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Case Report Article

Narrative Discourse and Vocabulary in the Population with Fetal Alcohol Spectrum Disorder (FASD): A Case Study

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ABSTRACT

Narrative discourse is a complex task that involves linguistic, cognitive, social, and affective skills. The level of development and performance found when evaluating this task are good predictors of oral language proficiency and reading comprehension. Moreover, narrative discourse significantly influences communicative interactions and social dynamics Conversely, children diagnosed with Fetal Alcohol Spectrum Disorder (FASD) often exhibit compromised narrative discourse due to associated linguistic and cognitive challenges. However, evidence is still scarce on this matter. The objective of this study was to describe the narrative discourse and vocabulary in individuals with FASD. To this end, narrative discourse was evaluated in 19 people between the ages of 6.6 and 17.7 years diagnosed with FASD, using the story "Frog, Where Are You". Additionally, micro- and macro-structural analyses of narrative discourse were conducted employing the Monitoring Indicators of Scholarly Language (MISL) index, and vocabulary was assessed using the Peabody test. At the macro-structural level, the discourse of the population with FASD was characterized by the presence of a singular protagonist, the use of non-specific names, generic temporal and spatial references, little or no connection between described events, low complexity, an absence of emotion, and the use of action verbs. At the micro-structural level, they exhibited grammatical errors, as well as minimal use of subordinating conjunctions, adverbs, metacognitive and metalinguistic verbs, and nominal phrases. Vocabulary was well below chronological age expectations. In conclusion, an impairment in narrative discourse and vocabulary is evident in the population with FASD, significantly impacting their communication and social performance. Consequently, narrative discourse performance may serve as a diagnostic indicator for FASD. These difficulties require early, interdisciplinary intervention that encourages educational and social inclusion.

Keywords:
Fetal Alcohol Spectrum Disorder; Narrative Discourse; Macrostructure; Microstructure; Vocabulary

Discurso Narrativo y Vocabulario en población con Trastornos del Espectro Alcohólico Fetal (TEAF). Estudio de Casos

RESUMEN

El discurso narrativo es una tarea compleja que involucra habilidades lingüísticas, cognitivas, sociales y afectivas. Su desarrollo y rendimiento es un buen predictor de habilidades lingüísticas orales y de la comprensión lectora; a su vez influye en las interacciones comunicativas y en las relaciones sociales. En las personas con Trastornos del Espectro Alcohólico Fetal (TEAF), la escasa evidencia muestra que existe un compromiso en el discurso narrativo como consecuencia de sus dificultades lingüísticas-cognitivas, que también incluyen un vocabulario descendido. Con el objetivo de describir el discurso narrativo y el vocabulario, se evaluó a 19 personas diagnosticadas con TEAF de entre 6,6 y 17,7 años, con el cuento “Frog, Where Are You”. Se analizó el nivel micro y macroestructural de las narraciones mediante el índice Monitoring Indicators of Scholarly Language MISL. El vocabulario se evalúo mediante el test Peabody. Los resultados muestran: a nivel macroestructural, las personas con TEAF incluyen solo un personaje principal, presentan etiquetas poco específicas, se refieren de forma general a un tiempo/lugar, describen eventos poco iniciadores de otros o poco cohesionados, no generan episodios complejos, declaran escasos sentimientos y verbos de acción; a nivel microestructural, producen errores gramaticales y usan escasos recursos lingüísticos, conjunciones subordinadas, adverbios, verbos metacognitivos y metalingüísticos y frases nominales. Su nivel de vocabulario está muy por debajo de su edad cronológica. Se concluye que el discurso narrativo está muy comprometido en la población con TEAF al igual que el desempeño en vocabulario pasivo. Debido a su compromiso este discurso podría constituir un marcador diagnóstico del cuadro TEAF. Estas dificultades demandan un abordaje temprano no solo en el ámbito fonoaudiológico, sino también interdisciplinariamente, que les facilite una mejor inclusión educativa y social.

Palabras clave:
Trastornos del Espectro Alcohólico Fetal; Discurso Narrativo; Macroestructura; Microestructura; Vocabulario

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INTRODUCTION

Fetal Alcohol Spectrum Disorders (FASD) result from prenatal exposure to alcohol and include a wide range of symptoms, such as prenatal and postnatal delayed growth, craniofacial dysmorphology, central nervous system dysfunction, and neuropsychological developmental abnormalities, among others (Charness, 2022; Hoyme et al., 2016; Nulman et al., 2018; Wozniak et al., 2019a). There are four diagnostic categories within FASD, which vary based on the presence or absence of certain clinical criteria (see Table 1). Fetal Alcohol Spectrum Disorders is an umbrella term that refers to a continuum of clinical manifestations within the diagnostic categories resulting from prenatal alcohol exposure (Charness, 2022; Hoyme et al., 2016; Nulman et al., 2018; Streissguth & O'Malley, 2000). In all cases, the key factor for diagnosis is evidence of prenatal alcohol exposure (Nulman et al., 2018; Wozniak et al., 2019a) (see Table 1).

The global pooled prevalence of fetal alcohol spectrum disorders is estimated to be 7.7 (95% CI: 4.9–11.7) per 1000 in the general population (Popova et al., 2023).

The diagnostic categories are as follows: Fetal Alcohol Syndrome (FAS); Partial Fetal Alcohol Syndrome (PFAS); Alcohol-Related Birth Defects (ARBD); and Alcohol-Related Neurodevelopmental Disorder (ARND) (Hoyme et al., 2016; Wozniak et al., 2019b).

Table 1. Diagnostic Criteria for FASD Subtypes According to CoFASP Clinical Guidelines** (Wozniak et al., 2019a).

	Facial Dysmorphology	Growth Deficiencies	Brain Abnormalities	Cognitive or Behavioral Disturbances	Other Systemic Malformations
Confirmed Alcohol Exposure*					
FAS	Required	Required	Required	Required	Not required
PFAS	Required	Not required	Not required	Required	Not required
ARND	Not required	Not required	Not required	Required †	Not required
ARBD	NA	NA	NA	NA	Required
Alcohol Exposure not Confirmed					
FAS	Required	Required	Required	Required	Not required
PFAS	Required	Required if there are no brain abnormalities	Required if there are no growth deficiencies	Required	Not required

NA=not aplicable.

* Defined as any of the following: six or more drinks per week for two or more weeks; three or more drinks on two or more occasions; documentation of maternal intoxication during pregnancy; a positive biological test indicating fetal alcohol exposure; or evidence of maternal alcohol consumption risk as indicated by a valid screening instrument (e.g., WHO Alcohol Use Disorders Identification Test; the mother's report includes the pregnancy itself and the three months before being aware of the pregnancy). †Alcohol-Related Neurodevelopmental Disorder requires two behavioral or cognitive deficits if the intelligence quotient is not ≥1.5 SD below the mean. For children under three years old, developmental delay is required.

