

# Transformations in Writing: Analyzing Structure and Vocabulary in Two Reading Recovery Students

*Donita Shaw, Oklahoma State University; Faith Winslow, Oklahoma State University; Amy Dunn, Oklahoma State University; Heather Cherry, Broken Arrow Public Schools; Cheyenne Short, Oklahoma State University; and Kris Piotrowski, Troy School District*

Our collective interest in Reading Recovery® combined with doctoral coursework provided us the opportunity to come together as researchers from different roles: one university trainer, two Reading Recovery teacher leaders, two future teacher educators, and one school administrator. What began as an exploratory study grounded in the reciprocity of reading and writing became focused on our discovery about how two Reading Recovery students differed in their writing. This manuscript presents how we modified a tool based on the Writing Analysis Tool (Mackenzie et al., 2013) and combined it with the *Record of Oral Language* (ROL; Clay, 2015c) to discover more about our students' writing, particularly their sentence structure and writing vocabulary. Therefore, we asked, "How did the written sentence structure and writing vocabulary of two Reading Recovery students change over time?" We also present how the students' writing independence changed over time.

We start with theoretical foundations where we draw upon Marie Clay's seminal work, supplemented by other Reading Recovery publications and a new reciprocity model. Following, we share information about our two students, how we developed our tools as well as how we analyzed our data. The results show two students' case studies highlighting both their quantitative scores and a picture of their writing. Finally, we summarize what we believe is important about our study and how our findings contribute to Reading Recovery.

## Theoretical Foundations

Literacy processing is complex and involves reading or writing a simple message (Clay, 2015a, 2015b). The act of reading and writing engages and develops the working systems required to make sense of language (Doyle, 2013). The goal is to support children in developing

these perceptual and cognitive neural networks that become increasingly efficient and complex over time, supporting readers' use of a range of strategic activity to discern messages in increasingly difficult texts (Clay, 2015b; Doyle, 2013). That is, we want children to be able to use their developed working systems to problem solve when encountering the unknown in reading or writing (Doyle, 2013).

It is crucial to recognize individual differences in literacy development (Clay, 2014; Doyle, 2013). The Double Helix of Reading and Writing developed by Wyse and Hacking (2024) uses a DNA structure for the model which was inspired by the unique trajectory each child takes in becoming a reader and writer (Wyse & Hacking, 2024). Clay (2015b) points out that "the outcome of proficient reading and writing can be achieved by taking different paths," so therefore "it would be an utter waste of time to try to create a table of stages to be achieved at set ages" (p. 77). In addition to considering how students' progress at different times and rates, Clay (2015a) suggests that there is not one single trajectory to be used to describe how children learn to read or write as each child differs in their prior experiences and resulting schema. Accordingly, it is important to meet children where they are in their development and build upon what they can do when it comes to reading and writing instruction (Clay, 1983, 2010, 2015a, 2015b; Wyse & Hacking, 2024).

In addition to the individualized paths children take to becoming proficient readers and writers, providing them with early writing experiences is vital. Extensive research exists regarding how children learn to read, but less has been done regarding how children learn to write (Wyse & Hacking, 2024). The Double Helix of Reading and Writing emphasizes the importance of writing

when it comes to children's literacy development (Wyse & Hacking, 2024). This model depicts the reciprocity of reading and writing; the two are "inseparable" and "intimately connected to oral language" (Wyse & Hacking, 2024, p. 4). Clay (2004) also stresses the interconnectedness between reading, writing, and oral language, and emphasizes how linking them within instruction helps children see the interrelationships that support their literacy development (Clay, 1983). Further, Vernon and Ferreiro's (1999) research determined students' deviant responses were integral to understanding the internal organization of information, stating: "When we ask children to write something...that they have not yet been taught to write, we can witness a real process of construction" (p. 398). Therefore, through the students' attempts in writing the unknown, literacy development and interconnectedness of oral language and its influence is on display for the teacher to observe.

The desire to communicate invites children to engage in writing (Clay, 1983). Though it may seem simple, a young child's construction of a simple sentence can be incredibly powerful (Askew & Frasier, 1999; Doyle, 2013; Wyse & Hacking, 2024). As Clay (2015b) points out, "When the eye and ear and hand are jointly involved in the management of a task they send three different messages to the brain, messages picked up by different senses" (p. 16). In addition, Doyle (2013) notes what Clay's research reveals:

Writing experiences help build the working systems needed to search for information in print, strategies used to combine and check information, an awareness of how to construct a message, and awareness of the sources of knowledge available in written language. (p. 641)

These sources of information include visual information along with structural knowledge and meaning (Clay, 2010, 2015a). Meaning-making behaviors shared between reading and writing include directionality, activating and using schema related to language, identifying and constructing symbols used to represent language, integrating visual symbols with sounds, storing the message, using sources of information, monitoring understanding, and problem solving as necessary (Clay, 2019, 2010).

Writing vocabulary, or the number of words a child can independently construct, is "the main predictor of

early reading progress" for young readers (Clay, 2015b, p. 17). This is based on research conducted by Robinson in 1973 who stressed the importance of early writing experiences to support children's reading development (Clay, 2015b). As children write new words with support from teachers, they gain a deeper understanding of the language and how words work. This scaffolding helps children become familiar with writing conventions, strengthens their phonological and orthographic knowledge, and expands their writing vocabularies (Askew & Frasier, 1999). Ultimately, the experience builds neural networks and better prepares children to read these and other similar words when encountering them (Askew & Frasier, 1999; Clay, 2015b). However, Clay (2015b) cautions against teaching word families. Instead, the goal is to help children develop their ability to problems solve and construct words "using existing strategies and knowledge" (p. 24), which supports a self-extending system that contributes to continued growth (Askew & Frasier, 1999; Clay, 2015b).

Though all children have different background experiences that shape their early writing, and they do not all follow the same trajectory in their writing development, there will be observable changes in their writing over time (Clay, 2015b). Writing development begins with oral language as children learn to babble, communicate using short phrases followed by sentences, and eventually tell stories (Clay, 2004, 2010, 2014). When young children begin to realize print conveys a message, they engage in pretend writing that shifts from scribbles to drawings to symbols and eventually letters (Clay, 2004, 2010). Invented spelling, as analyzed by linguist Charles Read (1986), is a normal part of development. Each child gradually begins using more complex structures over time as they gain more control over both oral and written language (Clay, 2004).

