The Impact of Intentional and Purposeful Practice with English Language Learners in Reading Recovery: A Historical View

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During the decade between 1966 and 1976, Dr. Marie M. Clay was concerned with documenting how young children developed literacy, including the special population of children who were attempting to acquire English as an additional language. Her research led to a central elegant question, “What is possible when we change the design and delivery of traditional education for children that teachers find hard to teach?” (Clay, 1993, p. 97) which led her to design, test and implement Reading Recovery® in New Zealand. From its inception, Reading Recovery procedures and practices were designed to meet the diverse learning needs of individual children.

Language is a central component of Clay’s theoretical perspective, as the written word is language. Clay (2016) explains that both reading and writing “involve linking invisible patterns of oral language with visible symbols” (p. 5). Every language is extremely complex, full of subtle intricacies and distinctions that native speakers are not even aware of. Nevertheless, children ‘master’ their first language in about 5 or 6 years and become adept at reformulating their phrases and sentences to ensure that their ideas and messages are understood. Clay (2015a) states, “every sentence the child constructs is a hypothesis about language” (p. 69). Therefore, the more opportunities children have to communicate, the more they learn about expressing themselves. In this way, oral language development is a child’s first self-extending system. As children begin to make sense of the written code by linking world knowledge, linguistic knowledge, and phonological knowledge together, the child who has a larger and more flexible linguistic reservoir has a greater foundation upon which to choose, as Clay (2015a) explains, “he simply has to select the appropriate structures from his speech repertoire” (p. 82). However, it is well understood that not all children come to literacy learning with the prior experiences with print or the same language abilities.

The Reading Recovery lesson design provides a personalized space to expand the oral language competencies of children participating in the intervention. The individualized, one-to-one lesson structure allows for increased opportunities for students to participate and engage in personalized conversation. Clay (2015a) states, “We have known for a long time that conversation in the company of an adult was the best tutorial situation in which to raise the child’s language functioning to a high level” (p. 70). For children who are acquiring English as an additional language, this frequent and sustained access to an adult language model is critical for early literacy success.

Reading Recovery teachers must be intentional and purposeful when planning for and instructing all students. For English language learners (ELL) students, this may include spending more time focusing on oral language development. This thoughtfulness may also include being aware of the idiosyncrasies in the English language, such as the lack of gender-specific word endings; the curious nature of prepositions; and how the inflection of words can impact the meaning of a sentence.

Study Rationale
Since the year 2000, the United States has seen a steady increase in the number of ELL students in public schools (National Center for Education Statistics, 2018). This increase is also represented in Reading Recovery, as more than 6,000 ELL students were served in 2017–2018, making up 17.7% of all students. All too often, ELL students are isolated in their school environments, and Reading Recovery has demonstrated, successfully, the ability to adapt and meet the needs for accelerating their early literacy progress. As noted in the recent i3 randomized control...
trial, Reading Recovery showed positive impacts on students’ reading achievement, particularly ELL students, who represented 19% of the total sample. The authors concluded, “Treatment students who participated in Reading Recovery outperformed students in the control group on the Total Reading battery of the ITBS, Reading Comprehension and Reading Words subscales of the ITBS, and the OS... Moreover, these findings were generally similar for students attending schools in rural [areas] and their counterparts in non-rural areas and for ELL students and their non-ELL counterparts” (May, Sirinides, Gray, & Goldsworthy, 2016, p. 44).

Knowing what we know about the impact of intentional and purposeful practice in Reading Recovery, we began to wonder if this impact is represented historically in the International Data Evaluation Center (IDEC) data. Specifically, our investigation looked to answer the following research questions:

1. Are the findings of the i3 evaluation study represented historically in IDEC data?
2. How does the discontinuation rate of ELL students compare to non-ELL students?
3. How does the early literacy progress of ELL students compare to random sample students?

Methodology and Results

Research question #1: Are the findings of the i3 evaluation study represented historically in IDEC data?

To answer the first research question, we followed the methodology design from the i3 evaluation study (May et al., 2016). The evaluation examined two groups of students — a treatment group and a control group. The treatment group were students who received Reading Recovery at the start of the year and the control group were students who received Reading Recovery at the middle of the year. We divided students in a similar manner for this examination. We did not conduct any random assignment, as was conducted for the i3 evaluation study, and only focused on the growth of treatment and control students from the start to the middle of the year using the Observation Survey (Clay, 2013) as the sole assessment. The i3 evaluation study computed results using the Observation Survey Total Score, and our analysis followed this precedence as well.