** Collaboration on FAS Prevalence Research Consortium.

Resource extracted from (Wozniak et al., 2019a).

People diagnosed with FASD present significant impairments in language development (Connolly et al., 2016; de Beer et al., 2010; Matijević et al., 2014; Mukherjee et al., 2019; Rogers et al., 2015; Terband et al., 2018; Wang et al., 2011), including difficulties in passive vocabulary, conversational comprehension, social information processing speed, and social problem-solving (Kippin et al., 2018; Matijević et al., 2014; Novick et al., 2011; Wang et al., 2011). Evidence indicates deficiencies in naming, grammatical, semantic, and pragmatic skills. They also exhibit marked impairments in grammar comprehension, which affects their competence in narrative discourse. Additionally, they display deficiencies in relatively complex language tasks involving phonological working memory and social pragmatics (Adnams et al., 2001; P. W. Kodituwakku, 2009).

Regarding oral language expression, despite appearing very active and communicative (de Beer et al., 2010; Vega-Rodríguez et al., 2020), studies suggest that people with FASD experience similar deficits in both expressive and receptive language. They also show significant limitations in communication skills, which hinder their ability to express themselves according to their chronological age (Connolly et al., 2016; Kippin et al., 2018; McQuire et al., 2019; Nash & Davies, 2017; Novick et al., 2011; Wang et al., 2011). For example, Garcia et al. (2007) found that oral language as a communication resource was severely impaired, as was oral comprehension, with significant impairment being found mainly in syntactic, semantic, phonological, and pragmatic skills.

Grammatical deficits characterized by errors in subject-verb agreement, overgeneralization of grammar rules, and omission of articles have also been described. Along with grammatical deficits, individuals with FASD present limited discourse competence skills (Thorne, 2017; Wang et al., 2011). Additionally, there is low lexical density, which also limits meaning and content, significantly impacting macrostructural aspects and the overall coherence of their oral discourse (Ganthous et al., 2017). Mattson et al. (2019) found deficiencies in fundamental language skills, such as decreased performance in word order and sentence combination. Moreover, they observed grammar errors that affected productivity and grammatical complexity. Some authors suggest that these disturbances in language skills could be very useful as a diagnostic tool for FASD (Ganthous et al., 2017; Thorne, 2017; Thorne & Coggins, 2016).

The aforementioned linguistic difficulties are directly related to the competence to produce narratives. Narration is an inherently human activity that is present from early stages, becomes more complex, and remains throughout life. Narrative discourse development is thought to reflect communicative competence, whether they display "typical" development or some form of neurological (Botting, 2002) or sensory difficulty (Tomicic et al., 2020).

Narrative skills should develop during school years, as students must construct and understand fictional stories, comment on events from their own lives, and share thoughts and ideas with teachers and peers (Acosta et al., 2010).

Producing a narrative discourse is a complex task that involves linguistic, cognitive, social, and affective skills (Reilly et al., 2004). The linguistic facet lexically encodes information about the characters and events of a story, using appropriate morphosyntactic and lexical resources to articulate a sequence of facts and their temporal relationships (Reilly et al., 2004). Cognitively, narrating is a very complex task, as it requires inferring the protagonists' motivations, the logical relationships between events, and the theme of the story. Finally, telling a story is a social activity and a form of evaluating the relationship between the narrator and the audience (Crespo-Allende et al., 2021; Reilly et al., 2004; Romero & Gómez, 2013).

Narrative discourse involves two levels: the organization of content and its formal structuring. Content refers to the meaning of the discourse, considering the audience's interpretation. It is manifested through both local and global coherence. Local coherence is the semantic relationship between specific sentences in the discourse (Acosta et al., 2011; van Dijk, 2000; van Dijk & Kintsch, 1983). In turn, global coherence allows the speaker to organize the content of the discourse, corresponding to the overall meaning or theme, and it is more general and abstract than the meaning of each sentence. In addition, there are formal mechanisms (syntactic and/or semantic) that facilitate establishing relationships between sentences and are elements for discourse cohesion. Syntactic mechanisms are superficial cohesion elements, while semantic mechanisms are not explicit but inferred from the text and the world knowledge of the speaker (Bernández, 1993). When addressing global coherence, we are referencing the macrostructural level of discourse. Macrostructure is the set of propositions (macropropositions) that synthesize the meaning of a discourse; it is characterized by global narrative features where content is organized based on mental representations of events like time, spaces, actions, consequences, and solutions (Justice et al., 2010). The microstructural level relates to local coherence and refers to the set of propositions in a text that are locally related when analyzed sentence by sentence (Acosta et al., 2011; Coloma, 2014; van Dijk, 2000; van Dijk & Kintsch, 1983). Microstructural components are the set of internal linguistic structures that contain and convey information within the text, such as the number of words and sentences, the use of specific cohesion devices linking them, and grammatical complexity (Justice et al., 2006, 2010).

Several studies have analyzed narrative discourse in populations with language difficulties and functional diversity (Acosta et al., 2011; Bustos Ibarra & Crespo Allende, 2014; Coloma, 2014; Crespo-Allende & Figueroa-Leighton, 2016; Garayzábal Heinze et al., 2007; Kimhi et al., 2022; Tomicic et al., 2020). Acosta et al. (2011) found narrative deficits in a sample of individuals with Developmental Language Disorder (DLD). Difficulties were observed in the temporal organization of events and the production of unrelated sentences, showing a lack of cohesive and referential resources. In a study comparing children with DLD,

Intellectual Disability (ID), and Typical Development (TD), Crespo Allende & Figueroa Leighton (2016) found that the achievement percentages in narrative tasks among children with TD exceeded those of the other groups. In the case of Williams Syndrome, Garayzábal Heinze et al. (2007) observed significant narrative difficulties such as forgetting the theme and the actions performed by characters, producing unrelated descriptions, and lacking cohesive links, resulting in limited local coherence and insufficient global coherence for narrative relevance.

Another element that has been extensively studied in populations with language impairments and functional diversity is vocabulary and its relationship to narrative production (Acosta et al., 2011; De Barbieri et al., 2016; Ganthous et al., 2015; Garayzábal Heinze et al., 2007, 2011; P. Kodituwakku & Kodituwakku, 2014; Merino Risopatrón, 2017; Moraleda Sepúlveda, 2011; Reyes & De Barbieri, 2018; Sentis et al., 2009). Rosemberg et al. (2016) argue that studying vocabulary acquisition and discourse development is important due to their relevance in children's school trajectories and early social interactions. In a sample of children with Smith-Magenis Syndrome, Garayzábal Heinze et al. (2011) found a marked level of difficulty in passive vocabulary, which affects learning aspects and overall linguistic competence, including oral narrative. Acosta et al. (2011) found evident lexical resource poverty in children with DLD, which impacts narrative development. Similarly, De Barbieri et al. (2016) found a significant decline in vocabulary among children with DLD, influencing reading comprehension, which in turn was linked to narrative discourse competence.

