

## Preschool Children's Level of Semantic Acquisition Through Children's Songs, Stories and Animated Films on Youtube

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### Abstract

Semantic acquisition is the process of a child acquiring eclectic meanings of linguistic elements and conceptual senses. This gradual process starts before a child says their first word, which includes many different types of words. The use of digital technology approaches to examine children's linguistic environment can benefit children's language development and make more detailed predictions about what, when, where and how semantic development assists children's language development. Hence, this study attempts to identify the level of semantic acquisition of preschool children using children's songs and stories as well as animated films in YouTube and summarise the types of words children acquire from them. This study employed the observation method and its study sample comprised 50 preschool children selected using a purposive sampling technique. The research data consisted of two children's stories, three children's songs and two animated films downloaded from YouTube. The findings show that the acquisition of synonyms happens at a basic level, 94%. Similarly, the acquisition of antonyms occurs at a basic level, 38%, while the acquisition of hyponyms occurs at a low level, 44%. Therefore, it established that the level of acquisition for hyponyms is better than the levels of acquisition for synonyms and antonyms. The data of this study ascertained that the developments of semantics, that is, the mastery of synonyms, antonyms and hyponyms among children, occur at different levels. Additionally, this study's results recorded uneven children's lexical or vocabulary developments. Hence, creating a linguistic atmosphere that is more fitting for preschool children is imperative because one can use it to explore the meanings of words and concepts among them in order

to further enhance their semantic acquisitions, in addition to using children's songs and stories on YouTube.

**Keywords:** Children's Songs and Stories, Digital Technology Approach, Semantic Acquisition, Preschool Children, Youtube

### **Introduction**

Semantics is the deconstruction of the meaning of language, where language meaning is closely related to a person's linguistic system and cognition in order to enable a person to convey language meaning and conceptual sense. In other words, semantics is the scientific study of the meaning of human language that concentrates on the meaning of words, phrases, sentences and expressions. Semantics also explores the link between words and references, including symbols, words, phrases, sentences, expressions, and discourses based on logical and accurate characteristics (Hamzah, 2022).

More significantly, semantic acquisition is the process of a child acquiring various meanings of linguistic elements and conceptual meanings (Clark, 2015). This process of semantic acquisition is gradual, starting before a child utters their first word, and then progresses to encompass different types of terms. Accordingly, in semantic acquisition, a child must be able to perform three things. Firstly, a child must identify language symbols relevant to the level of cognition. Secondly, a child must identify and understand the meaning associated with language symbols. Thirdly, a child must learn how to connect language symbols, concepts and cognition with meaning (Wagner, 2010). Once a child goes through the process of semantic acquisition, semantic development also occurs. Here, semantic development is the stage at which a child acquires words, meaning, and relationships with cognition and age, and is also a strategy for a child to learn the meaning of words and relate them to each other. This semantic development will gradually transform because the child's internal representation of language constantly changes and rearranges according to age (Wagner, 2010).

In addition, children also need to identify words in order to enable them to convey information (Clark, 2015). They also need to identify the symbols of reference and sense, the semantic or conceptual domain each word belongs to and the degree to which each word presents a particular categorisation, perspective, and grammatical function. Besides, to understand the meaning of a word, children need to be able to place words in a complex network between semantics, pragmatics and grammar. When the child begins to map the meaning of the words they encounter, their initial knowledge of the minimal sense of language will develop, and the child will be able to give essence to a word that is found and understood, and one can use it according to the circumstances and context.

What must be stated here too is that language development among children is a process of evolution. Therefore, analysing language development among children is valuable to help one understand the emergence of words, the specialisation of functions and scales, and the flexibility of cognitive processes during learning (Dick et al., 2016). In addition, using a digital technology approach to examine the linguistic environment of children growing up (Greenwood et al., 2011) and take into account what the child says (Oller et al., 2010) should lead to the formation of a complete theory and model about how language develops in children. Furthermore, comprehending the structure of the brain Dick et al (2012); Sereno et al (2013), which is related to language development Dosenbach et al (2010), and language learning Wiestler & Diedrichsen (2013) empowers one to upgrade children's cognition.

Further, the semantic feature hypothesis assumes that word meaning consists of features or meaning components and suggests that children learn word meanings gradually by adding

more features to their lexical entries. Hence, to examine children's language acquisition correctly, one must recognise the semantic aspect of knowing what children mean by the words they say and how they understand anything they hear (Clark, 1973). Moreover, in the semantic acquisition hypothesis, the first features or components of meaning included in the lexicon are usually based on the child's perception (Clark, 1973). Thus, the first characteristics children will learn will be based on object characteristics, such as size, measurement, gender, voice quality, clothing, colour, and hairstyle. Since the child's perception is abstract, the people with a family relationship with the child will be specifically referred to them (Haviland & Clark, 1974). Consequently, since analysing meaning in children's language is crucial, semantic development among children needs more attention and research compared to analysing phonology or grammar. Hence, with the problem statement of this study clearly outlined and discussed, the objectives of this study are as follows:

1. To identify preschool children's level of semantic acquisition using children's songs and stories and animated films on YouTube.
2. To summarise the types of synonyms, antonyms and hyponyms preschool children acquire from songs, children's stories and animated films in YouTube.

