

## The Development of Narrative Skills of Thai Children

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### ABSTRACT

A fundamental goal of the study of language development is to establish a developmental standard for typically developing children (Bates et al., 1995; Fenson et al., 1994; Fenson et al., 2003; Ingram, 1989; Rungrojsuwan, 2003; Salleh et al., 2020). As one of the most familiar interpersonal practices among children in all cultures, traditional narrative discourses have been employed as resources for the study of language development (Berman & Slobin, 1994; Bliss et al., 1998; Justice et al., 2010; Labov & Waletzky, 1967; Piyapasuntra, 2009; Ratitamkul, 2010; Rungrojsuwan, 2019a; Rungrojsuwan, 2019b). Using the Thai narrative Corpus (Zlatev & Yangklang, 2001), the present study aims to examine the normality of development for Thai children's narrative skills from preschool (3-4 years old) to school-age (9-11 years old) in three aspects: continuity of events, elaboration of details, and imagination of the narrators. The onset of narrative development starts in preschool, when the children show limited and relatively simple linguistic structures to describe the story. By primary-school, their linguistic structures were more complex, rich with information, including background information, and story evaluation. The study proposes a sequential order of linguistic development for typically developing Thai children.

**Keywords:** narratives; skills; measures; language development; Thai children

### INTRODUCTION

Storytelling, or narrative, has been a significant practice of human culture for millennia. Humans have transferred their experience and knowledge from generation to generation through storytelling via many different mediums of communication – cave paintings, oratory traditions, chronicles, and oral and written narratives. Hence, it can be said that narrative is a key mechanism for cultural transmission. Generally, storytelling is used daily in normal communicative settings whenever one aims to share his or her experience with others. By expressing what, when, where, why, and how a story happened, conceptualized events are transformed into words and sentences and unified into a story.

Interestingly, storytelling has also been viewed as a distinct register with specific objectives. In relation to language development, Rungrojsuwan (2016) claimed that Thai child-directed storybooks are embedded with attributes that encourage child language development, such as the attributes [simple] (using shorten phrases, and repeating NP referring to protagonists instead of using pronouns), and [prototypical] (using a variety of verbs and more complex sentences). Such characteristics help children follow the story easily and, at the same time, learn new vocabulary and familiarize themselves with more complex linguistic structures.

## NARRATIVE MEASURES

Children’s narratives have long been viewed as valuable sources of information aiding in our understanding of the language development phenomenon. Scholars in adolescent language investigated children’s language development journeys by establishing measurement criteria for children’s narratives. As a target of language acquisition, the ability to form narrative is considered a vital skill for children to obtain, as evidenced by its use in many different terms of language development: ‘*narrative competence*’, ‘*narrative skills*’, ‘*narrative macrostructure*’, ‘*narrative assessment protocol (NAP)*’, ‘*narrative scoring scheme*’. Prior studies have generally classified narrative measurements based either on content or linguistics.

Narrative skills with content-based measures – also called ‘macrostructure’ or ‘story grammar’ – emphasize the primary plot requirements of storytelling, such as introducing a story and its protagonists, sequencing events, and providing extra information about the story. These measures do not focus on types of linguistic forms but rather on how much content the narrators provide about the story’s basic plot. Examples of content-based measures are shown in Table 1

TABLE 1. Content-based measures of narrative skills

<b>Measurement criteria</b>
Narrative assessment (Bliss, McCabe, & Miranda, 1998) topic maintenance, event sequencing, explicitness, referencing, conjunctive cohesion
Narrative skills (Almgren, Beloki, & Manterola, 2008) introduction, main body, conclusion
Narrative macrostructure (Kelly & Bailey, 2012) orientation, complicating action, evaluation
Narrative macrostructure (Rungrojsuwan, 2019a) introduction, problem, solution
Story grammar (Fichman, Altman, Voloskovich, Armon-Lotem, & Walters, 2017; Fitchman, Armon-Lotem, Walters, & Altman, 2021) goals, attempts, and outcome

The second group of studies directly examines the production of linguistic forms – also known as ‘microstructure’ or ‘literate language’ – in narratives (Table 2). With less emphasis on the holistic coherence of the story, the types and tokens of words, phrases, and sentences are examined and quantitatively measured.

TABLE 2. Language-based measures of narrative skills

<b>Measurement criteria</b>
Narrative assessment protocol (NAP) (Justice, Bowles, Pence, & Gosse, 2010) sentence structure, phrase structure, modifiers, nouns, verbs
Oral narrative performance (Terry, Mills, Bingham, Mansour, & Marencin, 2013) a) literate language (simple and complex elaborated NPs, advs, conjunctions, mental/linguistic verbs) b) cohesive devices (conjunctions)
Narrative assessment protocol (Spanish) (Gorman, Bingham, Fiestas, & Terry, 2016) sentence structure, phrase structure, modifiers, nouns, verbs (+9 Spanish-specific features)

Emphasizing different perspectives, the two approaches complement the overall picture of narrative skills. The content-based criteria demonstrate how well the children – as narrators – achieve the main plot points of the story, while the linguistic-based criteria measure how children

of different ages acquire more complex linguistic structures. Accordingly, some studies employ both of these approaches in exploring the children's narrative skills, as shown in Table 3.

TABLE 3. Mixed measures of narrative skills

Measurement criteria
Narrative scoring scheme (NSS) (Heilmann, Miller, & Nockerts, 2010) a) story grammar (introduction, conflict solution, conclusion); b) literate language skills (mental states, character development); c) cohesion skills (referencing, cohesion)
Narrative competencies (Melzi, Schick, & Bostick, 2013) a) macrostructure; b) microstructure (such as conjunctions, mental verbs, adverbs, NPs)
Narrative competences (Pinto, Tarchi, & Bigozzi, 2016) a) structure (title, conventionalized story opening, and closing, characters, setting, problem, and resolution); b) coherence (no. of incongruences); c) cohesion (conjunctions: causal, temporal)
Narrative assessment protocol-2 (NAP) (Bowles, Justice, Khan, Piasta, Skibbe, & Foster, 2020) a) story grammar (problems, solutions, resolutions); b) storytelling convention (title, conventional opening, and ending); c) lexical diversity (V., Adv., character references, <i>wh</i> -questions, temporal ordering)
Narrative assessment tool (Rezaeian, Ahangar, Hashemian, & Mazaheri, 2020) a) macrostructure; b) microstructure (sentence structure, references, conjunctions, measures of story length)
Narrative macrostructure competence VS microstructural linguistic skills (Chan, Chen, Hamdani, Tse, & Cheng, 2023) a) macrostructure (story structure, story complexity, and internal state terms); b) microstructure (no. of different words, mean length of communication units, and etc.)

