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# *Children's Cognitive Development: Early Language Learning*

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***Abstract:*** Children's cognitive development is an inevitable part in the education of children. This paper discusses the relationship between children's language learning and cognitive development processes by literature review. Language learning consists of two parts, vocabulary learning and grammar learning. Special educational needs about the language acquisition of deaf children are also considered. Language learning is positive to children development of theory of mind and episodic memory. This paper may offer some references for promoting children's early education.

***Keywords:*** Cognitive development, Memory language learning, Children development

## 1. Introduction

Traditionally, cognitive development is considered to be the acquisition of knowledge through simple learning processes, or the reorganization of knowledge. These are referred to as the learning theory view and the stage theory view respectively. This paper first displays children's cognitive development and discuss the role of language in cognitive development. This part includes three types of development: conceptual development, a theory of mind development and episodic memory development. Early language learning is significant of children's memory develop, make our learning and memory more organized and detailed. The section below describes more early language learning and the relation with children cognitive development. This paper displays three point of views in language learning, there are vocabulary development, grammatical development and deaf children language learning. The aim of this paper is to integrate the links between developmental psychology and language learning. It also gives some examples to discuss some positive and negative situations.

## 2. Children's Cognitive Development

Donald's theory is that the cultures define the main stages of the evolution of mind. In other words, the cognition and culture are mutually constitutive [1]. In Vygotsky's view of cognitive development, language is crucial. Language is the primary symbolic system, according to Vygotsky, and once learned, it will mediate cognitive growth. Follow speech becomes internalized (also known as "inner speech") and is crucial in structuring the cognitive activity of the kids. Culture transmits "sign systems" or "psychological instruments" like writing, language and art. Plowden was clearly indicate that the central to the educational process is development of language. Modern child psychology

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makes the assumption that children have access to all fundamental types of learning and reasoning as early as infancy. Based on this circumstance, it is obvious that social and cognitive processes play a crucial role in children's learning. The fundamental area of development for kids is their knowledge base, along with abilities like working memory [2].

In this section we explain the language contributes to the development of conceptual, the development of theory of mind, and the development of episodic memory.

## 2.1. Conceptual Development

In 1690, researchers formulated a notion that the theory of concept development in traditional psychological is based on the cognition of common attributes and elements.

Locke's notion: It is sufficient to use the word "concept" instead of "idea". Locke's notion suggests that concepts are formed through a process of abstraction. This study uses a number of designated objects, the common features of several of these objects are then abstracted from these objects. When objects are classified, concepts are formed. As can be seen from Locke's account, There are two elements to this technique. We must throw aside specific distinctions that are unrelated to the notion in issue in addition to noting commonalities in order to develop a broad concept. The former is what we mean by generalization, whereas the latter is what we mean by discriminating.

However, this theory fails with regard to the features outlined for the children's model of vocabulary learning. Children's concept selection and generation are not taken into account. Furthermore, the process of abstraction itself places a significant burden on children's information processing abilities. Depends on the children's limited time constraints and the children's processing capacity and limited short-term memory. Depends on the children's limited time constraints and the child's processing capacity and limited short-term memory. During the early language learning, young children between the ages of 9 and 24 months learn vocabulary for the first time. A small number of vocabulary are learned by many children at the outset. These words include mainly the names of food, animals, people and things that move or change in some way [1]. Early words refer to things and events that are viewed in dynamic relationships, which is a prominent general feature of them, i.e. movements, sounds, forms of transformation.

Children often invent a word from the very beginning of language acquisition when a word that conveys his meaning does not exist. This creation must reflect the children's pre-existing conceptual organization, which does not always correspond exactly to that of the language community [1]. This is proof that language learning promotes conceptual development.

## 2.2. Theory of Mind Development

The concept of comprehending social interaction by attributing people's beliefs, desires, intentions, and emotions to them is referred to as theory of mind [3]. In other words, it is a model that children generated to explain human behaviour. In the history of psychology, "theory of mind" was first time used in an article that is a psychological literature of granting non-linguistic creatures theory of mind [4]. Infants and children using the same learning method that we discussed earlier to develop understanding of psychological causality [2]. There are two points of view about the relevant between language learning and theory of mind. The first is the development of theory of mind is depend on the process of language learning. In 1992, some 3 and 4-year-old children have been given a task that aim to test chimpanzees' understanding of the connection between knowing and seeing without nonverbal by Povinelli and deBlois. In summary, the result was that 3-year-old children almost failed the test, 4-year-old children passed. In this test the most signification was that those children who passed the test could give an oral-language explanation of the connection between seeing and knowing. The other children who failed could not. In other side, studies of deaf children have also

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shown that their language development lags behind despite their normal levels of non-verbal intelligence and social adaptation, and that there is a causal relationship between language and theory-of-mind development. These kids were tested on a standard false belief task when it was tailored to their manner of communication, despite giving accurate answers to the control questions.

In the second point of view, Piaget's proposed the underlies of cognitive development: thought precedes language. According to this point, children will reflect to previously acquired false beliefs and conceptual understandings of representational reality through language. This argument is consistent with the proposal that false belief understanding relies on an innate modular system. However, language may still contribute to develop theory of mind [3].

