International Journal of Disability, Development and Education
Vol. 52, No. 3, September 2005, pp. 215–231

Reading Fluency and Self-Efficacy: A case study

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In this case study, reading fluency was examined within the context of a paired reading instructional intervention. Additionally, this study explored reader self-perceptions and the nature of the lived experience of reading for a less-skilled reader. A single-subject changing criterion design was employed. Baseline reading fluency data were collected prior to the introduction of the intervention, as well as during the 11-week intervention. Reading rates and accuracy percentages were calculated during the baseline and instructional phases, and probed during the maintenance phase. In addition, a reading maze procedure was used periodically to investigate reading comprehension. The Reader Self-Perception Scale (Henk & Melnick, 1995) was administered on three occasions, and informal interviews were conducted and analysed for recurring themes to explore the lived experience of having reading fluency difficulties. Reading fluency improved substantially, scores on the Reader Self-Perception Scale were in the average range, and accuracy and comprehension scores remained stable and high throughout the study.

Keywords: *Paired Reading; Reading Conversations; Reading Fluency; Reading Rate; Self-efficacy; Single-subject Research*

Introduction

The development of reading fluency is an important aspect of becoming an efficient reader. According to *Merriam-Webster's Collegiate Dictionary* (Mish, 1994), the word "fluency" is derived from the Latin word *fluens,* which means to flow. For fluent readers, then, the words flow. Fluency is a skill that develops with practice and observation, and permits the reader to grasp larger units and even phrases with immediate recognition. Fluency skills also include the ability to use prediction skills within sentence structures to aid in the recognition of a never before encountered word.

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ISSN 1034-912X (print)/ISSN 1465-346X (online)/05/030215–17

DOI: 10.1080/10349120500252858

Therefore, a fluent reader demonstrates automaticity in word recognition, has good word attack strategies, uses self-correction, has good comprehension skills, and reads in a smooth, flowing manner with appropriate expression. However, beginning readers and less-skilled older readers often demonstrate reading fluency problems. Furthermore, many less-skilled readers, even those who become accurate decoders, fail to reach a level of sufficient fluency to become rapid and efficient readers (Hook & Jones, 2002). According to Torgesen, Rashotte, and Alexander (2001), direct measures of reading rate are highly correlated with measures of more complex reading outcomes, such as reading comprehension.

When exploring problems in reading development, there is great diversity both within individuals and between individuals. The term less-skilled reader is used here for brevity and is defined as having a specific reading problem that is characterised by non-fluent oral reading behaviours. The non-fluent behaviours include a slow reading rate, halting or hesitating presentation, and a lack of appropriate expression.

Often as a result of difficulties in reading fluency, confidence levels are low for these struggling readers, and they do not enjoy reading. That is, their reader self-perception or reader self-efficacy is impacted in a negative way. Self-efficacy for reading refers to individuals' assessments of how well they think they can accomplish a particular reading task and is influenced by how well they have performed on similar tasks, including any accompanying feedback and encouragement received (Wigfield, Guthrie, Tonks, & Perencevich, 2004). It is an important aspect of making the transition from novice to expert reader. According to Bandura (1997), previous success is perhaps the most crucial in the development of self-efficacy, and self-efficacy is regarded as an important area to develop in the search to find better and more specific ways to meet the learning needs of students (Jinks & Lorsbach, 2003). For example, Schunk and Rice (1993) examined reading self-efficacy and found that young students who received training to help with their reading self-efficacy and strategy use were also better readers. Thus, this study was designed to explore the impact of a one-to-one reading intervention on the fluency rate and reading self-efficacy of a pre-adolescent girl who struggled with reading.

Theoretical Perspectives

A Vygotskian (Vygotsky, 1986) approach was taken to the intervention. This approach is based on the assumption that children's cognitive development is promoted and enhanced through their interactions with more advanced and capable individuals. The difference between two levels of development (the actual and potential levels), known as the zone of proximal development, can be viewed as the extent to which children can perform tasks with the support of a more competent individual (Vygotsky).

A phenomenological perspective was used to explore the nature of the personal experience of being a less-skilled reader. Phenomenological themes are the structures of experience, and through thematic analysis the researcher attempts to describe lived experiences (van Manen, 1990). Lived experience descriptions can be constructed

from many sources including transcribed taped conversations and interviews with a research participant. According to Pollio, Henley, and Thompson (1997), the resulting data reflect the participant's perspective on personal experiences that emerges in the context of a conversation or interview.