From Table 3, the two types of criteria have been treated separately as two distinct aspects of narrative competence. Regarding linguistic measures (literate language), it is not clear why some linguistic devices were included. From a functional perspective, it can be argued that certain linguistic devices were used to serve specific functions. For example, the use of conjunctions could indicate various sense relations of the connected events (sequential, simultaneous, cause-and-effect, concession, etc.). Accordingly, the selection criteria for linguistic devices should reflect the particular purposes or attributes of the narratives. Hence, the present study introduces three major components specifically serving narrative characteristics, as explained in the analytical framework.

### ROLES OF SCHOOL IN NARRATIVE DEVELOPMENT

Although children experience narratives from a young age through home-based activities such as games and bedtime storytelling, the exposure is not consistent enough to provide clear development until they are in school, where storytelling becomes a regular activity in the classroom. During preschool, Ögel, Balaban, and Hohenberger (2020, p.682) reported that 3-4-year-old Turkish-speaking children produced significantly fewer complex plot components than those over 5. Kelly and Bailey (2012) noted that preschoolers began to produce a proper sequence of events but not effectively until they were 6 years old – when they were in school. Moreover, maternal contributions seemed to play an important role in children's narratives when they were as young as 3 years old and gradually dissolved in the next few years, when their narratives were scaffolded (p.68). This is similar to a longitudinal study by Melzi et al. (2013) on the narrative development of Spanish children (of Latino origin) that compared the beginning of the school year (at the age of 4) to the end of the school year (at the age of 5). The children's overall story grammar and literate language scores significantly increased (story grammar: from 7.49 to 10.75; literate language: from 5.95 to 7.65). In the Thai context, Ratitamkul (2010) found that 4-year-old Thai-

speaking children preferred using lexical forms to create narrative coherence rather than referential forms, such as pronouns, due to their limited linguistic competence.

In studies of school-age children, Bliss et al. (1998, p.355) reported that children as young as 7 years old could achieve qualitatively appropriate narrative components according to their criteria (in Table 1), while Pinto et al. (2016, p.7) claimed that oral narrative production in kindergarten played an important role in predicting the children's ability to write a story in first grade. Moreover, formal learning in school positively empowered children's narrative development. Reese et al. (2010, p.635-636) found that 6-year-old children who experienced 1-2 years of reading instruction achieved positive qualitative scores in narrative production. In Thai, Piyapasuntra (2009) reported that types and proportions of complex sentences in the narratives of school-age children (at 9 years old) were like those of adults, while those of preschool children (4 and 6 years old) were less varied, and the 'coordination type' was most frequently found.

Accordingly, the shift from a preschool environment to a more formal school setting seems to be a significant stepping stone in the acquisition of narrative skills. In other words, it can be assumed that children can effectively use their limited linguistic competence to serve narrative purposes after attending school. The primary inquiry of the present study is to examine *to what extent preschool and school-age children acquire narrative-related linguistic features*. We sought to provide a significant alternative view of how storytelling can be advantageous in the study of language development. In addition, this research attempted to postulate the order of language development in the Thai language. The findings have the potential to further develop a normality scale of language development which benefits not only the study of child language in Thailand but can also be used as a measuring tool for pediatricians in detecting typicality in child development. Hence, the present study aimed to 1) investigate the language development of Thai children from preschool to school age by employing narrative measures, and 2) propose the order of language development for Thai.

## METHODOLOGY

### DATA

The study utilized data in the form of storytelling recordings of preschool (4 and 6 years old) and primary-school-age Thai children (9 and 11 years old). A total of 40 narratives – 10 narratives for each age group – were elicited from the Thai-Zlatev Corpus (Zlatev & Yangklang, 2001), a freely accessible database found at <https://chilides.talkbank.org/access/Frogs/Thai-Zlatev.html>. In the present study, the data recordings are referred to as the Thai Frog Story Corpus.

### ANALYTICAL FRAMEWORK

Berman and Slobin (1994) recognized that telling a story represents a specific type of exercise in connecting events together to form a unified story. Studies in narrative development have proposed a range of different components required in a storytelling performance (Aksu-Koç & Nicolopoulou, 2014; Berman & Slobin, 1994; Bliss et al., 1998; Gorman et al., 2016; Justice et al., 2010; Pinto et al., 2016; Winskel, 2007). Viewing the proposed features from a functional perspective, in order to successfully convey messages to the audience, a narrator should be able to decode the story based on at least three characteristics: continuity of events, elaboration of details, and imagination of the narrator. First, as the foundational characteristic of all narratives, the continuity of events is the first indicator of a successful narrative. It might be said that a good story

should be unified by well-organized coherence that successfully demonstrates a smooth flow from one plot point to the next. In order to do this, various types of events must be connected appropriately. Second, depending on the amount of information provided by the narrator, the story is either clear or unclear. Accordingly, the narrator must pay attention to the details of the characters and events that support plot development. Third, in order to make the story attractive, some ‘extra information’ not given in the original version might be inserted. In a narrative, some background information and the narrators’ evaluation of the story are said to be significant indicators of the ‘art of storytelling’.

In this study, the three characteristics were referred to as ‘narrative components’. In order to examine the extent to which children at different ages acquire these components, types of information, or *local information*, reflecting these components were specified. Moreover, with respect to the *local information*, the study explored related linguistic devices demonstrating such information. Therefore, as shown in Figure 1, the present study postulated three distinct narrative components corresponding with five types of local information and five linguistic devices as the framework for data analysis.

