ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 11 (November 2026)

# A Syntactic Case Study on Expressive Language Delay in a 6-Year-Old Child: Implications for Early Language Intervention

John Rey C. Donato[1*], Maria Cristina R. Gemillan[1] and Gievegale M. Tumacas[1]
[1]*Graduate School, Saint Columban College, Pagadian City, Philippines*
[*]*gievegale14@gmail.com*

Date Submitted:
**September 27, 2026**

Date Accepted:
**October 14, 2026**

Date Published:
**November 17, 2026**

DOI:
**10.5281/zenodo.24318120**

## ABSTRACT

Expressive language, particularly the ability to form complete and grammatically correct sentences, underpins children's learning, social relationships, and self-confidence, yet children in rural and underserved areas may experience delays that go unidentified. This case study examined the syntactic profile of a six-year-old Grade 1 boy with signs of expressive language delay in a rural community in Imelda, Zamboanga Sibugay, Philippines, and explored the effect of a short, targeted intervention. A descriptive single-case design with pretest and posttest assessment was employed. Data were gathered using a researcher-made checklist anchored on Brown's Mean Length of Utterance (MLU), consisting of a five-item question task and a twenty-item sentence repetition task in Filipino, and were analyzed for MLU, morpheme accuracy, sentence structure, grammatical errors, complexity, and sentence types. At pretest, the child showed word order errors, omission of grammatical morphemes, pronoun errors, difficulty with compound and embedded structures, reliance on single words, and signs of stuttering, with an overall MLU of 2.23, below the threshold for possible delay at age three and above. After a ten-day intervention of 30-minute daily sessions using storybooks, picture cards, worksheets, guided speaking, reading aloud, structured questioning, and sentence construction with scaffolding, the overall MLU increased to 3.57, within the developing grammar range typical of three- to four-year-olds, and incorrectly produced morphemes decreased from 65 to 29. The findings indicate that the child's expressive syntax remained below age expectations despite measurable improvement, underscoring the importance of early identification, structured and scaffolded language activities, and sustained collaboration among parents and teachers. A two-month home-based action plan focusing on nouns, verbs, adjectives, and sentence expansion is proposed.

**Keywords**: *expressive language delay, mean length of utterance, syntactic development, early language intervention, case study, early childhood education*

## INTRODUCTION

Language plays a critical role in a child's learning, social relationships, and emotional growth. The ability to express thoughts clearly through speech allows children to communicate their needs, participate in learning, and build meaningful interactions with others. As children grow, their speech and language skills follow a general developmental path: by about four years of age, children usually speak in simple sentences of four to five words and use basic grammatical rules such as plurals and the past tense; at five, they often produce more complex sentences with conjunctions such as "and" or "because"; and by six, they generally form complete sentences of

ISSN: 3116-3475
International Journal
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five to seven words, ask questions clearly, and retell short stories in sequence (Brown, 1973; Paul et al., 2018). Mean length of utterance, a widely used index of grammatical development, continues to increase through the early school years (Rice et al., 2010).

Not all children develop these skills at the same pace. Children in rural or underserved areas may face delays because of limited access to early assessment, language stimulation, or intervention, and the quantity and quality of language input in children's social environments are closely linked to their language growth (Hoff, 2006; Rowe, 2012). A speech delay can be identified when a child's speech is noticeably unclear for their age or shows error patterns that are no longer expected at that developmental stage (Shriberg et al., 1997). Such delays can affect not only academic performance but also self-esteem and peer relationships (Bishop et al., 2017).

This study focused on a six-year-old Grade 1 pupil who still struggled to form complete and grammatically correct sentences. Although he was at an age when more advanced sentence construction is expected, the child showed signs of delay in expressive language, particularly in syntax. This situation reflects a common but often overlooked issue in early education: the gap in syntactic development among children with language delays, especially where specialist services are limited. By examining the child's performance using MLU and morpheme accuracy, the study sought to provide insights that can help teachers, parents, and speech-language professionals understand and support children with similar difficulties.

Specifically, the study sought to determine (1) the profile of the participant; (2) the specific syntactic deficits observed in his expressive language; (3) the types of syntactic structures he used correctly and incorrectly; (4) how his syntactic performance compared with age-expected norms; (5) the intervention strategies that may be recommended based on his syntactic profile; and (6) whether his language performance improved after the intervention. The findings are intended to help teachers, who are often the first to observe children's language difficulties; parents, who provide the home language environment; speech-language professionals, who may use such findings to guide early intervention; and future researchers studying the effects of early language delays on learning and development.