Based on the above, a continuous effort to analyze narrative performance and vocabulary in populations with functional diversity can be observed. However, evidence on this topic is almost absent in the population with FASD, especially Spanish speakers. Understanding this reality is crucial for evaluating linguistic and cognitive development, designing appropriate speech therapy interventions, understanding experiences and needs, and adapting the educational environment to provide better support and care for this population. This research aims to answer the question: What are the narrative performance and vocabulary skills in the Spanish-speaking FASD population? To this end, the objective is to describe the narrative discourse and vocabulary skills of 19 individuals with FASD.

METHOD

Design and Participants

A descriptive study involving 19 participants is presented (Martínez, 2006; Urra Medina et al., 2014). The families of the participants provided informed consent. Additionally, the adolescents provided assent to participate in the study, following the Declaration of Helsinki (World Health Organization, 2013). This research was approved by the Ethics Committee of Universidad Autónoma de Madrid UAM (CEI-88-1663).

To maximize the number of participants, non-probabilistic convenience sampling was used (Otzen & Manterola, 2017), which included cases that were accessible based on their characteristics and criteria. These criteria included having a diagnosis of FASD and being within the age range of 5 to 17 years and 11 months. A broad age range was considered to have the greatest number of participants possible.

The population was accessed by approaching associations of families with minors with FASD. After the initial contact, only some families met the age criterion, and of those, only some were willing to participate. The process had 26 subjects initially. However, for various reasons, it was possible to evaluate only 19 participants (Table 2), whose ages ranged from 6 years, 6 months to 17 years, 4 months (Mean Age -MA- of the sample: 11.5 years). Eleven participants were female (MA: 11.4 years) and 8 were male (MA: 11.6 years).

Table 2. Representation of the FASD sample.

Subject	Age	Sex	Diagnosis
S01	11.7 years	Male	FAS
S02	13.11 years	Female	FAS
S03	11.7 years	Female	FAS
S04	13.10 years	Male	FAS
S05	8.9 years	Male	FAS
S06	11.9 years	Female	FAS
S07	10.3 years	Female	FAS
S08	12.10 years	Male	ARND
S09	12.6 years	Female	FAS
S10	8.10 years	Female	ARND
S11	15.1 years	Male	FAS
S12	17.4 years	Male	ARND
S13	15.2 years	Female	FAS
S14	14.6 years	Female	PFAS
S15	12.9 years	Female	PFAS
S16	9.3 years	Male	FAS
S17	8.11 years	Male	ARND
S18	13.2 years	Female	FAS
S19	6.6 years	Female	FAS
Mean Age	11.5 years		

Materials and Procedures

The story "Frog Where Are You?" (Mayer, 2003) was used to elicit narrative discourse (Bustos Ibarra & Crespo Allende, 2014; Pereira et al., 2019; Reilly et al., 2004; Thorne et al., 2007). This is a wordless picture book that narrates the story of a boy, a dog, and a frog. The story was introduced to each participant, and they were asked to create a narration based on the images. The language samples were recorded in audio, transcribed, and analyzed by one of the researchers. The transcription was orthographic, and the discourse was segmented into sentences. Subsequently, these samples were analyzed using the Monitoring Indicators of Scholarly Language (MISL) index (Gillam et al., 2017). The MISL index has been developed based on the Index of Narrative Complexity (Justice et al., 2006; Petersen et al., 2008) and is widely used in research on narrative discourse (Beytollahi et al., 2020; Fox et al., 2022; Gillam et al., 2017; Israelsen-Augenstein et al., 2022; Jones et al., 2019; Kimhi et al., 2022). This index consists of 2 subscales that analyze macrostructure and microstructure. A Likert scale is used to evaluate the different elements of the story from 0 pts (element not included) to 3 pts (elaborate knowledge). In macrostructure, the elements evaluated are characters, setting, initiating event, internal response, plans, attempts, and consequences. In the case of microstructure, the elements are coordinated conjunction (CC), subordinating conjunction (SC), metacognitive or metalinguistic verbs (MMV), adverbs, elaborated noun phrases (ENP), grammaticality, and verb conjugation.

In order to assess the level of vocabulary and characterize the population in normative terms, the Peabody Picture Vocabulary Test-III (PPVT-III) (Dunn et al., 2010) was administered. This is a standardized test that correlates with other vocabulary and intelligence tests in terms of validity. It assesses comprehension of passive vocabulary, allowing to determine the subject's vocabulary level and detect difficulties in their verbal aptitude. Raw scores can be converted into transformed scores of two types: Deviation scores, which include Intelligence Quotient (IQ) (mean=100; SD=15), percentiles, and enneatypes (mean=5; SD=2); and developmental scores, which include Age Equivalent (AE) scores. For this study, both IQ scores and AE scores were considered (see further details below).

All assessments were conducted at the participants' homes by one of the researchers. During the first visit, the research was introduced to the families, informed consent was obtained, as well as assent from adolescents over 12 years old, following all recommendations of the Declaration of Helsinki (World Health Organization [WHO], 2013) and the Research Ethics Committee. During the second visit, the narrative discourse elicitation task was conducted, as previously described. After completing the task, the subjects were given a few minutes to rest. Subsequently, the Peabody test was administered.

RESULTS

A frequency table was created to display the number of responses per element analyzed within the narration. The descriptive analysis presented in Table 3 indicates that, overall, the highest percentage of responses was observed at level 1 of knowledge. That is, participants exhibited an emergent understanding of the macrostructural discourse considering all elements of their narrative (39.1% of total responses). Furthermore, 15.7% were situated at level 0, indicating the absence of any element that should be present in their discourse.

Upon analyzing specific elements, 78% were categorized at an emergent knowledge level (level 1). As for the other elements, it was observed that approximately 50% of the subjects either failed to mention them or were at an emergent level (between levels 1 and 2 of MISL). The specific percentages for each element are as follows: setting (53%), initiating event (42%), internal response (57%), plans (47%), attempts (57%), and consequences (47%). The best performance was observed for the 'internal response' element, with 42.1% positioned at level 3 (elaborate knowledge).

Table 3. MISL. Macrostructure Analysis Subscale.