### 2.3. Episodic Memory Development

Multiple cognitive systems constitute memory. There are five main types of memory: Working memory(our short-term memory), implicit or procedural memory, semantic memory, episodic memory (the capacity to actively recall prior experiences from our own lives) [1]. In this part we will explain the connect between episodic memory development and language learning. A key factor in young children's explanatory memory development and learning is the structure of knowledge learned through their experiences. Situational memory is influenced by the interactions that parents and instructors have with their students. Children who grow up with parents or other caregivers who converse in a "elaborate" manner, in other words, have more structured and specific memories. The elaboration style involves amplifying the information recalled by the child and then assessing it. If a mother tends to switch topics, provides less narrative structure and makes little use of elaboration and evaluation, then her child has less recollection of the past. Longitudinal studies have shown that expressing the experience of events as they occur is crucial for long-term retention [5]. Language enables children to develop extended, temporally organized representations of experienced events that are narratively coherent. Engaging in detailed dialogue helps to construct personal histories.

## 3. Children Language Learning

There are not have a clear starting point in the process of language learning, talking is a continuous process. Normal children babble in infancy and are able to recognize tone patterns and phonemes [6]. Most infants begin to respond differently to different words from their parents by the age of 8 to 10 months. By 15 months of age, the child may have learned 10 different words. By 19 months of age, 50 words and more will have been learned [1].

### 3.1. Vocabulary Learning

The major purpose of language is communication [2]. Between the ages of 9 and 21 months, children typically progress from saying a few words at most to being able to say over 200 words [7]. Learning a word means knowing the “history” about the word. Include its literal meaning, various connotations, the various syntactic structures it enters, the morphological options it offers, and the wide range of semantic associations such as synonyms and antonyms [8]. At the same time, to learn a new word, the infant must store its pronunciation pattern, meaning and contextual associations [9]. Before children begin formal learning instruction in primary schools, they have already know on the order of 5000-7000 words [10]. The vocabulary development is signification toward cognitive development. As mentioned above, concepts are formed through a process of abstraction. Vocabulary development also is a process of abstraction: words are symbols that are used to refer to objects or events; they are not themselves [2]. Vocabulary development is exponential in early learning stages. Researchers using the child language checklist they found that the median spoken English vocabulary was 55 words at 16 months of age, 225 words at 23 months of age, 573 words at 30 months of age and 6,000

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words at 6 years of age [7]. The comprehension vocabulary at 6 years of age was approximately 14,000 words [6]. In summary, vocabulary development Vocabulary development in early childhood can contribute to cognitive development.

### 3.2. Grammar Learning

Grammar development depends on Acquired learning environment, rather than on a nature neural system [11]. Since children are learning a natural language, their early expressions will most likely be described using the language's adult-based structural categories. However, from a cognitive development standpoint, it is far from evident that children are using adult-like grammar. When a child says something like "Wanna play horsie", it's probable that she understands initial clauses. The best way to start resolving the problem is to look at how this particular children uses the words want and want to, horsie and related phrases, and other apparent complement clause formulations with other words. This is never done in syntactic analyses based on generative grammar and its offshoots—the child's utterance is simply analyzed as if it were an adult speech—and it is often not done with enough critical rigor in more functionally oriented analyses.

The general conclusion of [11] is that during the early stages, the majority of children use language in the same manner that they have witnessed grow-ups use it. This generates a list of item-based grammar frameworks, possibly with some slots added as a result of observed type variation in that language position. Children do not function with more abstract verbal categories and grammar since they may not yet develop sufficient linguistic experience with specific use.

### 3.3. The language Acquisition of Deaf Children

During the cognitive development, gestures emerge before the acquisition of language, which provide a link between understanding and production [12]. Within their work, a review of current research is provided on the role of gesture in the language development of hearing and deaf children. The goal is to show how the sort of linguistic input that children are exposed to has an impact on the manual modality is used for communicative goals and adopts linguistic qualities. To that purpose, evidence are presented from studies of youngsters whose input differs greatly in terms of its type and arrangement. Actions are used to express meaning. Even in the later stage of cognitive development, gestures can provide important information about what children understand in a specific cognitive field. These (often) unconscious gestures are perceived by their teachers, and they change their teaching input accordingly. Children make gestures when they converse, and those motions often convey concepts that aren't articulated in words [5]. A mismatch between a gesture and the words that follows might arise in this case. When children are on the edge of cognitive development, “mismatches” between gesture and speech become more common. Mismatches also indicate the psychological growth that distinguishes students throughout this transitory phase. More than merely waving your hands, gestures reveal how we think. However, evidence is accumulating that gestures may do more than only convey our viewpoints; they can actually aid in the altering of our thoughts. There is in two ways we may look at how gestures can impact learning: indirectly via changing learning environments and directly through influencing learners themselves.

## 4. Conclusion

Cognitive growth has traditionally been defined as the acquisition of knowledge through basic learning processes or the reorganization of knowledge. The learning theory and stage theory perspectives are referred to as learning theory and stage theory, respectively [13]. This article first presents children's cognitive growth and then discuss the significance of language in cognitive development. This section include the discussion of conceptual, theory of mind, and episodic memory

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development. Early language learning is important for children's memory development, since it helps us organize and detail our learning and memory. More on early language learning and its relationship to children's cognitive development may be found. This paper also present three perspectives on language acquisition: vocabulary growth, grammatical development, and language learning for deaf children. The goal of is to tie developmental psychology and language learning together. Several examples are employed to illustrate.

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