### **Literature Review**

#### **Children's Language Acquisition through Music and Songs**

Research on children's language acquisition has shown that music and songs, as learning materials, have become indispensable materials to boost the development of children's language (Džanić & Pejić, 2016). Children love to sing naturally, and teachers use songs to teach them language concepts and meanings in a delightful mode. One of the essential features of songs is repetition and they also include words with the rhythm of the language. Thus, it can foster listening skills, pronunciation and rhythm, and deliver an entertaining atmosphere (Winters & Griffin, 2014). As a result, children will feel enthusiastic to sing along, therefore eliminating boredom. Music and songs also allow children to understand and express ideas and communicate with others with the words heard (Winters & Griffin, 2014). This simply means that children can recount stories, express ideas and intercommunicate with others after acquiring many words and understanding the uses of those words.

Music and songs can also help children in terms of lexical acquisition and semantic knowledge (Winters & Griffin, 2014). The lexical acquisition is the number of words that an individual can remember and speak using those words efficiently, while semantic knowledge refers to the meaning of words and the ability of children to use the acquired words appropriately in phrases and sentences (Silliman et al., 2004). Accordingly, children strengthen and expand their vocabulary when they explore acquiring lexical and semantic knowledge through music and songs. Acquiring lexical and semantic knowledge, therefore, will assist children in learning a language when they join the school. More importantly, children learn to compartmentalise items based on similarities or differences and understand numbers and quantities through music and songs. Consequently, musical materials and songs can help children enrich their vocabulary because a child will learn more words and begin to understand how sounds in the language work through music and songs. Typically, through music and song, words are organised into semantic networks characterised by word-to-meaning connections (Rogers & McClelland, 2004).

**Children's Language Development**

In learning new synonymous words, the lexicon has been structured so that each object is similar to one of the other objects and, for new words that are antonyms, the lexicon has been structured to be different from the other two objects (Wojcik & Saffran, 2013). Children can also distinguish word pairs based on the visual similarity of their references (Wojcik & Saffran, 2013). In short, children can discriminate between word pairs with similar referents compared to word pairs with different referents. This process called language development is the level of cognitive skills that involve the verbal ability of a child to communicate orally to meet individual needs (Rabiah, 2018). Therefore, language development is vital to a child's personal development. This language development supports a child's ability to communicate, and, at the same time, it enables a child to express and understands feelings, think, and learn to solve difficulties, and develop and maintain relationships. In short, through language development, children will learn to understand, use, and expand the use of language in literacy, and further become the basis for learning to read and write (Brown, 2014)

Meanwhile, language acquisition at an early stage involves a dynamic interaction between children and their ever-changing atmosphere (McClelland & Cameron, 2012; Smith et al., 2018; Smith & Thelen, 2003). It has been proposed that the number and variety of words in a child's environment have predicted children's language acquisition outcomes (Huttenlocher et al., 2010). This scenario applies when the words acquired by the child are related to their structure and semantics circumstances. Thus, it confirms the environment's influence on children's early language acquisition. Furthermore, there is no limit to the number of words acquired from the environment; accordingly, the words learned earlier depend on the child. Specifically, previous studies have proven that children use more nouns than pronouns or verbs (Ferguson, 1964; Hayes & Ahrens, 1988; Soderstrom, 2007) and have more word repetitions (Hills, 2013). Everything is delivered with unique prosody. In other words, children's dialogue conveys related words and phrases that appear in many contexts, namely words with various contexts (Hills, 2013).

In addition, children's use of dialogue also highlights their limited productive vocabulary. This, then, demonstrates that children's semantic environment is also limited. Due to this limitation, this situation has inspired the researchers of this study to focus on examining the issue of semantics among children using digital materials on YouTube. Furthermore, it is critical to improving our understanding of early lexical knowledge in children (Dubossarsky et al., 2017). Thus, in this study, the researchers used word data collected from songs, children's stories, and animated films on YouTube by creating a child-centred context. In other words, one can observe the development of the semantic structure of a child's behaviour that they exhibit through song activities, children's stories, and animated films on YouTube by creating a child-centred context.