Research Questions

This research addressed five questions. The first examined reading fluency rates within a paired reading intervention. Specifically: How did sustained daily oral reading practice, within the context of one-to-one interaction with a model reader, impact the reading fluency of a student experiencing reading fluency problems?

The second research question examined accuracy. Specifically: As the less-skilled reader worked on increasing reading fluency, were there any changes in reading accuracy levels?

The third question addressed reading comprehension. Specifically: As the participant engaged in reading connected text and focused on improving fluency, were there any changes in the ability to construct meaning from text?

The fourth question focused on reader self-perceptions. Specifically: In what ways did engaging in intensive one-to-one reading instruction influence the development of reader self-efficacy?

The final research question was designed to explore personal meaning within the specific context of reading. Thus, the fifth research question was: What is the lived experience of having problems with reading fluency?

Method

The present study combined the one-to-one instructional intervention of paired reading, with reading conversations in an effort to more fully understand and explore the experience of having reading difficulties. Paired reading (Rasinski & Fredericks, 1991) is defined here as an instructional method that pairs a more-skilled reader with a less-skilled reader and focuses on developing reading fluency by requiring children to read connected text while being supported by a partner. In this study, paired reading emphasised listening in concert with visual previewing, using the skilled reader as a prosodic model. In addition, the Reader Self-Perception Scale (RSPS) (Henk & Melnick, 1995) was administered to examine reader self-efficacy.

Participant

The participant was selected to participate in the study based on the following criteria: (1) upper primary school grade level placement, (2) reading level one year or more below grade level, (3) reading fluency rate significantly below recommended minimum oral reading fluency rates, and (4) classroom teacher's recommendation that the student needed improvement in reading fluency. General guidelines for minimum oral reading fluency rates are as follows: (a) Grade 5, 120 words per minute, and (b)

Grade 6, 150 words per minute (Guszak, 1985). Furthermore, two of the objectives of this research involved examination of reader self-perceptions and lived experience. Since researchers (Stipek, 1998) have reported that younger children are less accurate than older children in their perceptions of academic experiences, the decision was made to select an older primary school student. The name is fictitious.

At the time of the study, Sally was 12 years old, in the sixth grade, and reading at a fifth-grade level. She attended a neighbourhood primary school in a small midwestern town in the United States (U.S.). She was exceedingly shy and soft spoken. Her teacher and principal referred her for participation in the study. They reported that Sally was a "bright girl" and was "well liked by her peers." However, they noted that her lack of confidence in her reading abilities, including her lack of reading fluency hindered her in other classes such as Social Studies and Science.

The study was conducted in the school library during non-use periods. Every effort was made to ensure that the environment was quiet and free from outside distractions. The author, a researcher previously unknown to the student, served as the skilled reader (prosodic model). The intervention sessions took place 5 days per week for approximately 11 weeks, and each session lasted for 30–40 min.

Prior to the beginning of the reading sessions, Sally was asked about her interests, likes, and dislikes in reading materials. She chose to read a single trade book elected from several types of reading material during the reading sessions. This trade book was used as the source of connected text for the duration of the study.

Measures

Fluency was recorded as the rate of words read per minute and calculated as the number of words read, divided by the number of seconds, multiplied by 60. Accuracy was recorded as a percentage and was calculated as the number of words read correctly without omission, substitution, insertion, or mispronunciation, divided by the number of words in the passage, multiplied by 100. Self-corrections and repetitions made by the student were not counted as errors.

All sessions were tape-recorded. During each session Sally's reading fluency rate and accuracy rate were calculated and recorded. A graduate student was trained prior to the initiation of the research and functioned as an independent observer. Using a stop-watch the independent observer listened to the tapes, timed the readings, marked errors on a copy of the text, and recorded accuracy data for 30% of the sessions. Inter-observer agreement was calculated as 99% for both reading fluency and accuracy.

A maze procedure was used once every other week during the study to investigate Sally's comprehension of the connected text. In the maze task, Sally was given a passage of text that she had not yet read from the trade book. The task consisted of a passage of approximately 150 words, with every 8th–12th word off-set parenthetically in a multiple choice format. The types of words deleted varied. That is, due to randomisation, approximately 71% of the words deleted were nouns. Of the three word choices, one was the correct word, one was a distractor, and the other was

orthographically similar to the target word. The order of the presentation of the correct word was randomised. Sally was to circle the correct word. The maze task provides a running assessment of reading comprehension. Guthrie, Siefer, Burnham, and Caplan (1974) reported a correlation of 0.82 between performance on maze tasks and standardised achievement tests.

