

# An Analysis of Numeracy Activities in Fostering 4c Skills in SIKL Malaysia Pre-School Institutions

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## Abstract:-

**Background** - Early Childhood Education (ECED) plays an important role in forming the basis of children's development in the early stages of their lives. One of the crucial aspects to be considered in the ECD environment is the analysis of numeracy activities, which aims to foster 4C (Communication, Collaboration, Critical Thinking, and Creativity) skills in children.

**Objective** - The main objective in this study is to describe the implementation of numeracy introduction activities in early childhood in SIKL Malaysia PAUD institution.

**Method** - This study was conducted by explaining the phenomenon of the implementation of numeracy activities in early childhood and its relationship with 4C skills as it is according to what is implemented in SIKL Kindergarten using numbers so that information is obtained about it, then conclusions are drawn. The subjects of this study were young children, teachers and principals at an Indonesian kindergarten in Kuala Lumpur. Data collection techniques were carried out through observation, interviews, and documents obtained from research subjects/informants. Data collection techniques use observation data as primary data and interviews as secondary data. Data analysis technique using descriptive qualitative

**Findings** - Based on the results of research that has been conducted on the analysis of numeracy activities at SIKL Malaysia PAUD institutions, the introduction of numeracy concepts is closely related to early literacy because children are introduced to terms, symbols, signs to communicate mathematical ideas and find solutions. Numeracy materials introduced to children after early include algebra, numbers, geometry, measurement, and data analysis. The role of the teacher in introducing numeracy is by creating a numeracy-rich environment by utilizing environmental resources as media and learning resources, preparing reading materials that support children's numeracy skills, and making children's daily activities as a means of learning numeracy activities in fostering 4C skills is that numeracy activities can develop communication, reasoning and cooperation skills.

**Managerial Implication** - improving communication skills ensures that numeracy activities are designed to facilitate communication between children and with teachers. Involve methods such as discussing, sharing ideas and presenting numeracy observations. Engage

teachers in effective communication training to support children's language and communication development.

**Limitations** - The study only describes numeracy activities in fostering 4C skills in SIKL Malaysia ECD center. In this study, a qualitative approach was used by describing data about numeracy activities in learning at SIKL PAUD institutions in fostering 4C skills through interview, observation, and documentation techniques.

**Keywords:-** Numeracy, 4C Skills, PAUD SIKL.

## I. INTRODUCTION

Entering the industrial revolution era in the 21st century, the world of education is experiencing rapid changes due to technological developments. The development of science and technology in the 21st century has changed the characteristics of learners so that it requires innovative ways of learning. Overcoming this states that schools must be able to change the direction of learning that allows students to acquire creative thinking, flexible problem solving, collaboration abilities and innovative skills that they need to succeed in work and life.

The current technological developments must be anticipated starting from PAUD institutions because children are generally familiar with technology. In the context of the Industrial Revolution 4.0, the existence of PAUD is very important, because it can provide a significant indicator in the PISA (The Program for International Student Assessment) score. Learning in PAUD institutions today should be adapted to the 21st century competency framework that emphasizes learning innovation in order to create a generation that is innovative, critical thinking, creative, able to communicate and collaborate.

Based on the results of a survey of 87 PAUD institutions consisting of 15 cities/districts in the East Java region, it shows that teachers who carry out learning mostly use LKS as much as 89.8%, while those who use concrete media more often are 10.2%. Teachers who occasionally apply innovative approaches are 77.3%, while those who carry out learning with teacher centered models are 60%, student centered models are 38%. Based on interviews, it shows that teachers have tried to apply innovative approaches but rarely use media and more often use LKS and learning is more teacher-centered. Whereas students are currently in the era of technological development which causes children to access a lot of digital media, especially smartphones so that learning should support these needs so that children are not addicted to gadgets.

