Individual vs. Small Group Instruction in a Web-Based Experimental Study
Mary K. Lose
Oakland University

Correspondence concerning this paper should be addressed to Mary K. Lose, Department of Reading and Language Arts, Oakland University, School of Education and Human Services, 485H Pawley Hall, Rochester, Michigan, 48309-4494. E-mail: lose@oakland.edu

Please do not quote without written permission from the author.
Individual vs. Small Group Instruction in a Web-Based Experimental Study

Mary K. Lose
Oakland University

Introduction
This component of the Teacher-Student Ratio Study investigates how Reading Recovery teachers provided with little guidance adapt to teaching Reading Recovery eligible children in a teacher student ratio of 1:3. The paper is organized in the following manner:

1) Background
2) Data Analysis Methodology
3) Findings
4) Overall summary of video observation findings
5) Discussion
6) Recommendations for future research
7) Reflections

Background
Eighty-five Reading Recovery (RR) teachers participated in the Teacher-Student Ratio Study that began in the fall of the 2007-2008 school year. Each RR teacher served as his/her own control by administering two of the treatment conditions (1:1 and a small group intervention) provided daily for a 20-week period. For each RR teacher, 2 children who qualified for the RR early intervention were identified based on their scores on An Observation Survey of Early Literacy Achievement (Clay, 2002) and randomly assigned to either a 1:1 or small group treatment condition. Each teacher was randomly assigned to teach a small group of 2, 3, or 5 children as well as an individual child. The next lowest performing children on the rank-ordered list—that is those who were performing slightly better than the children identified for the 1:1 RR service in the beginning of the year—were selected to fill out the small group condition. These additional children were not the focus of the random trial. The above procedures established the four treatment conditions of at-risk children who were randomly assigned to treatments. It should be noted that although successful, the sample from which these teachers were selected achieved lower outcomes for Reading Recovery children selected at the beginning of the year and served in the fall than the national population from which the sample was selected.

The raw data for this study—video and lesson records—became available in October 2008. It was decided that a case study approach would be used to analyze similarities and differences in the instruction provided by the teachers in the 1:1 and group settings. As RR teachers they all had received the standard one year of training and were receiving continuing professional development provided by a RR teacher leader as outlined in the Reading Recovery Standards (Reading Recovery in the United States, 2004). First, teachers were chosen based on having achieved “high outcomes” (text levels 14, 16, or 18) for their 1:1 children. Within that group, teachers then were selected based on having achieved either “high outcomes” for their study child served in the group 1:2, 3, 5 settings, or “low outcomes” (text levels 6-7-8) for their study child served in the group 1:2, 3, 5 settings. The teachers then were chosen based on whether they (a) supplied video, not audio, recordings at Weeks 4 and 16 for their 1:1 and small
group interventions, and (b) supplied a complete set of lesson records for their 1:1 and small
group interventions. However, not all records were complete. In particular, there were four
“High Outcomes” teachers in the 1:5 setting, but only one teacher supplied both the video
recordings at two points in time and the complete set of lesson records.

This resulted in four teachers with complete data who achieved high outcomes for their
children served in the 1:1 condition; two of these teachers also achieved high outcomes in the 1:2
and the 1:3 settings and two of these teachers also achieved low outcomes in the 1:2 and the 1:3
settings. A review of their lesson records and video recordings revealed that all four teachers
followed the standard RR lesson format, interacting and prompting their 1:1 child to take on new
learning. Because these four teachers followed the standard RR lesson format and because their
children in the 1:1 condition all achieved high outcomes without need for further intervention, a
detailed analysis of their teaching in the 1:1 condition was not conducted. The two teachers
whose 1:1 and group students achieved “high outcomes” are identified as “High Outcomes”
teachers in this paper. The two teachers whose 1:1 children achieved “high outcomes”, but
whose small group students achieved “low outcomes” are identified as “Mixed Outcomes”
teachers in this paper.

All of the teachers of the small group were asked to provide instruction to the group in
reading and writing, and letter and word work for 30 minutes daily. There were not provided
with specific directions on how or what to teach in the small group setting. They were told to use
their expertise to plan instruction for all the children in the group without singling out the study
child. These teachers were provided a single page, two-sided lesson record form with space for
planning activities in reading, writing, and letter and word work and for noting observations of
the children’s responses in each of these activities. They also were asked to video record their
1:1 and small group instruction at Weeks 4 and 16 and to submit copies of their daily lesson
records of their 1:1 and small group. Children in the small group who did not make satisfactory
progress reaching the criteria for discontinuation according to RR criteria were guaranteed RR
service at the end of the 20 week group intervention.

Data analysis methodology

Due to the detailed analysis involved in the case study approach used and the time
available, it was necessary to limit the amount of data for analysis from the enormous quantity
developed during the course of this study. First, it was decided to not perform any analysis on the
1:1 teaching of the four teachers chosen according to the criteria mentioned above since their
students all reach criteria for discontinuation of their Reading Recovery lessons and achieved
high outcomes. Second, it was decided that of the three group conditions (1:2, 1:3, & 1:5), only
the 1:3 group condition would be analyzed because it is the small group intervention size most
typically provided to the most struggling readers in a public school setting. Therefore, “Linda” (a
“High Outcomes” teacher) and “Stacy” (a “Mixed Outcomes” teacher) were chosen for analysis
of the instruction they provided to their group students. The teachers’ 1:3 video recordings from
Weeks 4 and 16 were analyzed first without the author knowing which teacher was “High
Outcomes” and which teacher was “Mixed Outcomes.” After analyzing the videos, the lesson
records were obtained where the identity of the study child in the group became apparent to the
author (the study child’s name was entered into the space for “study child” on the lesson record
form and the names of the other two next lowest performing students selected to fill out the
group size also were recorded by the teachers on their group lesson record forms).
Findings