## Literature Review

### *Syntactic Development in Early Childhood*

Children's acquisition of syntax follows a broadly predictable sequence. Brown (1973) described stages of early grammatical development defined by mean length of utterance, through which children progress from single words and two-word combinations to sentences marked by grammatical morphemes such as plurals, articles, and verb inflections. Miller and Chapman (1981) showed that MLU increases systematically with age in young children, and Rice et al. (2010) reported MLU levels for children from three to nine years of age, confirming that sentence length and grammatical complexity continue to grow into the early school years.

Nativist accounts explain this development in terms of an innate capacity for language. Chomsky (1965) proposed that children are born with a language acquisition device that enables them to acquire the grammar of the language around them naturally. Social-interactionist perspectives emphasize that this capacity is realized through interaction: Bruner (1983) described the routines and supportive formats through which adults scaffold children's early communication, and Vygotsky (1978) argued that learning proceeds most effectively when adults support children within their zone of proximal development. Both perspectives imply that adequate language stimulation is necessary for children's innate capacity to develop fully.

### *Expressive Language Delay and Its Identification*

Expressive language delay refers to difficulty in producing spoken language at the level expected for a child's age, often manifested in short utterances, omission of grammatical morphemes, word order errors, and limited use of complex sentences (Leonard, 2014; Paul et al., 2018). Persistent difficulties of this kind may meet the criteria for developmental language disorder, which an international consensus panel defined as language

ISSN: 3116-3475
International Journal
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problems likely to persist into middle childhood and to affect everyday social interactions or educational progress (Bishop et al., 2017).

MLU is one of the most widely used measures for identifying such difficulties. Eisenberg et al. (2001) reviewed its use for identifying language impairment in preschool children and noted both its value as a general index of grammatical development and its limitations, including sensitivity to sampling context and the need to supplement it with analyses of grammatical accuracy. Speech difficulties may co-occur with language delay, and Shriberg et al. (1997) proposed a classification system for distinguishing normal speech acquisition, speech delay, and other speech disorders. For children exposed to more than one language, assessment must also consider the languages the child uses and the language of testing (Kohnert, 2010).

### *Environmental Factors in Language Development*

Children's language development is shaped by their social contexts. Hoff (2006) reviewed evidence that the amount and nature of language children hear, and their opportunities for conversational interaction, support and shape language growth, and Rowe (2012) showed that both the quantity and the quality of child-directed speech contribute to vocabulary development. Children with limited opportunities for conversation at home may therefore receive less of the input needed to develop expressive language.

Screen media use is another environmental factor of growing concern. Madigan et al. (2019) found that greater screen time in early childhood was associated with poorer performance on developmental screening, and a meta-analysis by Madigan et al. (2020) found that higher screen use was associated with lower child language skills, whereas better-quality screen use and co-viewing with caregivers were associated with stronger language skills. These findings suggest that extensive solitary gadget use may reduce opportunities for the conversational interaction through which expressive language develops.

### *Early Language Intervention*

Early intervention can improve the language skills of children with delays. In a meta-analysis of interventions for children with developmental speech and language delay or disorder, Law et al. (2004) found positive effects, particularly for expressive vocabulary and phonological difficulties, although effects on expressive syntax were more variable. Roberts and Kaiser (2011) found that parent-implemented language interventions had positive effects on children's receptive and expressive language, highlighting the role of caregivers as intervention agents.

Shared book reading is a particularly accessible strategy. Whitehurst et al. (1988) showed that dialogic picture-book reading, in which adults ask open-ended questions, expand children's responses, and provide feedback, accelerated young children's expressive language development. Structured, scaffolded activities such as guided speaking, sentence building, and storytelling build on these principles by providing models of correct grammar and opportunities for children to produce progressively longer and more complex utterances (Paul et al., 2018; Vygotsky, 1978).

## METHODS

### Research Design

The study used a descriptive single-case design with pretest and posttest assessment. Descriptive qualitative analysis was used to identify the participant's syntactic deficits and the structures he produced correctly and incorrectly, and MLU and morpheme counts were compared before and after a short intervention. The findings informed an action plan to support the child's continued language development.

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**Research Locale**

The study was conducted in a rural area of the Municipality of Imelda, Zamboanga Sibugay, Philippines, about seven kilometers from the town proper. Social interaction in the participant's immediate neighborhood was minimal because of the small number of household members nearby. Although the area is rural, internet connectivity was good, and the participant spent much of each day using gadgets.

