . These measures were 1-to-1 counting, cardinality, counting subsets, subitizing, number comparison, set comparison, number order, numeral identification, set-to-numerals, story problems, number combinations, and verbal counting.

According to Beard (2021) the increasing academic gap in public schools, it is important that students are exposed to education at an early age if possible. This causal-comparative research study sought to explore the impact of Pre-K attendance and foundational literacy on academic achievement at the end of the third-grade year. Student achievement was measured using ready formative assessment scale scores and initial reading placement upon entering third grade. The assessment tested the students' foundational reading skills, comparing students who attended a Pre-K program to those who did not attend a Pre-K program. Results from the study showed a significant difference in the overall scale scores and student placement but did not show a substantial difference in student ethnicity or gender.

METHODOLOGY

CHAPTER 3

METHODOLOGY

According to Bowling (2002), methodology refers to the entire structure of a research study, including sample size and methods, data collection practices and techniques, and data analysis. The methodology of the study entitled **"Assessment of foundational literacy, numerical skill and School Readiness among Anganwadi children"** is presented under the following headings;

31 Selection of Topic

3.2 Selection of Area

3.3 Sampling Procedure

3.4 Selection of Sample

3.5 Development of Tool

3.5.1 Worksheet and checklist to assess foundational literacy and numerical Skill of Anganwadi children

3.5.2 Worksheet and checklist to assess School Readiness of Anganwadi children

3.6 Col

lection of Data

3.7 Analysis of Data

3.1 Selection of Topic

The topic "Assessment of foundational literacy and numerical skills and School Readiness of Anganwadi children" was chosen. High quality of early education is critical to ensuring children's long-term academic and life success. Early experience influences the language, emotional and social development of children. Preschool children need the foundational literacy and numeracy

skills for their future achievement. Anganwadi also provides preschool education for children. Children are interested in doing worksheets. So, worksheets and checklists help to assess the foundational literacy and numeracy and school readiness of children.

3.2 Selection of Area

The area selected for the study was Thalikulam panchayat of Thrissur District. The investigator visited among the Kalidasa, Chachaji, Chaithanya, Chilanka, Kaliveedu, Kottathkavu Anganwadi, Tagore, Triveni, 57 Thalikulam, and 121 Thalikulam Anganawadis in the panvhayath, the investigator selected accessibility to the place and the convenience of the investigator were the reason to choose the area for the study.

3.3 Sampling Procedure

For the selection of children from different Anganwadi's, a purposive sampling techniques was adopted. In this study, researcher took the list of all Anganwadi in the Thalikulam office of Thrissur district. There were 26 Anganwadi in Thalikulam panchayat are listed. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling (Crossman, 2020**).**

3.5 Selection of Sample

The researcher listed the Anganwadi names of Thalikulam panchayat from Thalikulam ICDS office in Thripryar, Thrissur district. For selection 10 Anganawadis the researcher followed the chit fold method. 100 Anganwadi children between the age group of 3-4 years were selected from the Anganwadi.

Table 1

List of Anganwadi and Number of children selected

Sl.No	Name of Anganwadi	Number of Children
1	Kalidasa	12
2	Chachaji	10
3	Chaitanya	12
4	Chilanka	8
5	Kaliveedu	9
6	Kottathkavu Anganwadi	8
7	Triveni	9
8	Tagore	10
9	57 Thalikulam	9
10	121 Thalikulam	13
Total	10	100

3.5 Development of Tool

One of the major ingredients of research is selection and development of appropriate tools. The investigator used the following tools;

3.5.1 Worksheet and checklist to assess foundational literacy and numeracy Skill of Anganwadi children

3.5.2 Worksheet and checklist to assess School Readiness of Anganwadi children

3.5.1 Worksheet and checklist to assess foundational literacy and numeracy Skill of Anganwadi children

A self-developed worksheet by the investigator to assess the awareness of foundational literacy and numeracy of Anganwadi children was used. The worksheet included 26 activities to assess the foundational literacy and numeracy skills of children. The activities included were reading the passage, sentence completion, decoding words, letter sounds, consonants, opposite picture, matching the word, letters, dot to dot picture, tracing the lines, letters and words, tall vs short, big vs small, heavy and light, number order counting, adding, shapes, top, middle and bottom objects.

The Investigator developed a checklist based on the worksheet to assess the awareness of foundational literacy and numeracy of Anganwadi children. The checklist included reading comprehension and fluency, decoding, phonological Awareness, vocabulary, print awareness, writing, pre-number concept, number and its operations, shape and spatial understanding. The worksheet and the corresponding checklist used for data collection given in appendix 1.

3.5.2 Worksheet and checklist to assess School Readiness of Anganwadi children

A self-developed worksheet was used to assess the awareness of school readiness of Anganwadi children. The worksheet included 9 activities to assess the knowledge on shapes, tracing, coloring, difference between the pictures, identifying pictures, alphabet, numbers, maze game and drawing.

The Investigator developed a checklist based on the worksheet to assess the awareness of school readiness of Anganwadi children. The checklist included social development, emotional development, cognitive development, language and literacy and physical development. The work sheet and the corresponding checklist used for data collection is given in appendix 2.

Scoring

A total of 34 statements on foundational literacy and numeracy and 16 statements on school readiness contained only positive statements. The checklist had a two-level rating scale. All statements were rated from 2 = yes to 1 = no.

3.6 Collection of Data

For data collection, the investigator went to the ICDS office and met the ICDS supervisor for permission. First, the investigator explained the purpose. The ICDS supervisor gave the permission to conduct the study. After getting permission, the investigator build a rapport with children and

the investigator distributed the work sheet given to the Anganwadi children and asked them to complete the worksheets. The data is collected from personal interviews with each child. The doubts about the worksheet were cleared by investigators. Based on the worksheet performance of the child, the investigator fills out the checklist.

3.7 Analysis of Data

The collected data was tabulated and analyzed using Percentage analysis.

Figure 1 given below depicts the research design of the study entitled "Assessment of Foundational literacy and numeracy and school readiness of Anganwadi children

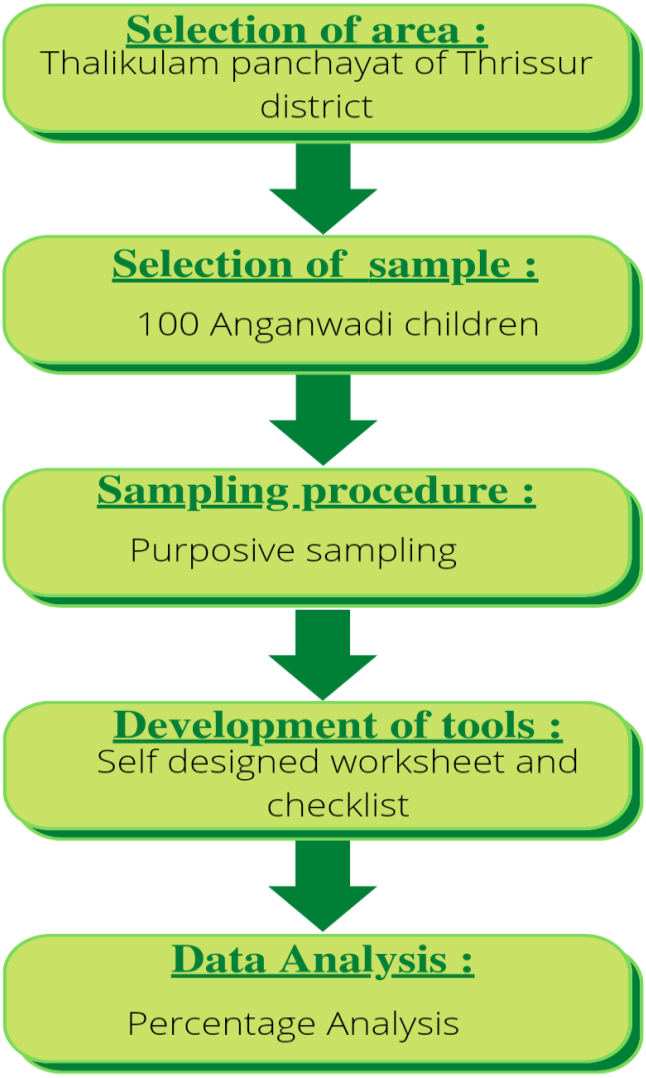

Figure 1

Research Design

RESULT AND DISCUSSION

CHAPTER 4

RESULT AND DISCUSSION

This chapter discusses the results of the study and how they were reached. The result and discussion of the study on **"Assessment of foundational literacy, numerical skill and school readiness among Anganwadi children"** is presented under the following headings:-

4.1 Background details of the selected children

4.2 Assessment of foundational literacy among the selected samples

4.2.1 Reading comprehension and fluency

4.2.2 Decoding skill of the children

4.2.3 Phonological awareness among the selected samples

4.2.4 Assessment of vocabulary skills

4.2.5 Print awareness among the selected samples

4.2.6 Assessment of writing skills among preschool children

4.3 Assessment of foundational numeracy skill among the selected sample

4.3.1 Knowledge about Pre number concepts

4.3.2 Knowledge about Number and its operations

4.3.3 Shape and spatial understanding

4.4 Assessment of school readiness among selected children

4.4.1 Social development of selected children

4.4.2 Cognitive development of the children

4.4.3 Emotional development of the selected children

4.4.5 Language and literacy development

4.4.6 Physical development of children

4.1 Background details of the selected children

The table below endows the general information of the selected children taken for the study.

Table 2

Background details of the selected children

Sl.No	PARTICULARS	RESPONSES (n=100) %
1	**Age**	
	3	35
	4	52
	5	13
2	**Gender**	
	Boys	62
	Girls	48
3	**Educational qualification of parents**	
	10^{th}	20
	Plus two	55
	Graduation	25

It was evident from the table that more than half of the (52%) selected children in the age group of 4 years old. Followed by thirty five percent in the age group of 3 years. Majority (62 %) of the children are boys and forty eight percent were girls. Fifty five percent of the parents of the selected sample were passed plus two, twenty five percent of them are graduated.