Quantity of answers by level of knowledge in each element of the narrative				
Elements of the Narrative	**0**	**1**	**2**	**3**
Characters	0 (0%)	15 (78.9%)	2 (10.5%)	2 (10.5%)
Setting	4 (21.1%)	6 (31.6%)	5 (26.3%)	4 (21.1%)
Initiating Event	6 (31.6)	2 (10.5%)	6 (31.6%)	5 (26.3%)
Internal Response	2 (10.5%)	9 (47.4%)	0 (0%)	8 (42.1%)
Plans	2 (10.5%)	7 (36.8%)	6 (31.6)	4 (21.1%)
Attempts	2 (10.5%)	9 (47.4%)	4(21.1%)	4 (21.1%)
Consequences	5 (26.32%)	4 (21.1%)	3 (15.79%)	7 (36.84%)
Number of responses on this level	21 (15.79%)	52 (39.1%)	26 (19.55%)	34 (25.56%)

Table 4 shows the results of the microstructure analysis. It can be observed that syntactic elements of the narration (coordinated conjunctions = 84.2%, subordinating conjunctions = 68.4%, adverbs = 63.2%, and verbal conjugation = 47.4%) achieved a significant percentage of responses within level 3 (elaborate knowledge = 37.6%), whereas this was not the case for the rest of the elements, with performance below level 3.

Specifically in coordinated and subordinating conjunctions, participants met the minimum requirement to obtain 3 points. That is, they produced 3 sentences of this type throughout their narrative, but overall, they made little use of these conjunctions. A similar phenomenon was observed with adverbs, with participants using 2 or 3 adverbs throughout their narrative, showing limited variability.

Other microstructural elements were severely compromised, which is reflected in the participants reaching level 0 due to the absence of the element. This occurred with metacognitive verbs (73% of responses at level 0) and grammaticality (47% of responses at level 0). Metacognitive verbs were analyzed in active conjugation (excluding passive and progressive as indicated by the index). The results show that the subjects generally used more linguistic verbs than mental-content verbs, which were always the same.

The whole sample reached level 1 (emergent knowledge) in elaborated noun phrases. In this case, there was a preference for using noun phrases with a single modifier, typically an article (e.g., "the frog," "the dog"). Possessives, adjective phrases, or adjectives were rarely used.

Regarding verbal conjugation, 79% of responses placed the participants at a developed level (levels 2 and 3), showing few disturbances in verb tense.

Table 4. MISL. Microstructure Analysis Subscale.

	Number of Responses by Level of Knowledge in Each Element of the Narrative			
Elements of the Narrative	**0**	**1**	**2**	**3**
Coordinated Conjunction (CC)	0 (0%)	0 (0%)	3 (15.8%)	16 (84.2)
Subordinating Conjunction (SC)	0 (0%)	1 (5.26%)	5 (26.3%)	13 (68.4)
Metacognitive Verbs (MMV)	14 (73.7%)	5 (26.3%)	0 (0%)	0 (0%)
Adverbs	0 (0%)	1 (5.26)	6 (31.6%)	12 (63.2%)
Elaborate Noun Phrases (SNP)	0 (0%)	19 (100%)	0 (0%)	0 (0%)
Grammaticality	9 (47.4%)	7 (36.8%)	3 (15.8%)	0 (0%)
Verb Conjugation	3 (15.8%)	1 (5.26%)	6 (31.6%)	9 (47.4%)
Number of responses on this level	26 (19.5%)	34 (25.6%)	23 (17.3%)	50 (37.6%)

Regarding the PEABODY test, a mean IQ of 71.2 points was observed. This falls between the first and fifth percentile, categorizing the performance of the population with FASD as moderately low. Lastly, concerning AE, the population shows a mean of 9.06 years (Table 5).

Table 5. PEABODY Descriptive Statistics.

Measure	Mean	Median	SD	Minimum	Maximum	95% CI	
						Lower Lim.	Upper Lim.
PEABODY-CI	71.20	62.00	20.39	55.00	124.00	59.91	84.49
PEABODY-EE	9.06	9.09	1.73	6.04	12.06	8.09	10.02

In order to demonstrate the difficulties in narrative discourse performance, some excerpts from speech samples are presented, which were orthographically transcribed (see appendix).

DISCUSSION

The results indicate that at the macrostructural level, participants only include one main character and use nonspecific labels in their narratives. Regarding settings, they allude to a certain time or place in a general manner and describe events that either do not propel more complex episodes or are not connected. Moreover, they do not include plans related to an initial event, and neither the results nor consequences relate to said event. Ganthous et al. (2017), based on the same elicitation task and analysis of structural elements used in this study, observe a restricted use of macrostructural elements typical of the narrative structure, finding low levels of coherence and a reduced vocabulary. A deficient performance is found at the microstructural level, characterized by participants meeting the minimum required by the protocol regarding the use of coordinated and subordinating conjunctions, but not managing to use many more sentences of that type. The same is observed concerning adverb use, as they only use 2 or 3 adverbs throughout their narration. Furthermore, the participants show a decreased performance regarding the use of metacognitive or metalinguistic verbs and grammaticality. The use of noun phrases is at an emergent level, limited to noun phrases with a single modifier.

Concerning the above, other research suggests that narrative skills are the most compromised in the population with FASD, strongly affecting their communicative and social performance. Therefore, this is suggested as a marker of the diagnostic profile (Ganthous et al., 2013, 2017; Thorne, 2017; Thorne & Coggins, 2016). It has been proposed that performance in narrative discourse tasks provides a marker of the underlying central nervous system (CNS) abnormalities in many children with FASD and that these tasks also allow assessing other expressive language difficulties (Thorne & Coggins, 2016). Similarly, it has been suggested that the degree of elaboration of the narration can predict language impairments (Thorne et al., 2007).

Considering the age of the participants in this research, it was expected that all micro and macrostructural elements would appear in their narratives; this is because, in the school years, stimulation through stories and fables is an element of the curriculum that should be encouraged (Coloma, 2014; Portilla et al., 2021).

Lastly, concerning vocabulary performance in individuals with FASD, limited receptive vocabulary is observed for their age and school stage. Accordingly, the literature mentions difficulties in semantic skills in general (Ganthous et al., 2015, 2017; Kippin et al., 2018; Lebel et al., 2008; Matijević et al., 2014; McGee et al., 2009; Wang et al., 2011). Wyper & Rasmussen (2011) found significant limitations in both receptive and expressive vocabulary, but they did not find differences in performance between both dimensions, suggesting that both components of vocabulary are impaired in the population with FASD and necessarily have an impact on narrative discourse task performance (Acosta et al., 2011; Botting, 2002; Portilla et al., 2021). This aligns with the performance categorization of the FASD population in the present study, which with an average IQ of 71 falls into the "moderately low score" category.

Limitations of the study include the reduced sample size and the fact that it does not include all age ranges. Additionally, other characteristics of linguistic and cognitive development that could be related to performance in narrative discourse were not analyzed.