Teachers must be able to determine which structures each child can control to help them grow in their writing abilities. Assessment is especially important due to the complexities involved and the diverse pathways children follow in their literacy development. Analyzing patterns in oral language as well as observing a collection of writing created by a child allows teachers to identify developmental changes over time. The insight gained from assessing oral language and writing ultimately enables teachers to provide targeted instruction that fosters continued growth (Clay, 2004, 2010).

## Methodology

We chose a collective case study methodology to highlight two students' writing. Merriam (1998) defined a case study as a description and analysis of a phenomenon that is bounded. Each student's case, specifically their writing, scaffolded by the teacher, was enclosed within the Reading Recovery lesson framework and analyzed for the complexity of their sentence and writing vocabulary. Collective case study strengthens external validity and generalizability (Merriam, 1998). Therefore, we present our two students, the data sources, how and when data was collected, and the tools we developed to analyze our data in the sections that follow.

## Participants

Two Reading Recovery students were selected for this research study. Robert (pseudonym) was a 6-year-old first grader with a summer birthday. Based on recommendations from his kindergarten and first-grade classroom teacher, Robert began Reading Recovery lessons with the trainer (Donita Shaw) in September. Throughout the year, Robert received no other services, although he showed numerous literacy challenges, particularly with visual processing and memory. By April, Robert had met with the trainer for 46 lessons. Due to intermittent teaching, Robert did not receive a traditional Reading Recovery lesson series.

Emma (pseudonym), who had turned 7 in November, began second-round Reading Recovery lessons during the spring semester. Emma's first-grade classroom teacher recommended her for assessment based on her performance of grade-level reading and writing tasks. By February, Emma showed little growth on benchmark assessments from the beginning of the year and was not motivated to read independently. She noted a lack of reading fluency and independence with word writing. Emma's teacher-leader-in-training (Heather Cherry) provided 31 Reading Recovery lessons between February and April.

## Data Source and Collection

Daily writing samples from the child's writing book were the primary data source. To obtain this sample, the writing portion of the lesson (approximately 10 minutes) occurred as follows. For approximately 1–2 minutes teacher and child engaged in authentic conversation,

with the purpose of the student composing a message, supported by the teacher as needed. Then the student began writing the message in a book that had a writing page and working page.

This daily writing activity was scaffolded by the teacher to limit the difficulty of the task and support the student in learning what they needed to know. The teacher made in-the-moment decisions throughout the writing activity. After writing was completed, the teacher wrote the message on a sentence strip and the student then reconstructed the cut-up text with the purpose of integrating meaning, structure, and visual information. Throughout the writing activity, the child engaged in strategic actions such as monitoring, searching, and cross-checking.

On the daily lesson record, the teacher recorded "writing" notes in the following four sections:

1. Writing: Message Composed
2. Writing: Constructing Words, Gaining Fluency
3. Cut-up Story, Space, Concepts, Sequence, and Phrasing
4. Comments on Any Part of The Lesson

For the purposes of this research, we extracted #1 and #2 from the daily lesson records: the message composed with the amount of teacher scaffolding in constructing words and gaining fluency. The information written on the daily lesson records offers a wealth of data beyond the scope and purpose of this manuscript. That said, the notes were helpful in our analysis of student independence. Our primary data source was the daily writing sample in the writing book, also recorded on part #1 of the daily lesson record.

## Data Analysis

Two-part data analysis—tool development and analysis of the two students' writing samples—occurred over several months. First, we describe our development of the two adapted tools. Even though we feature two students in this manuscript, we used approximately 50–60 writing samples in the tool development phase as the trainer and four doctoral students (authors Shaw, Winslow, Dunn, Cherry, and Short) were teaching at least one student once a week. In the second part of data analysis, we explain how we examined Robert's and Emma's writing samples.

### *Development of the writing tool*

In February authors Shaw, Winslow, Dunn, Cherry, and Short met Dr. Noella Mackenzie via Zoom to learn more about the Writing Analysis Tool (WAT) she and colleagues developed (Mackenzie et al., 2013). The tool allows researchers and teachers to analyze a child's independent writing sample in authorial aspects such as text structure, sentence structure, and vocabulary as well as in secretarial or conventional aspects such as spelling, punctuation, and handwriting. While this classroom research tool is purposeful and valuable, we recognized it did not fit Reading Recovery lessons because of the limited writing time available and the amount of teacher scaffolding. Therefore, we used the WAT as a mentor text to create our own research tool, which we named Syntactic Composition and Authentic Language Evaluator; hereafter referred to as SCALE (see Appendix A, pp. 57–58 in this issue).

While children's writing samples provided a wealth of information for analysis, we chose to narrow our focus on (a) the sentence structure of the child's written composition, (b) the vocabulary the child used in his sentence, and (c) the amount of independence with which the child composed their message. We began with sentence structure using the WAT and samples of our students' work. When we found our students' sentence structure differed from the WAT sentence structure scale we made notes. Over a period of several weeks, we began refining the SCALE by adjusting the descriptions to fit that data we found in our students' work. We then repeated the same process for vocabulary and independence. We drew upon Mackenzie's et al. (2013) vocabulary and spelling scale and Clay's (2016) "changes teachers might observe."

When the entire team could not always meet, a minimum of two authors collaborated to keep the process moving forward. We checked our rating descriptions with the students' writing samples, refined and rechecked, and constantly involved all the authors in checking and refining our work at various points in the process. Through collaboration, we finalized descriptions and samples that represented a variety of students' writing. On a scale of 1 (low) to 6 (high) we created a gradient of difficulty for sentence structure, vocabulary, and independence. The SCALE can be found in Appendix A and is described in detail here.

**Sentence structure.** We started with a rating of 1: subject/verb agreement as in "I like pizza." Then we rated

2, 3, and 4 for simple sentences that grew in complexity including adjectives (lower rating), adverbial and/or prepositional phrases and dialogue (higher rating), and declarative (lower rating) and interrogative or exclamatory sentences (higher rating). Ratings 5 and 6 were for compound sentences that included conjunctions as well as adjectives and/or phrases, dialogue, and declarative, interrogative or exclamatory sentences.

**Vocabulary.** We drew upon Beck et al.'s (2013) research highlighting vocabulary's classification in three tiers or levels. Due to the advanced subject specificity of their Tier 3 words, we did not include them in our rating scale. Tier 1 words are basic words in children's vocabulary such as "dog," "play," and "like." Tier 2 words are words that expand on common words and may have multiple meanings. Examples include "mammal," "activity," "ignore," and "record/record."