4.2 Assessment of foundational literacy among selected children

The following section represents the level of awareness of the selected respondents on the foundational literacy

4.2.1 Reading comprehension and fluency

Reading comprehension and fluency of respondents was studied and given in the Table 3

Table 3

Reading comprehension and fluency

Sl.No	PARTICULARS	RESPONSES (n =100) %
1.	**Summarizes the story after hearing**	
	Yes	95
	No	5
2	**Read the passage**	
	Yes	4
	No	96
3.	**Complete sentences**	
	Yes	0
	No	100

Figure 2 indicated the reading comprehension and fluency of the respondents

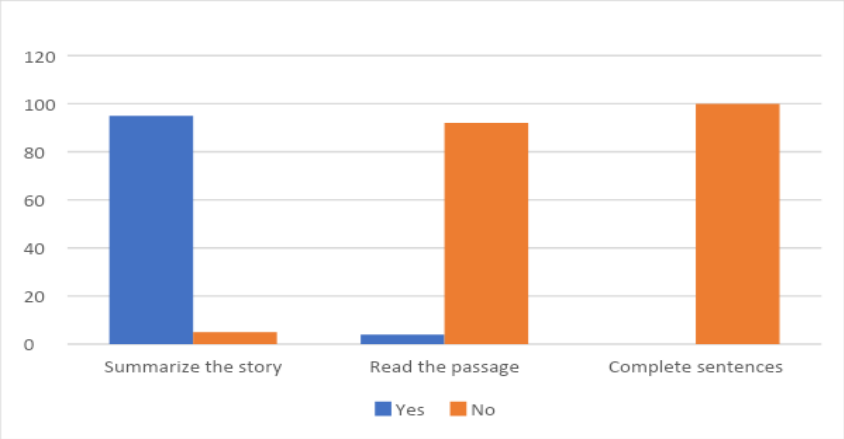

Figure 2

Reading comprehension and fluency

The above table clearly showed majority (95%) of selected sample have the ability to summaries the story after hearing it. Only four percent of respondents can read the passage and answer the subsequent questions. All of the selected sample were not able to complete the sentence. Hundred percent of the sample found it difficult to do the sentence completion activity.

4.2.2 Decoding skill of the children

The decoding skill of the children were studied and given the Table 4

Table 4

Decoding skill of the children

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Decode the words**	
	Yes	2
	No	98
2	**Identify missing letters in the word**	
	Yes	2
	Yes	98

Figure 3 depicts the response about Decoding skill

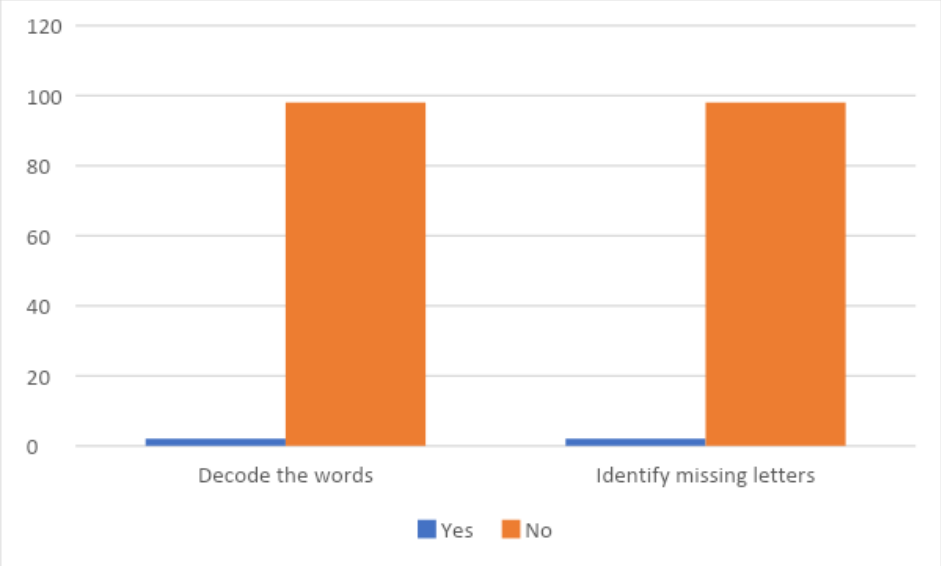

Figure 3

Decoding skill of the children

The above table and figure clearly showed that only two percent of respondents can decode the words and identify the missing letters in the words. Ninety eight percent of the respondents were unable to decode the words and identify the missing letters.

4.2.3 Phonological awareness among the selected sample

The table given below depicts the phonological awareness of the selected sample

Table 5

Phonological awareness among the selected sample

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Sing nursery rhymes**	
	Yes	95
	No	5
2	**Identify letter sound**	
	Yes	4
	No	96
3	**Identify letters where each words start**	
	Yes	4
	No	96
4	**Identify the consonants**	
	Yes	0
	No	100

Figure 4 signifies the phonological awareness among the selected children

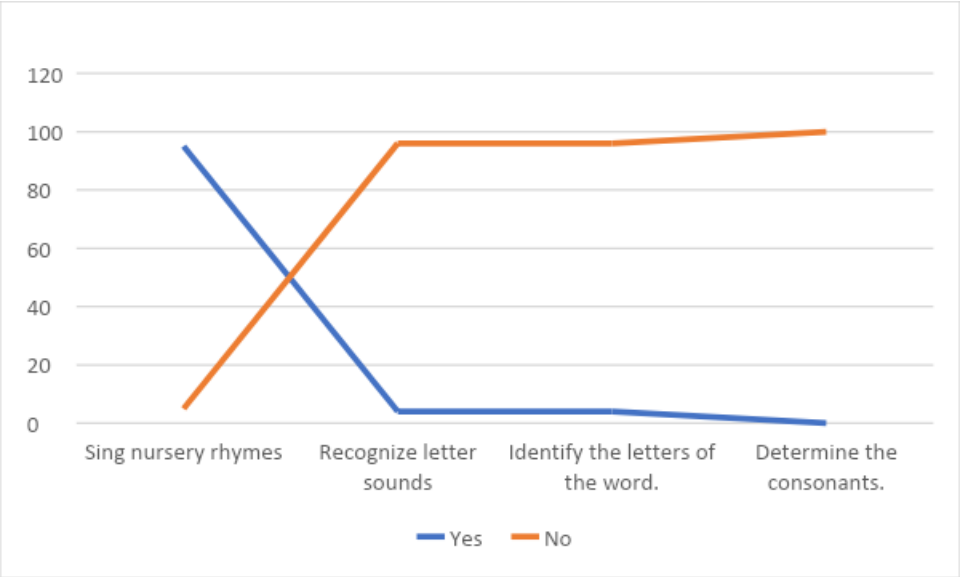

Figure 4

Phonological awareness among the selected sample

It can be concluded that the majority (95%) of the respondents have the ability to sing nursery rhymes. Only four percent of respondents can correctly identify the letter sound and first letter of each word. And the respondents have no ability to identify the consonants.

4.2.4 Assessment vocabulary skills

Vocabulary skill of the respondents were studied and given the Table 6

Table 6

Assessment of Vocabulary skills

Sl.NO	PARTICULARS	RESPONSES (n = 100)%
1	**Match the words to its picture**	
	Yes	5
	No	95
2	**Match the opposite pictures**	
	Yes	66
	No	34
3	**Match the picture with words**	
	Yes	5
	No	95

Figure 5 signifies the response of vocabulary skill of the respondent

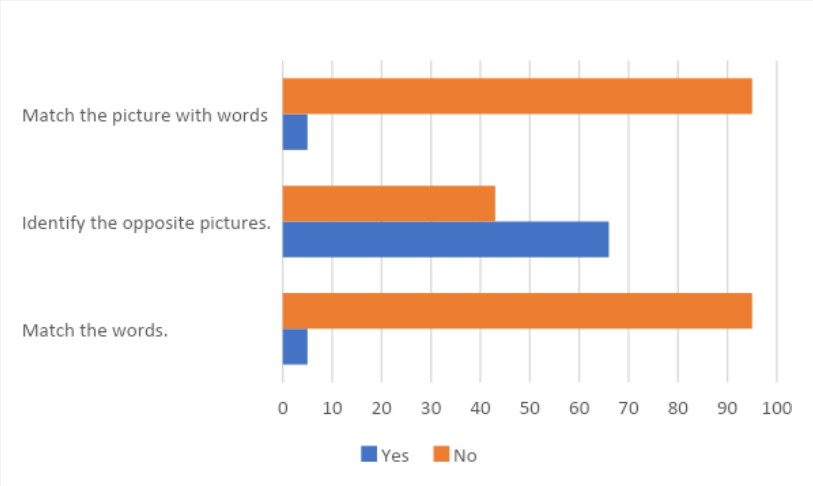

Figure 5

Assessment of vocabulary skill

From the above table and figures, it was evident that ninety five percent of respondents no ability to identify and understand the meaning of the words. And sixty six percent of them are match the opposite images. And it is evident that the respondents have poor vocabulary skills.