The education system in Indonesia, education has experienced eleven curriculum changes, starting in 1947, with a very simple curriculum then until the last is the 2013 curriculum. Although changing the curriculum is nothing but an improvement on the previous curriculum. Every change that occurs is the policy of those responsible for handling education in Indonesia. In the current curriculum change used is known as the independent curriculum or the concept of independent learning. This independent learning curriculum is in accordance with the ideals of the national education figure Ki Hajar Dewantara, focusing on the freedom to learn independently and creatively. This will have an impact on creating the character of students who have an independent character. There are also several independent curriculum policies including the change of USBN to competency assessment, the change of national exams to minimum competency assessment and character surveys (Insani, 2019; Rahayu et al., 2022). As well as streamlining lesson plans which usually contain 20 pages now only one page which contains three components, learning objectives, learning activities, and assessment (Indarta et al., 2022; Rohim et al., 2021). But in fact, the results of the PISA and TIMSS scores in 2018 show that Indonesia is still at the lowest score of number 6 of the 80 countries that took the test. The numeracy literacy ability of students in Indonesia scored 379 in 73rd position out of 80 countries that took this test (Kemendikbud, 2018). In fact, the main purpose of organizing the AKM is very much referring to the PISA and TIMSS tests. The low score that Indonesia got was also exacerbated by the impact of the co-19 pandemic that occurred for 2 years. Through changes in learning that were made during the pandemic in 2020, the state of education worsened, resulting in a learning crisis and a lack of maximization in the learning process. The crisis was reinforced by research conducted by UNICEF, which stated that the pandemic caused widespread disruption to education so that more than 60 million students and 4 million teachers experienced difficulties in the learning process (UNICEF Indonesia, 2022). The pandemic that has occurred for 2 years has resulted in not achieving overall learning objectives (Putri & Suyadi, 2021; Rachman et al., 2021). Solutions to overcome this problem can be done by emphasizing learning innovation, increasing the use of technology, and ensuring the readiness of teachers in conducting online learning (Duwika & Janardana, 2021; Fajrin & Sugito, 2022; Syaputra & Hasanah, 2021).

However, this is also inseparable from the planning of the essence of the curriculum in accordance with the online learning model. In dealing with the problems that occurred at that time, the central government issued a policy on the independent learning curriculum or formerly known as the prototype curriculum as an effort to revive the development of education which experienced a drastic decline (Rahayu et al., 2022; Sumarsih et al., 2022). In the world of education, the curriculum is one of the important and mandatory elements in the Education Institution unit. The curriculum has an important role in the form of a learning tool that contains planning for learning activities in the form of a process of acquiring knowledge and experience

gained through a series of learning activities (Rachman et al., 2021; Sumarsih et al., 2022). The curriculum can also be interpreted as a process that includes determining learning objectives based on several aspects such as aspects of need, selection of learning materials and methods, development of learning materials and activities, evaluation of learning outcomes designed by considering the development of student characteristics (Suratno et al., 2022).

The design of this curriculum contains rules in learning planning related to objectives, content, learning materials or materials, and how to apply them so that the objectives of this curriculum are classified as very important in achieving curriculum goals. The independent curriculum is a way to answer the educational challenges that occur due to the post-endemic education crisis. The independent curriculum that was born to overcome the problems of education during this endemic period formulates several new policies that conceptually provide freedom for both institutions and students in implementing the learning process. Through this curriculum change, it is hoped that there will be changes in the world of education that focus more on character development and soft skills based on competencies (Indarta et al., 2022; Rahayu et al., 2022). The concept of independence in the independent curriculum is in line with the ideals of Ki Hajar Dewantara, which focuses on free learning so that students can learn independently and creatively. With this freedom, it is used as an encouragement for students to explore their knowledge so as to create an independent character (Vhalery et al., 2022). Merdeka Belajar was born because there are many problems that occur in the world of education but focus more on human resources (Baro'ah, 2020; Yamin & Syahrir, 2020). The essence of this independent learning policy aims to return education management to schools and local governments through flexibility in designing, implementing, and evaluating education programs (Kemendikbudristek, 2020).

The application of numeracy in Early Childhood Education (ECE) does have its own challenges, especially related to the use of worksheets and the need for a more concrete approach to building children's skills in various aspects, including the 4Cs (Communication, Collaboration, Critical Thinking, and Creativity) using Concrete Media such as physical objects or toys as numeracy learning tools can help children understand concepts more tangibly and creativity is needed in developing concrete media that are in accordance with the curriculum and ECE learning objectives. Furthermore, Environment-Based Media by aligning numeracy learning with the surrounding environment can make learning more relevant and easily understood by children. The need for the development of activities that can be integrated with various environmental contexts, as well as the provision of adequate resources and also integrating the 4Cs in Numeracy Activities such as Communication, numeracy activities can involve discussion, questioning, and conveying ideas to strengthen verbal and non-verbal communication skills. Collaboration - Group activities in numeracy learning can build

cooperation skills and social interaction. Critical Thinking Children can be encouraged to design solutions, solve problems and make decisions in the context of numeracy. Creativity numeracy learning that allows children to find different ways and creative solutions can help develop their creativity (Fitriati et al, 2024; Frerejean et al, 2021).