Henk and Melnick (1995) developed the RSPS. This is an instrument designed to measure how children feel about themselves as readers. The RSPS was normed using a U.S. population of 1,479 students in Grades 4, 5, and 6. The RSPS is made up of four scales: Progress, Observational Comparison, Social Feedback, and Physiological States. The Progress Scale includes statements such as "Reading is easier for me than it used to be." The Observational Comparison Scale consists of items such as "I understand what I read as well as other kids do." The Social Feedback Scale includes statements such as "My classmates think that I read pretty well." Finally, the Physiological States Scale includes items such as "I feel good inside when I read." The RSPS was administered to Sally on three separate occasions: prior to the beginning of the reading sessions, at the midpoint of the study, and at the end of the study.

Single-subject research design. A changing criterion design was used in this study. In a changing criterion design, the gradual stepwise changes in reading rates were able to be observed. Furthermore, this design is appropriate when a considerable amount of time is required before the programme goal is reached (Alberto & Troutman, 1998). The design included three major phases: baseline, intervention (with a changing criterion level subphase for each of the five fluency goals), and maintenance.

Procedures

Before any baseline data were collected Sally and I spent time talking about her interests outside of school, discussing favourite school subjects, and talking about her reading likes and dislikes. In addition, the Burns/Roe Informal Reading Inventory (Burns & Roe, 1993) was administered to Sally to confirm Sally's reading performance level. She also read passages from a selection of books that both of us brought to the sessions.

The reading materials remained constant throughout the study. That is, all sessions focused on the reading of connected text from the same trade book, *Tom's Midnight Garden* (Pearce, 1958) (fifth-grade reading level as determined by HarperCollins Publishers), and each session consisted of uninterrupted continuous reading of 200-word to 250-word passages. It has been suggested that fluency is text-dependent and is enhanced when readers are able to anticipate what is to come next in the text (Hook & Jones, 2002). Therefore, a single chapter book was selected and used during the study. A stopwatch was used to time each passage to obtain average reading fluency rates (words per minute), and accuracy data were collected.

Prior to the introduction of the paired reading instruction, baseline oral reading fluency rates were measured and recorded for three sessions. During this baseline

phase Sally's reading rates ranged from 82 to 87 words per minute with a baseline mean reading rate of 84 words per minute. In addition, for each session during the baseline phase Sally's accuracy percentages were 98%. Based on the baseline data and professional judgement, the criterion level for the initial intervention phase was set at 97 words per minute. Since the three sessions showed a descending trend, the intervention was introduced in Session 4. Reading fluency in the present study was assessed on reading rate alone. That is, there was no separate measure of prosody.

The intervention phase was conducted during 36 sessions (over approximately 8 weeks) and was comprised of five changing criterion subphases. The intervention sessions included oral reading and discussion. Each session began with a review and discussion of previous story events. As the model, I read first. Sally was instructed to follow along with her eyes silently reading her own copy of *Tom's Midnight Garden* (Pearce, 1958). At the end of each passage the roles were reversed and Sally read the passage. If Sally omitted, substituted, inserted, or mispronounced words, I did not interrupt but made note of the errors. If she self-corrected, I made note of the correction but did not count it as an error in the accuracy data. However, if Sally hesitated I waited for 3 s, and if she still did not respond I pronounced the word for her and recorded the word as an error. This is an adaptation of the procedures suggested for administration of the Burns/Roe Informal Reading Inventory (Burns & Roe, 1993). A maintenance phase was used to examine whether or not the effects of paired reading were maintained once daily intervention was concluded. During the 3-week maintenance phase, where paired reading intervention was used, paired reading fluency rates and accuracy percentages were probed five times. A maintenance probe is defined here as the collection of a periodic data point—rather than a daily data point—a way to check the effects of the intervention. The rationale behind probing reading fluency and accuracy during this phase of the study was to examine the stability of the results over time.

In addition, on five occasions during the 11-week study, generalisation probes were used to assess Sally's reading rate on her own (i.e., without paired reading). Fluency rates were measured and recorded over passages of text that had not previously been read or modelled. In academic tasks such as reading, it is expected that generalisation must occur before an intervention is considered effective.

Data Analysis

Fluency data were recorded daily, and the reading rate results among the baseline phase, intervention subphases, and maintenance phase were compared. Mean reading fluency rates and accuracy percentages were calculated for each phase and subphase. Additionally, the scores obtained on the RSPS were examined and were compared with the normative data provided in the assessment manual.