4.2.5 Print awareness among the selected samples

The Phonological awareness of the selected children was portrayed in Table 7

Table 7

Print awareness among the selected samples

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Identify the first letter of the word**	
	Yes	75
	No	25
2	**Identify the last letter of the word**	
	Yes	74
	No	26
3	**Identify the middle letter of the word**	
	Yes	45
	No	55
5	**Identify words**	
	Yes	21
	No	79
6	**Identify letters**	
	Yes	45
	No	55

Figure 6 indicated the details on print awareness of the respondents

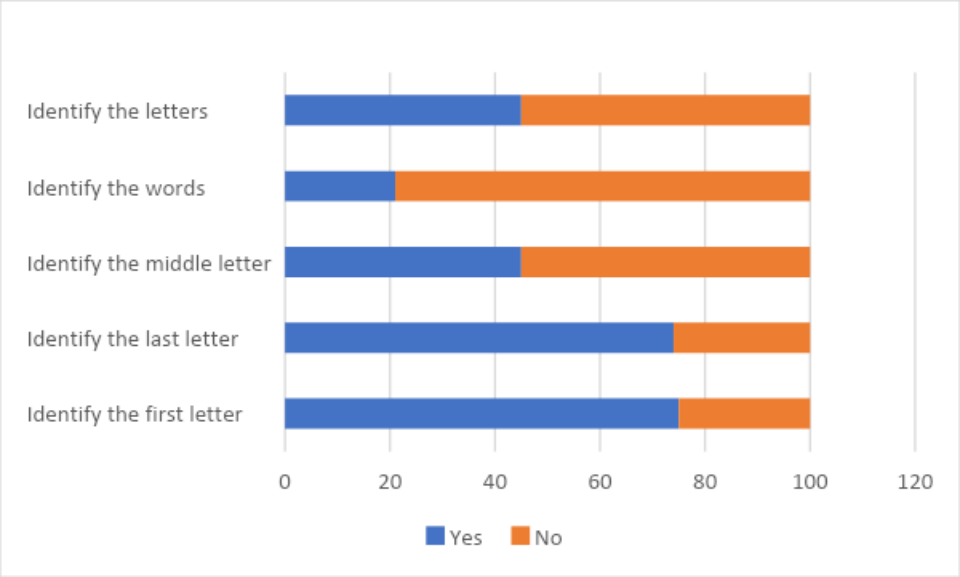

Figure 6

Print awareness among the selected samples

From the above table and figure it was found that seventy five percent of respondents have the ability to identify the first letter of the word, and seventy four percent of respondents have the ability to identify the last letter of the word. Only forty five percent of respondents correctly identified the word's middle letter as well as the letters. In addition, only twenty one percent of respondents were able to identify the words.

4.2.6 Assessment of writing skills among preschool children

The table given below depicts the writing skill of the respondents

Table 8

Assessment of writing skills among preschool children

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Hold the pencil or crayons**	
	Yes	95
	No	5
2	**Connect the dots and complete the picture**	
	Yes	85
	No	15
3	**Trace the line**	
	Yes	54
	No	46
4	**Trace the letters**	
	Yes	54
	No	46
5	**Trace the words**	
	Yes	15
	No	85
6	**Write their own name**	
	Yes	15
	No	85

Figure 7 represents the writing skill of the respondents

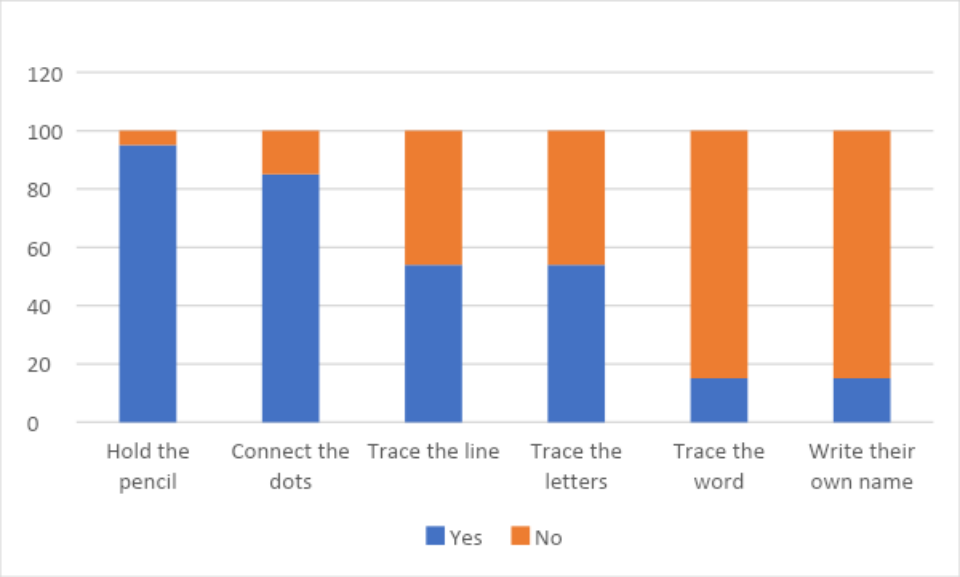

Figure 7

Assessment of writing skills among preschool children

The above table and figure showed that the majority (95%) of the respondents have the ability to hold a pencil or crayon. Eighty five percent of the selected sample connect the dots to complete the picture. In addition, fifty four percent of the children can trace the letters and trace the line. Only fifteen percent of the respondents were able to trace the words and write their own names.

4.3 Assessment of foundational numeracy skill among the selected sample

The following section details the level of awareness of the selected respondents on foundational numeracy

4.3.1 Knowledge about pre number concept

The table given below depict the knowledge of pre number concept of preschool children

Table 9

Knowledge about Pre- number concepts

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Identify the short picture**	
	Yes	94
	No	6
2	**Identify the taller picture**	
	Yes	94
	No	6
3	**Identify the big objects**	
	Yes	94
	No	6
4	**Identify the small object**	
	Yes	94
	No	6
5	**Identify the heavy and light animal**	
	Yes	94
	No	6

Figure 8 summaries the response of pre- number concept of the respondents

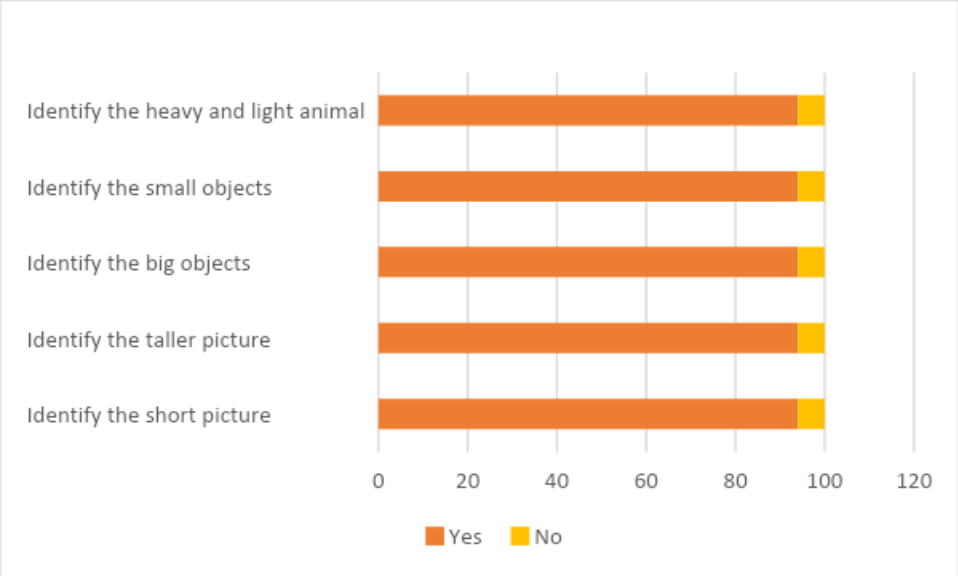

Figure 8

Knowledge about Pre- number concept

According to the table, the majority (94%) of respondents can identify the short picture, taller picture, big object, small object, heavy animal, and light animal. It was observed that majority of the children are aware of the pre-number concept.

4.3.2 Knowledge about Number and its operations

In table 10 indicate the knowledge of number and its operations was studied

Table 10

Knowledge about Numbers and its operations

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Identify the missing numbers up to 10**	
	Yes	48
	No	52
2	**Count the object and write the number**	
	Yes	48
	No	52
3	**Add the object and write the number**	
	Yes	0
	No	100

Figure 9 denoted the number and its operations concept of the respondents

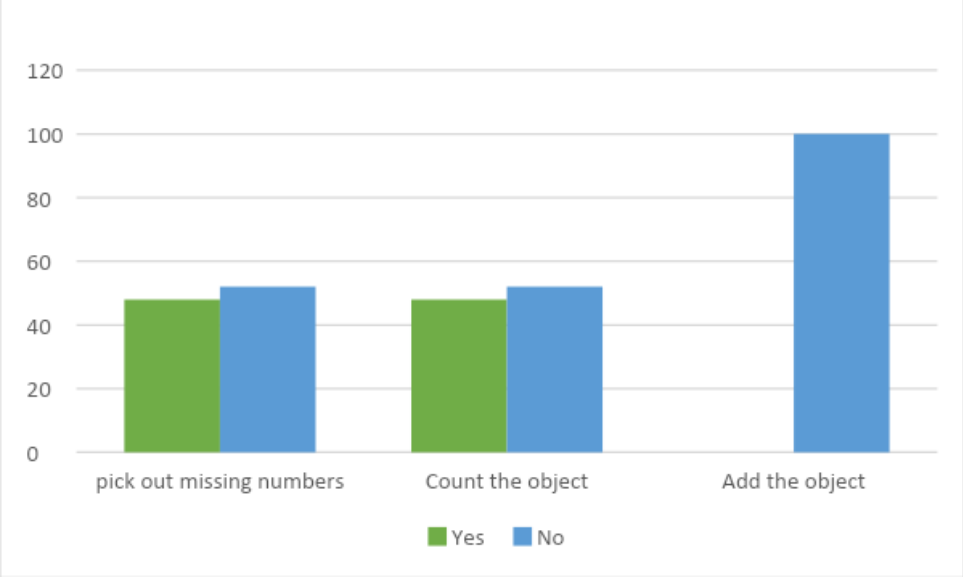

Figure 9

Knowledge about Numbers and its operations

It was clear that forty eight percent of the respondents have the ability to identify missing numbers up to 10 and the ability to count the object and write the number. 100 percent of the children were not able to add the objects and write the count number.

4.3. Shapes and spatial understanding

The shape and Spatial understanding of respondents were studied and given under the following table.