Our rating scale began with a 1, which we limited to words of personal significance, such as the child's or family member's name. To apply Beck et al.'s classification to our tool, the child received a rating of a 2 or 3 when Tier 1 words were primarily used in the message. The difference between a 2 or 3 rating was on the commonality of words within the message, and if the basic words had inflected endings (such as "playing," "played") which were rated higher. When the student incorporated Tier 2 words into the message, they received a rating from 4–6. The greater the range and specificity of vocabulary, the higher the rating.

**Independence.** "There is a need to observe them in the process of writing" (Clay, 1983, p. 259). To provide teachers with more insight regarding writing development and the process children use, we decided to add the child's independence to the final column in our SCALE. We drew upon Mackenzie et al.'s (2013) spelling ratings and Clay's (2016) "changes teachers might observe" from *Literacy Lessons Designed for Individuals*, specifically pages 46 and 47 on "writing a story or message" and "hearing and recording sounds in words." Therefore, the independent rating began low (1) with intensive teacher scaffolding where the teacher shares the pen and lifts the writing in many ways. A rating of 3 shows the child independently writing high frequency known words, uses some phonological awareness, and attempts regular orthographic patterns. The teacher scaffolds unknown words or parts of words. The highest independent level with minimal teacher scaffolding is a 6, because the child independently composes a varied,

complex message and applies what is known to solve the unknown including irregular spelling patterns and difficult spelling rules.

### *Extensions to the Record of Oral Language technical appendices*

Since children generated their daily messages (with teacher support), we needed a resource for examining the complexity of their messages. We chose to use Clay’s (2015c) *Record of Oral Language* (ROL), which was developed with much effort and research. In brief, we used the sentence types A–G found in the technical appendices (pages 39–41). The seven syntax structures of declarative sentences begin with a noun phrase, to be verb, and simple statement (Type A). The syntax varies in an additional construction (Type C), the addition of a direct or indirect object (Type B, D, G), noun clause (Type E), and adverb or relative pronoun (Type F).

Clay said that children typically use simple structures correctly then attempt more complexity over time, getting close to correctly using the new structure. Further, Clay wrote that the ROL sentences were not exhaustive of the variety of possible sentence structures, and we found this to be true. Therefore, we took the table on page 41 combined with the table on page 44 to create sentence types that included greater complexity. Using the children’s writing samples, we extended and created types H–L for compound sentences and named our tool Record of Oral Language Extended (ROLE). Following similar procedures to those used for modifying the WAT, there was a continual collaborative process of researchers checking, rechecking, analyzing, questioning, and refining throughout this process. When you review our tool, please note that Clay (2015c) presented

three levels of difficulty for Type A–G, whereas we simply created one compound sentence type without three difficulty levels. Also, when you review the results, you may see a few sentence types not represented by Robert and Emma, and that is because we used more student samples as previously mentioned. That said, we recognize the sentence types listed in ROLE are not exhaustive, and future work can expand and identify more compound sentence types (see Appendix B, p. 59 in this issue).

### *Analyzing data with the tools*

Once we finalized the tools, we knew presenting all the students was beyond the word limit of this paper. Therefore, we selected two students. On each summary document (one per child) we created a table that had a row for each lesson. Since Robert’s lessons were taught across more weeks, but had less continuity over time, Emma’s teacher selected approximately one lesson per week to report. Table 1 represents the sample table. As can be seen in the sample, each row listed the lesson number, sentence composed, rating for sentence structure, vocabulary rating, student independence rating, and the ROLE sentence type. This individual summary document allowed us to see the changes in each student.

From this table we created two documents (for each student) that you will see in the findings. First, the findings will have a line graph that shows each child’s rating for sentence structure (column 3), vocabulary (column 4) and independence (column 5) across lessons (column 1). Second, a table lists their composed sentence (column 2) and ROLE sentence type (column 6) across lessons (column 1).

**Table 1. Sample Individual Summary Document**

Lesson #	Sentence	Sentence Structure Rating	Vocabulary Rating	Independence Rating	ROLE Sentence Type
11	I like to eat watermelon at parties.	3	3	2	G
14	I like to play with my cousins. I like to go on walks around the block.	3	4	3	C (sentence 1) C (sentence 2)

Our next step was a combined document with the two students' data. It was identical to the above example except it had both students' data in one document. This allowed us to look across both students for similarities and differences.

## Results

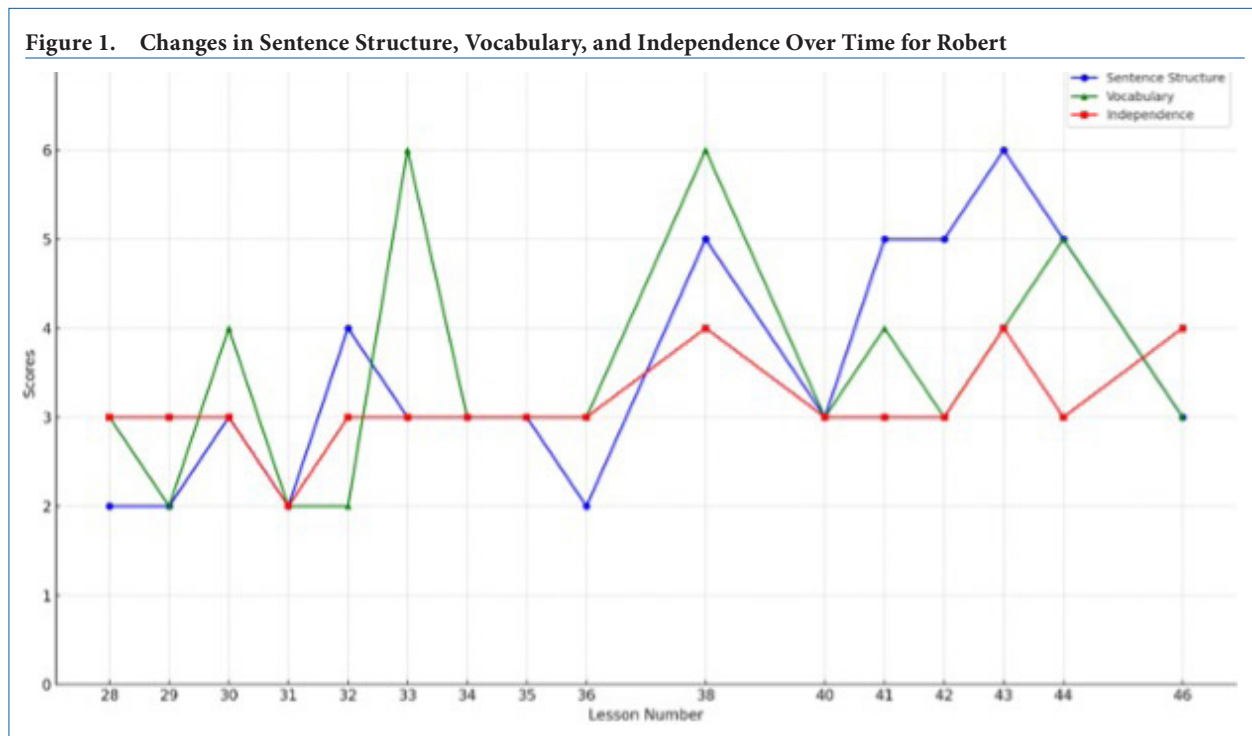
The value of presenting two case studies is that we noticed individual differences (Clay, 2015a). Following, we introduce each student and include a visual line graph for sentence structure, vocabulary, and independence based on the SCALE. Then we give a table with the composed sentences and ROLE rating. We also chose to embed two writing samples for each child. All data sources were included to accurately describe and represent each child.