We computed effect sizes (Glass’s $\Delta$) at the start of the year and at the middle of the year to examine the differences between treatment and control group students at those time points. For our historical analysis, we used 13 years of ELL student data from the IDEC database (2005–06 to 2017–18). Effect sizes for ELL students in the i3 study were computed by using the results reported in Table A7 of the final i3 report (May et al., 2016). Specifically, we used the means and standard deviations reported for treatment and control students reported in the Pooled column that reports results using ELL data from all 4 years of the grant. Effects sizes were computed by subtracting the mean Observation Survey Total Score of control students from the mean Observation Survey Total Score of treatment students and dividing those results by the standard deviation of the control students. For effect sizes, we used a standard that .2 is a small effect size, .5 a medium effect size, .8 a large effect size. All students were included regardless of their intervention outcome.

Figure 1 shows data represented by the i3 evaluation study (May et al., 2016) represented by the solid black bars and historical IDEC data, represented by the black speckled bars. There is one bar for each year of data and they are ordered left to right, from 2005–06 to 2017–18.

The i3 evaluation study found large positive effects (a value of 1.01) at the middle of the school year, as repre...
presented by the right-most black bar in Figure 1. Our analysis, represented by the speckled bars, show a small to medium (-0.36 to -4.9), negative, effect size difference between our treatment and control students at the start of first grade. What this tells us is that teachers are selecting the hardest-to-teach students, at the start of the year. These treatment students are starting off the school year lower than the control students. This is to be expected as that is the policy for Reading Recovery. Thus, there is a difference in this first set of bars on the left, but this difference is caused by the difference between the randomization used in the i3 evaluation study and the typical Reading Recovery procedure of selecting students with the lowest fall scores first, and not by some anomaly in the intervention.

Looking at the right side of the chart you will notice effect size differences that were negative and small to medium in the fall have changed to positive and very large (0.98 to 1.14) by the middle of the school year. Our analysis found very similar results, as those of the i3 evaluation study, replicated again and again for all 13 years.

Research question #2: How does the discontinuation rate of ELL students compare to non-ELL students?

We used the same 13 years of student data from the IDEC database (2005–06 to 2017–18) to answer the second research question. We specifically selected students who had the opportunity to receive a complete intervention. These were either students whose interventions were concluded because they made accelerated literacy growth, caught up to their peers, and showed evidence of having the foundations of a self-extending literacy system, or who received 20 weeks of the intervention but did not catch up to their peers and did not show adequate evidence of possessing the foundations of a self-extending literacy system. We refer to these students as discontinued and recommended students, respectively. For each school year, for both ELL and non-ELL students, we computed the percentage of students who were discontinued.

Table 1 shows the total number of students, with complete interventions, and the percentage of ELL students who discontinued, compared to non-ELL students that discontinued from Reading Recovery for 13 years.

Starting with our ELL students, as we go down the rows, we see that between 68.7% and 75.3% students were discontinued. Over the entire 13 years of data and 100,156 students, 72.8% of ELL students were discontinued from Reading Recovery. When compared to their non-ELL counterparts, we see very similar results. As we look down the rows, we see that anywhere from 70.2% to 75.6% non-ELL students were discontinued and overall, 73.9% were discontinued. Hence, the analysis shows that both ELL and non-ELL students are discontinuing from Reading Recovery in similar portions every year for the past 13 years.

Research question #3: How does the early literacy progress of ELL students compare to random sample students?

As with our previous research questions, to answer the third research question we once again used 13 years of student data from the IDEC database (2005–06 to 2017–18). In addition to the historical data of ELL students, we also used data from a comparison group of students called Table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>ELL Students</th>
<th>Non-ELL Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Discontinued</td>
</tr>
<tr>
<td>2005</td>
<td>12,218</td>
<td>75.3%</td>
</tr>
<tr>
<td>2006</td>
<td>11,479</td>
<td>72.8%</td>
</tr>
<tr>
<td>2007</td>
<td>11,035</td>
<td>73.8%</td>
</tr>
<tr>
<td>2008</td>
<td>9,972</td>
<td>74.6%</td>
</tr>
<tr>
<td>2009</td>
<td>8,702</td>
<td>74.5%</td>
</tr>
<tr>
<td>2010</td>
<td>7,481</td>
<td>73.4%</td>
</tr>
<tr>
<td>2011</td>
<td>6,473</td>
<td>72.5%</td>
</tr>
<tr>
<td>2012</td>
<td>6,193</td>
<td>72.6%</td>
</tr>
<tr>
<td>2013</td>
<td>5,978</td>
<td>68.7%</td>
</tr>
<tr>
<td>2014</td>
<td>5,964</td>
<td>69.2%</td>
</tr>
<tr>
<td>2015</td>
<td>5,567</td>
<td>71.0%</td>
</tr>
<tr>
<td>2016</td>
<td>4,924</td>
<td>70.5%</td>
</tr>
<tr>
<td>2017</td>
<td>4,530</td>
<td>69.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100,516</td>
<td>72.8%</td>
</tr>
</tbody>
</table>