Table 11

Shapes and Spatial understanding

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Trace the shapes**	
	Yes	54
	No	46
2	**Draw the shape**	
	Yes	54
	No	46
3	**Identify real world items by their shape**	
	Yes	52
	No	48
4	**Copy the dot design**	
	Yes	20
	No	80
5	Identify Top objects	

	Yes	90
	No	10
6	**Identify the middle objects**	
	Yes	90
	No	10
7	**Identify the bottom objects**	
	Yes	90
	No	10

Figure 10 indicate the shapes and spatial understanding of the respondents

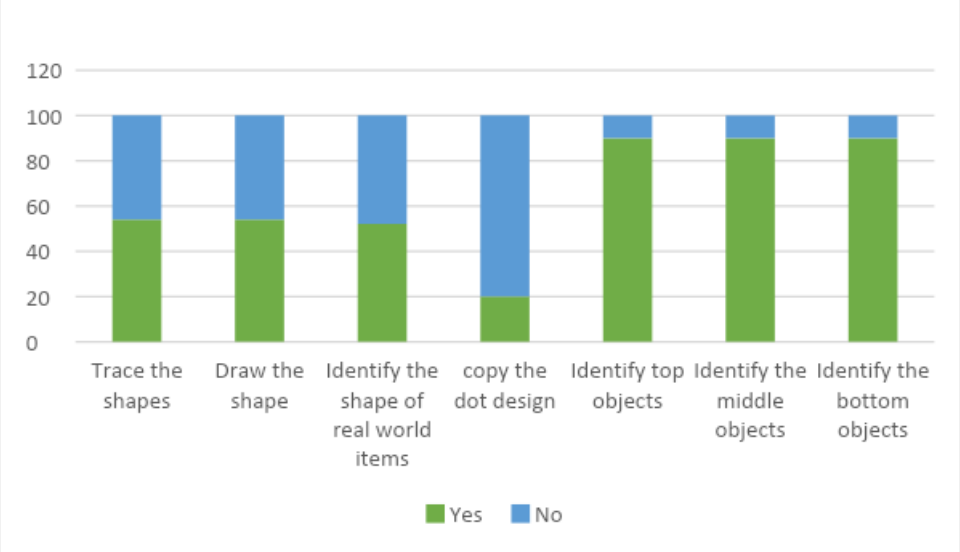

Figure 10

Shapes and spatial understanding

It was clear that the majority fifty four of the respondents have the ability to trace the shapes and draw the shapes. Fifty two respondents have the ability to identify real-world items by their shapes. Only twenty percent of respondents were able to copy the dot design and ninety percent correctly identify the objects in the middle top, and bottom separately.

4.4 Assessment of school readiness among the selected sample

The following section details the level of assessment of the selected respondents on school readiness concept

4.4.1 Social development of the selected children

The table given below depicts the social development of the respondent

Table 12

Social development of selected children

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Play in a group together in a game**	
	Yes	98
	No	2
2	**Say greetings**	
	Yes	95
	No	5
3	**Share chocolates**	
	Yes	93
	No	7
4	**Showing social manners**	
	Yes	75
	No	25

Figure 11 represent the social development of the respondents.

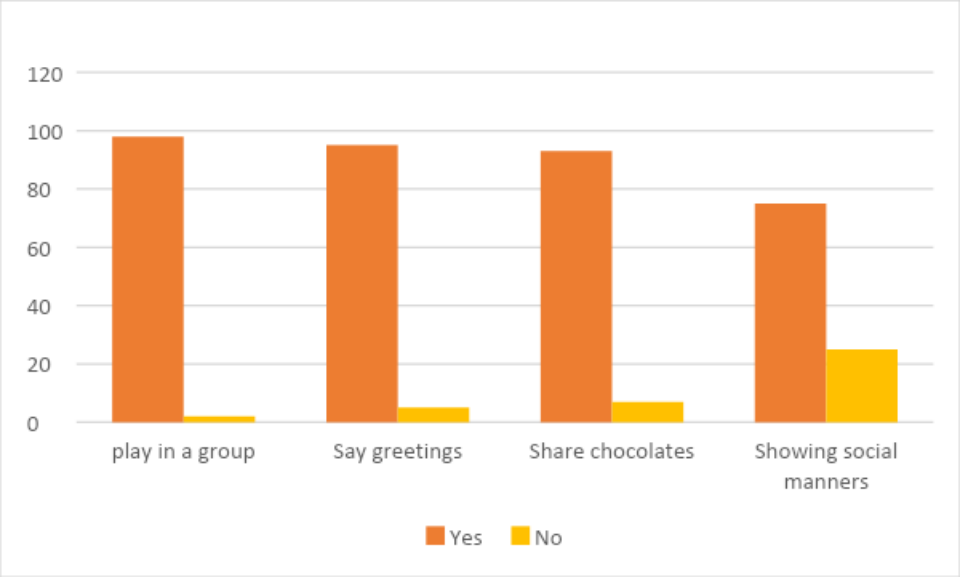

Figure 11

Social development of selected children

It can be concluded that ninety eight percent of the respondents are good at playing in a group. Ninety five percent of respondents knew greet others and ninety three percent share the chocolates. Furthermore, seventy five percent of respondents exhibit social manners.

4.3.2 Cognitive development of the children

Cognitive development of the respondents studied and given the following table

Table 13

Cognitive development of children

Sl.No	PARTICULARS	RESPONSES (n=100)%
1	**Color the shapes**	
	Yes	85
	No	15
2	**Trace the shapes**	
	Yes	54
	No	46
3	**Identify the difference between the two pictures**	
	Yes	40
	No	60

Figure 12 denoted the cognitive development of the respondents

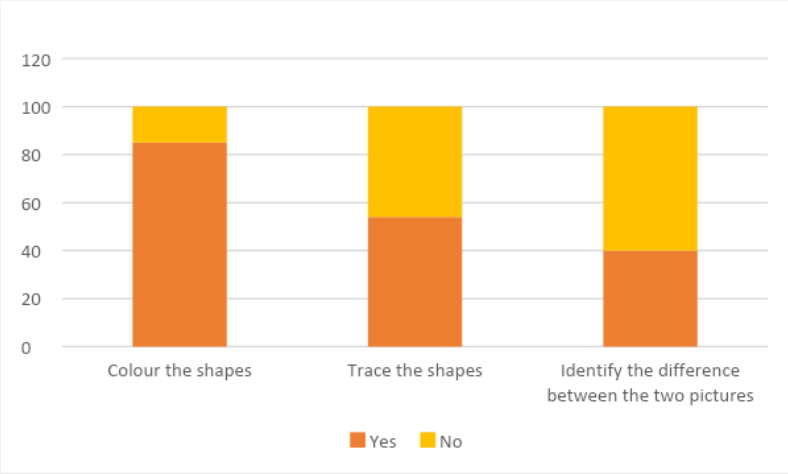

Figure 12

Cognitive development of children

The above table depicted the details that the majority (85%) of the respondents have the ability to color the shape. The shapes could be traced by fifty four percent of the respondents. Only forty percent of respondents can tell the difference between the two images.

4.3.3 Emotional development of the selected children

Emotional development of the respondents were studied and presented in table 14

Table 14

Emotional development of the selected children

Sl.No	PARTICULARS	RESPONSES (n =100)%
1	**Independently eat the food**	
	Yes	90
	No	10
2	**Identify the emotions**	
	Yes	90
	No	10
3	**Independently take books , water bottle and pencil**	
	Yes	90
	No	10

Figure 13 denoted emotional development of the respondents

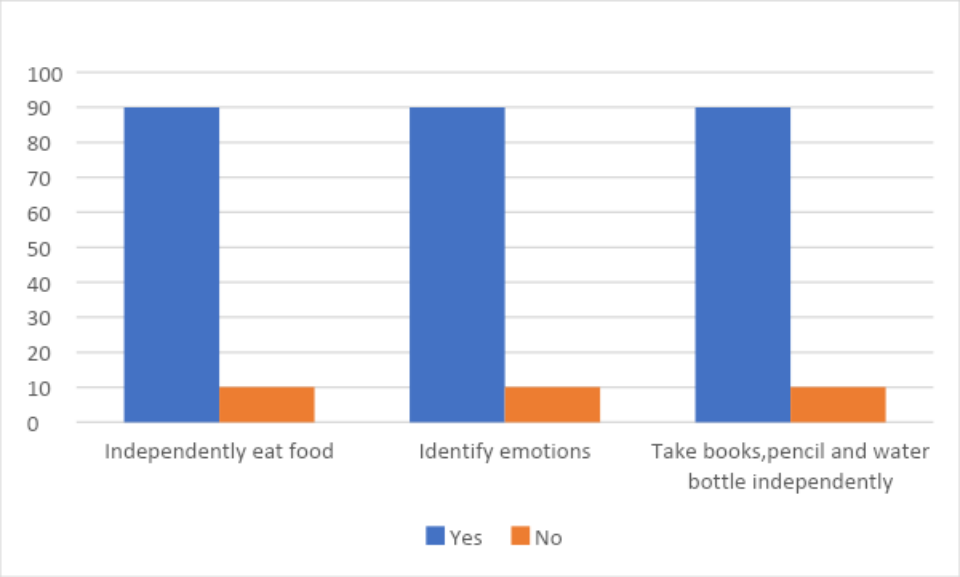

Figure 13

Emotional development of the selected children

It can be concluded from the table ninety percent of respondents can independently eat food, identify emotions in pictures, and take books, water bottles, and pencils independently.