Figure 1 presents the results of the detailed analysis of the video recordings for Linda (“High Outcomes”) and Stacy (“Mixed Outcomes”) in the 1:3 condition for weeks 4 and 16. The data are presented according to the usual sequence of activities in a Reading Recovery lesson that also represent a balanced approach to literacy instruction including reading and writing connected text, and letter and word work. The rationale included for each activity is adapted from the work of Dr. Marie Clay. “Linda” followed the same group lesson format in the Weeks 4 and 16 recordings and her lesson records confirmed this format. Therefore the analysis of her data is recorded in one column – column 2. “Stacy” followed two separate lesson formats in Weeks 4 and 16 and her lesson records varied as well, therefore, the analysis of her data are entered in two separate columns – columns 3 and 4. By examining the data across the figure, similarities and differences across time and between teachers were observed. While these data could be analyzed from many points of view, for the purpose of this paper, it was decided to focus on the following observations regarding the 1:3 adaptations of Linda and Stacy. [Phrases in bold refer to lesson activities in a RR 1 -1 intervention and correspond to the information provided in Figure 1.]

Linda, High Outcomes Teacher of 1:3

Linda’s group lesson was conducted in a teaching area adjacent to an open classroom that contained a set of leveled books, a white board mounted on the wall, a table for the teacher’s supplies and a small storage space for the children’s reading and writing materials. Linda was seated opposite the children (all boys) at a u-shaped table within easy reach of each child. During the lesson she was observed making notes on her lesson record both before and after interacting with an individual child or the children as a group. Both her Week 4 and Week 16 small group lessons were 30 minutes in length and followed the same lesson format with 8 distinct lesson activities designed to support the children’s reading and writing development, letter identification, and word analysis skills.

Linda began each lesson by having the children read 2-3 familiar books-the same for all three children-distributing the books so that each child read a different book at the same time. For example, during the **reading familiar stories activity**, she listened carefully to each child read aloud each at his own pace, shifting from one child to the other to prompt or instruct as appropriate, before, during and after their reading. Her prompting and instructional comments drew the children’s attention to various desired reading behaviors to support fluent reading such as “*Read it with just your eyes* (while also gently covering the child’s fingers with her hand), *not your finger*” or “*Do you need your finger?*” She also was observed reinforcing the use of desired reading behaviors to encourage their automatic application “*Good expression, I like the way you made it sound like talking*” or “*Read the dark print loudly, like this* (while demonstrating for the child).”
Although the purpose of the reading familiar stories activity was to support fluent reading, she was also observed prompting for the use of visual information combined with meaning to foster self-monitoring and searching more than one source of information as in: “Look at the first letter” (pauses, but after no response from the child, points to the word and slowly articulates the first letter for the child) rrr – ay, x-ray, (while also pointing to the picture and asking a question to direct the child to the meaning) “What happens in the x-ray room? That’s right, they look at the bones.”

In addition to interacting individually with each child, she also commented to the group to reinforce and highlight desired reading behaviors for their replication. For example, in Week 4 at the end of the activity, while leaning forward and looking at each child, she stated in a warm voice: “When these are your ‘old friend’ books you can start to read them with just your eyes. You don’t need your pointer finger any more. You’re becoming such good readers; you can make it sound just like talking.” Later, in Week 16, it appeared that the children had internalized the purposes of the familiar reading activity, because she merely reminded the group to “read with expression,” or “use your good reading voices,” without any further instruction or prompting to elicit the fluent and phrased reading.

During the reading of yesterday’s new book, Linda provided individualized instruction tailored to one child in each lesson, with each child given a turn to read aloud every third lesson. Linda took a behavior record of that child’s reading to capture the range of his responses so as to inform her teaching decisions and to plan subsequent learning opportunities for the child. She managed to accomplish this in each lesson by keeping the other two children focused on their own reading—giving two of the three children the same two books, one of which was yesterday’s new book and another book that they had each read before, to read independently at the “reading table,” a spot located nearby the table where she delivered the group instruction. While the two children read at the reading table, she was then freed up to listen to and respond to the reading of one child.

For the child who read individually, she took a running record of the child’s reading of yesterday’s book, after which she attended to one or two teaching points aimed at strategic activity and tailored to that child “I saw you do some things that good readers do” (while opening the book to the particular page and encouraging the use of meaning as a source of information to support solving, stated) “and on this page, you said ‘Lizard is’ and you stopped and checked the picture and went back and reread. Read it to me again… [Child reread accurately.] Yes, that made good sense. Linda then commented on the child’s solving using word parts: “And let’s take a look at this word, ‘going’. (While pointing to the word in text) When you come to a big word, you can look for a part you know.” (While masking off to reveal only ‘go’) “That’s the first part, and this (revealing ‘ing’) is the last part. You put them together and figured it out by yourself!” Or, to show the child how to gather meaning combined with the use of initial visual information to solve an unknown word, she used an example from the child’s own reading, pointing to the picture and then the first letter of the word, slowly articulated the first letter of the word that was unknown to the child: “Here is lizard, he is asleep in the sss-, sun. I’m glad you went back and got your mouth ready for that first sound.”