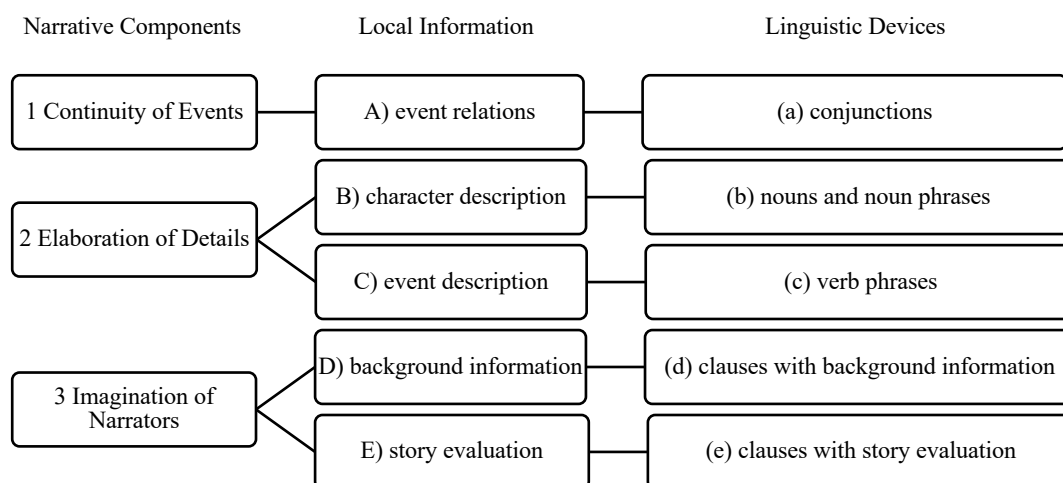


FIGURE 1. The Analytical Framework

## ANALYSIS

### NARRATIVE COMPONENTS

According to the framework in Figure 1, results for each narrative component were reported qualitatively – with examples – and quantitatively – with frequencies of linguistic devices found in the Corpus together with proportions of the subtypes of linguistic devices.

### STAGES OF ACQUISITION

Stages of acquisition showed how far along the children in each age group were on the path of narrative development. The present study proposed three stages of acquisition: the beginning stage, the developing stage, and the acquired stage. The frequencies of use of each linguistic device were taken into consideration according to the following criteria:

### *Stage 1: The Beginning Stage*

The beginning stage was defined as the stage in which the majority of children (>50%) produced very limited linguistic devices. In addition, the linguistic devices found in this stage were simple and salient.

### *Stage 2: The Developing Stage*

In the developing stage, approximately 50% of the children in each age group utilized linguistic devices (Figure 1). This can be observed in children's repetitive production of the linguistic devices.

### *Stage 3: The Acquired Stage*

The acquired stage is where most children (70%) in each age group have acquired linguistic devices (Figure 1). In terms of the order of development, the linguistic devices found at this stage are said to be the most difficult to acquire and have the most complex structure.

To represent this, the stages of acquisition were marked with the following symbols:

Beginning stage	=	✕
Developing stage	=	Δ
Acquired stage	=	✓

## **RESULTS AND DISCUSSION**

This section illustrates the qualitative and quantitative results of the three narrative components. Qualitatively, data from the Thai Frog Story Corpus were analyzed and classified according to the analytical framework in Figure 1, with the definition of each component supported by some examples from the Corpus. The key linguistic devices were further classified into subtypes, either structurally or semantically. Quantitatively, the frequency of all types and subtypes of linguistic devices and their proportions were illustrated in a chart. Additionally, the report notes the presence of the devices among all age groups.

### **CONTINUITY OF EVENTS: EVENT RELATIONS**

Narrating a story is the verbal act of connecting a series of events in order to describe a plot chronologically. The arrangement of events (represented by clauses and sentences) demonstrates different types of relationships between events themselves, such as relations in terms of time and cause-and-effect. In a narrative, the story's development is necessarily required to link events from one plot point to another. Conjunctions are significant linguistic devices to show event relations. From the Thai Frog Study Corpus, four event relationships with different linguistic devices – sequential, simultaneous, cause-and-effect, and contradictory relations – were found.

#### **SEQUENTIAL RELATIONS**

Sequential relations basically give information about the order of events. This means that in order to introduce a sequence of events 1) there must be more than one event clause in a sentence, and 2) the two clauses are connected by a conjunction, indicating the sequence of the two events. Qualitatively, sequential conjunctions found from the Corpus included *lɛɛwkô* 'then', *lǎŋcàaknán* 'after that', *pʰɔɔ...kô* 'when...then'. Tentatively, it seemed that the first clause (A) was the event

which preceded the second (B), such as A *léwkô* B ‘A then B’, A *lǎncàaknán* B ‘A after that’, as in examples 1-2.

- (1) *mǎanóɔj kóɔ mút hǔa kʰáw paj naj kʰùatlǒo*  
puppy then duck head enter go in jar  
*léwkô pʰlòo maa tʰaaŋ náatàaŋ*  
then poke come path window  
‘The puppy ducked its head into the jar, then poked out of the window.’
- (2) *dépbii kóɔ làplǎj paj dúaj naj tiaŋ tʰi nùm*  
Debby also asleep go together in bed REL soft  
*lǎncàaknán kòp dáaj ʔòk càak tʰo*  
after that frog PAST out from jar  
‘Debby also fell asleep on the soft bed. After that, the frog got out of the jar.’

#### SIMULTANEOUS RELATIONS

Some events of the story happen at the same time or simultaneously. The results demonstrated that the children employed simultaneous relation markers including *pʰrómkàp* ‘at the same time’, and *ràwàaŋtʰi...kóɔ* ‘while...and’, as in examples 3-4.

- (3) *dèk cɔɔn kóɔ kradòot loŋ maa pʰrómkàp bòk dépbii wáa*  
child John then jump down come at the same time tell Debby COMP  
*jàa tʰam jàajni ʔiik ná?*  
prohibit do like this again PART  
‘John jumped down and told Debby that don’t do this again.’
- (4) *rawàaŋtʰi tʰom tòk loŋ paj nán cǎwkwaŋ tua nán*  
while Tom fall down go TOP deer CLF that  
*kóɔ kǎp tòk loŋ paj dúaj*  
also nearly fall down go also  
‘While Tom was falling, the deer was also falling.’

#### CAUSE-AND-EFFECT RELATIONS

Cause-and-effect relations require the children to establish a relationship between two events in which one event made another happen. Two significant cause-and-effect markers were *pʰró?* ‘because’ and /*con*/ ‘until’; the sequence of the cause-and-effect clauses included [EFFECT *pʰró?* CAUSE] and [CAUSE *con* EFFECT]. Examples from the data are illustrated in 5 and 6.

- (5) *mǎa kʰóɔŋ kʰǎw dáaj wíŋ céen ʔòk paj*  
dog POSS he PAST run fast out go  
*pʰró? pʰiŋ taam cà? maa tòj kʰǎw*  
because bees follow FUT come sting he (the dog)  
‘His dog quickly ran out because the bees tried to sting it.’

- (6) *sùnák takuj tòn máaj con ranp<sup>h</sup>íη tók loη maa*  
 dog scratch tree until beehive fall down come  
 ‘The dog scratched the tree until the beehive fell down.’

CONTRADICTIONARY RELATIONS

Contradictory relations show some aspect of disagreement between two events. Contradictory conjunctions found from the Corpus included *tɛɛ* and *tɛɛwáa*, as in examples 7-8.