Qualitative Data Gathering and Analysis

To begin to understand how children perceive themselves as readers requires that what they say and do be situated historically and contextually, and that emphasis

be placed on the meaning they make of their situations. As a participant observer (Jorgensen, 1989), I kept a daily log of field notes and reflections. Additionally, informal interviews, referred to as reading conversations, were used to gather information. In these conversations personal experiences with reading were explored by asking questions that focused on perceptions, feelings, home, community, and school experiences, as well as personal history and future expectations. Phenomenological reflection (van Manen, 1990) provided a perspective for framing the interview questions.

The reading conversations were audiotaped and then transcribed for analysis. I also kept field notes about conversations I had with the teacher and principal. In contrast to traditional interviewing techniques, this method of research is based on the philosophy that the goal of finding out about people through interviewing is best accomplished when the interviewer and interviewee are on level playing fields, and the interviewer is ready to invest in the relationship (Oakley, 1981). Alternatively, traditional interview methods that position the interviewer as a non-involved entity (Oakley) did not fit the requirements of this research situation. In addition, this view is consistent with the notion that Sally is the expert or insider on how she experienced reading. Therefore, Sally's comments and reflections about her own experiences were valued. The tenor of the study was such that Sally was a true participant. She participated in selecting the book to be used as the text in the intervention, monitored her own progress throughout, and the conversations were interactive. That is, Sally was able to, and often did, ask me questions. The reading conversations became a collaborative effort, whereby the quality of the information resulted from the relationship formed between us. The reading conversations provided a method of documenting Sally's own account of her reading.

A constant comparative strategy was used to analyse the reading conversation data. In this method, the discovery of relationships and hypothesis generation begins with the analysis of initial observations and undergoes continuous refinement throughout data collection and analysis (Strauss, 1987). A highlighting approach was used to help with data analysis. The transcripts and field notes were read and reread as a whole and then line-by-line. As categories emerged, data were highlighted or underlined. In this way new data are constantly compared with previous data, and new relationships and dimensions are discovered (LeCompte & Preissle, 1993). This strategy is particularly suited for the examination of social phenomena, such as the lived experience of reading fluency problems.

Results

Historical Context

During the first few weeks of the study, Sally was very quiet and shy, and she seemed unsure of herself. Her voice volume barely rose above a whisper, and she rarely made eye contact. At first, I thought that she was anxious about reading with me, but as time passed I interpreted this to be part of her introverted personality. Sally came to

the reading sessions ready to read and was persistent in her attempts to improve her reading fluency.

Sally comes from a family that values literacy. She has a collection of books at home (as does her younger sister), and her mother encourages them both to read. In our initial meeting Sally and I discussed her reading interests. She indicated that she liked to read about animals (especially horses), angels, mysteries, and fiction in general. While talking about the kinds of things she read at home Sally noted:

> I have a lot of books at home, and I have a lot of books that I haven't read. My mom always goes to the secondhand book store and buys us books. So I have a lot, and I could bring some in.

Over the first few days, Sally brought in several books from home, and I brought in a selection based on her interests and reading level. Together we explored the books. We talked about and read from about six books over a 3-day period. Finally, after careful consideration by both of us, Sally selected *Tom's Midnight Garden* (Pearce, 1958), a book she brought from home.

Fluency

Baseline oral reading fluency rates were measured and recorded during three consecutive sessions (school days). Since the three sessions showed a descending trend, the intervention was introduced in Session 4. During this baseline phase Sally's reading rates ranged from 82 to 87 words per minute with a baseline mean reading rate of 84 words per minute.

The intervention phase included five subphases. For each of the subphases a different criterion level or reading fluency goal was established. As the criterion levels changed from subphase to subphase within the paired reading intervention, reading fluency rates increased in a step-wise manner, suggesting that this was an effective method of improving reading fluency for Sally.

The criterion of oral reading fluency (goal) was set at 97 words per minute in the first subphase of the paired reading intervention. This criterion was in effect for five sessions. The first criterion level was determined by finding the highest reading rate attained during the baseline phase (87 words per minute) and adding 10 words per minute. The new criterion was made in consultation with Sally. During Subphase 1, Sally was consistently able to reach or exceed the established criterion level. Her mean reading rate for Subphase 1 was 108.8, an increase of 24.8 words per minute from the baseline mean reading rate.