Another standard way to view semantic structure in a linguistic environment is to use natural language processing through children's interactions. These children's interactions are collected during various activities, including playing with toys, colouring pictures, reading books and unstructured conversations recorded in kindergartens and home settings. Additionally, one can also use word structure obtained through children's interaction to determine word learning patterns among children (Hills et al., 2010; Jimenez & Hills, 2017). Basing a model of children's semantic environment from language transcripts of children's interactions has the advantage of them being obtained directly from a sample of children.

Nonetheless, the language data is limited because it is influenced by syntax, and many words which children are expected to know are rarely spoken. Accordingly, studying the development of semantics through songs, stories and animated films will demonstrate that the frequency of words in children's interactions tends to occur together with common words and concepts.

### **Methodology**

This study used observational methods to identify the level of semantic acquisition of preschool children using children's songs, stories and animated films on YouTube and summarise the words from songs, children's stories, and animated films on YouTube.

### **Research Methods**

The researchers used the observation method to collect data. The observation method is conventional approach to collecting data by teachers, researchers, social workers, and psychologists to record human behaviour (Kawulich, 2015). Through observation, one can systematically describe events, behaviour, and social climate (Marshall & Rossman, 1989). There are two types of observation used in this study, namely direct observation, and indirect observation. Direct observation, also known as participant observation, involves the researcher being in the situation being studied as an observer or participant and recording what is seen. In comparison, indirect observation consists of the researcher making observations without interacting with the examined person. In other words, the researcher relies on observations reported by others, namely kindergarten teachers and research assistants.

### **Data Collection**

After receiving approval from the Selangor State Community Development Department and the Selangor KEMAS Office, data collection at three KEMAS kindergartens, namely Tabika KEMAS Ibnu Qayyum, Seri Serdang, Tabika KEMAS Anggerik Sungai Ramal, Bandar Baru Bangi and Tabika KEMAS Sri Utama School, Kampung Teras Jernang, Kajang started. Data collection at Tabika KEMAS Ibnu Qayyum, Seri Serdang was conducted from 7 February to 11 February 2022, at Tabika KEMAS Anggerik Sungai Ramal, Bandar Baru Bangi from 14 February to 18 February 2022, and, finally, at Tabika KEMAS Sri Utama School, Kampung Teras Jernang, Kajang from 21 February to February 25 February 2022. The data collection at these three nurseries was conducted from 9.00 am to 11.30 am.

Each activity took between 30 minutes to 45 minutes. The researchers repeated this activity two times as this technique allowed children to participate multiple times. Every time the researchers carried out the activity, the children were involved in retelling the story, singing, and completing a list of words with the same meaning (synonyms), opposite meanings (antonyms), and words that are hyponyms. Children from these three nurseries varied regarding their family background and living environment. Nevertheless, this study only aimed to identify the level of semantic development. Therefore, this analysis did not examine the influence of family background factors and living environment.

### **Theoretical Framework**

This analysis used the Theory of Cognitive Development (1923) by Jean Piaget to identify the level of semantic acquisition among preschool children using children's songs, stories and animated films on YouTube.



### **The Theory of Cognitive Development (1923) by Jean Piaget**

Cognition refers to thinking and remembering, and cognitive development refers to long-term changes in these processes. Piaget constructed and examined the cognitive development of babies and children gradually until children could think logically and scientifically. After carefully observing children, Piaget proposed that cognition develops through four distinct stages from birth to late adolescence. The four stages of cognitive maturity are as follows:

1. Sensorimotor Stage (Birth to 2 years)
2. Preoperational Stage (2-7 years)
3. Concrete Operational Stage (7-11 years)
4. Formal Operation (12 years-adult)

Of the four stages of cognitive maturity, the researchers focused on the maturity stage of children's cognition in the preoperational stage (2-7 years) by highlighting the intuitive substage (age 4-7 years).

#### **Preoperational Stage (2–7 years)**

Children enter the preoperational stage at the age of two. At this stage, the child demonstrates mastery of using mental representations well. Abstract mental representations emerge when children engage in pretend play and start talking about events that happened in the past or about people who were not in front of them at the time. Everything happens within their mental reach only. This preoperative stage consists of two substages, namely the pre-conceptual/symbolic function substage and the intuitive thinking substage. The pre-conceptual/symbolic function substage occurs between ages 2 and 4. At this stage, children can formulate the design of objects that are not there. For example, mental abilities are language and pretend play. Although there is gradual progress, there are still limitations, such as egocentrism and animism. Egocentrism transpires when children cannot distinguish between their perspective and that of others. In other words, egocentrism in children refers to their inability to see a situation from another person's point of view. They tend to pick their view of anything they see rather than the actual view presented by others. For example, if a child favours the colour green, the child will colour the picture of an elephant in green. Despite being given the colour grey, the child still selects green because grey is considered not attractive to them (Lee, 2021). In contrast, animism is a child's belief that inanimate objects can act and have life-like qualities. For instance, a child believes the stars twinkle in the sky because they are happy (Huang & Lee, 1945).