### Robert

Robert came to his September lessons with lack of confidence, not believing he was a reader or writer. His pre-assessment indicated his inability to track text. Robert's strong oral language skills helped him make up a "nice sounding" reading that did not accurately involve looking at print. His teacher showed him how he could cross-check visual information with his strengths

of meaning and structure. After a few weeks of learning to look at print, Robert made progress often relying on initial visual information. Robert's strength in sound analysis was used to support his attempts to sequentially analyze words. Unfortunately, due to inconsistency in lessons and Robert's challenge with memory and visual processing, progression on text level was slow despite his cognitive efforts. Most of his running records (Clay, 2019) were instructional, with some dipping to frustration level and a rare independent level.

Robert's strengths were oral language and story composition. Rich conversations involved turn-taking, and in almost every lesson Robert composed his writing message with very little input from the teacher. Early in the fall semester, Robert quickly grew to favor writing time and never tried to compose a short sentence because it was easier. During lessons the teacher drew upon his strength of sound analysis using sound then letter boxes. He worked hard to develop his automaticity on known writing vocabulary. Robert struggled to consistently recall words despite great attempts at using multiple repetitions and various pathways to learn the words. That said, Robert wrote 42 words in May (compared to 4 known words in September).

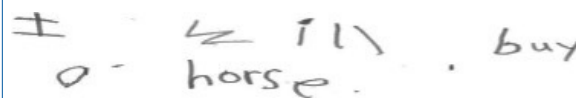


Based on our analysis, Figure 1 shows Robert’s sentence structure, vocabulary, and independence over time. Please note that while Robert’s lessons occurred from September through April, the research study approval was for spring semester. Therefore, data begin with lesson 28.

Writing was a valued part of every lesson even though the graph omits some data. Due to time limits, a complex sentence took more than 1 day to write, and once the teacher changed the day’s writing task for another purpose. As can be seen, Robert’s independence (red) remained consistent with typically medium to high support from his teacher. Vocabulary had some lower ratings (session #31 and #32) with some high ratings (#33 and #38). Robert’s sentence structure grew most consistently over time from a basic level (sessions #28–30) to a higher level (sessions #42–44). Following are two samples of Robert’s writing illustrating how his sentence structure changed.

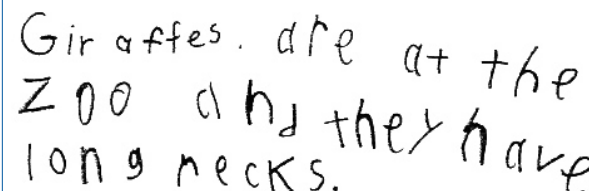
Figure 2 shows a simple sentence structure. The teacher supported Robert in sharing the pen for “buy” and “horse.” This sample was given because it represents an early-learned structure and limited vocabulary from lesson 31.

**Figure 2. Lesson 31 Sentence — Robert**



I will buy a horse.

**Figure 3. Lesson 44 Sentence — Robert**



Giraffes are at the zoo and they have long necks.

In Figure 3, you will see descriptive information in a compound sentence from lesson 44. The teacher scaffolded “giraffes,” “long,” and “necks” through letter boxes. This sample was included because it shows a more advanced grammatical structure with richer vocabulary.

Now, we turn our attention to the ROLE. Table 2 presents Robert’s daily message and the sentence type we coded.

**Table 2. Robert’s Daily Message and Sentence Type Coded**

Lesson #	Sentence Composed	ROLE
28	I love my Clawla Rowan penguin.	D
29	Jasper loves tuna fish.	B
30	Alley cat ran to the car to drive to the market.	C
31	I will buy a horse.	B
32	Do you like cheese pizza?	E
33	Louna chewed my charger to my hoverboard.	G
34	I can call my family on my watch.	G
35	I knocked the salt over on accident.	G
36	I like to drive my Lamborghini.	B
38	My dad broke his motorcycle because a lady crashed into him on purpose.	J
40	I lost my keys in my classroom.	G
41	I love my dad but he went across the world to help other people.	J
42	I love my dog Bella but she died 9 years ago.	J
43	“I am cold outside because I am in the snow,” said Rosie	J
44	Giraffes are at the zoo and they have long necks.	J
46	I’m turning 7 years old in 4 months.	G

In lessons 28–32 Robert favored sentences with a noun/noun phrase, verb/verb phrase and a direct or indirect object (Types B–E). Then in lesson 33, Robert tried a new structural pattern that extended his previously preferred patterns. This new structure (Type G) composed of a noun phrase, verb or verb phrase, an object and some additional construction. Another leap into a new structure pattern (lesson 38) showed Robert’s ability to write compound sentences. His sentence structure included a noun and verb with additional construction, a conjunction, and the same pattern repeated (Type J).

While there were some dips in complexity due to the amount of time for writing as well as goal for writing, Robert grew in sentence complexity. While we would expect to see growth in Robert’s language complexity since it spanned a year’s time, we found this interesting as Robert’s written sentence structure seemed to exceed the structures he was reading. Without a deep dive into the relationship between reading and writing because it is beyond the scope of this manuscript, we turned to Peterson’s (1991) general text descriptions for levels 5–8. Peterson described the text having varied, simple sentences with predominantly oral language structures. In contrast, Robert’s writing contained both simple and compound sentences that included adverbial and prepositional phrases. Clearly Robert’s written language structure exceeded his reading text structures and could be one avenue to grow his reading.