With some of these activities, it is necessary to conduct formative assessment Applying formative assessment can help teachers understand children's individual development in terms of numeracy and the 4Cs. Appropriate assessment with a concrete and contextualized learning approach is needed, and getting parents involved in numeracy activities in ECD can reinforce children's learning at home and at school. Effective communication between teachers and parents is needed to convey learning methods and support consistency of learning (Anders et al, 2012).

Improving the application of numeracy in ECD through a more concrete and integrated approach with 4C skills can be done through teacher training, development of relevant learning materials, and collaboration with parents and related parties in creating an optimal learning environment for ECD children.

This curriculum is set as an option for educational institutions and educators in the implementation of independent learning activities or what we know better as independent learning. Based on the explanation above, this research aims to further analyze the independent curriculum by focusing on the implementation planning of the independent curriculum and lesson planning on the independent curriculum at the elementary school level or madrasah section. this research is very important, and has an influence on educational institutions and educators, because the independent curriculum is very interesting and produces new ideas so that it is different from the previous curriculum, especially in the implementation of learning. For example, Higher Order Thinking Skills (HOTS) as a measurement tool used to measure higher order thinking skills, especially the ability to think beyond memorizing, paraphrasing, or referring without the need for treatment (reciting).

Based on the background description, the focus of this research are: 1) how are numeracy activities in SIKL Malaysia PAUD institutions? 2) what are the numeracy materials introduced to children in SIKL Malaysia PAUD institutions? 3) how is the role of the teacher in introducing numeracy in SIKL Malaysia PAUD institutions? 4) how are numeracy activities in fostering 4C skills in SIKL Malaysia PAUD institutions?

This study aims to describe numeracy activities in fostering 4C skills in SIKL Malaysia PAUD. The urgency of this research are: 1) numeracy learning is an important material to be simulated according to the characteristics of the independent curriculum in PAUD, 2) 4C skills are substances that need to be integrated in learning for early

childhood so that children are accustomed to practicing independent learning.

## II. LITERATURE REVIEW

### A. Education Development

21st century education is education that integrates skills, knowledge, techniques and attitudes as well as ICT training. These skills can be developed through various activity-based learning models that are tailored to the characteristics of the skills and learning materials. The skills needed for the 21st century are also Higher Order Thinking (HOT) skills that are important to prepare students for global challenges. (1) Critical Thinking and Problem Solving According to Beyer (1985), critical thinking is the ability to a) determine the credibility of a source, b) distinguish between relevant and irrelevant, c) distinguish fact from judgement, d) identify and evaluate unstated assumptions, e) identify existing biases, f) identify opinions, and g) evaluate evidence provided to support claims. (2) Communication skills Communication is the process of conveying information, ideas, feelings, and skills using symbols, words, pictures, graphs, numbers, and others. Raymond Ross (1996) states that "communication is the process of composing, selecting, and sending symbols in such a way as to help the listener evoke responses/meanings from thoughts similar to the communicator's intentions". (3) Creativity and innovation Creativity is "doing something new and extraordinary, something that transforms and changes a field of activity significantly...the things...the sweet things that people do to change the world". Guilford (1976) argues that creativity is divergent thinking, productivity thinking, creative thinking, explorative thinking, and lateral thinking. (4) Cooperation Cooperation in the learning process is a form of cooperation between individuals and complements to perform certain tasks in order to obtain a predetermined goal.

### B. Higher order thinking skills (HOTS)

Higher order thinking skills (HOTS) is a measurement tool used to measure higher order thinking skills, specifically the ability to think beyond memorising, paraphrasing, or referring without the need for treatment (reciting). Higher Order Thinking (HOT) questions in the context of ability assessment: 1) translate one concept to another, 2) process and apply information, 3) find connections from different types of information, 4) use information to solve problems, and 5) critically examine ideas and information. However, the questions being based on higher-order thinking (HOT) does not mean that they are more difficult than recall questions.

### C. Numeracy Literacy

According to Qasim, Kadir and Awaludin (2015), numeracy in the Program for International Student Assessment (PISA) focuses on students' ability to analyse, reason and communicate ideas effectively, as well as formulate and solve mathematical problems in various formats and situations and interpret. According to Puspendik Kemdikbud, Numeracy is defined as the ability

to think using mathematical concepts, procedures, facts and tools to solve everyday problems in various contexts that are important for individuals as citizens of Indonesia and the world.