The second one, the intuitive thinking substage, occurs between 4 and 7 years. At this stage, children are curious and ask many questions, and start using primitive reasoning (Parnes & Pagano, 2022). In short, children are interested in logic and want to learn the reason for a situation or event. Piaget called it the intuitive substage because children realise they have a large amount of knowledge but do not know how they understand it. In other words, this substage of intuitive thinking is marked by a greater reliance on intuitive thinking and not just perception (Thomas, 1979). It demonstrates that children think automatically without using evidence and ask questions as they try to understand the world through immature reasoning (Thomas, 1979). Furthermore, children also learn more about categorisation at this stage, where they can classify items based on similarities or differences and start to understand numbers and quantities like concepts, such as 'more' or 'bigger'. Although other cognitive processes develop more gradually, children's abstract thinking develops rapidly in the preoperational stage. In short, in preoperational thinking, the core is the act of focusing all

attention on one feature over another as children tend to consider their views and perspectives. Nevertheless, they try to take other people's opinions into account.

### Population and Sampling of the Study

Creswell (2012) states that qualitative data is adequate based on the words of a small number of individuals. Therefore, a sample consisting of 50 preschool children was selected for this study using a purposive sampling technique. The sample of this study consists of preschool children from three KEMAS kindergartens, namely 17 children from Tabika KEMAS Ibnu Qayyum, Seri Serdang, 17 from Tabika KEMAS Anggerik Sungai Ramal, Bandar Baru Bangi and 16 from Tabika KEMAS Sri Utama School, Kampung Teras Jernang, Kajang. The sample distribution of 50 preschool children involved in each activity carried out is presented in Table 2.

Table 2  
*Study Sample Distribution (N = 50)*

<b>Tabika</b>	Tabika KEMAS Ibnu al-Qayyum	Tabika KEMAS Anggerik Sungai Ramal	Tabika KEMAS Sekolah Sri Utama, Teras Jernang
<b>Location</b>	Serdang	Bandar Baru Bangi	Kajang.
<b>Number of children</b>	17	17	16

### Study Material

The study material consisted of two children's stories, three children's songs and two animated films downloaded from YouTube. The researchers collected data through three activities: Activity 1 - Literary stories, Activity 2 - Children's songs and Activity 3 - Animated films with elements of natural resources (Table 3).

Table 3  
*Study Materials for the Three Activities.*

<b>Activity 1</b>	:	<b>Literary stories:</b> 1. <i>Pada Zaman Dahulu - Sang Kancil dan Pemburu - Kancil yang Bijak</i> (Once Upon a Time –The Mouse Deer and The Hunter – The Wise Mouse Deer) <a href="https://www.youtube.com/watch?v=5mL8UVZVEyA">https://www.youtube.com/watch?v=5mL8UVZVEyA</a> 2. <i>Kisah Kancil dan Buaya - Kancil yang Bijak</i> (The Story of the Mouse Deer and the Crocodile - The Wise Mouse Deer) <a href="https://www.youtube.com/watch?v=HkojN6UQE7Q">https://www.youtube.com/watch?v=HkojN6UQE7Q</a>
<b>Activity 2</b>	:	<b>Children's songs:</b> 1. <i>Satu Labah-Labah (A Spider)</i> <a href="https://www.youtube.com/watch?v=moXvZB_BGEk">https://www.youtube.com/watch?v=moXvZB_BGEk</a> 2. <i>Bunyi Haiwan (Animal Sounds)</i> <a href="https://www.youtube.com/watch?v=qZPSXEPO_Aw">https://www.youtube.com/watch?v=qZPSXEPO_Aw</a>  3. <i>Kalau Rasa Gembira (If You Are Happy)</i> <a href="https://www.youtube.com/watch?v=Mv0JTJxdRi8">https://www.youtube.com/watch?v=Mv0JTJxdRi8</a>
<b>Activity 3</b>	:	<b>Animated films with elements of natural resources:</b> 1. <i>Kerbau yang Bijak (Wise Buffalo)</i> <a href="https://www.youtube.com/watch?v=oL9nzlxFdwk">https://www.youtube.com/watch?v=oL9nzlxFdwk</a> 2. <i>Itik yang Hodoh (The Ugly Duckling)</i> <a href="https://www.youtube.com/watch?v=VdSU3oB9p1M">https://www.youtube.com/watch?v=VdSU3oB9p1M</a>

The researchers played songs, children's stories, and animated films on YouTube with the orientation of the words generated from the child's language environment. Material Activity 1 consisted of a children's story published by Filem Negara Malaysia, activity 2 was sourced from the Malaysian Malay Children's Songs while Activity 3 was sourced from Malaysian Fairy Tales. The researchers accessed these three materials online on YouTube (Table 3). Data containing semantic aspects, namely synonyms, antonyms, and hyponyms, were recorded through the three activities among the sampled children. To obtain more data, the children were asked to tell, say, name and retell the story after each activity.