### *Emma*

Emma, who was taught during round 2, displayed useful knowledge of letters, sounds, and sight words when reading but had limited strategies for problem solving words. She was reluctant to engage in reading and writing activities in the classroom and lacked the confidence and independence needed to perform grade-level reading tasks. Over the course of her Reading Recovery lesson series, Emma developed an extensive vocabulary for reading and writing and grew more than 10 text levels, typically scoring independent level running records (Clay, 2019). Through her intervention, Emma developed a variety of strategies for problem solving words and confidently initiated multiple attempts of words when reading. With regular practice, Emma’s reading fluency became more phrased and expressive, and she was more eager to engage in reading activities.

As a writer, Emma’s teacher observed Emma using sound-by-sound analysis to hear and record most sounds when writing and to blend simple words when reading. During Roaming Around the Known, Emma was beginning to use analogy of known words to write new words but paid little attention to common spelling patterns. Data from running records and writing samples allowed the teacher to examine the way Emma’s use of word analysis in reading transferred to her use of word analysis in writing. She observed changes in the way Emma broke words into sounds and chunks of sound as well as her ability to use common spelling patterns when problem solving words. Emma’s writing vocabulary was tracked through daily lesson records and revealed significant growth (32 to 51 words) over the course of lessons.

Figure 4 shows Emma’s sentence structure, vocabulary, and independence across lessons.

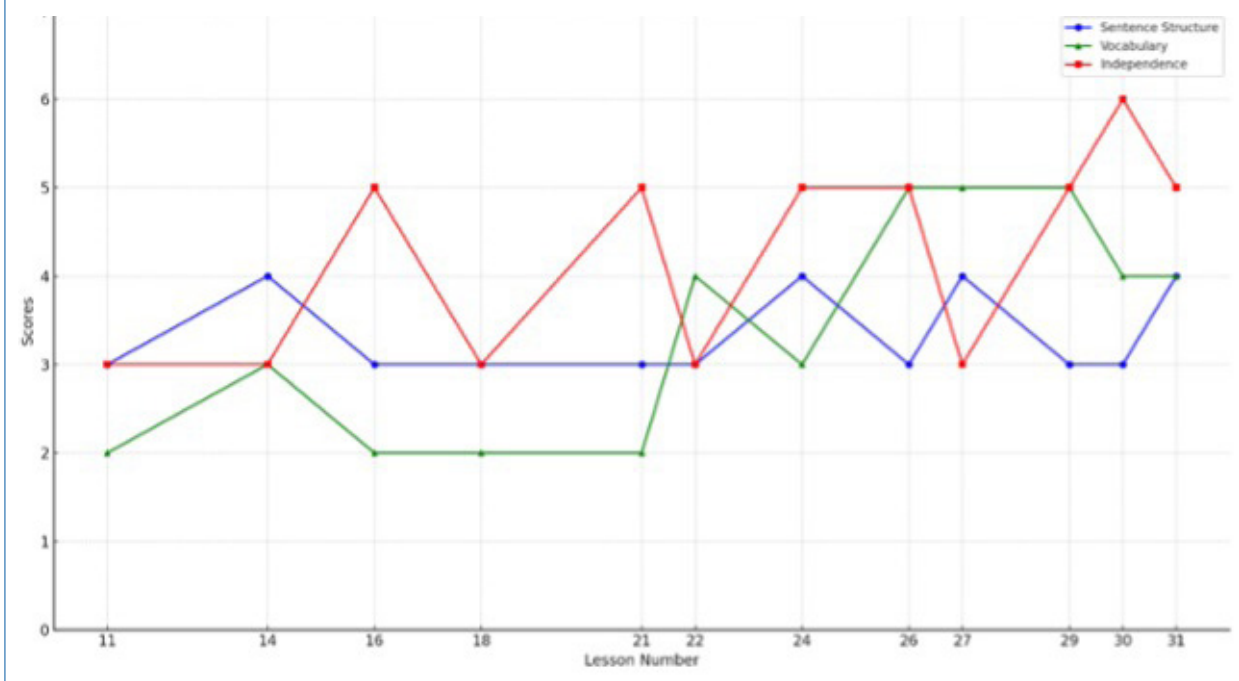
Even though Emma received a traditional series of daily lessons, representative samples were selected to have a comparable amount of data. As Figure 4 shows, Emma’s sentence structure (blue) remained similar (3–4 range) across lessons. Emma’s vocabulary started closer to a 2 and grew to mostly 5 by the end of lessons. Also, of interest is how her independence grew. At times Emma dipped lower (3) and needed medium support, but many times Emma showed high independence (5–6 range) with an overall trend upward.

Figure 5 is an early writing sample from lesson 14. The teacher chose to write her contributions in blue. We chose to include this writing sample because it illustrates two sentences with similar structure using common Tier 1 vocabulary. This early writing sample shows Emma’s control of familiar words such as “play” and “like,” common sight words (“with,” “my,” “to”) and her ability to use sound analysis for “block.”

Figure 6 is a sample of Emma’s last session which clearly shows more advanced structure and language. Notice her independence. The teacher did not share the pen, but supported Emma’s construction of three words (“Spike,” “mean,” “ignored”) through letter boxes. The teacher drew upon Emma’s strengths of sound analysis, breaking words into parts, and using known to solve unknown. These limited scaffolds gave Emma an independent rating of 5.



**Figure 4. Changes in Sentence Structure, Vocabulary, and Independence Over Time for Emma**



**Figure 5. Early Writing Sample — Emma**

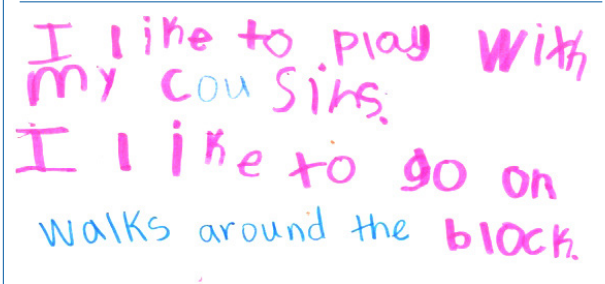
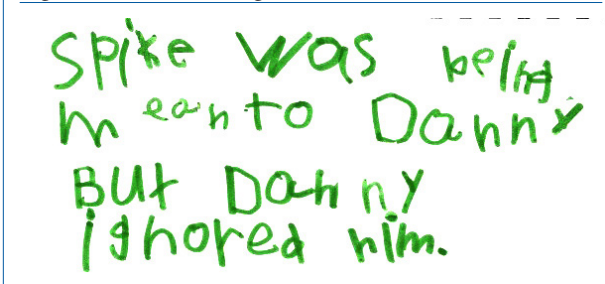


Table 3 on the following page is Emma’s sentences with her ROLE sentence type.