CONCLUSIONS

The participants in this study exhibit basic grammar verbal resources that enable them to be functional; however, their narrative discourse displays insufficient structural complexity. The macrostructural elements identified at an emergent level include setting, internal response, plans, and attempts. Regarding microstructural aspects, those evaluated at an emergent level are metacognitive verbs, elaborated noun phrases, and grammaticality. Vocabulary is also compromised in the population with FASD, yielding low scores, which would also impact discoursive competence. Altogether, this indicates that individuals with FASD have a deficit in narrative discourse skills. This means that speech therapy is required to improve communicative quality and well-being in children and young people with this condition.

A need to describe the linguistic development profile of the Spanish-speaking FASD population is detected, as the literature predominantly focuses on English speakers.

REFERENCES

Acosta, V., González, N., & Lorenzo, C. (2011). Un análisis cualitativo de la estructura episódica, los recursos cohesivos y la diversidad léxica en la narrativa de alumnado con Trastorno Específico del Lenguaje. *Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport*, *28*, Article 28. http://www.revistaaloma.net/index.php/aloma/article/view/30

Acosta, V., Moreno, A., Axpe, Á., & Lorenzo, M. (2010). Apoyo al desarrollo de habilidades narrativas en niños con trastorno específico del lenguaje dentro de contextos inclusivos. *Revista de Logopedia, Foniatría y Audiología*, *30*(4), 196–205. https://doi.org/10.1016/S0214-4603(10)70156-X

Adnams, C. M., Kodituwakku, P. W., Hay, A., Molteno, C. D., Viljoen, D., & May, P. A. (2001). Patterns of Cognitive-Motor Development in Children With Fetal Alcohol Syndrome From a Community in South Africa. *Alcoholism: Clinical and Experimental Research*, *25*(4), 557–562. https://doi.org/10.1111/j.1530-0277.2001.tb02250.x

Bernández, E. (1993). La coherencia textual como autorregulación en el proceso comunicativo. *Boletín de Filología*, *34*(1), Article 1. https://rchd.uchile.cl/index.php/BDF/article/view/18987

Beytollahi, S., Soleymani, Z., & Jalaie, S. (2020). The Development of a New Test for Consecutive Assessment of Narrative Skills in Iranian School-Age Children. *Iranian Journal of Medical Sciences*, *45*(6), 425–433. https://doi.org/10.30476/ijms.2019.81984

Botting, N. (2002). Narrative as a tool for the assessment of linguistic and pragmatic impairments. *Child Language Teaching and Therapy*, *18*(1), 1–21. https://doi.org/10.1191/0265659002ct224oa

Bustos Ibarra, A., & Crespo Allende, N. M. (2014). Comprensión oral de narraciones y producción narrativa: Dos medidas a través de una tarea de recontado. *Onomázein: Revista de lingüística, filología y traducción de la Pontificia Universidad Católica de Chile*, *30*, 7. https://dialnet.unirioja.es/servlet/articulo?codigo=6354604

Charness, M. E. (2022). Fetal Alcohol Spectrum Disorders: Awareness to Insight in Just 50 Years. *Alcohol Research: Current Reviews*, *42*(1), 05. https://doi.org/10.35946/arcr.v42.1.05

Coloma, C. J. (2014). Narrative discourse in first grade children with Specific Language Impairment (SLI). *Revista signos*, *47*(84), 3–20. https://doi.org/10.4067/S0718-09342014000100001

Connolly, S. C., Millians, M., Peterman, R., & Shillingsburg, M. A. (2016). The Clinical Application of Applied Behavior Analysis in a Child With Partial Fetal Alcohol Syndrome: A Case Study. *Clinical Case Studies*, *15*(3), 225–242. https://doi.org/10.1177/1534650116632298

Crespo-Allende, N., & Figueroa-Leighton, A. (2016). The different narrative profiles of children with different linguistic and cognitive conditions. *Literatura y lingüística*, *33*, 443–464. https://doi.org/10.4067/S0716-58112016000100021

Crespo-Allende, N., Figueroa-Leighton, A., & Góngora-Costa, B. (2021). Índice de Complejidad Narrativa Adaptado en escolares chilenos con y sin historia de trastorno específico del lenguaje. *Logos: Revista de Lingüística, Filosofía y Literatura*, *31*(2), Article 2. https://doi.org/10.15443/RL3120

De Barbieri, Z., Coloma, C. J., & Sotomayor, C. (2016). Decodificación, comprensión lectora y habilidades lingüísticas en escolares con Trastorno Específico del Lenguaje de primero básico. *Onomázein*, *34*, Article 34. https://doi.org/10.7764/onomazein.34.9

de Beer, M., Kritzinger, A., & Zsilavcz, U. (2010). Young children with fetal alcohol spetrum disorder—Communication profiles. *South African Journal of Communication Disorders*, *57*(1), Article 1. https://doi.org/10.4102/sajcd.v57i1.47

Dunn, L. M., Dunn, L. M., & Arribas, D. (2010). *Peabody Picture Vocabulary Test—Third Edition* [dataset]. https://doi.org/10.1037/t15145-000

Fox, C., Jones, S., Gillam, S. L., Israelsen-Augenstein, M., Schwartz, S., & Gillam, R. B. (2022). Automated Progress-Monitoring for Literate Language Use in Narrative Assessment (LLUNA). *Frontiers in Psychology*, *13*. https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.894478

Ganthous, G., Rossi, N. F., & Giacheti, C. M. (2013). Fluency aspects in the oral narrative of individuals with Fetal Alcohol Spectrum Disorder. *Audiology - Communication Research*, *18*(1), 37–42. https://www.redalyc.org/articulo.oa?id=391544053008

Ganthous, G., Rossi, N. F., & Giacheti, C. M. (2015). Linguagem no transtorno do espectro alcoólico fetal: Uma revisão. *Revista CEFAC*, *17*, 253–263. https://doi.org/10.1590/1982-021620150914

Ganthous, G., Rossi, N. F., & Giacheti, C. M. (2017). Narrativa oral de indivíduos com Transtorno do Espectro Alcoólico Fetal. *CoDAS*, *29*, e20170012. https://doi.org/10.1590/2317-1782/20172017012

Garayzábal Heinze, E., Lens Villaverde, M., Moruno López, E., Conde Magro, T., Felipe Moura, L., Fernández, M., & Sampaio, A. (2011). Funcionamiento cognitivo general y habilidades psicolingüísticas en niños con síndrome de Smith-Magenis. *Psicothema (Oviedo)*, 725–731. https://pesquisa.bvsalud.org/portal/resource/pt/ibc-91436