- (7) *t<sup>h</sup>ɔm kɔɔ dáaj rɔ́ɔηriak kòp wáa cáwkòp jùu nǎj*  
 Tom then PAST call for frog COMP frog be where  
*tɛɛ kɔɔ jaη máj mii síaj tɔ́ɔp ráp mǎan k<sup>h</sup>əaj*  
 but still yet not have noise answer accept same be  
 ‘Tom called for the frog “Frog, where are you?” but still there was no answer.’
- (8) *bópbi sīη hǔa tít jùu naj k<sup>h</sup>uát nán kɔɔ tók loη maa cáak rabian*  
 Bobby REL head stick be in bottle that then fall down come from terrace  
*con k<sup>h</sup>uátlɔo tɛɛk tɛɛwáa jaη c<sup>h</sup>ɔokdii máj pɛn ʔaraj máak*  
 until bottle break but still fortunate not be what much  
 ‘Bobby, whose head was stuck in the bottle, fell down from the terrace and broke the bottle, but fortunately he was still fine.’

Figures 2 and 3 demonstrate the distribution of the four types of conjunctions across the four age groups.

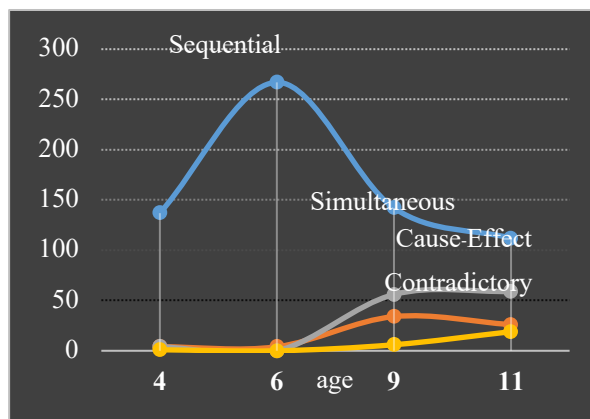


FIGURE 2. Frequencies of conjunctions in children's narratives across all ages

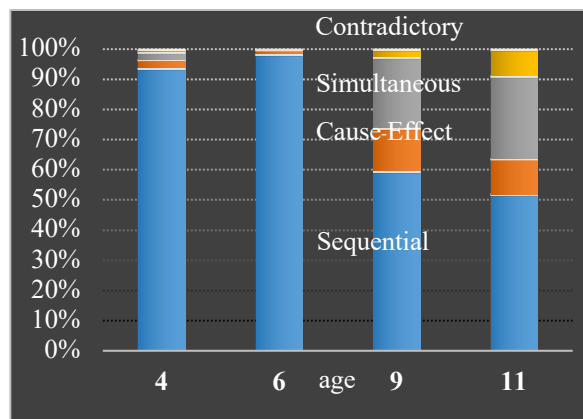


FIGURE 3. Proportions of types of conjunctions in children's narratives across all ages

As illustrated in Figures 2 and 3, preschool children, who were 4 and 6 years old, tended to rely mainly on sequential markers. This indicates the simplicity and semantic saliency of sequential relations over other types of relations. In other words, children showed signs of acquisition of sequential relation markers from preschool – as early as 4 years of age. The proportions of sequential, cause-and-effect, and contradictory markers gradually increased in the school-age group – 9 and 11 years of age.



### ELABORATION OF DETAILS

By providing descriptions of characters, locations, and actions, narrators help audiences see a clearer picture of the story. Moreover, the insertion of more elaborate descriptors, such as adjectives, adverbs, or noun modifiers, depict the foregrounded components of the story. This can help the audience to perceive imaginary scenarios, making the story more attractive or fun.

The present study proposed two types of local information for detailed elaboration: 1) character description and 2) event description. Linguistically, character information is illustrated via the use of noun phrases—a noun modified by other words, phrases, or clauses—while event details are usually shown by the addition of verb complements and modifiers, such as adverbs or phrases.

#### CHARACTER DESCRIPTION

The unit of analysis for character description was NPs, referring to the three main protagonists: the boy, the dog, and the frog. The internal structure of each NP was analyzed according to the number of lexical units or words. Results for all ages found that the children’s NPs were composed of no more than three lexical units.

One-word NPs found in the data included common nouns (such as *dək* ‘boy’ and *mǎa* ‘dog’), proper nouns (such as *tʰooni* ‘Tony’), and pronouns (*pʰəm* ‘I’ and *man* ‘it’). Two-unit NPs were presented in four patterns, as shown in examples 9-12.

N + (POSS) + N/PRO		N + N/ADJ		
(9) <i>kòp (kʰɔ̌ɔŋ) cʰǎn</i> frog (POSS) I ‘my frog’		(10) <i>dəkʰaaj bóp</i> boy Bob ‘Bob’	<i>kòp nój</i> frog little ‘the little frog’	
N + (CLF) + DET		N + REL CL		
(11) <i>kʰon núun</i> man that ‘that man’	<i>súnák tua nán</i> dog CLF that ‘that dog’	(12) <i>kòp tʰi kʰǎu càp dâaj</i> frog COMP he catch PAST/ABIL ‘the frog that he caught’		

Three-unit NPs were formed by a two-unit NP with a determiner added, as in example 13.

(13) *dək pʰuucʰaaj (kʰon) nán*  
child boy CLF that  
‘that boy’

The frequencies of each NP type illustrated in Figure 4 demonstrate that one-word NPs were produced by children of all ages, while two-unit NPs were minimally used in preschool and significantly increased at school age. However, three-unit NPs were rarely found in the Corpus. Such findings seem to suggest that 1) the children acquired structures from simple to more complex, and 2) with more lexical and grammatical vocabulary, the school-age children (from 9 years old) could perceive more character details and produced them as realized in two- and three-unit NPs.