In other words, numeracy refers to a person's ability to use, interpret and communicate mathematical information to solve problems in their environment.

Numeracy skills are important for everyone because they are related to everyday life. Some of the benefits or importance of numeracy literacy, especially for students.

- Numeracy literacy is important to increase knowledge and hone skills in planning and controlling the process of learner growth and development.
- Numeracy literacy is important for learners to practice numeracy skills and be able to interpret data into their daily lives.
- Numeracy literacy is important to enable learners to make the right decisions in all areas of life.

Meanwhile, for students, numeracy literacy skills can be useful for calculating things other than learning. For example, in everyday life learners think critically and problem solving, communication, collaboration, creativity and innovation. For example, what time should students leave from home to come to school by taking into account the distance and travel time, how students organise schedules to go to school and study and play and many more.

From these various examples, it can be concluded that numeracy skills are not only useful for calculating exam questions, but can also be used to develop social skills at a broader level of life, for example in the workplace or in everyday life.

Numeracy for early childhood is abstract material. Therefore, it is necessary to integrate numeracy material in PAUD with daily life through exploration activities and games using concrete media. The introduction of numeracy concepts in early childhood determines the success in recognising mathematical concepts at the next level of school. Numeracy materials that need to be introduced to early childhood include: patterns and their functions, numbers, estimation, graphics, size, probability, and problem solving (Fitri, 2020).

### III. RESEARCH METHOD

This research approach uses descriptive research with quantitative descriptive methods. The form of description is presented using numbers or numerical (statistics). Quantitative descriptive research describes, explains, or summarises various conditions, situations, phenomena, or various research variables according to events as they are which can be photographed, interviewed, observed, and which can be revealed through documentary materials. This research is conducted by explaining the phenomenon of the implementation of numeracy activities in early childhood and its relationship with 4C skills as it is according to what

is implemented in SIKL Kindergarten using numbers so that information is obtained about it, then conclusions are drawn. The subjects of this study were young children, teachers and principals at an Indonesian kindergarten in Kuala Lumpur. Data collection techniques were carried out through observation, interviews, and documents obtained from research subjects/informants. Data collection techniques used observation data as primary data and interviews as secondary data. Data analysis techniques using descriptive qualitative

## IV. RESULT AND DISCUSSION

### A. Result

The main objective of this study is to describe the implementation of numeracy recognition activities in early childhood at the SIKL Malaysia PAUD institution. Based on the main objective, the results and discussion in this section will be explained as follows.

#### A. General description of SIKL Malaysia Preschool

Taman Kanak-Kanak Sekolah Indonesia Kuala Lumpur (SIKL) is an early childhood education institution managed by the Indonesian Embassy in Kuala Lumpur, established in the academic year 2011 - 2012 for Indonesian citizens living in Malaysia. SIKL Kindergarten is not much different from Kindergarten in Indonesia. The SIKL Kindergarten curriculum refers to the applicable curriculum in Indonesia, which currently still uses the 2013 curriculum but has begun to try to implement according to the philosophy of the Merdeka curriculum. Learning carried out at SIKL Kindergarten still introduces Indonesian culture, one of which requires children to use Indonesian. The learning activity time at SIKL Kindergarten starts from 08.00 to 11.30, not much different from the learning time in kindergartens in Indonesia. Learning activities are not focussed on being in the classroom alone, but are also carried out outside the classroom. One of them is by visiting tourist attractions that contain educational elements for children. Learning in Indonesian kindergartens includes 6 areas of development: Moral and religious values, social-emotional, language, cognitive, physical-motor and art.

Sekolah Indonesia Kindergarten is very strategically located in the middle of the city close to the highway, easy transportation because it is next to KTM Station, with a comfortable place with a pretty good building, the number of classes there are 2, namely 1 group Adan B. precisely in the Kuala Lumpur Indonesian School environment which is located at Number 1 Lorong Tun Ismail 50480 Kuala Lumpur Malaysia.