An analysis of the teacher’s lesson records revealed that she followed this routine in every lesson, taking a behavior record of one child’s reading daily, so that every third lesson after each child’s independent reading, he received individualized instruction aimed at fostering strategic activity. In every interaction with the child, Linda appeared to infer based on the child’s own reading behaviors, what the child currently controlled and what he needed to learn how to
do next. It appeared that during this lesson activity she focused almost entirely on the one child’s reading, whereas during the reading familiar stories activity and the introducing and reading a new book activity, her instruction moved in and out of instructing, prompting, or responding to one child at a time and to the group as a whole.

In every lesson, Linda skillfully engaged the children in the letter identification and breaking words into parts activities. For example in Week 4 she chose the word going’ from yesterday’s new book that the two children had just read at the reading table and that one child, Charles, the study child, had read individually to her. She used an example from his own reading in a demonstration of word breaking with the entire group – “Today, Charles found this word in “Lizard Loses His Tail,” – and proceeded to build the word ‘going’ at the white board, letter by letter, left to right, with colored magnetic letters. As the group watched, she invited Charles to come to the white board to read the built word by running his finger slowly beneath it and to point to it in the book which she had opened to the page on which it appeared. Then she stated to all three children “You guys know ‘go’ don’t you?” and invited Charles to replicate her demonstration building ‘going’ independently while the other two children observed. After he did so successfully, she demonstrated how to break the word between the first part ‘go’ and the last part ‘ing’, then presented individual plastic bags that included the magnetic letters for ‘going’ to each child so they could do the same.

Linda seamlessly moved from the previous lesson activity into the writing a story activity, where she was observing doing the following. She engaged the children in a very brief conversation about places they like to visit, then focused on one child, Matthew, whose turn it was to compose the day’s story. Drawing on the word that the group had just analyzed (go + ing = going) she asked, “And Matthew, where do you like to go?” In a brief conversation among the three children, they agreed on the content for their composition – Matthew went to the zoo and saw a tiger – which each of the three children wrote in their individual writing booklets, with support from the teacher targeted at their individual needs for word solving and other elements of writing, including spacing between words “Remember to use good spacing” or “Remember two-finger space!” and letter formation “Look at your ‘h’ it needs a tall stick so that it won’t look like an ‘n’.” To support one child’s letter formation as he sought to write lower case “g” she stated “Around up and straight down,” and to prompt for print conventions: “Matthew is a name and it’s the first word in a sentence, so we need a capital letter.” Also during writing, Linda embedded instruction in word solving using the Hearing and Recording Sounds in Words activity. She selected the word “went” to demonstrate to the children how they could use their knowledge of sound-letter correspondences to help them solve words in writing. She drew Elkonin boxes on each child’s writing page and prompted the three children “Say it slowly, ‘w-e-n-t’, (demonstrating a slow articulation to isolate the sounds) what do you hear first?” after which the children recorded the letter ‘w’ in the first box and continued the solving process with less teacher support until they had recorded the sounds in order represented by letters left to right, confirming that their word ‘looked right’. She was also observed saying, “remember to use good spacing between words, and “say it slowly, what do you hear, now write it, etc.” and directed her comments and instruction as needed to all three children: “that’s a long word, let’s clap it (play-ing) to hear the parts. Good, let’s say it slowly and write the first part up here (pointing to the practice page) and we know how to write the last part—it’s just like other words we know: going, looking, jumping; yes, you’re right—it’s the “ing” chunk.” She also was observed directing comments to each child one at a time to support their individual challenges in word solving in writing. Whenever the teacher chose to comment to the group of three children,
whether in reading, writing, or in letter identification and word breaking activities, she focused on application of strategies, not solely on items of information.

During the **reconstructing the cut-up story** lesson activity, Linda wrote the children’s composition onto a strip of oak tag for the children to reassemble. In Week 4, she acknowledged that they were running out of time, and so she asked one child, Charles, to reassemble the story, while the other two boys were asked to stand behind him and watch to “see if you agree.” This was a beautiful example of thinking on her feet, seizing the moment and making optimum use of lesson time. By directing the other two children to determine how they might respond compared to the child engaged in the activity, she engaged all the children in this important visual scanning task. Even though the other two children did not have the benefit of actually moving the cut-apart story pieces, they were still involved in orchestrating the reconstruction of the message by observation; using the meaning of the composition, the language structures and the print, all three of which are used by competent readers engaged in any reading task.

In summary, Linda was highly organized, fostered child independence, taught for strategic activity, and used examples from the children’s own reading and writing and word/letter work to make her instructional points. She had a clear understanding of what each child controlled and what he needed to learn next, used an economy of words in her explanations coupled with nonverbal communication, and consistently obtained the children’s attention before giving explanations or providing instruction. In every interaction her prompting and instruction were pitched at the child’s level. In-depth video analysis indicated that she never selected materials that were at a too-challenging or too-difficult level for the child or the group or gave demonstrations or tasks that were too far beyond the children’s grasp. As highly organized and efficient as she was, she was also warm, soft-spoken, and encouraging in her interactions with the children, looking directly at them when she spoke and never beginning instruction unless she had the child or the children’s attention. The children in her group did not need to wait for Linda to get organized or to finish working with another child; they filled their time with engaging materials or tasks that were always ready for them to attempt next. The children knew their responsibilities in the group lesson setting. Linda wasted no instructional time and as a result, did not waste the children’s time.