4.4.4 Language and literacy development

The table given below depicts the language and literacy development of the respondents

Table 15

Language and literacy development

Sl.No	PARTICULARS	RESPONSES (n =100)%
1	**Read book**	
	Yes	4
	No	96
2	**Identify alphabet letters**	
	Yes	48
	No	82
3	**Identify the numbers**	
	Yes	48
	No	82

Figure 14 summaries the language and literacy development of the selected children

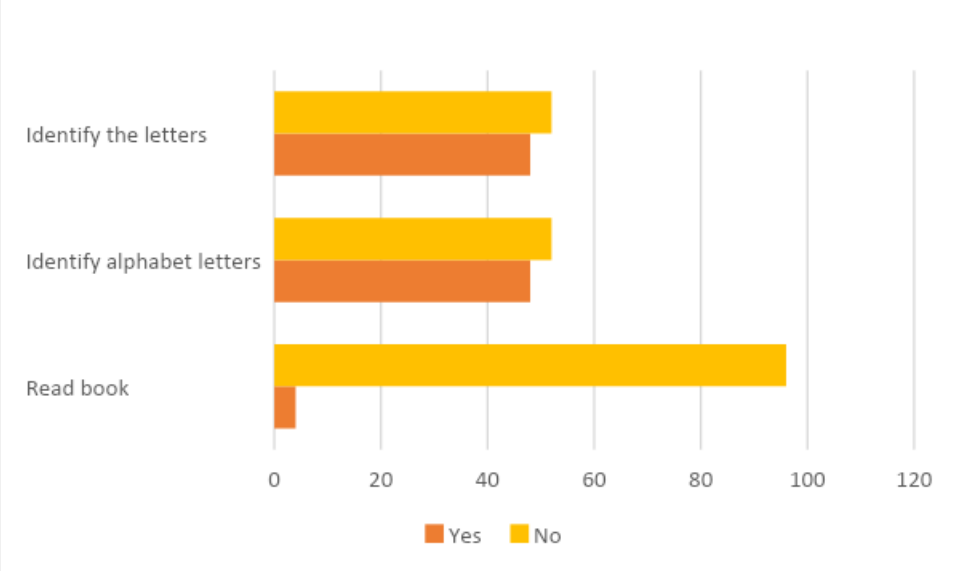

Figure 14

Language and literacy development

It was clear that the majority (96%) of respondents did not have the ability to read books. Only forty eight percent of respondents can correctly identify the alphabet letters and numbers. 82 percent could not identify the alphabet letters and numbers.

4.4.5 Physical development of selected children

Physical development of the respondents studied and given the following table

Table 16

Physical development of selected children

Sl.No	PARTICULARS	RESPONSES (n= 100)%
1	**Finish the game 'find the way'**	
	Yes	46
	No	54
2	**Connected dotted line and colour the picture**	
	Yes	84
	No	16
3	**Sit in a chair for a period of time without tiring**	
	Ye	97
	No	2
4	**Playing outdoor games**	
	Yes	98
	No	2

Figure 15 indicated the physical development of the respondents

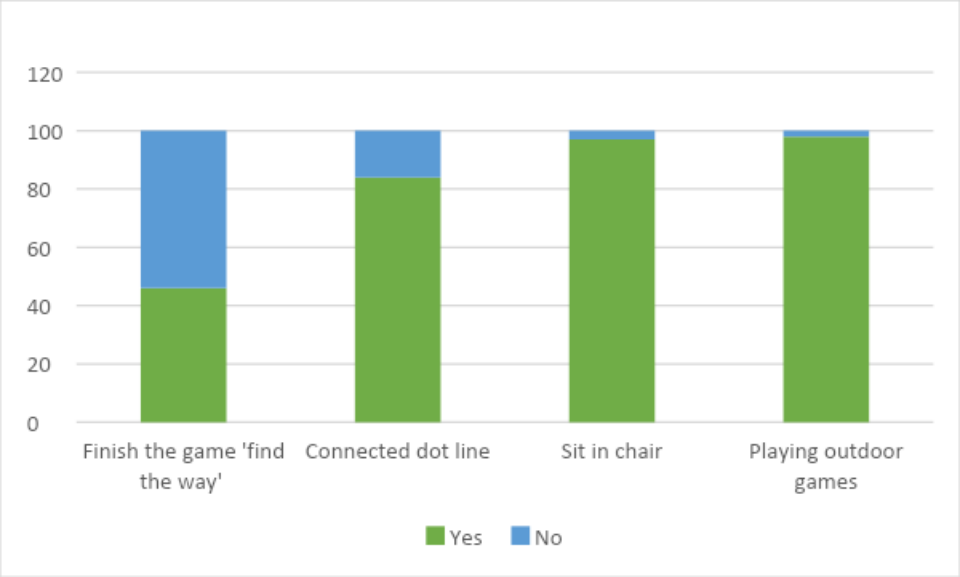

Figure 15

Physical development of selected children

It was evident that the majority (98%) of the respondents have the ability to play outdoor games. Forty six percent of respondents have the ability to complete the ‘find the way’ game. Eighty four respondents have the ability to connect dots and color the picture ninety seven percent of respondents can sit in a chair for an extended period of time without becoming tired.

SUMMARY AND CONCULSION

CHAPTER 5

SUMMARY AND CONCULSION

The study undertaken by the researcher was on **"Assessment of foundational literacy, numerical skill and school readiness among Anganwadi children"**. The area selected for the study was Thalikulam panchayat of Thrissur district. The sample for the present study consisted of 100 Anganwadi children between the age group of 3-5 years. The method of sampling adopted was purposive sampling. The tools used for the research included a self-designed worksheet and a checklist to assess the foundational literacy and numeracy skills and school readiness. Data was collected, consolidated, and analyzed using percentage analysis.

Findings

Finding of the study summarized as follows

5.1 Background details of selected children

- More than half of the respondents were aged 3–4 years old.
- Majority (62 %) of the children are boys.

5.2 Assessment of the selected respondents about their foundational literacy skills

5.2.1 Reading comprehension and fluency

- Majority (95%) of respondents have the ability to summaries the story after hearing it.
- Only four percent of respondents can read the passage and answer the subsequent questions.
- The respondents could not complete the sentence.

5.2.2 Decoding skill of the children

- Only 2 percent of respondents can decode the words and identify the missing letters in the words.
- Majority (98%) of the respondents were unable to decode the words and identify the missing letters.

5.2.3 Phonological awareness among the selected sample

- Majority (98%) of the respondents have the ability to sing nursery rhymes.
- Only four percent of respondents can correctly identify the letter sound and first letter of each word.
- The respondents have no ability to identify the consonants.
- Majority of them are not much knowledge in phonological awareness.

5.2.4 Assessment of Vocabulary skill

- Majority (95%) of respondents no ability to identify and understand the meaning of the words.
- Sixty six percent of respondents were aware of the opposite images.

5.2.5 Print awareness among the selected sample

- Majority (75 %) of the respondents have the ability to identify the first letter of the word.
- More than half (74 %) of respondents have the ability to identify the last letter of the word.
- Only forty five percent of respondents correctly identified the word's middle letter as well as the letters.
- 0nly twenty one percent of respondents were able to identify the words.

5.2.6 Assessment of writing skills among preschool children

- Majority (95%) of the respondents have the ability to hold a pencil or crayon and connect the dots to complete the picture.
- Fifty four percent of the respondents can trace the letters and trace the line.
- Only fifteen percent of the respondents were able to trace the words and write their own names.

5.3 Assessment of foundational numeracy skill among the selected sample

5.3.1 Knowledge about pre number concepts

Majority (94%) of respondents can identify the short picture, taller picture, big object, small object, heavy animal, and light animal.

5.3.2 Knowledge about Number and its operations

- Only forty eight percent of the respondents have the ability to identify missing numbers up to 10 and the ability to count the object and write the number.
- The respondents could not able to add the object or write the number.

5.3.3 Shape and spatial understanding

- Most (54%) of the respondents have the ability to trace the shapes and draw the shapes.
- More than half (52%) of the respondents have the ability to identify real-world items by their shapes.
- Only twenty percent of respondents were able to copy the dot design.
- Majority (92%) correctly identify the objects in the middle, top, and bottom.

5.4 Assessment of school readiness among the selected children

5.4.1 Social development of the selected children

- Majority (98%) of respondents were able to play in a group
- Ninety five percent of respondents say greetings.
- Ninety three percent share the chocolates.
- Seventy five percent of respondents' exhibit social manners.

5.4.2 Cognitive development of the children

- Majority (85%) of the respondents have the ability to color the shape.
- The shapes could be traced by fifty four percent of the respondents.
- Only forty percent of respondents can tell the difference between the two images

5.4.3 Emotional development of the selected children

Around 90 percent of selected children can independently eat food, identify emotions in pictures, and take books, water bottles, and pencils independently.

5.4.5 Language and literacy development

- Majority (96%) of respondents had no ability to read books.
- Only forty eight percent of respondents can correctly identify the alphabet letters and numbers.

5.4.6 Physical development of children

- Majority (98%) of the children have the ability to play outdoor games.
- Around forty six percent of children have the ability to complete the 'find the way' game.
- Eight four percent children have the ability to connect dots and color the picture. Around
- Ninety seven percent of children can sit in a chair for an extended period of time without becoming tired.

CONCLUSION

The present study discussed "Foundational literacy, numerical skill and School Readiness among Anganawadis children". The study can be concluded that the selected samples exhibit good knowledge in pre writing skills, pre number concept, shapes and spatial understanding. But it was also noted that they were weak in reading, Phonological awareness, vocabulary, Decoding, writing skills and number operations. The study concluded that the children in Anganwadis centers have social, emotional, cognitive and physical development but their language and literacy skills needs to developed. One of the reason for lack of knowledge in these areas may due to the lack of offline sessions in Anganawadis due to the Covid pandemic.

Limitations

- Time constraints to collect data as the Anganawadis started functioning very late due to covid restrictions
- Could not include more Anganawadi's from Thrissur district.

Recommendations

- The study can be done on a larger sample size for longer period will help to get a clearer picture on the aspects already studied.
- The study can be conducted in both rural and urban area of the district.
- Both parents and Anganwadi teachers can be included in the study to get a better understanding of the facts.