#### B. Introduction to numeracy at the SIKL Malaysia PAUD institution

SIKL Malaysia PAUD institution in carrying out learning activities every day using a group approach. The introduction of numeracy is carried out every day through play activities equipped with worksheets. Numeracy is introduced to children every day because numeracy is the knowledge and skills to use various numbers and symbols related to basic mathematics to solve practical problems in



a variety of daily life contexts. This ability includes skills in applying number concepts, counting operations, interpreting quantitative information found in the environment. Through daily activities the concept of numeracy can be introduced to children so that it is easy for children to learn it concretely.

*C. Numeracy material introduced to children at SIKL Malaysia PAUD institution.*

Teachers teach numeracy materials referring to the basics of mathematical reasoning with the consideration that through the introduction of numeracy materials children have basic problem solving skills and the application of mathematics in everyday life.

*D. Details of the numeracy materials taught in PAUD include:*

- Algebraic concepts, including materials about: sorting, categorising, making patterns, solving problems.
- Number Concepts, including materials on: comparing, ordering (first, second, and third), dividing materials among friends, counting, one-to-one relationships.
- Geometry Concepts. includes material about: geometry is more than just naming shapes. geometry includes understanding spatial relationships, position, 2-dimensional and 3-dimensional objects.
- Measurement Concepts, including materials about: understanding the attributes of objects, building the concept of non-standard measurement, application of numbers to measure, seriation.
- Data analysis concepts, including materials about: collecting information, organising information in a simple way, asking and answering questions related to the information collected with the organisation.

The role of the teacher in introducing numeracy in SIKL Malaysia PAUD institutions

Teachers are very decisive in children's achievement in learning numeracy in PAUD, in the implementation of introducing numeracy can be observed the role of the teacher as follows:

- Creating a positive atmosphere (comfortable and fun) when children do numeracy activities.
- Providing a numeracy-rich and child-friendly learning environment.
- Designing the development of contextualised and meaningful numeracy activities.
- Facilitate child-centred numeracy activities.
- Encourage children to use creative ways and cooperate in solving problems.
- Assessing children's learning outcomes.
- Cooperate with parents in developing children's numeracy skills.

Teachers also play a role in creating a numeracy-rich learning environment such as:

- Setting up resources in the surrounding environment that can be utilised for numeracy development (children interact with various forms of numeracy materials,

including signs, posters, symbols, pictures and other numeracy materials).

- Arranging items around the child based on classification (including: colour, shape, size and function).
- Prepare posters, pictures, symbols that are displayed on the wall as a reference for teachers and parents in facilitating children to develop numeracy skills.
- Provide opportunities for children to display their numeracy works in the school and home environment.
- Provide various types of measuring instruments (body weights, height measuring instruments, clothes meters, measuring cups, measuring spoons, etc.) and timepieces (digital clocks, analogue clocks, etc.) as learning tools and media.
- Provide reading materials that support the development of children's numeracy skills.

In introducing numeracy in early childhood, it is supported by teacher interaction skills that can bring out children's numeracy skills as follows.

- Interaction that occurs in a fun and comfortable atmosphere for children.
- Interactions that encourage children to think critically and find their own solutions to problems.
- Interactions that spark children's ideas to develop their own numeracy skills through play activities both at home and at school.
- Interactions that encourage children to communicate and work together in numeracy activities.
- Numeracy activities in fostering 4C skills in SIKL Malaysia PAUD institutions

The implementation of numeracy activities can train children to have basic critical, creative and collaborative thinking skills. This can be achieved when children can recognise and see relationships between patterns, symbols and data, and can use them to solve problems in everyday life.

The introduction of numeracy in early childhood can develop some elements of skills as follows.

- Communication Skills; children can express mathematical ideas and understanding orally, visually and in writing.
- Knowledge of Relationships; children are exposed to the process of linking concepts, strategies between mathematical content.
- Reasoning skills; children get the opportunity to build logical thinking to prove something, including the sequence of thinking.
- Presentation skills; children experience the process of presenting mathematical ideas and relationships, modelling through concrete objects, pictures, or symbols.
- Co-operation skills; children get the opportunity to work together in numeracy activities, such as when working on projects.

### B. Discussion

Early literacy and numeracy are two skills that develop from an early age and are important factors that determine later academic success. (Duncan et.a; 2007). The introduction of early numeracy in early childhood is strongly linked to early literacy. Maths is linked to literacy because there are many terms, symbols, signs to communicate mathematical ideas and find solutions. When children are doing activities, they are actually learning to translate everyday events into mathematical concepts.