**Stacy, Mixed Outcomes Teacher of 1:3**

Stacy, the Mixed Outcomes teacher in the 1:3 setting met with the small group of girls in a quiet space nearby a classroom. Instruction took place at a trapezoid-shaped table, with Stacy seated at the widest edge; one child (Alonda) sat directly opposite facing her, the other two children sat at the sides of the table, (April) on her left and the other child (Gabrielle, the study child) on her right. She began lessons with enthusiasm and warm but lengthy comments “Alright honey buns...alright girly-birlies (often said rapidly as if to fill conversational space) fantastic, excellent job, alright ladies, alright my friends...we’re going to read these books...”) Several times these upbeat comments only invited distraction on the part of the children in the group as they made off-task comments (One child: “Girly, birlies! That’s silly. Do you like my Hawaiian shirt?” after which Stacy replied “I do, it’s very nice!”). Following such interactions the children engaged in chatter or off-task behavior while Stacy retrieved the books or materials for the opening activity. In Week 4, she was observed giving each child a familiar book – different titles but the same level – to read aloud at the same time. Stacy listened to each child read, occasionally made notes on her lesson record, and after they finished their books, responded to each one, asking the child seated opposite her who finished first to point to several known words
in the text (my, can, is, dad) and asking the second child to also locate known words and to reread a page to “make everything match,” without an omission or the insertion of words. At the end of their reading each child was given a second book to read independently and again Stacy made some notes on her lesson record and responded to each child’s reading depending on their errors and what she determined they needed to learn next. However, no matter which child was reading, the instruction was almost always the same: locate known words in text “What’s this word, and this one, and this one…” followed by “read it, now break it, etc.”

**During the reading of familiar stories activity**, Stacy seldom encouraged the children to read in a phrased and fluent manner following their reading. Because the texts were so difficult that the children were reduced to word-by-word staccato reading, they stopped often to problem-solve at the letter or word level. Instead of taking her cue from the children’s reading, by providing easier, more familiar, practiced texts upon which to encourage fluency, Stacy resorted to teacher-initiated word analysis or word breaking demonstrations, often far beyond the children’s competence. Her interactions with the children seemed to focus almost entirely on locating known words (is, my, can, dad, etc.) or breaking words between the onset and rime with reference to the base word that preceded the inflectional ending (like-d, go-ing, etc.), or between the parts of a compound word (birth-day, play-ground, etc.). While these may have been excellent activities for children who controlled these principles of word analysis and would have further solidified their solving at a strategic level, they were confusing at times to this group of children because they did not fully grasp the principle that was being demonstrated.

Following the **reading of familiar stories activity**, Stacy was observed instructing in word breaking activities using inflectional endings. One demonstration involved Stacy showing all three children how she would break the word “looked” (look + ed). She did this by pointing to the word in the text they had just read, masking it off with her finger to reveal the base and then the inflectional ending, after which she asked each child to repeat the demonstration and then read the page on which the demonstration word appeared - *Tom and Dad looked and looked and looked.* The children repeated Stacy’s demonstration, after which they also reread the page in the text, but Gabrielle substituted “liked” for “looked,” then self-corrected. Stacy wisely chose to attend to Gabrielle’s self-correction, pointing out that her substitution “looked right,” followed by acknowledgement of the self-correction-“I’m glad you corrected yourself.” While on the surface it may have been an appropriate decision to intervene and comment, it was only partially effective. Stacy missed an opportunity to make explicit to Gabrielle that not only did her self-correction “look right,” it also now “made sense in the story,” statements that in combination with explicit demonstration would have highlighted how this independent action on the part of the child was strategic and worthy of replication under similar circumstances. Later, in the same lesson activity, when Gabrielle experienced difficulty reading, Stacy ignored her several miscues and merely voiced-over Gabrielle’s reading, seemingly impatient that the reading was taking too long. Stacy also seemed impatient with Alyssia (A) as indicated in following transcript:

T:  
*Okay, here’s ‘looked’. Watch, I’m going to break it and add an ending.”* (Added ‘ed’ to ‘look’ using colored magnetic letters.) *“Now watch. This is ‘going’. Watch how I break it: ‘go-ing.’”* (While articulating the word, quickly broke the word and slid the inflectional ending, ‘ing’, to the left to make ‘going’.) *“Now, ‘likes’. Find that word ‘likes’ in your book.”* (while also directing the other children, one at a time to follow her example.) *Break it for me...Put it together, read it, what’s that word?”*
Gabrielle and Allysia’s reading are a clear indication that they experienced difficulty with the word chosen for the word breaking demonstration. Stacy seemed unaware of the difficulty they both experienced; ignoring one child and self-monitoring for the other child. Both children seemed unsure of what it was the teacher was asking of them. At the end of the exchange and in response to their individual reading, she simply went on, stating very rapidly: “Excellent job breaking words. So when you get to a word you are reading, you know how to find that first big part and you can read the word.” Not only was Stacy’s summary comment delivered hastily, it was also contrary to what was observed by the children’s individual responses.

None of the children consistently applied the ability to solve words during the reading of their stories using the word analysis approach presented by Stacy; they seemed unable to understand her demonstrations, or if they understood, they were observed inconsistently applying what was demonstrated during the listening to a new book introduction and the attempting to read the new book activities. Most often the children’s approaches to solving focused on a single approach – the use of visual analysis of words. They did this without regard to cross-checking or integrating their visual analyses with the meaning of the story and the language structures of the text, which would have been a strategic approach to arrive at accurate reading.

The above transcript demonstrates another appropriate attempt on Stacy’s part to support strategic action on the part of one of the children – Child 3 – to arrive at a solution. It
demonstrates that Stacy does have some level of theoretical understanding of how to foster strategic activity, although it was seldom evident in her responses to the children. It is possible this kind of responding occurred only seldom because the reading material chosen for the children was often too difficult. The children made several errors and as a result Stacy had to intervene often in order to move the lesson forward. She resorted to less contingent responding, using “telling” as a form of teaching interaction-telling the word as in the case of “down,” above. In effect, she only partially responded in ways that supported the children’s strategic activity.