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BIBLIOGRAPHY

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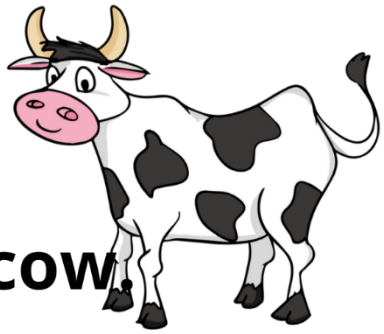
APPENDICES

APPENDIX-1

Worksheet and checklist to asses foundational literacy and numeracy skill of anganwadi children

Koo Koo

Read the passage and answer the following questions



Koo koo is a cow
He likes to play.
koo koo can run

Questions

1. What kind of animal is koo koo
Cat Cow
2. What does he likes to do
Play Eat
3. What can koo koo do
Run Walk

Name :

Complete the sentence using picture clues

I see the

Fish Frog

I see the

Cat Car

I see the

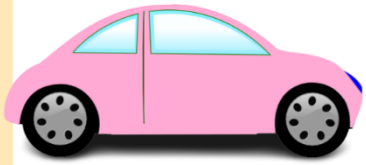
Ball Bird

Decode the words

Observe the picture and rearrange the letters to form word

3	1	2
G	D	O

1	2	3



2	3	1
A	R	C

1	2	3

Write a Word

Write the missing letters

pple

all

D g

Ra

Beginning Sounds

Identify the animal in the slot, and Encircle the first letter of the animals name

	
E F W	B S Q
	
L Y P	D Z H

Beginning Sounds & Letter

Match the object with its starting Letters

S

C

A

B

Beginning Consonants

B

Encircle the pictures that starts with the letter B

Monkey

Banana

Ball

Ant

Bird

Pig

Matching Antonyms

Match the pictures which are opposite

Animal words

Match the word to its picture

Monkey

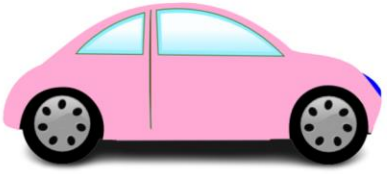
Zebra

Lion

Giraffe

Transportation

Take the word and match it with the picture



Plane

Car

Bus

Identify Letters

Circle the first letter of this fruit

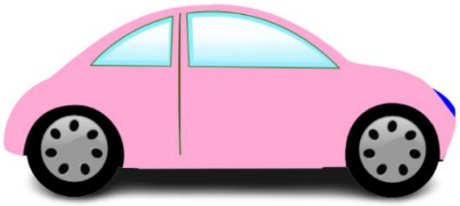
APPLE

Circle the last letter of this fruit

ORANGE

Identify Letters

Circle the last letter of this object



C A R

Circle the middle letter of this animal

R A T

Letters & Words

Encircle the single Alphabet letters from below

Ball

Fish

B

Apple

D

E

Dog

Cat

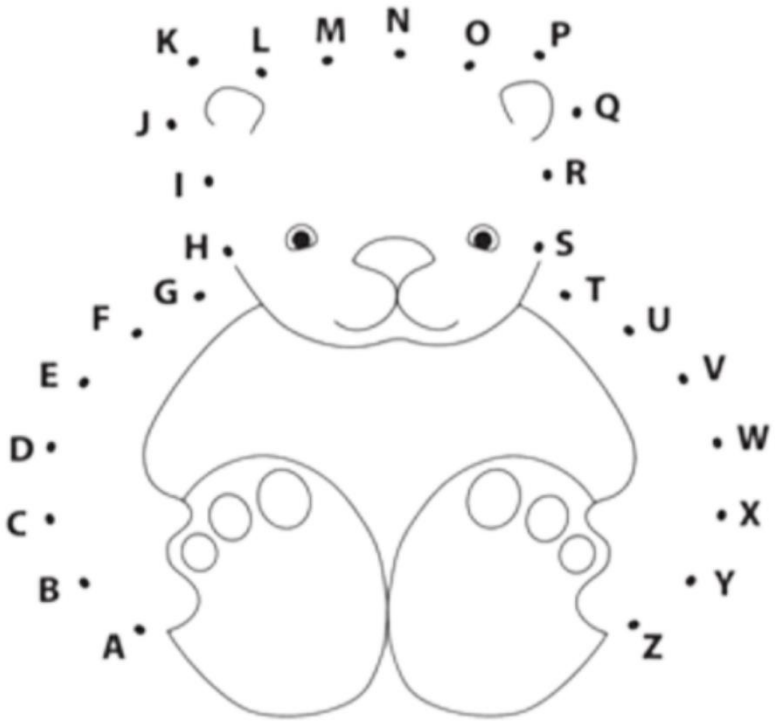
A

Elephant

C

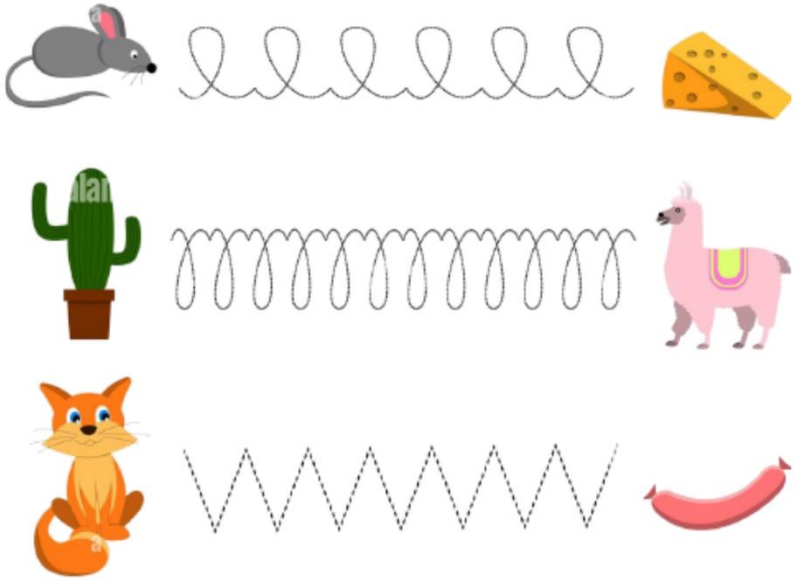
Dot-To-Dot

Connect the dots from A to Z to complete the picture



Connect the Animals

Help these animals to reach its food



Trace the letters

A A A

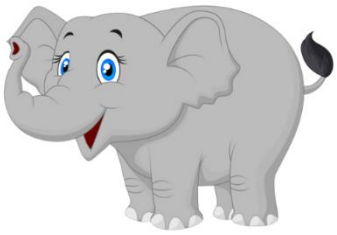
A A A

B B B

B B B

Trace the Word

black



white

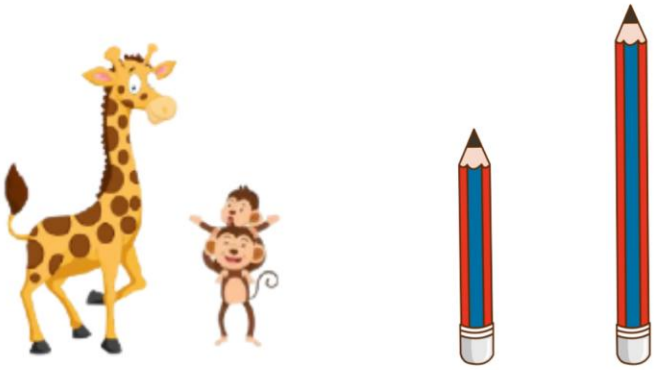
yellow

brown

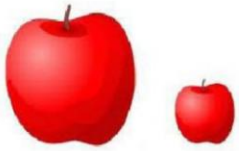
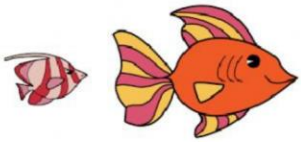
Tall vs Short

Circle the shortest picture among this

Circle the tallest picture among this

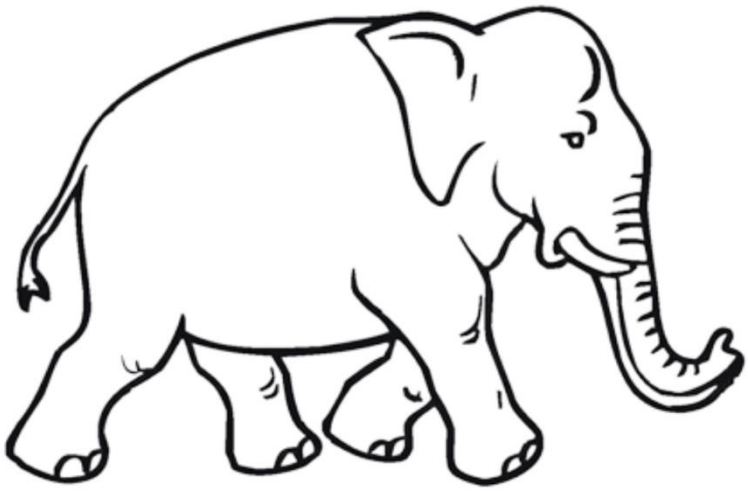


Big vs Small

Tick on the Big Apple. 	**Tick on the Small Ball.** 
Tick on the Small Animal. 	**Tick on the Big Cake.** 
Tick on the Big Teddy bear. 	**Tick on the Small Fish.** 