SOURCE: Data collection International Data Evaluation Center, The Ohio State University, 2005–06 to 2017–18
the random sample. Each year, about half of the schools participating in Reading Recovery randomly select two first-grade students from the entire classroom to be tested at the start of the year, the middle of the year, and at the end of the year. These are the random sample students. These students give us a sense of how the typically achieving first-grader progresses throughout the year. For this analysis, we used the population of ELL students that received Reading Recovery at the beginning of the school year and either discontinued or were recommended after 20 weeks of intervention. For the purpose of this analysis we referred to them as students with a complete intervention. For the random sample student data, we used start-of-the-year and middle-of-the-year data that were reported in the latest version of the U.S. Norms for Tasks of An Observation Survey of Early Literacy Achievement, which can be found in the publications section of the IDEC web site, http://www.idecweb.us/Publications.

We computed effect sizes (Glass’s $\Delta$) at the start of the year and at the middle of the year and analyzed the differences between ELL students and the random sample control group. These time points represented pre- and post-intervention periods for our ELL student group. Effect sizes were computed by subtracting the mean Observation Survey Total Score of random sample students from the mean Observation Survey Total Score of ELL students and dividing those results by the standard deviation of the random sample students. For the random sample, for start-of-the-year calculations we used a standard deviation of 53.44 and a mean of 513.19 from a weighted sample of 298,678 students (D’Agostino, 2012).

Figure 2 shows the effect size differences between ELL Reading Recovery students with a complete intervention and the national random sample on the Observation Survey Total Score. The figure shows effect sizes at two time points, at the start of the year (leftmost bars) and at the middle of the year (rightmost bars). For each set of bars, there is one bar for each year of data. The bars are ordered from left to right from 2005–06 to 2017–18.

Our results show very large, negative, effect size across all years between ELL students and random sample students (-1.23 to -1.58) at the start of first grade. ELL students were starting significantly lower than the random sample students on the tasks measured by the Observation Survey. Moving right, to the middle of the school year, our findings show a change to small, negative, effect sizes across the years between ELL Reading Recovery students and random sample students (-0.14 to -0.26). The Reading Recovery intervention has dramatically narrowed the gap between the ELL students and the random sample.

**Discussion**

The results of this study demonstrate that Reading Recovery is an exceptional intervention for English learners, accelerating early literacy progress in ways comparable to native speakers across all domains. The explanation of why or how these results happen with such regularity logically lead us to examine the intentional teaching decisions and purposeful planning that might account for such successes. This discussion will explore some of the ways in which Reading Recovery teachers may design individualized lessons to meet the diverse language and literacy needs of ELL students.

**Increased attention to oral language**

One crucial contributor to Reading Recovery’s success record with ELL students (and many others) is likely the attention to oral language development. As Clay stated, “there are no
quick ways to extend language but the best available opportunity for the Reading Recovery teacher lies in the conversations she has with the child in and around his lessons” (2016, p. 79). In daily lessons, teachers engage children in conversations about books being read and about interesting things going on in the classroom or home environment. Teachers are called to use language thoughtfully in teaching interactions, using prompts that are crisp and clear, avoiding unnecessary teacher talk (Clay, 2016). Though it is true that children with limited language skills need more opportunities to talk, this does not mean we extend the 30-minute lesson time. Instead, teachers use more elaborative language or examine an illustration with greater care to extend vocabulary or background knowledge. Teachers have also engaged in longer language exchanges on the journey to and from the classroom, before or after the timer has gone off. “The teacher and child talk about experiences, stories, meanings, and messages. The phrases that the children construct in these conversations lead to increased awareness of language structures within sentences in their writing and reading” (Clay, p. 23).