It is also important to note that both in Weeks 4 and 16, during the rereading of the familiar story activity (a previous lesson activity), Stacy was also observed often not attending closely to the children as they read and seldom wrote notes on her lesson record. In both lesson videos, Gabrielle, the study child, paused several times during her reading, taking her eyes off print to look at her teacher or her two peers as they read aloud or when Stacy responded to one or both of the other children. She experienced difficulty reading the book selected for her and also seemed distracted by the noise. When Gabrielle finished reading before the other children, she sat idle waiting for Stacy to respond to her reading or waiting to be given another book to read. Stacy ignored Gabrielle’s difficulty and when she did comment, it was to provide only superficial commentary, aimed at items of information and not at supporting strategic activity. For example, the only time she commented to Gabrielle during this lesson segment, she simply stated “Good job correcting yourself,” after which the child smiled. This type of commentary or response on the part of Stacy, whether to Gabrielle or to the other two children, was general and unspecified. It was not aimed at directing the child or children toward some strategic problem-solving that could be replicated again and typified Stacy’s responding to the study child and also to the other children in the group.

At week 16, Stacy was observed incorporating a lesson activity that was unlike any of the lesson activities observed in the 1:1 or small group lesson videos; which might be described as a word find activity, similar to a worksheet drill and practice activity: she gave the three children a story placed inside a plastic sleeve, with Stacy calling words which she asked them to circle using a marker. Several times, the children remarked “I can’t find it” (referring to the dictated word),” with Stacy replying “it’s up here (pointing to the line in which the word was located) or telling the children “look more closely, it’s there,” or stating more generally, “you know that word, find it.” As unproductive as this activity was for the children, it is possible that some positive effect could have been salvaged had Stacy supported the children in helping themselves scan the print by prompting after she pronounced the dictated word “say it slowly, think about how it would start, what letter would you see first, see next, see last?” Similar to the pattern of responses in the familiar stories reading activity, Stacy’s responses were unspecific and left one and sometimes two of the children disengaged at least part of the time.

At no time during the analysis of the video recordings was Stacy observed engaging in any story writing or hearing and recording sounds in words activities. Her lesson records revealed that these activities were not planned or carried out in any of the lessons. On one occasion Stacy was observed taking a behavior record of one child’s reading of yesterday’s new book; however, the lesson records did not contain any running records of any of the children’s reading. There very few notes on the lesson records to reveal the sources of information children used in solving or their change over time in strategic processing.

In summary, Stacy, while cheerful and encouraging, seldom pitched instruction at the children’s level and often was unresponsive or unable to adjust instruction or materials when tasks were too difficult for the children. She made few adjustments to the children, instead
having them read material that was too difficult or taking over the reading completely for the study child by reading aloud while the child sat passively. Her primary means of prompting or instructing were either general commentary to encourage responding of any sort—“good job, keep going, excellent, beautiful reading”—all stated frequently even when one or more of the children neglected to self-monitor, cross-check, or search using visual information, language structures or the meaning of the story, or to take the initiative to make all sources of information in the text match.

Both her prompting and her instructing were for item knowledge: mastering vocabulary words, often several in one lesson; breaking words after letter cluster onsets and at syllable breaks—often too difficult for the children; and analyzing words exclusively "good job checking on yourself, good job breaking those words." She espoused a ‘word theory’ of reading and did not consistently grasp the complexity of literacy processing and change over time in children’s early literacy development. So while she did attempt with limited success to apply a complex theory of literacy learning in some situations, she appeared overwhelmed by the organization for instruction and the time management issues related to teaching three struggling learners in a group lesson format.

Overall summary of video observation findings

In summary, Linda designed lessons and taught in ways that gave evidence of embracing a complex theory of literacy. She kept detailed records of each child’s control over items of information including words learned in reading and writing, letter knowledge and letter formation, books read, text reading levels, reading accuracy, self-correction rate, and sources of information used at error and to self-correct. Her records captured the level of support she provided to each child as she supported their learning, using a coding system to note how much support she provided and what knowledge sources each child used to arrive at partially correct or self-corrected responses. She helped each child use sound analysis and a developing orthographic awareness to solve words in writing. She spoke slowly and directly to each child and to the group to model and demonstrate tasks and to prompt the children to use what they knew to solve independently. She was highly organized and transitioned seamlessly from one lesson activity to the other to maximize the use of the 30-minute lesson time. Pacing of activities was such that each child was engaged and attentive; if off-task behavior was observed—which was seldom—she quickly redirected the child or the group so that lesson time was not lost. Linda responded warmly to each child, encouraging them to initiate when tasks were within their control. She designed tasks that took full advantage of an individual child’s or the children’s knowledge to encourage risk-taking and child independence. If tasks were too difficult, which was seldom, she was observed swiftly making shifts and adjustments in support of the children.

Linda was consistently in control of the lesson and the pace of instruction, but did not undermine children’s independence; the children were observed initiating responses and discovering new things on their own. Prompting and responding to an individual child or instruction provided to the group was always aimed at strategic activity; helping each child self-monitor, take initiative to search all sources of information for a precise match when reading and writing, and integrating the use of meaning, language structure, and visual and phonic information to solve in reading and in writing. She employed an ‘economy of words’ and used nonverbal communication to augment and support verbal instruction. She was warm, supportive, and purposeful in her interactions with the children. Routines were habituated so as to make maximum use of lesson time—the children maintained a high level of engagement, appeared self-
motivated, and seemed to thrive on the sequencing, pacing, and order provided within the lessons. Linda engaged in detailed progress monitoring for each child: tasks never appeared to be too difficult or too easy for the children; the focus of instruction, the tasks, and the materials chosen were always at a ‘just right’ instructional level for each child; and her lesson records reveal that the children progressed at a steady pace.