**Participant**

The participant was a six-year-old boy enrolled in Grade 1 who showed signs of expressive language delay. He belonged to a family of four members. His mother was working overseas, so he was cared for mainly by his father during most of his early childhood.

**Research Instrument**

Data were gathered using a researcher-made checklist anchored on the concept of mean length of utterance introduced by Brown (1973), which measures the average number of morphemes per utterance as an indicator of grammatical development. The checklist contained 122 morphemes in two parts (Table 1). Part 1 consisted of five simple personal questions designed to elicit spontaneous responses, and Part 2 consisted of twenty declarative and interrogative sentences in Filipino that the child was asked to say or repeat, designed to assess his ability to produce more structured language. Responses were also examined using a language sample analysis guide covering sentence structure (completeness and subject–verb–object order), grammatical errors (such as missing verbs or incorrect word order), complexity (use of conjunctions, describing words, and prepositions), and sentence types.

Table 1. *Assessment Tasks and Items of the Researcher-Made MLU Checklist*

| Task | Items |
|---|---|
| Part 1. Questions (5 items) | 1. What is your name? 2. How old are you? 3. What is the name of your brother? 4. What is the name of your school? 5. What is the name of your teacher? |
| Part 2. Sentence repetition (20 items) | 1. Maganda si Ate. 2. Sa kwaderno ako nagsusulat. 3. Malakas kumain ang pato. 4. Suot ni Sisa ang kanyang relo. 5. Ang mga bata ay naglalaro. 6. Maganda ang dalaga. 7. Matulis ang ispada. 8. Mataas na puno ng papaya. 9. Masarap ang gata. 10. Ako si Lino. 11. Maganda ang panahon kahapon. 12. Masarap kumain ng kanin. 13. Naglalaro ang mga bata. 14. Sumayaw kami kahapon. 15. Kumain ako ng sorbites. 16. Ang paninda ay sari-sari. 17. Ang bubong ay sira-sira. 18. Talian mo ang kalabaw. 19. Para kanino ka bumabangon? 20. Mekaniko ang nagkumpuni ng makina. |

*Note.* The checklist contained 122 morphemes in total (21 in Part 1 and 101 in Part 2). The child's responses to Part 1 are not reproduced to protect his identity.

**Data Gathering Procedure**

After consent was secured from the child's parent or guardian, his teacher, and the school principal, the checklist was administered as a pretest to determine whether the child showed a language delay and to identify areas needing attention. Based on the results, the researchers designed an intervention using instructional materials suited to the child's developmental level, including storybooks, picture cards, worksheets, and interactive tools. The intervention was implemented over ten consecutive school days in 30-minute daily sessions and involved guided speaking tasks, reading aloud, answering structured questions, and sentence construction exercises, with consistent scaffolding provided by the researchers. After the intervention, the same checklist was administered as a posttest, and the pretest and posttest results were compared.

**Data Analysis**

MLU was computed as the number of morphemes divided by the number of utterances (Brown, 1973). In this study, MLU was calculated from the morphemes the child uttered correctly in each part, divided by the number of items in that part. The resulting values were interpreted using the following scale: below 2.5, possible delay for

ISSN: 3116-3475
International Journal
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age 3 and above; 2.5 to 3.75, developing grammar (typical for ages 3 to 4); 3.75 to 4.5 and above, advanced or age-appropriate for ages 4 to 5; and 5.0 and above, highly fluent grammar (above 5 years). The number of correctly and incorrectly uttered morphemes was also compared between pretest and posttest, and the child's errors were described qualitatively in terms of sentence structure, grammatical errors, complexity, and sentence types.

### Ethical Considerations

Written informed consent was obtained from the child's parent or guardian, and consent was also obtained from the child's teacher and the school principal. Participation was voluntary, and the parent or guardian could withdraw the child at any time without penalty. No risks beyond those of daily life were anticipated, and the child could benefit from the tutorial sessions. All information was kept confidential, data were stored securely and accessed only by the research team, and the identities of the child, his family, his teacher, and his school are not disclosed in this report.