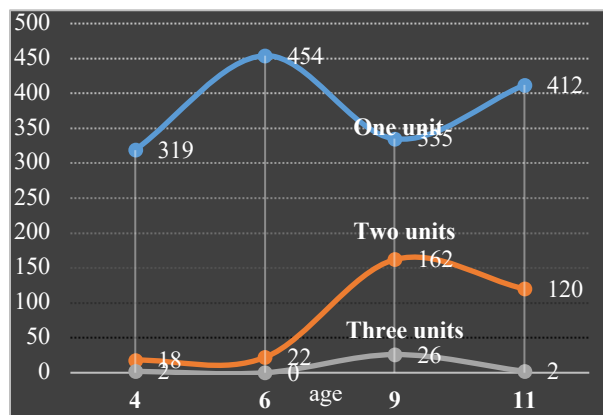


FIGURE 4. Frequencies of NP types (one-three units) across all ages

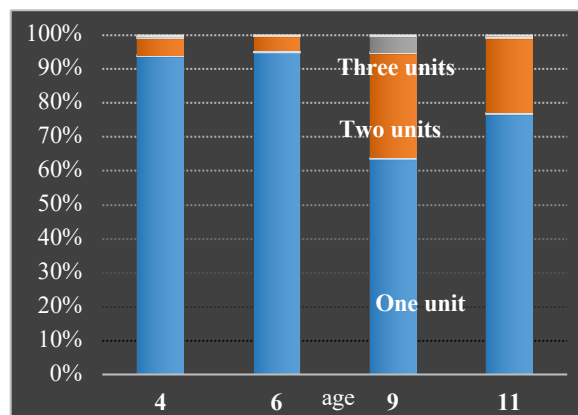


FIGURE 5. Proportions of NP types (one-three units) across all ages

The proportions of each NP type in Figure 5 confirmed the degree of simplicity of one-word NPs over the others. However, it was observed that in addition to the use of common nouns to refer to the protagonists, many children preferred to use proper nouns, naming all of the protagonists, such as *tʰɔm* ‘Tom’, *coo* ‘Joe’, and *dépbûi* ‘Debby’. The proper names themselves specifically referred to the characters, and from the grammatical aspect, they do not co-occur with other determiners or modifiers. Accordingly, the acquisition of character description could be perfectly completed by using just one proper noun.

#### EVENT DESCRIPTION

Verb phrases (VPs) provided the unit of analysis for event description. Reflecting the size of the VPs, the internal structure of each VP was examined. Linguistically, a VP basically consists of a verb and either a complement or a modifier. In other words, the elements that compose a VP include different types of syntactic units, such as N, NP, and PP. Each syntactic unit was counted as one element in forming the VP. It should be noted that this study excluded any VP consisting of only one verb in order to see how well the children could produce more complex structures. It was surprising that the children in all age groups could produce VPs from two to more than five units, as in examples 14-23.

Units/VP	Example VPs	
2	(14) <i>cəə kòp sɔ́ŋ tua</i> find frog two CLF (V NP) ‘found two frogs’	(15) <i>paj tʰi raŋ nók</i> go at nest bird (V PP) ‘headed towards the nest’
3	(16) <i>càp kòp maa</i> catch frog come (V N V) ‘caught the frog’	(17) <i>lǎ tɛɛ mǎa</i> leave only dog (V Adv N) ‘There was only the frog left.’
4	(18) <i>kamlaŋ hǎa náampʰɛŋ jùu</i> PROG find honey PROG (Adv V N Adv) ‘was finding the honey’	(19) <i>paj ʔɛɛp duu kòp</i> go hide see frog (V V V N) ‘kept looking for the frog’

5	(20) <i>mâj hěn mii kòp ləəj</i> NEG see have frog Part (Adv V V N Part) 'did not see the frog at all'	(21) <i>ʔaw hǔa mút kʰăw paj</i> get head hide enter go (V N V V V) 'put his head in'
5+	(22) <i>càʔ piin kʰin paj kin náampʰin</i> FUT climb up go eat honey (Adv V V V V N) 'would climb up to eat the honey'	(23) <i>pʰlâk háj kʰăw tók loŋ paj kàp pʰin</i> push give him fall down go on floor (V V Pro V V V PP) 'pushed him down onto the floor'

The distributions of different sizes of VPs are illustrated in Figure 6 and Figure 7.

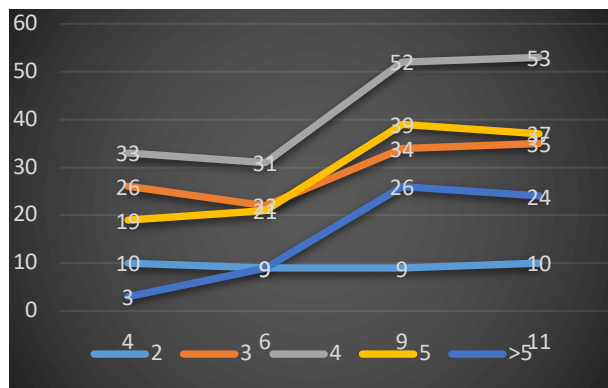


FIGURE 6. Frequencies of VP types across all ages

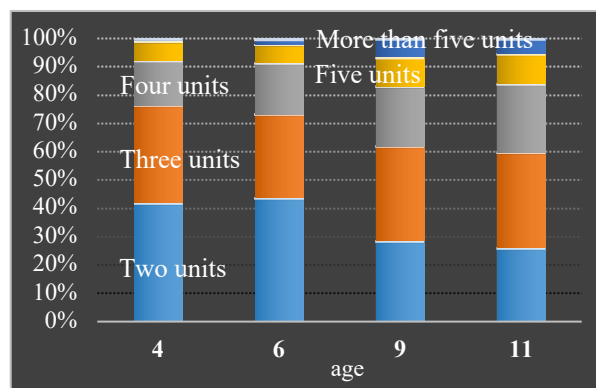


FIGURE 7. Proportions of VP types across all ages

From Figure 6, it can be seen that VPs tended to increase with age. This indicated the children's elevated ability to generate more complex structures as they grew older. Although the frequencies of 5-unit and greater-than-5-unit VPs were lower than those of 4, the ability to compose a VP from one verb and three more complements and/or modifiers is relatively advanced. In addition, the presence of 3-, 4-, 5-, and more than 5-unit VPs increased when the children fully entered the school-age period at 9 years old. This indicates the significant influence of formal education on language development. For proportions of the VP types, Figure 7 seems to confirm the fact that with age, the children could generate more complex structures. In other words, the number of two-unit VPs tended to be replaced by those of 4, 5, and more than 5 units.

### IMAGINATION OF NARRATORS

In order to make a story attractive and entertaining to the audience, a skillful narrator often needs to provide extra information in addition to the general contents or pictures of the story. Imaginative information helps the audience understand the story more clearly. This includes background knowledge about the characters and their decisions – not illustrated in the pictures. In this study, the imagination of narrators involved two types of information: background information and story evaluation.

#### BACKGROUND INFORMATION

Because of the limited illustrations on each page, it was necessary for the narrator to provide additional details for the background of the story. The background information included details that were not immediately present in the picture. This might introduce the relationship between

the characters, the reason why they were together, or even their pasts and the events following the immediate scenario, as shown in examples 24-27.

Examples 24 and 25 demonstrate the story's first scenes, where a boy, a dog, and a frog were in the bedroom. The narrators provided the background information (highlighted) of what happened before they appeared in the scene.