Five times Emma wrote simple sentences. In three examples she tended to follow the pattern of noun/noun phrase and verb/verb phrase with additional construction rather than an object (Type C). In two examples Emma added an object before additional construction (Type G). The remaining seven samples featured compound sentences that primarily had the pattern of noun/noun phrase, verb/verb phrase, and additional construction followed by a conjunction and repeated pattern (Type J). Two times she changed the pattern to omit one additional construction (Type I) or another time to add additional construction at the beginning of the sentence (Type L). As shown, Emma consistently wrote compound sentences.

**Figure 6. Last Writing Session — Emma**



Further, she frequently wrote about the reading text, which connects to writing vocabulary. Due to Emma’s reading acceleration, we see more similarities between her reading text and written compositions in words like “howled” and “ignored.” According to Peterson’s (1991) general text level 13–15 descriptions, Emma read text

**Table 3. Emma’s Daily Message and Sentence Type Coded**

Lesson #	Sentence Composed	ROLE
11	I like to eat watermelon at parties.	G
14	I like to play with my cousins. I like to go on walks around the block.	C C
16	Danny was looking for Abby but Abby was looking for Danny.	J
18	I’m going to play after I do all this work.	A
21	I like to go to recess because I get to play on the spinners.	J
22	I went bowling on my brother’s birthday.	G
24	Bella ate dad’s pizza and then she got in big, big trouble.	J
26	This morning, my brother saw a spider in the kitchen and he got very scared.	L
27	Liz howled every single time she wanted her way.	C
29	Bella and Rosie saw a dog at the beach and she was digging.	I
30	I went skating at wheels and thrills in Owasso and it was so much fun!	J
31	Spike was being mean to Danny but Danny ignored him.	J

with varied sentence patterns with minimal repetition, written language structures including literary language, and elaborated events with extended descriptions.

## Discussion

The purpose of this manuscript was to analyze how two Reading Recovery students’ written sentence structure and writing vocabulary changed over time. By developing tools to discover more about their writing, we noticed the two students changed in different ways.

From our findings we present three implications. First, we discuss how our SCALE writing tool can support teachers. Second, we elaborate on the value of the ROL (Clay, 2015c). Finally, we discuss the connection of oral language, reading, and writing.

### *SCALE writing tool*

In Reading Recovery, we have several records we consistently use to monitor our students’ growth and inform our teaching, including the Weekly Record of Known Writing Vocabulary, Weekly Record of Known Reading Vocabulary, Change Over Time in Text Level, and daily running records. It is fair to say that we have fewer writing records than reading records. Of the three reading records, the most emphasis is given to the daily

running record (Clay, 2019), most recently referred to as Record of Literacy Processing. The running record taken during each lesson provides teachers with both anecdotal notes and quantitative data. While the notes about the child’s daily strategic action and fluency from each running record are helpful for planning purposes, the quantitative reading level, accuracy rate, error rate, and self-correction ratio provide additional insight teachers can use to track each child’s progress. Both Reading Recovery teachers and classroom teachers who are familiar with running records often say how much they appreciate the in-depth information it provides.

With fewer writing records available, teachers most often rely on the Weekly Record of Known Writing Vocabulary. It is purposeful because knowing how many words a child can write is a powerful predictor of a child’s reading progress (Clay, 2015b). The recorded words are authentically drawn from the child’s writing sample and the number of vocabulary words illustrates progress over time. Teachers can review the Weekly Record of Known Writing Vocabulary by looking at how many words and what kind of word variety are known. By doing both analyses, teachers can use the information to write predictions of progress. That said, there is not a systematic way to look at the Weekly Record of Known Writing Vocabulary. The emphasis tends to be

numerical based on documentation in the form Change Over Time in Known Writing Vocabulary (Clay, 2016). Additionally, most districts ask teachers to weekly report the number of words learned in a spreadsheet.

Clay (2016) said, “A Reading Recovery teacher needs to become a good judge of increasing complexity in the daily writing” (p. 79). We agree this is important, but sometimes we lack the “how to” needed to carry out this analysis. Further, Clay (2016) said, “It is not easy to capture what increasing the complexity of construction means” (p. 79). Creating a tool for our research that can simultaneously help teachers analyze their students’ writing became our goal. We wanted to look beyond a vocabulary number and offer more systematic study of sentence complexity each child used within their writing.

The SCALE provides both quantitative and qualitative information and draws on children’s authentic vocabulary within a meaningful message. Further, the SCALE provides opportunity for teachers to analyze children’s use of simple and compound sentences that include adjectives and adverbial and prepositional phrases and sentence types (declarative, imperative, exclamatory, and interrogative). We also included independence to measure student attempts and control of writing. Therefore, the SCALE provides a wealth of quantitative and qualitative information with specific descriptions and features that go beyond what is noted in a Weekly Record of Known Writing Vocabulary.

We propose that the SCALE writing tool (Appendix A) allows teachers to analyze a bit deeper the complexity of a writing sample. Ultimately, this helps determine whether the child is making the desired improvements and illustrates their writing growth in specific, measurable ways over time. Once teachers are familiar with the SCALE, it does not take a lot of time for them to note a quick score for each area on their daily lesson records. Analysis could be done daily or even just once per week and added to a tracking document. Samples and scores could then be added to a portfolio to gain insight regarding progress when it comes to the child’s writing development. We acknowledge that this SCALE is a work in progress. We invite you to use the SCALE writing tool and give feedback on how it supports your decision making and teaching.

### *Record of Oral Language Extended*

While we typically administer Clay’s ROL early in the intervention, it is often unclear how to use the results to inform instruction. We advocate that teachers administer the ROL as intended, but also use the simple sentence in the technical appendices (pages 39–41) to analyze students’ writing. Clay’s work as presented, with or without our extensions of compound sentence types, provides more information about language structure than our SCALE writing tool. It may be that teachers or teacher leaders prefer to solely use the ROL. We encourage the use of either or both. It is important for teachers to spend time getting familiar with the tools by analyzing student writing samples. We encourage teacher leaders to offer a session for teachers to collectively analyze samples and talk about their ratings, but most importantly, what they learn about the child and how that can inform their teaching practice.