## RESULTS AND DISCUSSION

### Profile of the Participant

The participant was a six-year-old Grade 1 boy living in a rural community with minimal neighborhood social interaction, cared for primarily by his father while his mother worked overseas, and spending much of his day using gadgets. These circumstances suggest limited opportunities for sustained conversational interaction, which is an important source of the language input that supports expressive development (Hoff, 2006; Rowe, 2012). The child's extensive gadget use is also noteworthy in light of evidence associating higher screen use with lower language skills in young children (Madigan et al., 2019, 2020), although the present case cannot establish whether these factors contributed to his delay.

### Syntactic Deficits and Structures Used Correctly and Incorrectly

The pretest revealed expressive language delay characterized by several syntactic deficits: word order errors, difficulty forming complex sentences, omission of grammatical morphemes, pronoun errors, and problems with embedding clauses and forming compound sentences. The child often limited his responses to single words and had difficulty combining words into simple or complex sentences. He also showed signs of stuttering, which further interfered with his expressive fluency.

The child was confident in producing simple and familiar words, such as the markers *ang* and *ng*, the pronoun *ako*, the noun *bata*, and his own name, but struggled with more complex expressions, including verbs such as *kumain*, adjectives such as *matulis* and *malakas*, the temporal adverb *kahapon*, and the English phrase *six years old*. In the sentence repetition task, he often omitted function words, used incorrect verb inflections, and had trouble maintaining correct word order. These patterns, especially the omission of grammatical morphemes and difficulty with verb forms, are characteristic of expressive language difficulties in young children (Leonard, 2014; Paul et al., 2018). Because some errors involved pronunciation and fluency as well as grammar, the child's difficulties may also have a speech component that warrants further assessment (Shriberg et al., 1997).

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**Comparison with Age-Expected Norms**

Table 2. *Pretest and Posttest Mean Length of Utterance Results*

| Task | No. of Utterances | Total Morphemes | Correct (Pre) | Correct (Post) | Incorrect (Pre) | Incorrect (Post) | MLU (Pre) | MLU (Post) |
|---|---|---|---|---|---|---|---|---|
| Part 1. Questions | 5 | 21 | 9 | 14 | 12 | 7 | 1.80 | 2.80 |
| Part 2. Sentences | 21 | 101 | 49 | 79 | 53 | 22 | 2.33 | 3.76 |
| Total | 26 | 122 | 58 | 93 | 65 | 29 | 2.23 | 3.57 |

*Note.* MLU = correctly uttered morphemes ÷ number of utterances. Interpretation: below 2.5, possible delay for age 3 and above; 2.5–3.75, developing grammar (ages 3–4); 3.75–4.5+, advanced or age-appropriate (ages 4–5); 5.0+, highly fluent grammar (above 5 years). Highlighted values are as reported: Part 2 contained 20 sentences, and correct plus incorrect pretest morphemes (49 + 53; 58 + 65) exceed the totals of 101 and 122 by one.

As shown in Table 2, the child correctly produced 9 of the 21 morphemes in the question task at pretest, for an MLU of 1.80, and 49 of the morphemes in the sentence repetition task, for an MLU of 2.33. Across both tasks, he correctly produced 58 morphemes over 26 utterances, yielding an overall MLU of 2.23. This falls within the category of possible delay for age three and above, far below what is expected of a six-year-old, for whom the researchers' scale anticipates an MLU of 5.0 or higher. The finding is consistent with normative evidence that MLU continues to increase through the early school years (Miller & Chapman, 1981; Rice et al., 2010) and indicates that the child's expressive syntax at pretest resembled that of a much younger child.

These results confirm a syntactic delay. The child's performance on both the more spontaneous question task and the more structured repetition task fell below age expectations, suggesting that the difficulty lay not only in generating language but also in reproducing modeled grammatical structures. Consistent with Eisenberg et al. (2001), however, MLU in this study served as a general indicator that was complemented by descriptive analysis of the child's specific errors.

**Intervention Strategies and Improvement in Language Performance**

The ten-day intervention used storybooks, picture cards, worksheets, and interactive tools, with guided speaking, reading aloud, structured questioning, and sentence construction supported by consistent scaffolding. After the intervention, the child's MLU increased from 1.80 to 2.80 in the question task and from 2.33 to 3.76 in the sentence repetition task. Overall, correctly produced morphemes increased from 58 to 93, incorrectly produced morphemes decreased from 65 to 29, and the overall MLU rose from 2.23 to 3.57, placing the child within the developing grammar range typical of three- to four-year-olds. The researchers observed that the child formed longer, better-structured sentences and showed reduced stuttering during the posttest.