Garayzábal Heinze, E., Prieto, M., Sampaio, A., & Gonçalves, Ó. (2007). Valoración interlingüística de la producción verbal a partir de una tarea narrativa en el síndrome de Williams. *Psicothema (Oviedo)*, 428–434. https://pesquisa.bvsalud.org/portal/resource/pt/ibc-68685

Garcia, R., Rossi, N. F., & Giacheti, C. M. (2007). Perfil de habilidades de comunicação de dois irmãos com a Síndrome Alcoólica Fetal. *Revista CEFAC*, *9*, 461–468. https://doi.org/10.1590/S1516-18462007000400005

Gillam, S. L., Gillam, R. B., Fargo, J. D., Olszewski, A., & Segura, H. (2017). Monitoring Indicators of Scholarly Language: A Progress-Monitoring Instrument for Measuring Narrative Discourse Skills. *Communication Disorders Quarterly*, *38*(2), 96–106. https://doi.org/10.1177/1525740116651442

Hoyme, H. E., Kalberg, W. O., Elliott, A. J., Blankenship, J., Buckley, D., Marais, A.-S., Manning, M. A., Robinson, L. K., Adam, M. P., Abdul-Rahman, O., Jewett, T., Coles, C. D., Chambers, C., Jones, K. L., Adnams, C. M., Shah, P. E., Riley, E. P., Charness, M. E., Warren, K. R., & May, P. A. (2016). Updated Clinical Guidelines for Diagnosing Fetal Alcohol Spectrum Disorders. *Pediatrics*, *138*(2), e20154256. https://doi.org/10.1542/peds.2015-4256

Israelsen-Augenstein, M., Fox, C., Gillam, S. L., Holbrook, S., & Gillam, R. (2022). Monitoring indicators of scholarly language: A progress monitoring tool for documenting changes in narrative complexity over time. *Frontiers in Education*, *7*. https://www.frontiersin.org/articles/10.3389/feduc.2022.918127

Jones, B., Bouman, W. P., Haycraft, E., & Arcelus, J. (2019). The Gender Congruence and Life Satisfaction Scale (GCLS): Development and validation of a scale to measure outcomes from transgender health services. *International Journal of Transgenderism*, *20*(1), 63–80. https://doi.org/10.1080/15532739.2018.1453425

Justice, L., Bowles, R., Kaderavek, J., Ukrainetz, T., Eisenberg, S., & Gillam, R. (2006). The Index of Narrative Microstructure: A Clinical Tool for Analyzing School-Age Children's Narrative Performances. *American Journal of Speech-Language Pathology*, *15*(2), 177–191. https://doi.org/10.1044/1058-0360(2006/017)

Justice, L., Bowles, R., Pence, K., & Gosse, C. (2010). A scalable tool for assessing children's language abilities within a narrative context: The NAP (Narrative Assessment Protocol). *Early Childhood Research Quarterly*, *25*(2), 218–234. https://doi.org/10.1016/j.ecresq.2009.11.002

Kimhi, Y., Kadosh, L., & Tubul-Lavy, G. (2022). Oral story retelling after reading or listening: Children with ASD versus typical development. A pilot study. *Preventing School Failure: Alternative Education for Children and Youth*, *68*(1), 50–59. https://doi.org/10.1080/1045988X.2022.2158158

Kippin, N. R., Leitão, S., Watkins, R., Finlay-Jones, A., Condon, C., Marriott, R., Mutch, R. C., & Bower, C. (2018). Language diversity, language disorder, and fetal alcohol spectrum disorder among youth sentenced to detention in Western Australia. *International Journal of Law and Psychiatry*, *61*, 40–49. https://doi.org/10.1016/j.ijlp.2018.09.004

Kodituwakku, P., & Kodituwakku, E. (2014). Cognitive and Behavioral Profiles of Children with Fetal Alcohol Spectrum Disorders. *Current Developmental Disorders Reports*, *1*(3), 149–160. https://doi.org/10.1007/s40474-014-0022-6

Kodituwakku, P. W. (2009). Neurocognitive profile in children with fetal alcohol spectrum disorders. *Developmental Disabilities Research Reviews*, *15*(3), 218–224. https://doi.org/10.1002/ddrr.73

Lebel, C., Rasmussen, C., Wyper, K., Walker, L., Andrew, G., Yager, J., & Beaulieu, C. (2008). Brain Diffusion Abnormalities in Children With Fetal Alcohol Spectrum Disorder. *Alcoholism: Clinical and Experimental Research*, *32*(10), 1732–1740. https://doi.org/10.1111/j.1530-0277.2008.00750.x

Martínez, L. P. (2006). Macroglosia: Etiología multifactorial, manejo múltiple. *Colombia Médica*, *37*(1), 67–73. https://www.redalyc.org/articulo.oa?id=28337110

Matijević, V., Bartolović, J., Crnković, M., Kosicek, T., & Barisić, I. (2014). Habilitational treatment of a child with fetal alcohol syndrome: Case report. *Acta Clinica Croatica*, *53*(1), 88–93.

Mattson, S. N., Bernes, G. A., & Doyle, L. R. (2019). Fetal Alcohol Spectrum Disorders: A Review of the Neurobehavioral Deficits Associated With Prenatal Alcohol Exposure. *Alcoholism: Clinical and Experimental Research*, *43*(6), 1046–1062. https://doi.org/10.1111/acer.14040

Mayer, M. (2003). *Frog, Where Are You?* Penguin Young Readers Group.

McGee, C. L., Bjorkquist, O. A., Riley, E. P., & Mattson, S. N. (2009). Impaired language performance in young children with heavy prenatal alcohol exposure. *Neurotoxicology and Teratology*, *31*(2), 71–75. https://doi.org/10.1016/j.ntt.2008.09.004

McQuire, C., Mukherjee, R., Hurt, L., Higgins, A., Greene, G., Farewell, D., Kemp, A., & Paranjothy, S. (2019). Screening prevalence of fetal alcohol spectrum disorders in a region of the United Kingdom: A population-based birth-cohort study. *Preventive Medicine*, *118*, 344–351. https://doi.org/10.1016/j.ypmed.2018.10.013

Merino Risopatrón, C. (2017). The construction process of the narrative discourse in preschool children. *Revista signos*, *50*(95), 408–429. https://doi.org/10.4067/S0718-09342017000300408

Moraleda Sepúlveda, E. (2011). Análisis del desarrollo morfosintáctico en personas con Síndrome de Down en el periodo infantil y adolescente. *Revista de Investigación en Logopedia*, *1*(2), 121–129. https://dialnet.unirioja.es/servlet/articulo?codigo=3874421