### *Oral language, text reading, and written composition*

Throughout the entire body of Clay’s work, she repeatedly emphasized the relationship between oral language, reading, and writing. In addition to Clay, a recent double helix model (Wyse & Hacking, 2024) highlights this reciprocity. While we recognize oral language, reading, and writing are inseparable, we sometimes struggle to connect theory-to-practice and find we focus too narrowly on one aspect. For example, we may carefully analyze how our students are problem solving words in reading and writing but forget to step back to look at our students’ oral language in relation to their reading and writing. One of our big take-aways from our research is the importance of connecting the three points, much like a triangle. Let’s analyze our students’ oral language structures as indicated in the ROL (Clay, 2015c) and/or through informal conversation. Clay (2004, 2016) said to write down the longest utterance a child speaks and to keep this updated. In whatever way we track our students’ oral language, let’s be systematic about it and then consider that in relation to the next point: reading. As mentioned, the running record gives a wealth of information. We can systematically study our students’ records for the language structures they use reading their book. How does their text reading compare to their oral language structure? The final point on the triangle is writing. What structures do they use in their writing and how does that compare to their

reading structures? The two tools allow teachers to study our students' written language structures. By connecting all three points together, we have more information about children's control over the structures of languages they use orally, in writing, and in reading.

What each child chooses to attend to is very individual... a good starting point is the child's own speech, its sounds, words, and sentence structures... The task is to show him more about how his speech can be written down in new reading and writing tasks and how to expand speaking, reading, and writing outwards from there. (Clay, 2010, p. 9)

In addition to our purposeful reflection and analysis of students' reading, writing, and oral language, we recognize the value in daily writing. Clay (2016) stressed the importance of daily writing because writing allows the child to make "the links between messages in oral language and the messages in printed language" (p. 23). Clay expanded and argued that it allows children "to emerge from the lesson series with greater resources for making the most of the writing opportunities in the classroom" (p. 23). We know that sometimes reading runs over the allotted time and it is easy to minimize writing, but we should not allow this to happen. Clay (2016) cautioned that children are more at risk for less progress over time when writing has been neglected. As researchers, we made every attempt to ensure Robert and Emma wrote a daily message, even if their complex oral composition took more than 1 day to complete.

It is important to acknowledge the teacher's influence. The teacher's feedback, support, and prompting are embedded throughout the entire lesson. The writing activity is not completed independently, yet our goal is independence. Clay (2016) writes,

The teacher cannot teach independence. She sets up fair-safe situations within which the child can initiate successful activity... Teachers do not need to know how to teach independence: they need to know how and when to hold back and let the independent child take over the whole task. (p. 41)

Focusing on independence can be a research study by itself. That said, we believe if the student's independent writing is our goal that should be included in our SCALE tool.

One point we would like to build upon in the future is the composing conversation that should take place before writing (Clay, 2016; Lipp, 2023). In a recent publication, Lipp (2023), provided many considerations for our reflection with suggestions to strengthen our teaching.

The teacher has a lot of power to engage the child in conversation that can extend or limit the language that is produced. In our teaching, we did not document the actual dialogue that occurred, which is both a limitation and avenue for future research. We encourage ourselves and others to record the composing conversation for idea sharing, turn-taking, and how the teacher scaffolded the composition of the message. This leads us to identify additional limitations and share areas for future research.

### *Limitations and further research*

The tools we used were created within our team and are not standardized. They may need to be adapted and altered based on more samples or different researcher perspectives. In addition, the tools are not all encompassing of children's work. Also, we focused on sentence structure and writing vocabulary, but there could be so many more foci, particularly students' strategic action. Further, due to space, we selected to feature two students, and the results cannot be generalized to other students. Finally, two of the researchers were also teachers; thus, subjectivity may impact our view of the findings.

We have so many more aspects we would love to study and questions to ask that were beyond the scope of this manuscript. We would like to use the two tools to analyze more writing samples and have more teachers use the tools and give us feedback. We would like to study how and when teachers use the tools and how the findings inform their teaching. We would like to study deeper the reading-writing connection — specifically in relation to sentence structure and vocabulary in their reading text. We would also like to look more at students' independence by analyzing our lesson notes for words known independently or words written with support through analogy or sound/letter boxes.

Reading Recovery has an extensive body of research thanks to Marie Clay and many authors who have published in *The Journal of Reading Recovery* and elsewhere. Searching the term “writing” shows up in most publications. Some focus on Hearing and Recording Sounds in Words, cut-up story, oral conversation, writing development, and so forth. Also, publications about the ROL mainly focus on the oral assessment. Throughout our readings and search for more information, we found many writing and oral language references, but less specificity regarding our inquiry. Therefore, we position our research to support teachers in growing their students’ sentence complexity and writing vocabulary that connects to oral language.

## Conclusion

Throughout the paper we have attempted to stress reciprocity and encourage our readers to “think about the structures of language that children use as they talk, read, and write” (Clay, 2004, p. 1). By sharing two students’ writing samples and the tools we developed, we offer teachers a new lens to analyze complexity for sentence structure and vocabulary with both quantitative and qualitative information. Further, analysis can occur throughout the lesson sequence to see how students’ writing complexity changes over time. We conclude with Clay’s (2014) words:

I am encouraging teachers to understand that learning in one language area enriches the potential for learning in the other areas. Therefore, if we plan instruction that links oral language and literacy learning from the start—so that writing and reading and oral language processing move forward together, linked and patterned from the start—that instruction will be more powerful. (p. 134)

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*About the Authors*

Donita Shaw is a professor of literacy education at Oklahoma State University and was trained in Reading Recovery 2022–2023. She has over 30 years experience as a reading specialist and enjoys teaching children to become proficient in literacy as well as to love reading and writing.



Faith Winslow is a doctoral student in the language, literacy, and culture program at Oklahoma State University. Her research interests include phonological awareness instruction, the reciprocity between reading and writing, and the impacts of oral language in literacy.



Amy Dunn was a classroom teacher before becoming a dual-certified reading and mathematics specialist. She is currently a literacy education teaching instructor at Oklahoma State University where she serves as the associate director of the Randall and Carol White Reading and Mathematics Center and is working on her PhD in language, literacy and culture.



Heather Cherry is the teacher leader for Broken Arrow Public Schools in Broken Arrow, OK. She has been in education for 25 years, teaching Grades K–4 prior to becoming a reading interventionist as well as a literacy coach. She currently serves as the district’s reading legislation coordinator in addition to leading the Reading Recovery team.