One important way to foster more language is to use open-ended questions/prompts that don’t allow for one-word answers, as in this example:

Teacher: What do you think might happen next?
Child: They play in yard again.
Teacher: I bet they will play in the yard again.
Teacher: What about dad?

Child: He not kick hard anymore.
Teacher: Or else?
Child: The ball will get lost… again.
Teacher: Yes, if dad kicks it hard.

As Clay (2016) notes, “An open-ended question can reveal a wealth of understanding and can also reveal misunderstanding or confusion. Meanings can be negotiated in a brief but helpful conversation” (p. 119.) But this alone may not provide enough extended practice. Some teachers occasionally make use of props, such as finger puppets (personal communication with Mary Fried) to increase oral language exchanges as students retell and replay the language of a story after reading. Don Holdaway described what is happening in such exchanges when children retell or replay stories when he wrote, “…the children were not recalling the surface structure of favorite stories but were re-creating new surface structures from deeply remembered meanings, and from deep syntactic relationships associated with those meanings” (1979, pp. 84–85).

Extending language during writing
In addition to the language opportunities mentioned above, there is daily time in the lesson framework devoted to language development during the writing portion of the lesson. Before writing, the teacher scaffolds the child through brief exchanges to help the child compose a message. This is important because writing begins with composing—going from ideas in the head to spoken words, to printed messages—and is a process that needs to be learned (Clay, 2016). The teacher first engages the child in a genuine conversation about something meaningful—classroom experiences, home or playground events, or a discussion about a book—anything that captures the child’s attention and interest. The teacher helps the child shape thoughts into a sentence or two, supporting as needed to “help the child to learn more about composing messages by contributing to the language he offers” (Clay, p. 81).

Children who are learning English may have trouble composing unique messages. Teachers sometimes bring in a photograph or other objects to stimulate language that could lead to a composed message. Again, the teacher’s decision making before writing is critical because

…[T]he sentences that the child orally composes are more likely to be more complex and varied if that oral conversation is preceded by a scaffolding conversation in which the teacher draws out the child’s ideas … sometimes refor-
mulating what the child says in a more expanded form. Then that language will also be in the air for the child’s subsequent appropriation into his or her own composition. (Cazden, 2001, p. 96)

Another way to help English learners is to encourage them to write about what they have recently read which allows for more opportunity for language appropriation as the child can ‘borrow’ language structures and concepts from the reading rather than producing them out of thin air. To do so, teachers may lead children toward retelling some interesting or funny part of the text or have students extend the text in some way, or by using phrases and concepts with the child’s own twists (see Figure 3). Writing about what has been read allows the child to work with more-sophisticated language structures and vocabulary than they may typically produce on their own. “Authors of children’s books often include unusual language features which children like to repeat” (Clay, Gill, Glynn, McNaughton, & Salmon, 2015b, p. 36). With more experiences from reading and writing messages, children begin to adopt and use language structures in their own speech and recognize them with ease in the books that they read later.

Clay also gives guidance about how to shift language development during writing:

Help the child to learn more about composing messages by contributing to the language he offers. As you respond to his effort stay with his message but encourage him to expand on his statement—to say a little more or tell what happens next. For an early writer, accept the child’s effort, making minimal change only if necessary… (2016, p. 81)

Clay adds that early on, composing can be undermined by too many teacher suggestions but when the child is more competent, teachers can easily suggest how a sentence might be more well-packaged, have more ideas, or have more variety in structure or vocabulary.

Demonstrating flexibility with language in the cut-up sentence

The work done each day with the cut-up sentence after writing is beneficial to all students because there is close alignment between the behaviors needed to re-assemble the cut-up story and those needed to read text successfully. In both settings, children must coordinate directional movement; demonstrate one-to-one correspondence between written and spoken words; self-monitor and check on letters, sounds, and clusters, as well as groupings of words and phrases. Furthermore, Clay (2016) states that during the cut-up sentence, the child “…gives attention to a word’s placement among other words in the context of a phrase in a way that no activity of studying words in isolation ever does” (p. 109), offering teachers a unique opportunity for teaching about language flexibility.

Reading Recovery teachers might look for opportunities to help develop students’ sense of structure dependent on need and skill. Early on the child may give more attention to the phoneme, letter/cluster level, and gradually shift towards attending to whole words. At some point “…the child will start paying attention to alternative ways of phrasing or arranging the word order or the line breaks” (Clay, 2016, p. 109) which can be especially helpful to English language learners.