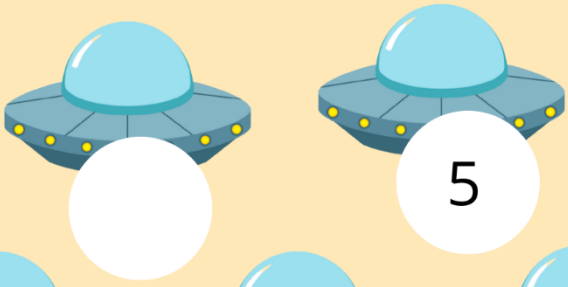
Heavy & Light

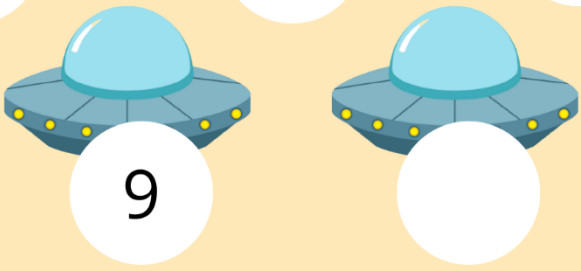
Colour the heavy animal



Number Order

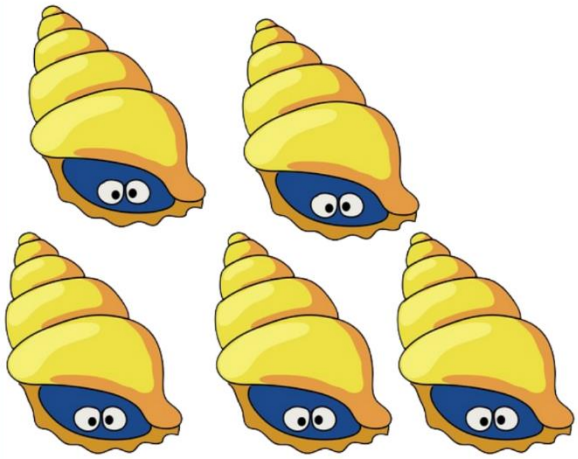
Find out the missing numbers

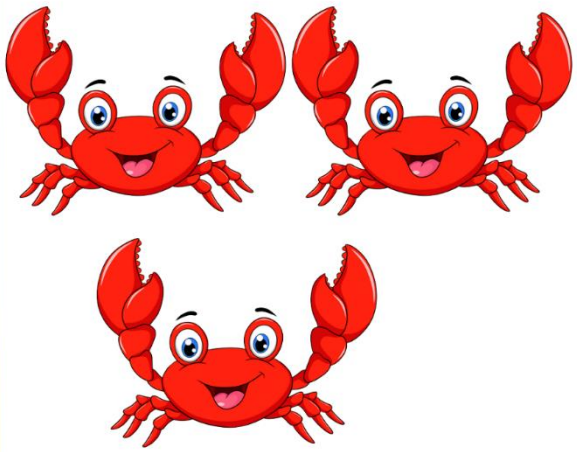




Counting

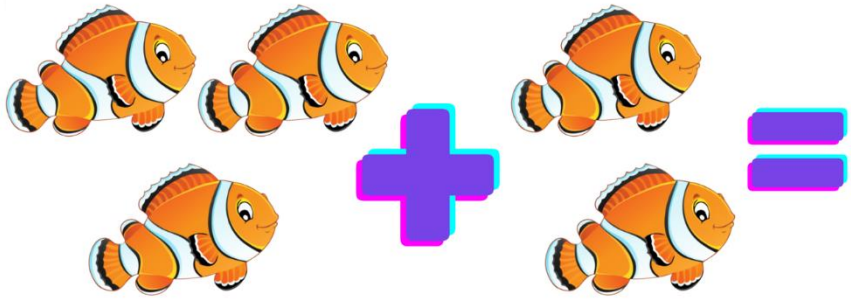
Count the creatures. Write the Number

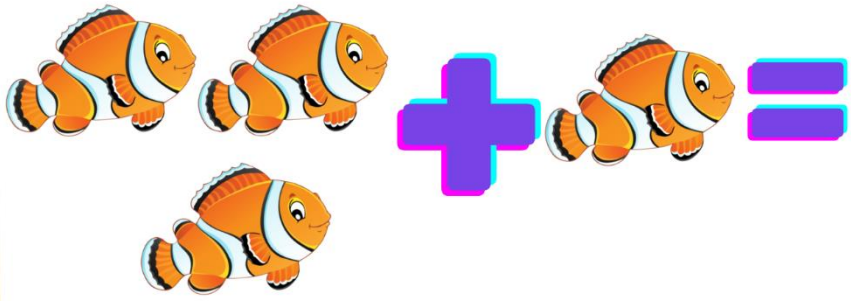




Adding

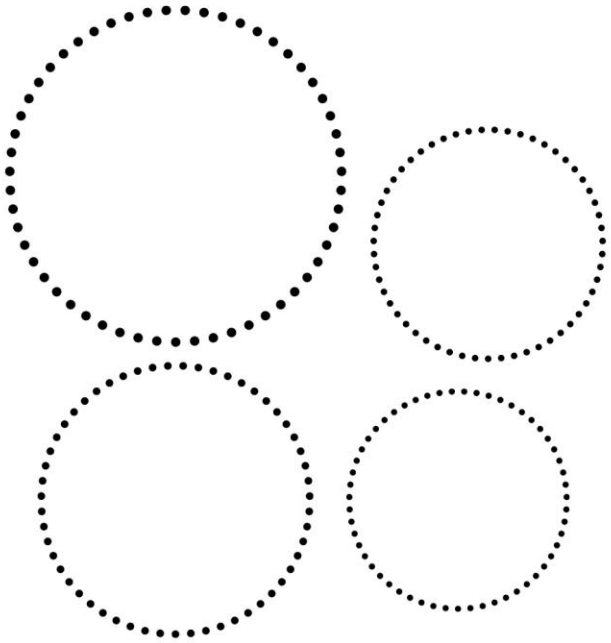
Count it together and write the count





Tracing and Drawing

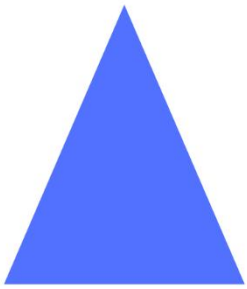
Trace the circle

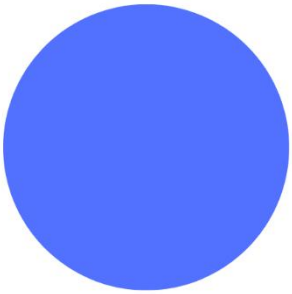


Draw the circle

Real World Shapes

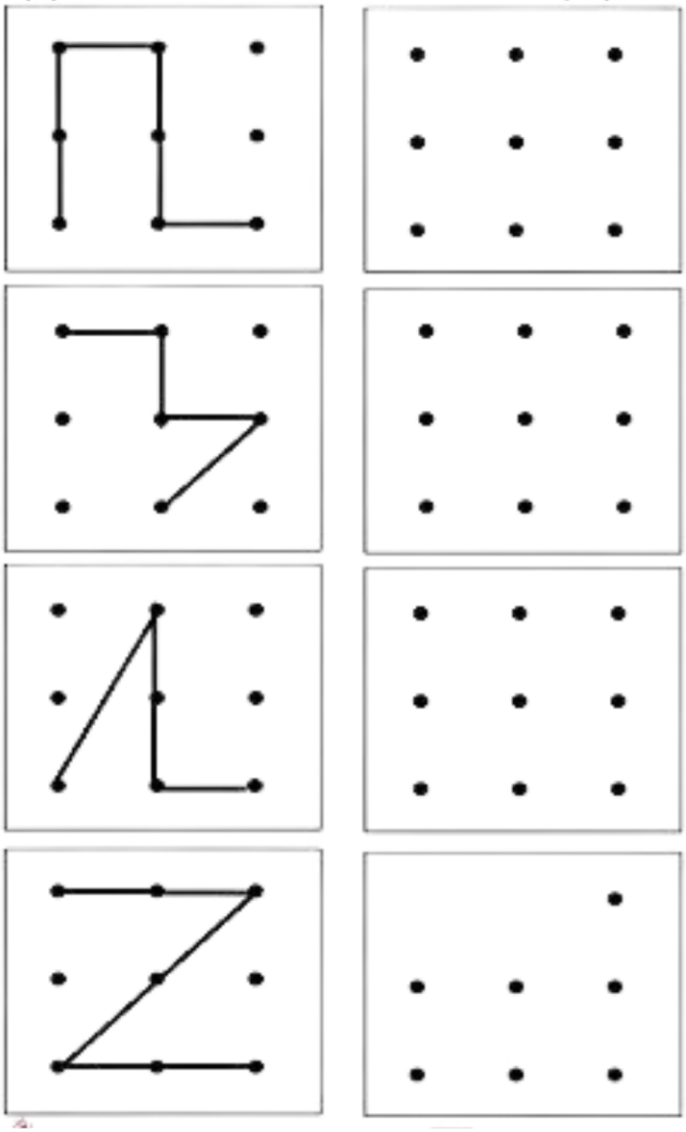
Match the real world items to its matching shape





Copy the lines

Copy the dot to dot design in the empty box



Top, Middle & Bottom

Point out the object given in the middle of the following sequence

Point out the object give in the top of the following sequence

Point out the object given in the bottom of the sequence

Checklist for assess foundational Literacy and numeracy among Anganwadi children

Name:

Age :

Gender:

Parent Name:

Educational Qualification of parent:

Name of Anganwadi:

If the child's response is correct, mark yes, mark no if it is the incorrect response.