Cheyenne Short is the head principal at Pioneer Park Elementary in Lawton, OK, serving students from kindergarten through 5th grade. She is also pursuing a PhD in curriculum studies at Oklahoma State University.



Kris Piotrowski is a Reading Recovery teacher leader in Troy, MI, where she supports the comprehensive literacy system in the Troy School District as a teacher leader. Kris is currently working on her doctorate at Texas Woman’s University in literacy, language and culture. Her research interests include early literacy intervention, oral language acquisition, and supporting the literacy needs of diverse learners.



## Appendix A: Syntactic Composition and Authentic Language Evaluator (SCALE)

Scale	Sentence Structure	Vocabulary	Independence
1	Shows an awareness of sentence parts including noun/verb agreement.  Example: I like pizza.	Records words of personal significance, such as their own name or those of family members.  Example: My mom is Ann.	The student learns to compose his own message.  The student needs intensive scaffolding from the teacher (e.g., filling in the word, sound boxes, using familiar text, analogies.).  Student is learning to form letters and/or hears some phonemes (in any position) in the word.
2	Simple sentence(s) that are imperative or declarative. The sentence includes adjectives.  Example: Jasper loves tuna fish.	Uses familiar, common words (e.g., like, play, went and 1-, 2-, and 3-letter high-frequency words (e.g., I, my, to, the, a, see, me).  Use of Tier 1 vocabulary and may include a story character.  Example: I will buy a horse.	The student composes his message.  The student independently writes common simple high-frequency words (e.g., it, the, like, go, my, go, play, etc.).  For unknown words, the student writes most consonants in sequential order. The teacher scaffolds (e.g., sound boxes, analogies) many words in the message.
3	Sentence(s) use simple declarative or imperative that includes adverbial phrases and/or prepositional phrases.  Example: Louna chewed my charger to my hoverboard.	Use of words particular to the child's cultural context/background knowledge, may include proper nouns.  May include Tier 1 vocabulary altered with inflectional endings, such as playing, plays, looking, looks, etc.  Example: Danny was looking for Abby but Abby was looking for Danny.	The student independently composes a message.  The student independently writes high-frequency known words (e.g., come, have, went) and other known-to-student words; may also include words of personal importance to the student.  Student understands how to use phonological analysis with some independence.  Attempts some regular orthographic patterns such as CBC or CVCe.  The teacher scaffolds (e.g., filling in the word, sound/letter boxes, using a familiar text, using analogies) for the unknown.

*Appendix A continues*

## Appendix A: Syntactic Composition and Authentic Language Evaluator (SCALE) — CONTINUED

Scale	Sentence Structure	Vocabulary	Independence
4	<p>Uses simple sentence(s) that is interrogative and/or exclamatory. OR Declarative sentences include dialogue and/or quotations.</p> <p>Example: Do you like cheese pizza?</p>	<p>Use of Tier 2 vocabulary with “book language” (e.g., howled, ignore) and “book proper nouns.”</p> <p>May use past tense such as swam for swim (more than just adding an -ed).</p> <p>Example: Bella ate dad’s pizza and she got in big, big trouble.</p>	<p>The student independently composes a varied message (not the same structure as previous day).</p> <p>The student demonstrates increased use of regular orthographic patterns. Words may have digraphs and blends or familiar vowel teams (ai, ee, oy, etc.). Attempts use of inflectional endings (ed, ing, s).</p> <p>If incorrect, plausible alternatives using phonological analysis and breaking word into chunks are attempted.</p> <p>The teacher scaffolds (e.g., filling in the word, sound/letter boxes, using a familiar text, using analogies) for unknown parts or unfamiliar words.</p>
5	<p>Compound sentence(s) that is imperative and/or declarative with appropriate conjunctions (e.g., and, but, then, because).</p> <p>Uses adjectives and/or adverbial and/or prepositional phrases.</p> <p>Example: My dad broke his motorcycle because a lady crashed into him on purpose.</p>	<p>Uses more descriptive Tier 2 vocabulary, may include topic-specific words (e.g., story about going to the zoo might include animal names, descriptors, behaviors).</p> <p>Example: Liz howled every single time she wanted her way.</p>	<p>Student composes longer, more complex message.</p> <p>Independently uses phonological analysis, breaks words into chunks, and takes part of known to solve unknown.</p> <p>Uses common orthographic patterns. Uses inflectional endings Attempts spelling of more complex common words (their/there, where/there, light, etc.)</p> <p>Limited teacher scaffolds (e.g., filling in the word, letter boxes, using a familiar text, using analogies) for the unknown, irregular spelling patterns, and proper nouns.</p>
6	<p>Compound sentence that is interrogative and/or exclamatory with a appropriate conjunction (e.g., and but, then). OR Declarative sentence may include dialogue and/or quotations. OR Writes more than one sentence that includes a variety of sentence structures: simple, compound, or complex.</p> <p>Example: I went skating at wheels and thrills in Owasso and it was so much fun!</p>	<p>Demonstrates a variety of Tier 2 vocabulary choices. Includes emotive language.</p> <p>Example: My sister stumbles across an arachnid on the sidewalk and let out a terrified screech!</p>	<p>Student independently composes message with length, complexity, and variety (across days).</p> <p>Independent use of multisyllable words (e.g., birthday, breakfast).</p> <p>Uses known to solve unknown.</p> <p>Independent use of some irregular spelling patterns (light, cough, brought). Attempts to use more difficult spelling rules (hope/hoping, skip/skipping, fly/flies, etc.).</p> <p>Teacher provides minimal, if any, scaffolding.</p>



**Appendix B: Record of Oral Language Extended (ROLE)**

Sentence Type	Basic Structure	Example
A	Nbe+	Bill was asleep.
B	NVN	Bill saw John.
C	NV+	Bill went to town.
D	NVNN	Bill sent John a book.
E	NVN clause	Bill knows what he wants.
F	Here/There	Here are some more fish.
G	NVN+	Bill sent John to town.
H	NVN (c) NVN	Vivian played soccer and she scored a goal.
I	NVN+ (c) NV	Bella and Rosie saw a dog at the beach and she was digging.
J	NV+ (c) NV+	I went skating at wheels and thrills in Owasso and it was so much fun!
K	NVN+ (c) NV+	I love my dog Bella but she died 9 years ago.
L	+ NV+ (c) NV+	This morning my brother saw a spider in the kitchen and he got very scared.

NOTE: (c) = conjunction