Through observation and participation in the class, the researchers adjusted the instructions for the research assistant to direct the children to respond as if they were playing, dancing, or retelling stories with friends. The researchers also recorded videos of the activities simultaneously. The researchers also collected data from video recordings to ensure the maximum number of words obtained from observation and video recording. Then, the researchers evaluated the semantic structure acquired by the children, and this semantic acquisition covered each word and concept. Finally, the researchers considered whether the data obtained provided a unique insight into the vocabulary acquired based on the activities of songs, stories and animated films from YouTube were appropriate to the children's age.

### Data Analysis

The data obtained were analysed qualitatively. First, the researchers counted the number of synonyms, antonyms and hyponyms spoken by the children. Next, all synonyms, antonyms and hyponyms were identified, summed up individually and as a whole to be used in order to determine the level of semantic development among children based on a scale of five levels of children's language development adapted for this study (Table 4). The Children's Language Development Level Scale, which was adapted from Krashen and Terrell (1983) and Teemant and Pinnegar (2019), was developed for this study. This scale contains five levels as presented in Table 4.

Table 4

*The Children's Language Development Level Scale.*

Levels of Language Development	Scale
<b>Level 1- Basic</b> Preproduction of spoken language	0 – 2 words
<b>Level 2 – Low</b> Low-level language development	3 – 4 words
<b>Level 3 - Medium</b> Intermediate-level language development	5 – 6 words
<b>Level 4 - High</b> Higher-level language development	7 – 8 words
<b>Level 5- Very High</b> Advanced-level language development	9 – or more words

The child-oriented data was created by providing words from songs, children's stories, and animated films on YouTube. After listening to songs and children's stories, and watching animated films, the children were asked to say the words that came to their minds for the word categories of synonyms, antonyms, and hyponyms. The researchers repeated the activity until all children could carry out the activity to say and give synonyms, antonyms, and hyponyms. The observational data were filtered manually, and all responses and incomplete



data were not disregarded but, instead, recorded as a baseline level, namely the child was silent while listening to new words and trying to understand them (Table 4).

### Findings and Discussion

**The first objective of the study is to identify the level of semantic acquisition of preschool children using children’s songs and stories, and animated films on YouTube.**

The children gave some responses during this study that were inappropriate or inconsistent, but they were not significant. This occurs when children cannot imagine words that have semantic elements, that is, words that show similarity (synonyms), opposition (antonyms) and collections or kinship (hyponyms) from children’s songs and stories as well as animated films on YouTube for methodological reasons.

### Semantic Acquisition – Synonyms

As discussed earlier, semantics is the study of linguistic elements that carry meaning. It is located right at the intersection between language and cognition, closely related to the linguistic system that conveys the meaning of words and the meaning of concepts (Wagner, 2010). Hence, the semantic acquisition is the process of a child acquiring various meanings of linguistic elements and conceptual meanings (Clark, 2015). On the other hand, synonyms refer to words with the same or very similar meanings (Wangru, 2016). In the *Kamus Dewan*, Fourth Edition (2010), synonyms are defined as words that have the same or almost the same meanings as other words; for example, ‘beautiful’ with ‘pretty’ and ‘quick’ with ‘fast’. In contrast, Norfarhana Ahmad Ghafar et al. (2016) explain that synonyms are two words that have the same meaning, such as the verbs ‘see’ and ‘look’.

Table 5

#### *Semantic Acquisition Data Analysis – Synonyms*

Respondent	Acquisition of Synonyms				Total
	Wise – Smart	Jealous – Envy	Be Careful – Watch Out	Poor – Struggle	
<b>50</b>	29	9	2	2	42
<b>Total</b>	<b>29</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>42</b>

The results of the study established that the most synonymous words that children obtained from children’s songs and stories, as well as animated films on YouTube, were the following words: ‘wise – smart’ (29/58%), ‘jealous – envious’ (9/18%), ‘be careful’ – watch out’ (2/4%) and ‘poor – struggle’ (2/4%).

Of the 50 preschool children sampled, 47 could provide at least two synonyms, and three could provide between three and four synonyms (Appendix A). Based on the Children’s Language Development Level Scale (Table 4), one can conclude that the mastery of synonyms among children is 94%, which is at the basic level, as illustrated in Figure 4.1.