In contrast, the children in Stacy’s group were often off-task. Rather than adjust instruction or select tasks that were within the children’s control; Stacy reproached the children for inattention or off-task comments, or repeated instructions continuously without any adjustment in the pace of the verbal instruction. She seemed unaware of what might be too difficult for a child; tasks and materials were either too difficult or too easy, never quite matching instruction to a child or to the children as a group. Stacy used models accompanied by verbal instruction as a form of instruction, but the children often sat passively and merely observed Stacy’s models. She seldom was observed demonstrating for the children followed by scaffolded or guided practice, followed by turning tasks over to children for their independent application. It isn’t surprising that the teaching and prompting were intermittent because if she was aware of what children controlled, it was not sufficiently noted on the written lesson records and there were no running records of the children’s reading to inform instruction from one lesson to the other or to track the children’s progress over time.

Stacy was often observed engaging in extraneous speech that on one level resembled enthusiasm, but on closer inspection, seemed most often to take the children off task. She seemed only to have one approach to a child in difficulty: take over complete control of the task or tell the answer. The lack of responsiveness to the children meant that some children finished tasks early, some later, and the children were seldom observed taking the initiative to continue working independently on tasks; they merely waited for Stacy to tell them what to do. Disappointingly, when teaching became challenging for whatever reason, Stacy appeared unable to shift in response to the children or to an individual child. Her worksheet-like word find activity that was observed in the Week 16 video seemed to be based on a curriculum of site words that Stacy deemed important, regardless of whether the children were capable of locating the words. Stacy seemed to have exhausted all instructional options tailored to the children in favor a more prescriptive approach to supporting each child’s learning in the group.

Commonly, but not always, Stacy seemed to embrace only a single theory of teaching – use of phonics or word analysis – and when that didn’t work with a particular child, she appeared either unable or at times unwilling to adjust instruction to the learner, perhaps in the latter case because she didn’t know what else to do to support a child when one approach did not work. She was seldom observed taking notes on her lesson records and when she did it consisted only of identifying which words she had asked one or all three of the children to break apart with a small piece of oak tag. As evident in her lesson records, she chose not to provide any instruction in writing or hearing and recording sounds in words in writing, literacy activities that would have fostered reciprocity between reading and writing, which has been shown to optimize learning in early literacy (Clay, 2005b).

At times, Stacy tried demonstrating strategic moves to the children, but she often began instruction without obtaining the children’s attention or if she did get their attention she made numerous attempts to interrupt the lesson and redirect the children because tasks became too difficult or her instructions—mostly telling—were unclear or delivered using extraneous talk and speech that was too rapid. When Stacy tried to foster strategic activity on the part of the child, she often highlighted the use of visual information only and seldom reinforced what other
sources of information (meaning and structure) may also have been used by the child. Had she been more organized, provided materials at the children’s level, gained their attention before demonstrating or instructing, avoided interrupting the children, spoken more slowly and deliberately, and focused her responses and prompts at strategic activity that would have been generative, it is possible that the children may have been more strategic in their approach to problem-solving resulting in higher outcomes by the end of their series of lessons. Likewise, perhaps if she had done all of this, she may have made more effective use of the lesson time. However, it is also useful here to remind the reader that Stacy was one of only 34 teachers from among the total of 85 – Linda included – to have achieved high outcomes for their 1:1 children – evidence that she was skillful in a 1:1 setting.

General Discussion

Based on this case study certain themes were observed that differentiate the two teachers. While it is clear that generalizing from such a case study is not appropriate, there appear to be important themes regarding support for the lowest performing children in small group settings by teachers who were successful with the lowest performing children in 1:1 settings. These themes are very appropriate hypotheses for performing further research in a wide range of research paradigms and designs.

It is also crucial to emphasize that these themes are not discrete: rather, they are an intersecting, interacting, systemic set of approaches that an expert teacher needs to understand and operate from when teaching the struggling learner. These themes are not meant to suggest a formulaic approach constructed from a set of discrete knowledge, abilities, and skills. As an extensive body of evidence already suggests, continuous, contingent responding on the part of a highly knowledgeable teacher is unquestionably required (Wood, 2003). Therefore, while themes are discussed individually, the reader will see that they also constitute elements of the discussion of other themes.

Optimum Use of Lesson Time

A significant element that distinguished the two teachers in this case study was their use of lesson time. In order for a teacher to make optimum use of lesson time certain teacher characteristics and behaviors were interpreted to be central:

- Embracing and operating from an underlying complex theory of literacy; (also discussed later in the theme Embracing a Complex Theory of Literacy)
- Embracing a complex theory of learning – taking nothing for granted at any time—either the child’s current knowledge or what would be needed to support his learning
- Planning ahead – this element of a teacher’s skill set cannot be overestimated and is key for success to optimum use of lesson time; (also discussed later in the themes Recognizing and Accommodating the Child’s Changes over Time and Teacher’s Organization)
- Knowledge of the child and what he controls in literacy;
- Knowing the child’s unique abilities;
- Ongoing assessment of the child’s literacy knowledge; (also discussed later in the theme Recognizing and Accommodating the Child’s Changes over Time).
Creation and maintenance by the teacher of an appropriate emotional climate for optimal learning of the child, evidencing the teacher’s will to never give up on the child (Lyons, 2003).