Early numeracy refers to the basics of mathematical reasoning acquired at an early age. Numeracy skills in early childhood are also related to basic problem solving skills and the application of maths in everyday life. So it is not just number counting skills, but also includes algebraic thinking, geometry, measurement, data analysis and chance. The knowledge, skills, behaviours and inclinations a person needs to be able to use mathematics in a variety of situations.

In introducing numeracy to early childhood teachers do not only focus on paper and pencil, but teachers can also utilise the environment as a numeracy learning resource. Numeracy learning resources that are easily accessible to children are learning resources that are integrated with the surrounding environment and children's daily lives including:

- Introducing the natural environment (such as geographical location, natural resources, natural phenomena, etc.) as a means of learning numeracy. For example: introducing children to the distance between the house and the beach, the plants that are commonly found in people's yards, the amount of irrigation water that irrigates the surrounding rice fields, etc.
- Introducing the social culture of the local community (various professions, social environment, regional culture, etc.) as a means of learning numeracy. Examples: the schedule of meatball sellers who pass by the house, the distance between the house and the motorbike taxi base, the number of various crops presented in the crop festival, etc.
- Making children's daily activities both at school and at home (routine activities, habits in the family, etc.) as a means of learning numeracy. For example: a schedule of children's routine activities at home (such as waking up at what time, leaving for school at what time, how much time it takes to prepare themselves before school, etc.).

The main strategy in facilitating numeracy activities in early childhood is play. Other strategies that can support the emergence of numeracy skills are: Storytelling, Storytelling, Role-playing, Singing, Music, Field trips, Simple experiments, Sports, Games with rules.

Introducing numeracy to children after an early age requires media that is in accordance with the characteristics of children. Child-friendly numeracy learning media is media that can support the emergence of children's numeracy skills easily, safely and fun. The media can be in

the form of: - Objects that are easily found around and can be used to do numeracy activities - Pictures, symbols, symbols, tables, graphs that provide numeracy information that is easy for children to understand and can spark children's ideas to develop numeracy skills. - A variety of standardised and non-standardised measuring tools that are easy for children to use.

Early childhood education (ECED) plays an important role in forming the basis of children's development in the early stages of their lives. One of the crucial aspects to be considered in the ECD environment is the analysis of numeracy activities, which aims to foster 4C (Communication, Collaboration, Critical Thinking, and Creativity) skills in children. Numeracy activities are not only limited to understanding numbers and basic maths operations, but also have a significant impact in shaping children's abilities in all four aspects.

First of all, the analysis of numeracy activities in the ECD context focuses on introducing basic mathematical concepts in a fun and interactive way. In designing numeracy activities, ECD teachers can ensure that each activity not only teaches numbers, but also involves communicative interaction between children. For example, through games or shared stories, children can develop their communication skills naturally, building an important foundation for the first skill, Communication.

Furthermore, numeracy activities in ECD can be designed to encourage collaboration between children. The use of group games or simple maths projects allows them to learn to work together to complete a task. In this way, they not only understand maths concepts, but also hone their collaboration skills, supporting the development of the second skill, Collaboration.

Analysing numeracy activities in ECD also focuses on developing critical thinking skills. Children are encouraged to solve simple maths problems, stimulating their minds to think logically and creatively. This process directly supports the development of the third skill, Critical Thinking, which is the foundation for analysis and evaluation skills.

Finally, numeracy activities can provide space for children's creative expression. For example, through maths-based art or making shapes using numbers, they not only hone their numeracy skills, but also develop creative skills. This supports the development of the fourth skill, Creativity.

Overall, analysing numeracy activities in fostering 4C skills in ECD is a holistic effort that brings long-term benefits to children's development. By aligning numeracy activities with these learning objectives, ECD provides a strong foundation for creating communicative, collaborative, critical and creative individuals to face the complex challenges of life.

## V. CONCLUSION

Based on the results of research that has been conducted on the analysis of numeracy activities at SIKL Malaysia PAUD institutions, the introduction of numeracy concepts is closely related to early literacy because children are introduced to terms, symbols, signs to communicate mathematical ideas and find solutions. Numeracy materials introduced to children after early include algebra, numbers, geometry, measurement, and data analysis. The role of the teacher in introducing numeracy is by creating a numeracy-rich environment by utilising environmental resources as media and learning resources, preparing reading materials that support children's numeracy skills, and making children's daily activities as a means of learning numeracy numeracy activities in fostering 4C skills is that numeracy activities can develop communication, reasoning and cooperation skills.

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