Foundational language and literacy

Reading comprehension and fluency

1. Summarizes the story after hearing

   Yes / No

2. Read the passage and answer the questions

   Yes / No

3. Complete sentences using picture clues

Yes / No

Decoding

4. Decodes the words

   Yes / No

5. Identify the missing letter of the word

   Yes / No

Phonological Awareness

6. Sing Nursery rhyme

   Yes / No

7. Encircle the letters where each word starts

   Yes / No

8. Match the object with its starting letters

Yes / No

9. Encircle the picture that starts with Consonants

Yes / No

Vocabulary

10. Match the words to its picture

Yes / No

11. Match the pictures which are opposite

Yes / No

12. Match the pictures to its word

Yes / No

Print awareness

13. Circle the first letter of the word

Yes / No

14. Circle the last letter of the word

Yes / No

15. Circle the middle letter

Yes / No

16. Circle the words

Yes / No

17. Circle the letters

Yes / No

Writing

18. Child holds the pencil or crayons

Yes / No

19. Connect the dots and complete the picture

Yes / No

20. Trace the letters

Yes / No

21. Trace the words

Yes / No

22. Write his/her Name

Yes / No

23. Trace the lines

Yes / No

Foundational Numeracy and Mathematics

Pre number concept

24. Circle the shortest and tallest picture

Yes / No

25. Identify big and small objects

Yes / No

26. Point heavy or light animals

Yes / No

Numbers and its operations

27. Fill the missing numbers up to 10

Yes / No

28. Count the object and write the number

Yes / No

29. Add the object and write the number

Yes / No

Shapes and Spatial understanding

30. Trace the shapes

Yes / No

31. Draw the shapes

Yes / No

32. Match the real world items by their shape

Yes / No

33. Copy the dot design on an empty box

Yes / No

34. Point out Top, Middle and Bottom objects

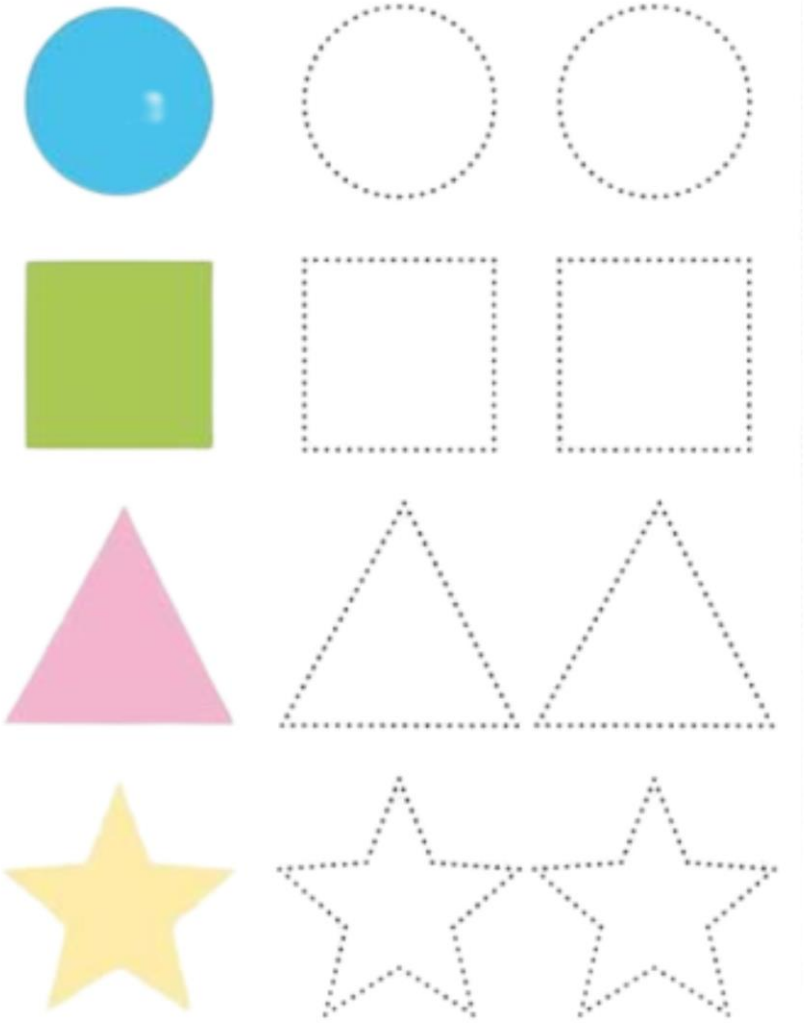
Yes/ No

APPENDIX-2

Worksheet and checklist to asses school readiness of anganwadi children

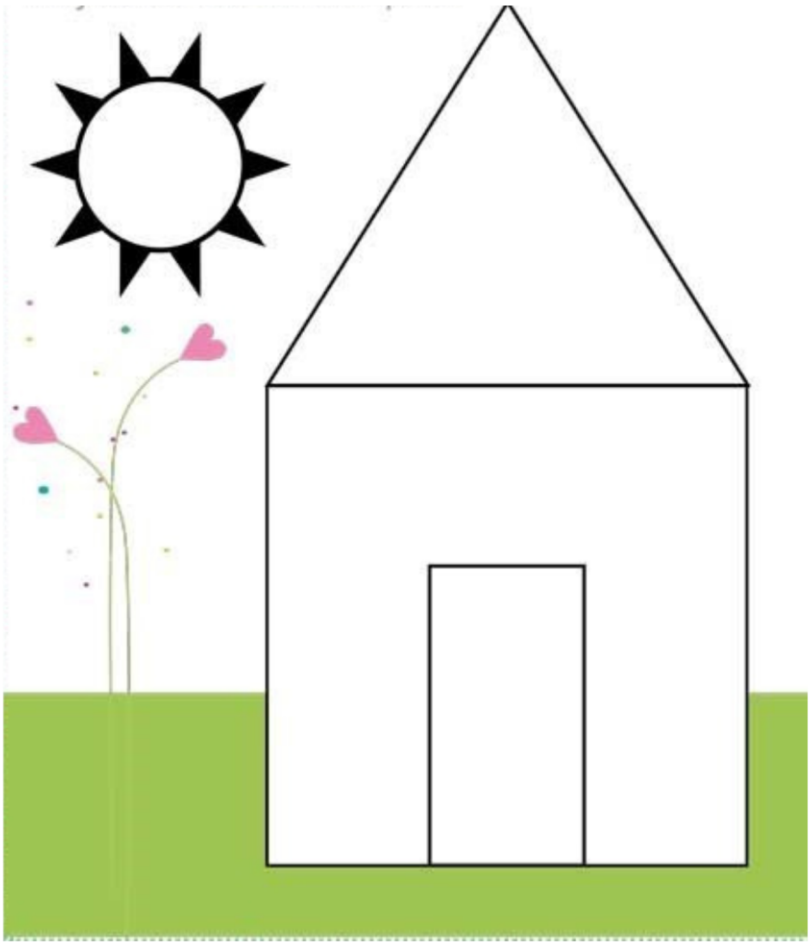
Shapes

Trace the line of each shape and say their names



Colour the Shapes

Colour the triangle with a red colour. Use yellow colour for the circle and colour the rectangle with an orange colour. Use blue for the square.



Spot the difference

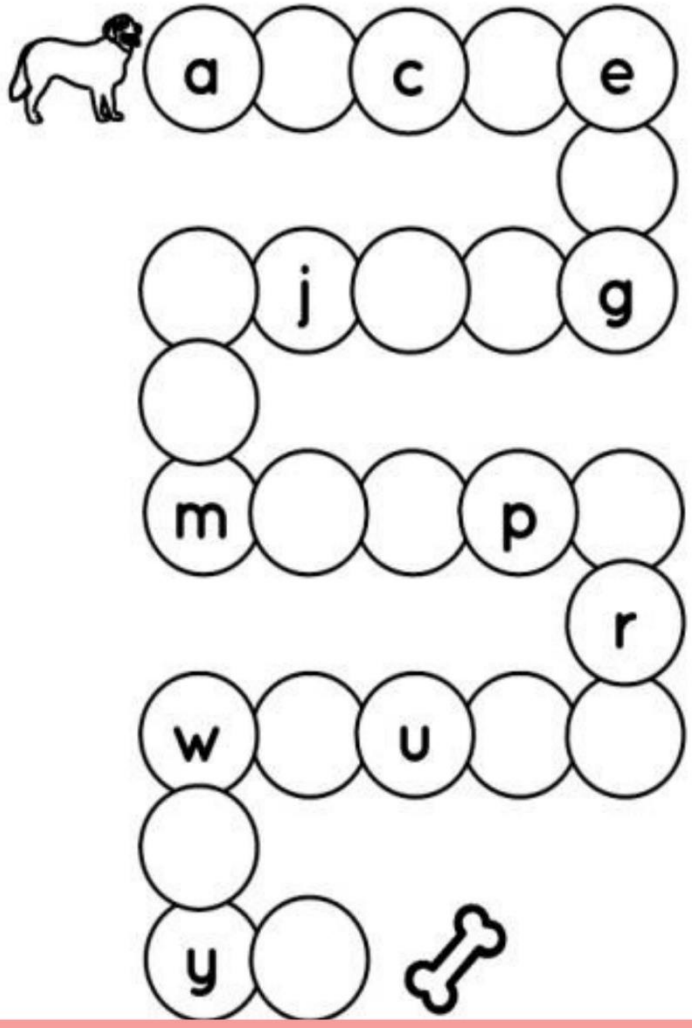
Find the 5 difference between picture A and picture B

Feelings & Emotions

Identify the emotions in this picture

Lowercase letters

Fill the missing Alphabet letters



Find the way

Help the bird to reach her chicks

Trace the lines

Connected the dotted line and the colour the picture in

Checklist to assess school readiness among anganwadi children

Name :

Age :

Gender:

Parents name :

Educational qualifications of parents:

Social development

1. Play in a group together in a game
   Yes / No

2. Say greetings like hello, good bye, good morning
   Yes / No

3. Share chocolates
   Yes / No

4. Showing social manners such as saying thanks , please, sorry
   Yes / No

Cognitive development

5. Colour the shapes according to the instructions.
   Yes / No

6. Trace the line to each shape and say their name
   Yes / No

7. Find the difference between the pictures
   Yes / No

Emotional development

8. Independently eat the foods

Yes / No

9. Take books, water bottle, pencil and book independently

   Yes / No

10. Match the emotions with names
    Yes / No

Language and literacy

11. Read a book
    Yes / No

12. Say alphabet letter and identify missing letter
    Yes / No

13. Count the numbers and identify the missing number
    Yes / No

Physical development

14. Complete maze game
    Yes / No

15. Connect a dotted line and colour the picture.
    Yes /No

16. Sit in a chair for a period of time without tiring
    Yes / No