These gains are consistent with evidence that structured, scaffolded language activities and shared book reading support expressive language development (Law et al., 2004; Whitehurst et al., 1988) and with the view that children's innate language capacity requires adequate stimulation and practice to develop fully (Bruner, 1983; Chomsky, 1965). Nevertheless, the child's posttest MLU remained below the level expected for his age, indicating that he remains on a delayed developmental path. Because the study involved a single child, a short intervention period, no comparison condition, and readministration of the same items, the observed gains may partly reflect familiarity with the test items, and they should be interpreted as preliminary.

**Proposed Action Plan**

Based on the findings, the researchers developed a two-month home-based action plan in which the child participates in 30-minute guided language sessions five days a week (Table 3). The first month focuses on nouns and verbs through picture-book reading, play, sorting, puppet storytelling, matching games, action songs, and drawing, with vocabulary presented in English, Filipino, and Cebuano. The second month focuses on expanding sentences and introducing adjectives through real-life activities such as grocery shopping and park visits, building

ISSN: 3116-3475
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blocks, arts and crafts, family storytelling, songs and rhymes, and read-aloud sessions, with each week ending in review. The plan's reliance on caregivers is consistent with evidence that parent-implemented language interventions benefit children's expressive language (Roberts & Kaiser, 2011).

Table 3. *Proposed Two-Month Home-Based Language Action Plan*

| Week | Month 1: Focusing on Nouns and Verbs | Month 2: Expanding Sentences and Introducing Adjectives |
|---|---|---|
| Week 1 | Picture-book reading on nouns; Play-Doh shaping and naming; sorting shapes using simple sentences ("This is a square"); puppet storytelling with verbs; weekly review | Grocery role-play naming items and quantities ("I want one apple"); tracing letters and numbers; action songs with descriptive words; describing a park or playground; weekly review |
| Week 2 | Matching pictures to words; naming ingredients at snack time; naming clothes and actions in dress-up; action songs with verbs; drawing and naming objects; weekly review | Describing actions with building blocks; drawing and naming objects; matching objects with adjectives; describing arts and crafts; weekly review |
| Week 3 | Reading together with a focus on verbs; sentence-building with flashcards ("The big ball is red"); nature walk describing objects; story retelling with adjectives; weekly review | Family storytelling; grocery role-play; tracing letters and numbers; songs with descriptive words; weekly review |
| Week 4 | Role-playing with descriptive language; board games following instructions and describing actions; describing feelings and events; advanced picture-book reading focusing on sentence structure; weekly review | Describing a park or playground; family storytelling; songs and rhymes on animal vocabulary; read-aloud focusing on new words; weekly review |

*Note.* Sessions are held for 30 minutes in the evening on five days each week. Vocabulary is introduced in English, Filipino, and Cebuano.

## CONCLUSION

The participant exhibited expressive language delay characterized by syntactic deficits, including word order errors, omission of grammatical morphemes, pronoun errors, difficulty with complex structures, and reliance on single words, accompanied by signs of stuttering. His pretest MLU of 2.23 was below the expected developmental range even for a three-year-old, indicating a substantial delay relative to his chronological age.

After a short, structured intervention, the child's MLU increased to 3.57, placing him within the developmental stage typically associated with children aged three to four years, and his incorrectly produced morphemes decreased. Despite this progress, his expressive language remained below the norms for his age. The intervention was associated with improvement, but the child requires continued and sustained support to reach age-appropriate language milestones. The study underscores the importance of early identification and immediate, collaborative intervention by teachers and parents for children with expressive language delays, particularly in rural settings with limited access to specialist services.

### Recommendations

Based on the findings and conclusions, the following recommendations are offered:

1. Parents may limit the child's screen time to allow more opportunities for social interaction and meaningful communication; engage the child in storytelling, reading, and conversation; model correct grammar and pronunciation during daily interactions; establish daily routines; and implement the proposed two-month guided language sessions.
2. Teachers may conduct daily remedial sessions of at least 20 minutes using targeted materials and structured activities that address the child's specific language difficulties, and reinforce language use consistently in the classroom.

3. The child may be encouraged to participate actively in all activities facilitated by parents and teachers to support ongoing expressive and receptive language development.
4. Schools may facilitate referral to a speech-language pathologist for a comprehensive assessment of the child's language and speech, including fluency.
5. Future researchers may allocate a longer intervention period, use spontaneous language samples and alternate assessment forms, consider the child's home language or languages, and include more participants or comparison conditions to strengthen conclusions about intervention effects.

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