When working with struggling learners use of time is critically important because while the child is acquiring literacy his peers continue to learn. The struggling learner must make accelerative progress in order to catch-up to his average performing peers in order to take advantage of good classroom instruction. The teacher’s understanding of literacy processing and progressions of progress in literacy development for young learners contributes to maximum efficiency in the use of lesson time. In addition, is the necessity of having the teachers possessing the knowledge, skill, ability, and will to delve deeper and “dig-in” (i.e. engage in an exploration of how best to support the child’s learning) when confronted with challenging learners to help them persist in the face of difficulty. In contrast, a child who has to unlearn inappropriate responding because his teacher was inattentive and he did not receive appropriate support or was permitted to practice error without making some facilitative moves to redirect his attention or support his responding, consumes valuable lesson time.

Recognizing and Accommodating the Child’s Changes over Time

The teacher not only needs to know the child’s abilities at each point in time, but also needs to keep track of the changes in the child’s abilities over time. In order to this, the teacher needs to have an in-depth knowledge of progressions of literacy development and a theory of thinking about progressions of change over time. Without a plan for looking forward, e.g. understanding what a child knows and how he has come to know it, while at the same time looking backwards—e.g. retrospective analysis—a teacher is unable to skillfully and thoughtfully select clear memorable examples upon which to focus a child’s learning and to also create and continuously establish a context for generative learning and a flexible response to the child. The teacher needs to maintain detailed records of a child’s responding history, embrace a theory of “change over time” in order to make the most strategic instructional decisions and moves in response to a child (Clay, 2001). Not knowing what a child controls and his responding history means the teacher’s responses will be off the mark and the child’s progress will be compromised; the window of opportunity for reaching a child – helping him enter the world of literacy – is then compromised.

Achieving this level of sophistication on the part of the teacher will not result from rote or formulaic understanding or implementation – it requires expert initial training, continuous professional development, and sensitive observation on part of the teacher. The teacher needs to approach each interaction with a child as if she has as much to learn about teaching from the child and the child does from her, and to value each interaction with the child as advancing her own case knowledge.

Embracing a Complex Theory of Literacy

A complex theory of literacy holds that reading is a message getting, problem-solving activity and writing is a message sending, problem-solving activity with both activities involving linking invisible patterns of oral language with visible symbols (Clay, 2001; 2005a). The teacher who embraces a complex theory of literacy teaches in ways that acknowledge the individual paths that children take to become readers and writers, how they make links between what they
know about language and phonological information with what they see in print or attempt to record in writing. Young children construct understandings using their knowledge of letters and words concurrently searching to make meaning and alternating between alternatives to make decisions about what print means. By actively searching among various levels of language—letters, sounds, words, meanings, print conventions, etc.—they create personal rules about language and refine these rules through experiences with print to become effective readers and writers.

A teacher of struggling readers who embraces a complex view of literacy consistently supports children in applying their personal stores of information in literacy over time to refine their understandings and accelerate their own learning in reading and writing. She makes maximum use of each child’s emerging and developing stores of knowledge to efficiently help him advance his own learning. Such a teacher’s instructional interactions and decisions provide evidence of knowing each child’s personal store of information and current literacy understandings to maximize their learning and always teaching using a child’s strengths at the starting point for instruction and the foundation upon with to build new learning.

In contrast to a simple theory of literacy which assumes that a child must be taught directly to acquire some arbitrary set of items or skills, a complex theory of literacy holds that the child is constructive and makes links—whether efficient or inefficient—based on his current understanding and stores of knowledge. A teacher who embraces a complex theory of literacy seems to ‘have it all’ whether interacting with children individually or in small group settings; providing tasks that are easy enough for the child, but not too easy so as to lull him into inattention, so that he can choose from among only a few options to make his next move and ultimately achieve accelerative learning.

Teacher’s Organization

A teacher needs to have the ability, knowledge and skill to help the child anticipate (a time saver) increasingly complex and sophisticated routines so that the child can, as time proceeds, more often initiate and take control of his own learning. Factors that assist in helping the child in this way include establishment of routines so that:

- The child is more likely to know what to expect and to know how to organize himself for instruction; the child could orient himself to the instruction, because he knows what to expect in terms of the orientation and the tasks;
- The ability of the child to orient himself increases, while at the same time, his orientation to the lessons do not at the same time become boring;
- The child is excited to be able to initiate responding and contributes optimally for himself at his level to the organization of his learning;
- Because the child is engaged-initiating and contributing to his own learning, fostering a feeling of self-efficacy) and increasing levels of inner control, he persists in the face of challenge.

In addition, an insight of perceptive observing and responding on the part of a teacher, gauging the child’s responses carefully so she can flexibly and nimbly respond, results in expertly interacting with a child. Finally, being organized on the part of the teacher is part of a systemic expert approach and needs to be a conscious choice on the part of the teacher. This is in deep contrast to either a scripted approach or a simplistic reactive response to the child which is
not based on any set of theoretical or conceptual principles on the part of the teacher. As indicated earlier, previous evidence and the analysis in this case study, emphasize the teacher understanding and operating from a complex theory of literacy.

Focus on Strategic Activity versus Accumulation of Item Information

While this theme has been reflected in discussions of previous themes, it is considered so important that it is also presented as a separate theme here. Much research evidence already demonstrates that a key to success for a struggling reader is an approach that helps him learn by his own initiative. As Clay (1987) has noted, every learner comes to literacy by different paths to common outcomes. For the lowest performing learners who are most sensitive to instruction, what is needed is contingent responsive instruction provided by a highly skilled teacher who embraces a complex theory of literacy teaching to support the child’s gaining strategic control over his learning.