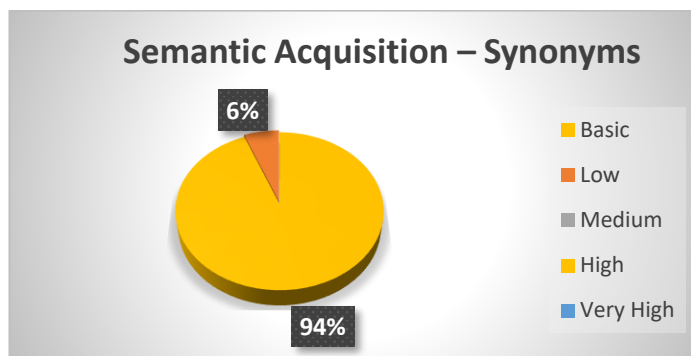


Figure 1: Basic Levels in Synonym Acquisition.

**Semantic Acquisition – Antonyms**

Antonyms refer to words with different meanings (Wangru, 2016). In other words, antonyms are two words with opposite meanings, such as ‘hot’ and ‘cold’ (Ghafar et al., 2016). In the *Dewan*, Fourth Edition (2010) antonyms are also defined as words that are opposite in meaning to other words. For example, ‘high’ is an antonym to ‘low’.

Table 4.2  
*Semantic Acquisition Data Analysis – Antonyms*

Respondent	Antonym Acquisition				Total
	Wise - Stupid	Day – Night	Successful – Fail	Poor – Rich	
50	28	10	16	9	63
<b>Total</b>	28	10	16	9	63

The study’s results demonstrate that the preschool children acquired 63 antonyms through children’s songs and stories as well as animated films on YouTube. The distribution of antonyms that the preschool children acquired the most are as follows: ‘wise – stupid’ (28/56%), ‘day-night’ (10/20%), ‘successful – failed’ (16/32%), and ‘poor – rich’ (9/18%). Of the 50 preschool children sampled, 42 could produce at least two antonym words, and 8 could provide between three and four (Appendix B). Based on the Children’s Language Development Level Scale (Table 4), one can conclude that the mastery of antonyms among children is 84%, which is at the basic level, as illustrated in Figure 4.2.

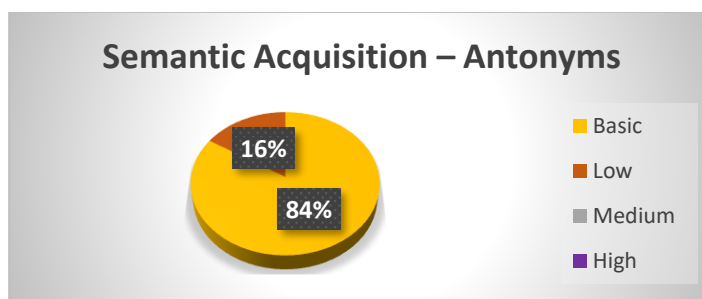


Figure. 2: Basic Levels in Antonym Acquisition

**Semantic Acquisition – Hyponym**

A hyponym is a group of words that belongs to a broader group that, in turn, belongs to one type, such as the words ‘red’, ‘blue’, ‘yellow’, ‘green’, ‘black’ and ‘white’ belonging to one colour group (Ghafar et al., 2016). In the *Dewan*, Fourth Edition (2010), hyponyms are defined

as words whose meanings are encapsulated in the definitions of other words. For instance, ‘goat’, ‘cow’ and ‘deer’ are hyponyms for the word ‘animal’. On the other hand, Wangru (2016) describes hyponyms as a relationship of inclusion. In other words, hyponyms include the more general meaning of words in which the participle system connects many vocabularies.

**Semantic Acquisition Data Analysis – Hyponym**

This study discovered that the preschool children acquired 229 hyponym words through children’s songs, stories, and animated films on YouTube. The distribution of hyponym words that the preschool children acquired the most were hyponyms for the group of animals (127/55%), shelter (39/17%), nature (7/3%), time (9/4%) and colours (47 /21%).