(24) *mii dèk c<sup>h</sup>aaj k<sup>h</sup>on nìŋ dâaj càp kòp naj pàa maa lian wáj*  
have boy CLF one PAST catch frog in forest come raise stay  
*naj hōŋ k<sup>h</sup>ǝŋ k<sup>h</sup>ǎw naj k<sup>h</sup>ùatlǝo (9-03)*  
in room POSS he in jar  
'There was a boy. He caught a frog from the forest and raised it in a jar.'

(25) *dèk nǝj k<sup>h</sup>on nìŋ kàp sùnák k<sup>h</sup>ǝŋ k<sup>h</sup>ǎw paj diin lèn naj sūan*  
child small CLF one and dog POSS he go walk play in garden  
*lé? k<sup>h</sup>ǎw kǝ dâaj càp maa wáj naj k<sup>h</sup>úat (11-03)*  
and he then PAST catch come stay in bottle  
'A little boy and his dog went for a walk in the garden and he caught (a frog)  
and put it in a bottle.'

In the last scene, the boy is seen with a frog in his hand. With the dog, he waves his hand to the frog's family. In examples 26 and 27, the children added more details about what happened after this scene (highlighted).

(26) *cǝn lé? dépbii dâaj báajbaaj p<sup>h</sup>ǝ méé k<sup>h</sup>ǝŋ cáawkòp tua nán*  
John and Debby PAST say goodbye dad mom POSS frog CLF that  
*cǝn lǝj mii k<sup>h</sup>waamsùk lé? dǝn klàp paj lé? bǝk méé hâj sîi*  
John then have happiness and walk back go and tell Mom CAUSE buy  
*t<sup>h</sup>ǝ mǝj (9-04)*  
jar new  
'John and Debby said goodbye to the frog's parents. John was happy  
and walk back. He asked his mom to buy him a new jar.'

(27) *t<sup>h</sup>ǝm ciŋ k<sup>h</sup>ǝ lúuk kòp paj tua nìŋ lé? p<sup>h</sup>úakkòp nán ciŋ hâj*  
Tom then beg child frog go CLF one and frogs those then give  
*càaknáa t<sup>h</sup>ǝm kǝ paj bāan lé? lian kòp jàŋdii (11-05)*  
after that Tom then go home and raise frog well  
'Then Tom asked for a little frog and those frogs allowed.  
After that, he went home and took care of the frog well.'

#### STORY EVALUATION

In order to make the story more interesting and to engage with the audience, the narrator can provide extra pieces of information concerning their evaluation of the story's events or the actions of its characters. This might include the characters' thoughts about the events or reasons behind their actions. Like the background information, the pictures themselves did not obviously provide the content for story evaluation. Examples 28 and 29 highlighted the texts with evaluative information created by the children.

(28) *cɔɔn paj cə̃ kwaan tua nə̃ŋ lɛ̃w paj jùu troŋ tʰi hũa nâapʰãa kʰɔ̃ɔŋ*  
 John go find deer CLF one then go stay at place head cliff POSS  
*kwaan cɔɔn dâaj tɔ̃kcaj mâak kwaan kɔ̃ɔ moohõo* (9-04)  
 deer John PAST frightened much deer also angry  
 ‘John found that he was on the head of a deer (which he thought was a cliff).  
 He was very frightened and the deer got angry.’

(29) *tʰoonii paj kʰit waa siŋ tʰi ton càp jùu nán pen kɪŋmáaj*  
 Tony go think COMP thing REL self catch PROG that be branch  
*tɛ̃ man mâjcʰâj man pen kʰăwkwaan kʰăw kɔ̃ɔ kròot mâak* (11-04)  
 but it not be it be antler he then angry much  
 ‘Tony thought that what he was catching was a branch, but it was not.  
 It was an antler. He was very angry.’

Figure 8 illustrates the frequencies of occurrence of clauses indicating background information and story evaluation across all ages.

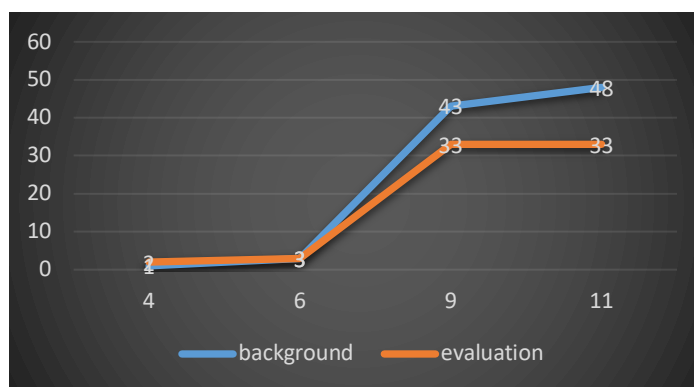


FIGURE 8 Frequencies of clauses with background information and story evaluation across ages

From Figure 8, it can be seen that the school-age children (9 and 11 years old) showcased their significant imaginations by adding evaluative comments to the story. This implies that the skill of story evaluation is not commonly acquired until children start their formal education at school, sometime before the age of nine. This might be because storytelling is a normal practice in school, providing the children with more opportunities to experience how a story should be told. Consequently, they could naturally absorb some of the attributes and flows of storytelling.

#### STAGES AND ORDER OF ACQUISITION

According to the postulated criteria for analyzing stages of language acquisition, the number of children in each group who produced a certain linguistic device was taken into consideration. The linguistic devices produced by less than 50% of the children in the same age group were classified in the beginning stage, while those produced by 50% and 70% of the children in the same age group were placed in the developing and acquired stages, respectively, as in Figure 9.



FIGURE 9. Criteria for classifying the three stages of language development

Table 4 showed the overall results of the children’s acquisition of narrative components distributed into types of linguistic devices. Stages of language acquisition were represented by three different symbols: ✕ for the beginning stage, Δ for the developing stage, and ✓ for the acquired stage. For the benefit of presenting the order of development in the next section, each type of linguistic device was coded A-E and numbered.