Mukherjee, R. A. S., Cook, P. A., Norgate, S. H., & Price, A. D. (2019). Neurodevelopmental outcomes in individuals with fetal alcohol spectrum disorder (FASD) with and without exposure to neglect: Clinical cohort data from a national FASD diagnostic clinic. *Alcohol*, *76*, 23–28. https://doi.org/10.1016/j.alcohol.2018.06.002

Nash, A., & Davies, L. (2017). Fetal Alcohol Spectrum Disorders: What Pediatric Providers Need to Know. *Journal of Pediatric Health Care*, *31*(5), 594–606. https://doi.org/10.1016/j.pedhc.2017.04.002

Novick, N., Gudjonsson, G., & Connor, P. (2011). Suggestibility and Fetal Alcohol Spectrum Disorders: I'll Tell You Anything You Want to Hear. *The Journal of Psychiatry & Law*, *39*(1), 39–71. https://doi.org/10.1177/009318531103900103

Nulman, I., Shulman, T., & Liu, F. (2018). Chapter 38—Fetal Alcohol Spectrum Disorder. En W. Slikker, M. G. Paule, & C. Wang (Eds.), *Handbook of Developmental Neurotoxicology (Second Edition)* (pp. 427–437). Academic Press. https://doi.org/10.1016/B978-0-12-809405-1.00038-9

Organización Mundial de la Salud [OMS]. (2013). *Declaración de Helsinki de la AMM - Principios éticos para las investigaciones medicas en seres humanos*. https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/

Otzen, T., & Manterola, C. (2017). Técnicas de Muestreo sobre una Población a Estudio. *International Journal of Morphology*, *35*(1), 227–232. https://doi.org/10.4067/S0717-95022017000100037

Pereira, M., Freitas Rossi, N., Decanini Miranda de Souza, A. L., & Giacheti, C. M. (2019). Estrutura e coerência da narrativa oral de crianças com transtorno de déficit de atenção e hiperatividade. *CoDAS*, *31*, e20180197. https://doi.org/10.1590/2317-1782/20192018197

Petersen, D. B., Gillam, S. L., & Gillam, R. B. (2008). Emerging Procedures in Narrative Assessment: The Index of Narrative Complexity. *Topics in Language Disorders*, *28*(2), 115. https://doi.org/10.1097/01.TLD.0000318933.46925.86

Popova, S., Charness, M. E., Burd, L., Crawford, A., Hoyme, H. E., Mukherjee, R. A. S., Riley, E. P., & Elliott, E. J. (2023). Fetal alcohol spectrum disorders. *Nature Reviews Disease Primers*, *9*(1), Article 1. https://doi.org/10.1038/s41572-023-00420-x

Portilla, A. Y., Almanza, V., Castillo, A. D., & Restrepo, G. (2021). El desarrollo de las habilidades narrativas en niños: Una revisión sistemática de la literatura. *Revista de Investigación en Logopedia*, *11*(2), Article 2. https://doi.org/10.5209/rlog.67607

Reilly, J., Losh, M., Bellugi, U., & Wulfeck, B. (2004). "Frog, where are you?" Narratives in children with specific language impairment, early focal brain injury, and Williams syndrome. *Brain and Language*, *88*(2), 229–247. https://doi.org/10.1016/S0093-934X(03)00101-9

Reyes, M. A., & De Barbieri, Z. (2018). Habilidades lingüísticas y decodificación en niños con Trastorno Específico del Lenguaje con y sin dificultades de comprensión lectora. *Revista Chilena de Fonoaudiología*, *17*, 1–11. https://doi.org/10.5354/0719-4692.2018.51641

Rogers, C. R., Nulty, K. L., Betancourt, M. A., & DeThorne, L. S. (2015). Causal effects on child language development: A review of studies in communication sciences and disorders. *Journal of Communication Disorders*, *57*, 3–15. https://doi.org/10.1016/j.jcomdis.2015.06.004

Romero, S., & Gómez, G. E. (2013). El desarrollo del lenguaje evaluativo en narraciones de niños mexicanos de 3 a 12 años. *Actualidades en Psicología*, *27*(115), Article 115. https://doi.org/10.15517/ap.v27i115.8674

Rosemberg, C., Menti, A., Stein, A., Alam, F., Migdalek, M., Renata Rosemberg, C., Menti, A., Stein, A., Alam, F., & Migdalek, M. (2016). Vocabulario, narración y argumentación en los primeros años de la infancia y la niñez. Una revisión de investigaciones. *Revista Costarricense de Psicología*, *35*(2), 74–93. https://doi.org/10.22544/rcps.v35i02.05

Sentis, F., Nusser, C., & Acuña, X. (2009). El desarrollo semántico y el desarrollo de la referencia en la adquisición de la lengua materna. *Onomázein*, *20*, Article 20. https://doi.org/10.7764/onomazein.20.06

Streissguth, A. P., & O'Malley, K. (2000). Neuropsychiatric implications and long-term consequences of fetal alcohol spectrum disorders. *Seminars in Clinical Neuropsychiatry*, *5*(3), 177–190. https://doi.org/10.1053/scnp.2000.6729

Terband, H., Spruit, M., & Maassen, B. (2018). Speech Impairment in Boys With Fetal Alcohol Spectrum Disorders. *American Journal of Speech-Language Pathology*, *27*(4), 1405–1425. https://doi.org/10.1044/2018_AJSLP-17-0013

Thorne, J. C. (2017). Accentuate the Negative: Grammatical Errors During Narrative Production as a Clinical Marker of Central Nervous System Abnormality in School-Aged Children With Fetal Alcohol Spectrum Disorders. *Journal of Speech, Language, and Hearing Research: JSLHR*, *60*(12), 3523–3537. https://doi.org/10.1044/2017_JSLHR-L-17-0128

Thorne, J. C., & Coggins, T. E. (2016). Cohesive Referencing Errors During Narrative Production as Clinical Evidence of Central Nervous System Abnormality in School-Aged Children With Fetal Alcohol Spectrum Disorders. *American Journal of Speech-Language Pathology*, *25*(4), 532–546. https://doi.org/10.1044/2016_AJSLP-15-0124

Thorne, J. C., Coggins, T. E., Carmichael, O. H., & Astley, S. J. (2007). Exploring the Utility of Narrative Analysis in Diagnostic Decision Making: Picture-Bound Reference, Elaboration, and Fetal Alcohol Spectrum Disorders. *Journal of Speech, Language, and Hearing Research*, *50*(2), 459–474. https://doi.org/10.1044/1092-4388(2007/032)

Tomicic, P., García del Solar, G., Matute, I., Drapela, J., Marín, F., & Castro, P. (2020). Evaluación de un programa piloto para trabajar habilidades narrativas en niños con hipoacusia usuarios de ayudas auditivas. *Revista Chilena de Fonoaudiología, 19*, 1–9. https://doi.org/10.5354/0719-4692.2020.60184

Urra Medina, E., Núñez Carrasco, R., Retamal Valenzuela, C., & Jure Cares, L. (2014). Enfoques de estudio de casos en la investigación de enfermería. *Ciencia y enfermería*, *20*(1), 131–142. https://doi.org/10.4067/S0717-95532014000100012

van Dijk, T. A. (2000). *Estudios sobre el discurso: Una introducción multidisciplinaria. 1. El discurso como estructura y proceso*. Gedisa.

van Dijk, T. A., & Kintsch, W. (1983). *Strategies of Discourse Comprehension*. Academic Press.