Table 4.3

*Semantic Acquisition – Hyponyms.*

Respondents	Hyponym Acquisition					Total
	Animal	Shelter	Nature	Time	Colour	
50	127	39	7	9	47	229

The analysis shows that the acquisition of hyponyms for 127 animals consists of the following words: ‘buffalo’ (42/ 33.1%), ‘tiger’ (42 /33.1%), ‘wolf’ (27/21.3%), ‘ducks’ (8 /6.3%) and ‘foxes’ (8 /6.3%). The acquisition of hyponyms for 39 shelters consists of the following words: ‘house’ (12/30.8%), ‘cave’ (10/25.6%), ‘tree’ (7/17.9%), ‘forest’ (8/20.5%) and ‘village’ (2/5.1%). However, there were only seven hyponym words for ‘nature’, namely ‘the sun’ (3/42.9%), ‘grass’ (3/42.9%) and ‘flowers’ (1/14.3%). Next, there were nine hyponym words for ‘time’, namely ‘morning’ (3/33.2%), ‘afternoon’ (3/33.3 %), ‘night’ (1/11.1%), and ‘noon’ (2/22.2%). The word hyponym for ‘colour’ was found 47 times and the breakdown of the hyponyms for ‘colour’ is ‘blue’ (7/14.9%), ‘brown’ (4/8.5%), ‘grey’ (9/19.1%), ‘green’ (9/19.1%), ‘orange’ (4/8.5%), ‘black’ (5/10.6%), ‘pink’ (5/10.6%) and ‘purple’ (4/8.5%).

Of the 50 preschool children sampled, 10 (20%) could produce at least two hyponym words, 22 (44%) could provide between three and four hyponym words, 4 (8%) could give between five and six hyponym words, 3 (6%) could provide between 7 and 8 hyponym words and 11 (22%) could give nine and more hyponym words. Based on the Children’s Language Development Level Scale (Table 4), one can conclude that the mastery of hyponym words among children was at a low level (44%) as illustrated in Figure 4.3.

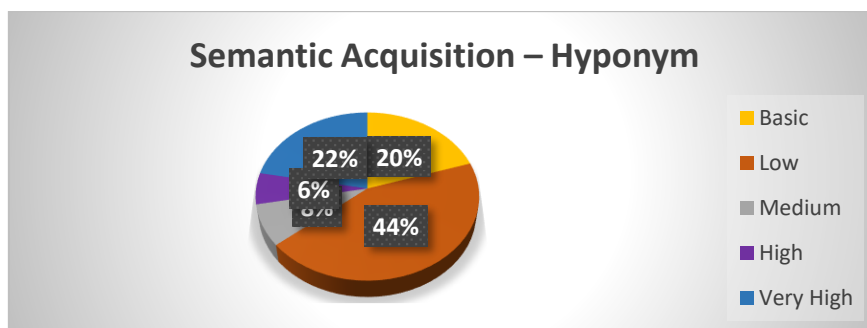


Figure 3. Basic Levels in Hyponym Acquisition.

In short, the semantic network structure, synonyms, antonyms, and hyponyms that children acquired from songs, children’s stories and animated films on YouTube media demonstrated different levels of semantic development. It confirmed that children’s lexical or vocabulary

growth is uneven and that adjectives are more mastered by children, followed by nouns (Li Sheng et al., 2006). More importantly, the semantic acquisition of hyponym words was better than synonyms and antonyms. This means that children learn short words as the starting point of lexical development (Kover & Weismer, 2014).

**The second objective of the study is to summarise the types of words children acquire from songs, children’s stories, and animated films on YouTube.**

Based on Table 4.4, the preschool children tend to acquire synonyms and antonyms in adjectives that are more related to them. For example, the synonym word ‘wise-smart’ and the antonym word ‘wise-stupid’ were mastered by the preschool children more than other synonyms and antonyms.

Table 4.4

*Synonyms and Antonyms Acquired by the Preschool Children.*

Word Type	Words Acquired by the Preschool Children			
<b>Synonyms Words</b>	Wise – Smart (29)	Jealous – Envy (9)	Be Careful – Watch Out (2)	Poor – Struggle (2)
<b>Antonym Words</b>	Smart – Wise (28)	Day – Night (10)	Successful – Fail (16)	Poor - Rich (9)

This finding then corresponds to the cognitive development of children at the substage of intuitive thinking, where children will learn more about categorisation, and they can classify items based on similarities (synonyms) or differences (antonyms) and begin to understand numbers and quantities (Piaget, 1923). The capacity of several preschool children’s samples to classify items based on these similarities or differences through children’s songs and stories heard helped to increase their vocabulary (Stone et al., 2004) although not comprehensively. Therefore, in learning new words that are synonyms and antonyms, the lexicon needs to be structured so that each object is similar to one of the other objects and different from the other two objects (Wojcik & Saffran, 2013). Although previous studies have reported that adjectives appear in children’s speech later than nouns and verbs (Barrett, 1995; Ninio, 1988; Salerni et al., 2007) and form a low-frequency class when compared to other types of word classes, in this study, it has been found that the preschool children had indeed mastered the use of adjectives. For colour adjectives and physical state properties, the development and probability of using these adjectives differ between children (Tribushinina et al., 2014).