TABLE 4. Stages of acquisition of linguistic parameters in the narratives of Thai children

Narrative Components	Linguistic Devices and their subtypes	Stages of acquisition across ages			
		Preschool		School-age	
		4	6	9	11
<b>1. Continuity of events</b>					
Event relations	(a) conjunctions				
	A1- sequential	✓	✓	✓	✓
	A2- simultaneous	✕	✕	Δ	✓
	A3- cause-effect	✕	✕	Δ	✓
	A4- contradictory	✕	✕	✕	✓
<b>2. Elaboration of details</b>					
Character description	(b) nouns and NPs				
	B1- one unit	✓	✓	✓	✓
	B2- two units	✕	✕	✓	✓
	B3- three units	✕	✕	✕	✕
Event description	(c) verb phrases				
	C1- two units	✓	✓	✓	✓
	C2- three units	✓	✓	✓	✓
	C3- four units	✕	Δ	✓	✓
	C4- five units	✕	✕	Δ	Δ
	C5- >five units	✕	✕	Δ	Δ
<b>3. Imagination of narrators</b>					
Background information (BI)	(d) clauses with BI				
	D1- BI	✕	✕	Δ	Δ
Story evaluation (SE)	(e) clauses with SE				
	E1- SE	✕	✕	Δ	Δ

From Table 4, preschool children acquired simple linguistic markers in the first two narrative components – continuity of events and elaboration of details – as classified in the acquired stage. This included sequential conjunctions, one-unit NPs describing characters, and up to three-unit VPs describing events. There was some evidence of four-unit VPs at 6 years of age, which was still in the developing stage. On the other hand, school-age children performed very well by employing almost all types of devices in all narrative components, though some were still developing (marked by Δ). Interestingly, the 9- and 11-year-old groups did not show significant

development, as most of the devices were acquired at a similar stage. This excluded A2, A3, and A4, which the 11-year-old group attained in the final stage of development. It is possible that the correct use of conjunctions requires a clear semantic understanding of all conjoined clauses. On the other hand, the acquisition of syntactic structures – NP and VP – might require only inter-lexical analysis, possessing lesser complex semantic interpretation, allowing the preschool children to generate more complex NPs and VPs but not conjunctions. Concerning imagination, it was found that even the children in the oldest group had not yet fully acquired the ability to create background information and story evaluation, as they were still developing these skills.

The overall results in Table 4 suggest the following order of development of narrative components and linguistic devices: For devices consisting of subtypes A, B, and C, the devices with fewer units or lower numbers (such as 1) tended to be acquired earlier than the ones with greater units and higher numbers (such as 5). This also indicates that the level of complexity increased from 1 to 5. For example, device A1 is less complex and could be acquired earlier than devices A2 and A3. Noticeably, the level of complexity corresponded with the level of difficulty.

In order to propose the order of acquisition, the results in Table 4 were further classified according to the similarity of patterns of acquisition across all ages. In other words, all of the linguistic devices in similar stages of development were grouped and rearranged according to their level of difficulty, as illustrated in Figure 10. The ones with more ✓ (acquisition) were placed on the left side of the chart, while the ones with more ✗ (beginning) were on the right.

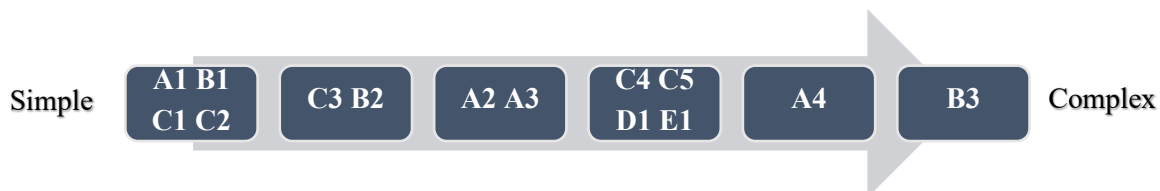


FIGURE 10. The order of acquisition of linguistic devices for narrative skills

Figure 10 suggests that devices A1, B1, C1, and C2 could be found as early as 4 years old. Devices C3 and B2 might be generated by some 6-year-old children but tend to be acquired at 9 years old, whereas devices A2 and A3 might still be problematic for some 6-year-olds. The three groups of devices on the right side were classified as more challenging, even for school-age children. The evidence shows that devices C4, C5, D1, and E1 were developing, while the most challenging devices were A4 and B3. These included devices demonstrating ‘imagination of the narrators’ (D1 and E1), complex syntactic structures for ‘elaboration of details’ (C4, C5, and B3), and one type of conjunction for ‘continuity of events’ (A4).

Merging the results of stages and order of development, Figure 11 shows the overall picture of the development of narrative skills of Thai children from 4 to 11 years of age.