Vega-Rodríguez, Y. E., Garayzabal-Heinze, E., & Moraleda-Sepúlveda, E. (2020). Language Development Disorder in Fetal Alcohol Spectrum Disorders (FASD), a Case Study. *Languages*, *5*(4), Article 4. https://doi.org/10.3390/languages5040037

Wang, C., Edelstein, S. B., Waldinger, L., Lee, C. M., & Bath, E. (2011). Care of the Foster Child: A Primer for the Pediatrician. *Advances in Pediatrics*, *58*(1), 87–111. https://doi.org/10.1016/j.yapd.2011.03.009

Wozniak, J. R., Riley, E. P., & Charness, M. E. (2019a). Clinical presentation, diagnosis, and management of fetal alcohol spectrum disorder. *The Lancet Neurology*, *18*(8), 760–770. https://doi.org/10.1016/S1474-4422(19)30150-4

Wozniak, J. R., Riley, E. P., & Charness, M. E. (2019b). Diagnosis, epidemiology, assessment, pathophysiology, and management of fetal alcohol spectrum disorders. *The Lancet. Neurology*, *18*(8), 760–770. https://doi.org/10.1016/S1474-4422(19)30150-4

Wyper, K. R., & Rasmussen, C. R. (2011). Language impairments in children with fetal alcohol spectrum disorders. *Journal of Population Therapeutics and Clinical Pharmacology = Journal De La Therapeutique Des Populations Et De La Pharmacologie Clinique*, *18*(2), e364-376.

APPENDIX

S05 (8 years 9 months)

[… el niño estaba ahí sentado y, y después… después se ha acostado y luego la, el sapo se ha, se ha subido se ha, se ha, se ha quedado, se ha quedado el niño durmiendo con el perro pero el sapo se ha ido y de repente… de repente vino vio el perro y, y, y, y el niño a donde estaba y después, después, después estuvo ahí y después se está vistiendo y el perro buscando igual, los dos están buscando, de repente el perro y él estaba diciendo así: 'sapo ven' 'sapo ven' y …]

[... the child was there sitting, and then... then he lay down, and then the, the frog has, has climbed up, he, he, he stayed, the child stayed sleeping with the dog but the frog left and suddenly... suddenly the dog came saw and, and, and, and where the child was, and then, then, then it was there and then he's getting dressed and the dog is looking too, both of them are looking, suddenly the dog and he was saying like: 'frog come' 'frog come' and ...]

S07 (10 years 3 months)

[*Era una vez, un perro que estaba, estaba, tenía, un niño y una rana y …. …. …. Ella tenía, el niño estaba sentado y estaba de noche estaba sentado estaba el perro encima suya había una rana y después … … tenía, tenía, tenía… una rana eh, eh, un niño estaba de noche tenía una lampara pero no sabía… … tenía unas zapatillas tenía un ……. y tenía, tenía, tenía una ventana tenía, tenía una lampara… tenía un… tenía un… … … estaban…]*

[Once upon a time, there was a dog that was, was, had, a boy and a frog and … … … She had, the boy was sitting and it was night, he was sitting, the dog was on top of him, there was a frog and then … … had, had, had … a frog, um, um, a boy was at night had a lamp but didn't know … … had some slippers had a … …. and had, had, had a window had, had a lamp … had a … had a … … … were …]

S08 (12 years 10 months)

[…El perro sin querer tiró el… la … el… el… el avispero y el niño en eh… eh… vió … eh… estaba buscando también por un árbol eh… le, le tiró un pa… a un búho al perro le estaban persiguiendo un montón de avispas luego, el búho le intentaba no sé eh… ahuyentar luego ésta se subió encima de una piedra…]

[…The dog accidentally knocked the... the... the... the beehive and the boy in um... um... saw... um... was also looking for a tree um... threw a... a stick at an owl the dog was being chased by a lot of wasps then, the owl was trying I don't know um... to scare them away then it climbed on a rock...]

S13 (15 years 2 months)

[*Es un niño que tiene un perrito que está viendo la ventana en un cofre y el niño está riéndose, está contento y tiene una cama y es de noche está la luna y tien… y está la luz la lámpara y un, y una camisa que tiene… … el niño está durmiendo y la y el perrito y mientras la rana se está escapando, escapando no, se está saliendo del tarro, tiene la ropa tirada en el suelo y las zapatillas, el niño cuando se despierta que es día ve que la rana no está y se queda asustado, asombrado y la y el perrito también]*

[It's a boy who has a little dog looking the window on a chest and the boy is laughing, he's happy and has a bed and it's night, the moon is out and ha... and there's the light, the lamp, and a, and a shirt that has... ... the boy is sleeping and the and the little dog and meanwhile the frog is escaping, not escaping, getting out of the jar, clothes are on the floor, and the slippers, when the boy wakes up that is the day he sees that the frog is not there and he gets scared, surprised, and the and the little dog too]

S18 (13 years 2 months)

[luego el perro se cayó por la ventana luego el niño se enfadó con el perro porque se cayó y se rompió el tarro y otra vez el niño gritando a por su rana, miró por todos los agujeros gritando él la rana, el niño estaba muy asustad… muy, muy sorprendido porque la rana, bueno la rata eh, se escondió debajo del, del hormiguero, luego el perro tiró el… el… donde estaban las abejas, luego el niño se subió al árbol, luego se cayó, se cayó porque estaba el búho ahí, el perro corriendo, luego se subió a una roca gritando a la rana, vino

un ciervo y el ciervo estaba, estaba tranquilo y el niño estaba encima del ciervo y el ciervo corría de subido se cayó el niño y el perro, los dos.]

[Then the dog fell out the window then the boy got mad at the dog because it fell and broke the jar and again the boy shouting for his frog, looked through all the holes shouting the frog, the boy was very scare... very, very surprised because the frog, well the rat, um, hid under the, the anthill, then the dog knocked over the... the…where the bees were, then the boy climbed up the tree, then he fell, he fell because the owl was there, the dog running, then he climbed up on a rock shouting to the frog, a deer came and the deer was, was calm and the boy was on the deer and the deer ran up the boy fell and the dog, both of them.]