Next, for hyponym words, the data showed that the preschool children acquired noun type words for the hyponyms of animals, shelter and nature and acquired adjectives for the hyponyms of time and colour (Table 4.5). It also proved that the preschool children could explore the acquisition of lexical and semantic knowledge through music and songs, thus strengthening and expanding their vocabulary (Winters & Griffin, 2014).

Table 4.5

*Hyponym Words Acquired by the Preschool Children.*

Word Type	Words Acquired by the Preschool Children				
Hypernyms	Animal	Shelter	Nature	Time	Colour
Hyponym word	Buffalo Tiger Wolf Duck Fox (127)	House cave Tree Forest Village (39)	Sun Grass Flowers (7)	Morning Evening Night Afternoon (9)	Blue Chocolate Grey Green Orange Black Pink Purple (47)

As discussed earlier, vocabulary development is the sequential acquisition of words from a set of possible words. In this study, the acquisition of synonyms, antonyms and hyponyms reflected the children's semantic development based on words or transcripts of children's speech after the three activities, namely songs, children's stories, and animated films on YouTube, were carried out. The findings of the study showed that the acquisition of synonym words (47/94%) and the acquisition of antonym words (42/84%) was at a basic level, while the acquisition of hyponym words (22/44%) was at a low level. The difference in the levels of acquisition of synonyms, antonyms and hyponyms among the children studied is driven either by the structure of the environment, which involves a dynamic interaction between children and the environment (McClelland & Cameron, 2012) or existing lexical knowledge which exists in children's minds, behavioural changes, and differences in conceptual understanding. Previous studies have indeed indicated that the word 'diversity' in children's environments had predicted children's language acquisition outcomes. Thus, children develop the meaning of words when there is a development in their lexical knowledge. Therefore, the first feature or component of meaning included in the lexicon is usually based on the child's perception (Clark, 1973). This is also described as egocentrism in children when they cannot distinguish between their perspective and that of others (Piaget, 1923).

Furthermore, this child-oriented study can be conducted when prompted by adult participants who act as enumerators and teachers. The results of this study also showed that the level of word mastery is a predictor of lexical and semantic behaviour (De Deyne et al., 2013) and can be used in modelling lexical growth (Stella et al., 2017). Moreover, word associations generated in child-oriented activities reflect cognitive control processes that adults rely on to modify their language when speaking to children. Consequently, parents, teachers and the community need to provide an overview of the semantic environment through learning and memory mechanisms. Thus, the development of semantics among children can predict the behavioural assessment of mastery of other words (De Deyne et al., 2019).

Besides, the findings of this study can strengthen the methodology of research on this critical subject matter. A combination of qualitative and quantitative approaches is predicted to show an internal representation of the meaning of words that children acquire visually through the three activities. A combination of qualitative and quantitative methods is also appropriate to address questions that have not been addressed before regarding the dimensions of similarities and differences between words and the position of sentences (Saffran, 2014). Furthermore, learning words is beyond mapping labels to their references

and making appropriate connections to other similar references. On the other hand, children must also learn that different words are semantically related. Thus, investigating the semantic relationship of words will help one to understand the word learning process in children earlier. In other words, this study will present a paradigm that future researchers can use to investigate further the early coding of semantic relationships with early word learning.

In the lexical growth theory, semantic acquisition considers different perspectives on children's roles and relationships with the environment. Words central to children's internal semantic environment explain the relationship between words in their vocabulary and those acquired in the future. It relates the active role of children to their environment so that the acquisition of semantics from the setting can contribute to the children's mastery of meaning and concepts. As recalled, Piaget (1923) states that children must be allowed to discover meaning and ideas in their language.

### **Conclusion**

With regards to the research issue of semantic acquisition, this study established that the preschool children mastered synonyms at a basic level of 94%. Meanwhile, in acquiring antonyms, this study substantiated that the preschool children mastered antonyms at a basic level of 38%. Nonetheless, the preschool children exhibited a better level of acquisition of hyponyms, at the low level of 48%. This demonstrates that the level of acquisition of hyponyms is better than the levels of acquisition of synonyms and antonyms. The study's results also validated the development of semantics; that is, the mastery of synonyms, antonyms and hyponyms among children occurs at different levels. It also confirmed that lexical or vocabulary growths among children is uneven.

Consequently, this study highlights the importance of children's linguistic environment that one can use to analyse word learning and word processing among preschool children at the substage of intuitive thinking. As recalled, children are interested in reasoning and curious about a situation or event at this stage. Ergo, children need to be exposed to distinct learning ecosystems to promote children to know and learn more about lexical or vocabulary, in addition to creating opportunities to build children's sense of self-efficacy. Furthermore, different learning environments can encourage responsive learning for all children. Therefore, the approach in the learning environment needs to respond according to the capacities and interests of each child.

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