In all languages, the position and order of words and phrases play a considerable role in determining meaning. Rules governing what can be left out and re-arranged without changing meaning can be demonstrated in the cut-up sentence to extend any child’s understanding of language structure and foster a sense of flexibility that is needed to read, speak, and write English. Consider Figure 4 that shows a progression of complexity in the ways that phrases can indicate a point in time. Notice the shift that occurs across the text gradient of difficulty from sentences that have no time references, to sentences with time references that happen at the beginning or end, to those with time references that occur mid-sentence. Language complexity, such as this example, is an important factor in text difficulty.
Now consider Figure 5. After the child has assembled the message correctly, a teacher might demonstrate one or more of the following changes in word order and phrase order. For example, a very low-level change would be for the teacher to rearrange the sentence to show that the order of mom and dad could be reversed and the sentence would mean the same thing. A somewhat harder concept would be for the teacher to move the phrase last night to demonstrate that we can explain when something happens at the beginning, end, or middle of a sentence without altering the meaning.

Figure 6 shows a progression of difficulty for re-arranging this sentence, which somewhat mirrors the progression of language arrangement that happens in the gradient of texts used in Reading Recovery. This intentional practice is an example of what Clay (2004) describes as building more “access roads—or more networks across more neurons! Expanding language networks means having more alternatives from which to choose” (p. 3).

Reading connected text to develop language
It has been long established that the volume of reading connected text daily leads to reading growth and is associated with gains in vocabulary and comprehension (Allington, 2001; Anderson, Wilson, & Fielding, 1988; Stanovich, 1986). It is well-documented that the amount of time spent reading continuous text in Reading Recovery is impressive, a fact that was recently acknowledged in a 2016 review of research conducted for the Institute of Education Sciences and published by the What Works Clearinghouse. This research review (Foorman, et al., 2016), noted that the significant positive effects of Reading Recovery were likely attributed to the fact that lessons emphasize reading.
The teacher must plan for the child to have in his head the ideas and the language he needs to complete the reading. The observant teacher introduces into her talk any concept, or word, or phrase structure that she has not heard this child use before. It helps if the child knows a lot about the story, before he reads it. (Clay, 2016, p. 115)

The time spent in rehearsing language structures and talking about the book before and after reading also contributes to the language development of the child because “children are exceptionally fast language learners; their brains are ‘hard-wired’ to internalize vocabulary and syntax” (Pinnell & Fountas, 2009, p. 34).

As Marie Clay wrote:

If we harness the established power of children’s oral language to literacy learning from the beginning so that literacy knowledge and oral language processing power move forward together, linked and patterned from the start, that will surely be more powerful. (2015, p. 95)

Because of Clay’s understandings and teachings on the importance of utilizing and developing the language capacity for all students, this practice is inherently at play in all Reading Recovery lessons. And this individualized setting, as demonstrated by our research, is ideal for many first-grade students who are also learning English as an additional language.

Conclusion

Population shifts—in response to economic, political, or environmental factors—have long been a substantial change factor over the course of human civilization. Recent trends, however, show that societies are dealing with the influx of new citizens on an exponentially larger scale. These changes in populations, as well as globalization and the need to communicate across languages, have created the need for language shifts as groups and individuals attempt to assimilate into new social and economic settings. And, logically and historically, it is the education system that is charged with primary responsibility in facilitating this acquisition of language. Our analysis demonstrates the power of what is possible when the diversity of children’s language, culture, and prior learning experiences are acknowledged and welcomed as a source of value for instruction.

Education systems must meet the diverse learning needs of all students. Our analysis demonstrates that Reading Recovery is a powerful framework for assisting young ELL students on a course for being able to access future literacy learning by tapping into the interrelated processes of speaking, reading, and writing. Clay (2004) eloquently explained:

I argue that when we speak or listen to speech, we are constructing and composing; when we write any message, we are constructing and composing; and when we read text, we are again constructing and composing. The demands of each of these three activities are slightly different but each feeds into one pool of structural possibilities in the language. (2004, p. 4)

Schools will continue to face the challenge of helping students to have access to the necessary literacy skills to compete in a global economy. The 13 years of Reading Recovery data in this study prove that this intervention is on the frontline of helping with this task.
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References