An expert teacher knows the importance of focusing on strategic activity, and:

- Uses examples with a focus on generative, application learning, rather than with a focus on mastering a set of skills;
- Understands that focusing on the child mastering items in isolation is not a substitute for supporting the child’s learning;
- Understands how to work with the child to continuously support his increasing control over literacy learning;
- Allows the child to apply what he is learning when he encounters previously unmet learning challenges;
- Allows the child to become more independent of the teacher – lifting oneself up by his own bootstraps (Stanovich, 1986).

Recommendations for future research

The case study reported in this paper focused on analyzing the performance of two RR teachers who achieved high outcomes (text level 14, 16, 18) for a low performing RR eligible child served in the 1:1 (Reading Recovery) setting, but who achieved differing outcomes for children served in a 1:3 setting.

One teacher achieved high outcomes (text level 14, 16, 18) for her RR eligible child in a group 1:3 setting with two other next-lowest performing children. The other teacher achieved low outcomes (text level 6, 7, 8) for an equally low performing RR eligible child served in a group 1:3 setting also with two other next-lowest performing children.

While the case study approach used in this study is not intended to prompt generalizations of findings, at the same time, the study provides several research hypotheses that could be explored. As follow-up studies to this study, we recommend the following investigations:

- Continue the current research by studying similar high performing RR teachers in 1:3 settings through additional lesson videos obtained at more frequent intervals and through structured interviews. Probe the teachers’ instructional planning decisions and ask them to provide professional commentaries on their lessons provided to the children in the 1:3 settings.
Study the lesson videos and the lesson records of the High Outcomes RR teachers in the 1:2 and 1:5 settings and compare the instruction they provided to their RR eligible study children to determine if there were similarities or differences in the instruction that they provided to children in the 1:2 and 1:5 settings as compared to the instruction provided by the teachers in the 1:3 setting.

Determine what teacher knowledge, characteristics, and skill support achieving within-average literacy performance for the lowest performing literacy learners served in a small group intervention. In this case study analysis one teacher achieved high outcomes for her RR eligible student served in a small group intervention of 1:3 with two other similarly low performing children. Some possible hypotheses to explore:

- Are these outcomes attributable to a certain set or constellation of teacher characteristics, and if so, which one(s) lend themselves to high outcomes for RR eligible children served in a group setting?
- Can these teacher characteristics be identified and if so with what instrument(s)?
- Would these instruments serve teacher selection and recruitment purposes?
- Can these teacher characteristics be developed in other teachers to achieve similar outcomes for low performing literacy learners served in a small group setting of 1:3 in the early (first or second) grades?

While not directly following from the study reported in this paper, we also consider research such as the following would vastly improve the evidence based for teaching struggling young readers:

- Research to investigate the effect of group size and the timing and the frequency of the instruction provided by highly trained/RR literacy intervention specialists. What management and organization schemes would best support the learning of the most struggling literacy learners in small group instructional settings in the lower elementary grades (K-2)?

- Research to determine what kind of training or professional development would best support instruction for low performing literacy learners?

- What proportion of 1:1 and small group instruction would optimize accelerative performance in literacy for the lowest performing literacy learners in our schools? Are there children for whom instruction in small groups should never be the first choice? Are there children for whom small group instruction should precede 1:1 instruction and if so, how are these children reliably identified so as not to delay an intervention that would best suit their needs?

Reflections

While there are many possibilities for future research we are also aware that there are many things that we already know about teaching struggling readers. Not unexpectedly, the themes uncovered in this study of teachers working in a 1:3 setting are not unknown to us from previous research. So while we support and see the value of continuing this line of research, we also recognize that we already know much and can continue to provide early literacy
individuals based on current and previous research. In particular, we already know enough to ensure the provision of short-term 1:1 instruction by a highly skilled literacy intervention specialist—a Reading Recovery teacher—for the lowest performing children in first grade.

In terms of literacy achievement in an RtI approach, we already know that a child’s response to intervention requires a responsive teacher of reading (Lose, 2007). Only a highly skilled teacher providing contingent and responsive instruction tailored precisely to the individual child in a 1:1 setting will be contingent and responsive enough to meet the needs of the lowest performing literacy learners in our schools (McEneaney, Lose, Schwartz, 2006; Lose, 2007). Linda Darling Hammond’s research also shows that investments in teacher professional development yield higher student achievement gains than any other expenditure of school dollars (Darling-Hammond, 1996). If we are serious about raising student achievement levels in literacy, we need to provide the comprehensive initial and continuous professional development support of teachers that we know will support the learning of our most at risk children.

Clay (2001) reminds us that if a child is seemingly unable to learn to read, perhaps it is because we haven’t yet found the best way to teach him. The most struggling literacy learners do not have the luxury of waiting for us to decide what to do. Therefore, while we continue to research teaching struggling early learners in small group settings, we already know one crucial way forward if the lowest performing learners are to have any chance at all of achieving literacy. We need to provide without delay, early intervention, tailored precisely to the child, delivered 1:1 by a highly skilled professionally developed teacher. Perhaps it is Marie Clay (2005a) who reminds us of what each child needs most:

And in the end it is the individual adaptation made by the expert teacher to that child’s idiosyncratic competencies and history of past experiences that starts him on the upward climb to effective literacy performances.

~ Marie Clay
References


Figure 1. Teachers’ Adaptations for 1:3 Instruction (submitted as a separate PDF, pages 1-8)