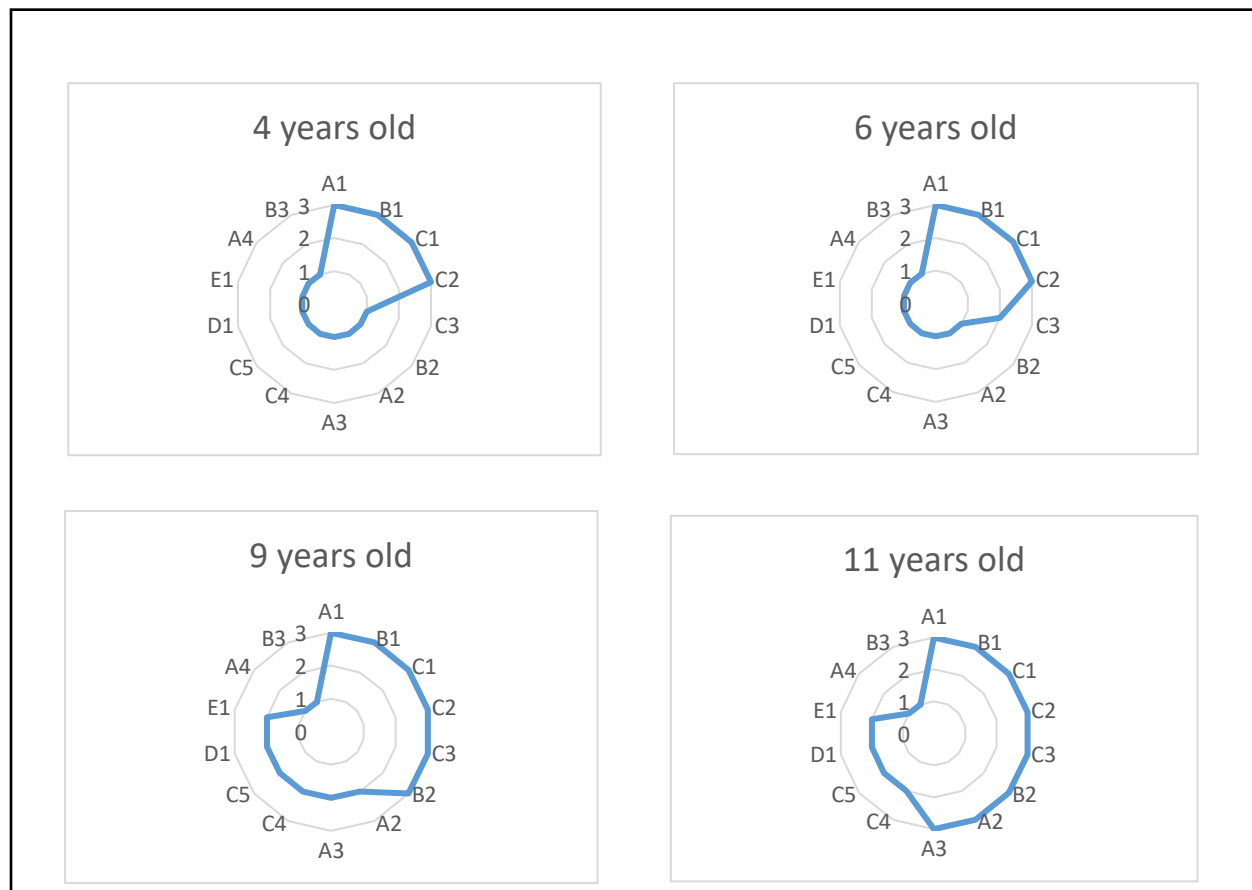


FIGURE 11. The order of acquisition of linguistic devices for narrative skills of 4- to 11-year-old Thai children

As the narrative components were rearranged according to the proposed order of acquisition, in the preschool period, the children fully acquired only 4 out of 14 linguistic features, with little development from 4 to 6 (C3 was in the developing stage). When they entered school at 9 years old, two more features were acquired, and six others were developing (A2, A3, C4, C5, D1, and E1). However, we found that by age 11, the children had acquired as many as eight linguistic features. This indicates that the ability to tell a story is not just an ordinary task. In order to be successful in storytelling, one needs exposure to a certain number of narrative activities and might also train or practice by him or herself.

Findings of the result section suggest two significant discussions as follows.

#### PRESCHOOL VS. SCHOOL-AGE CHILDREN

Results revealed that preschool children produced only a few subtypes of linguistic devices for each narrative component. Moreover, the imagination-related devices seemed especially challenging for preschool children, with only a few clauses showing background information and story evaluation present. The limitations in narrative production of preschool children seemed to conform with Ögel, Balaban, and Hohenberger (2020), and Kelly and Bailey (2012). The findings



indicate that although children as old as 6 can communicate effectively with adults, they still had limited capability when telling a story. Narrative competence not only includes language elements but also requires other cognitive skills. Together, these components help a narrator connect events and provide extra information in order to fulfill the goal of communicating the story while attracting the audience's attention.

When they reach school age the children's ability in narrating a story increased. At 9 years of age (about Grade 3), they produced more diverse types of markers and larger syntactic units. It is evident that formal education played an important role in their narrative development, which supports findings from Bliss et al. (1998), Piyapasuntra (2009), and Reese et al. (2010). However, when comparing the 9- and 11-year-old groups, the frequencies in their production were similar. This implies that the two-year gap (from 9 to 11) might not be sufficient for the children to improve their storytelling abilities. At the same time, it might support the claim that narrative competence requires extra skills – such as cognitive skills – on top of language knowledge and ability.

### THE ORDER OF ACQUISITION

Generally, the children acquired more types of linguistic devices as they grew up and significantly more after reaching school age. However, it was found that only about 50% of the devices studied were fully acquired by 11-year-old children. It can be noted that the linguistic devices not in the acquired stage have highly complex structures, such as multi-element NPs and VPs. However, it could be argued that such complex elements might not be required for newcomers, as they are not foundational elements in communicating a story. Therefore, from a functional point of view, experiencing narrative-related activities in school helped children develop their storytelling skills to the extent to which their story could meet some basic linguistic requirements – though with few complex linguistic devices – and properly entertain the audience. Moreover, the findings obviously indicate that all narrative components cannot be fully acquired by the age of 11. In addition to narrative exposure, this might suggest the role of nonlinguistic development, such as logic and reasoning, in enhancing the power of the children's narratives.

### CONCLUSION

The present study explored the language development of preschool and school-age Thai children using narrative data from the Thai Frog Study Corpus (Zlatev & Yangklang, 2001), and proposes a specific order of language development. Modifying narrative measures from previous studies, three narrative components in relation to five corresponding components of 'local information', and five linguistic devices were proposed.

Results showed that in preschool age, only some particular linguistic devices were acquired. For example, they significantly employed sequential conjunctions to express event continuity (Figure 3). In the elaboration of details, their NPs and VPs were short and simple. In providing extra information, clauses showing story background and evaluation are in a small number. However, in the school-age period, from 9 years of age, their ability to tell a story significantly developed. For conjunctions, they used not only sequential but also simultaneous and cause-effect conjunctions to show different kinds of event relations and improve the continuity of the story (Figure 2 and Figure 3). In terms of complexity, they produced as many as 3-unit NPs and more than 5-unit VPs to explain the characters and events (Figure 4 and Figure 6). Additionally, they expressed their imagination more frequently (Figure 8). In addition, the order of acquisition of linguistic devices (from simple to difficult) is proposed (Figure 11). Devices

produced by the majority of 4-year-old children were classified as the simplest and the first group of features to be acquired, while those that were not found in the majority of 11-year-old children were considered the most difficult.

Based on this study, the proposed order of language development for preschool and school-age children can further contribute to both educational and medical studies and practices. That is to say, the ordered linguistic devices can be considered landmarks by which normally developing children can acquire language at different ages. In education, teachers and researchers could pinpoint in detail how the children at each age learn and develop the devices. Moreover, in practice, more appropriate language learning materials on specific linguistic features could be developed for definite ages.

In the medical field, it is suggested that narrative could be used as a measure of language development while the order of development could be considered as criteria for normality judgment of normally developing children. There are at least two benefits of using narrative for developmental diagnosis. First, through storytelling, pediatricians could access and assess authentic, direct, and empirical language information from the children. Because narrative is a common practice both at home and at school, children might be less reluctant to perform storytelling – which directly reflects their linguistic competence – to doctors whom they may consider strangers. Instead of relying on caregivers' explanations, which might be subjective, doctors could directly examine the child's perspective through storytelling. Second, asking a child to tell a story is not time-consuming, and when the task is controlled, the narratives of the same child at different ages can be compared, and the overall normality of development can be analyzed. Importantly, in order to make these suggestions possible, it might be necessary for any research to develop a package of language development measures with guidelines for all stakeholders, including parents, caretakers, educators, researchers, and pediatricians.

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