The criterion reading rate for Subphase 2 was set at 114 words per minute. This criterion was based on the mean reading rate of Subphase 1 (108.8 words per minute) plus 5%. Sally and I discussed her rates and looked at her graphs, and she agreed that the new rate was a goal she wanted to attempt to reach. Sally was unable to come to one of the sessions due to her participation in a school musical. In addition, Sally failed to reach her criterion level by 2 words per minute in one of the sessions. This was the day of dress rehearsal for the musical, and Sally may have

been preoccupied with her upcoming performance. However, in the remaining five sessions she met or exceeded the criterion level. Sally's mean reading rate for this subphase was 116.8 words per minute, an increase of 32.8 words per minute over the baseline reading rate. Between Subphase 1 and Subphase 2, Sally demonstrated a mean reading rate increase of 8 words per minute.

For Subphase 3 the changing criterion was set at 123 words per minute. This was determined by adding 5% to the mean of Subphase 2 (116.8 words per minute). Sally agreed with the new criterion level, and Subphase 3 continued for three sessions. Sally demonstrated reading rates about the criterion level in all three sessions. Although the 1-week March holiday break occurred during this period in the study, on the first day back from holiday Sally demonstrated an increase in reading rate and exceeded the criterion level. At that time, Sally expressed the desire to move to a new criterion level. The mean reading rate for Subphase 3 was 126 words per minute, an increase of 42 words per minute over the baseline mean reading rate and an increase of 9.2 words per minute over the previous subphase.

The criterion level established for Subphase 4 was 132 words per minute and was determined by adding 5% to the mean of Subphase 3 (126 words per minute). This subphase continued for nine sessions. Sally met or exceeded the criterion level in eight of the nine sessions. In the third session of this subphase, Sally obtained a reading rate of 131 words per minute. This was just one word below her criterion level goal of 132 words per minute. Her mean reading rate for Subphase 4 was 138.4 words per minute.

Although calculating the mean of the previous subphase and adding an additional 5% would have set the new criterion level for Subphase 5 at 145 words per minute, Sally expressed concern that she would not be able to meet a goal that high. Therefore, in consultation with Sally, the new criterion was set at 140 words per minute. This subphase continued for 13 sessions. To her surprise, during this subphase, Sally's mean reading rate was 146.9 words per minute, an increase of 62.9 words per minute over her baseline mean reading rate and an increase of 8.5 words per minute over her previous subphase mean reading rate.

During the maintenance phase of the study, paired reading fluency rates were probed five times in a 3-week period. This was done to investigate the stability of the intervention results. Sally demonstrated reading rates that met or exceeded the criterion in all five sessions. Her mean reading rate was 140.6 words per minute for the maintenance phase.

To investigate any generalisation effects on independent oral reading rates, six generalisation probes were taken at intervals throughout the intervention and maintenance phases of the study. Sally's reading fluency rate was measured during independent oral reading of passages of text. Again the passages were approximately 200–250 words in length and consisted of connected text that Sally had not read previously. No paired reading occurred during the generalisation probes.

The generalisation probes indicate that Sally's independent oral reading rates also increased. The generalisation probes were recorded as follows: Session 9, 90 words per minute; Session 16, 104 words per minute; Session 20, 116 words per minute;

Session 34, 131 words per minute; and Session 52, 128 words per minute. The results of these probes demonstrate a generalisation of reading fluency skills. The final probe taken during Session 52 (although not the highest attained) represents an increase of 44 words per minute from the baseline mean (also independent) reading rates taken during the first three sessions.

Accuracy

Accuracy was measured on a daily basis during all phases of the study and was recorded as the percentage of words read correctly. Substitutions, omissions, insertions, and mispronunciations were counted as errors, while self-corrections and repetitions were not. When Sally hesitated for 3 s, I supplied the word and recorded an error.

Throughout the study, Sally maintained a very high reading accuracy level, both prior to and after the introduction of paired reading. Sally's accuracy percentages were recorded as follows: baseline phase (three sessions), accuracy remained constant at 98% for all three sessions; Subphase 2 (six sessions) accuracy ranged from 96% to 98% with a mean of 97%; Subphase 3 (three sessions), accuracy remained constant at 98%; Subphase 4 (nine sessions), accuracy ranged from 96% to 99% with a mean of 98%; and Subphase 5 (13 sessions), accuracy ranged from 97% to 99% with a mean of 98%. In the maintenance phase (five sessions), accuracy ranged from 98% to 99% with a mean of 98%.

Comprehension

The maze procedure was used to explore reading comprehension at several intervals during the study. In the maze procedure, multiple choice items were inserted in passages of connected text. Sally completed one maze comprehension task in each of the first four subphases of paired reading, and two maze tasks in Subphase 5 (a longer subphase), totalling six maze tasks. Sally obtained scores of 100% on all six maze procedures.

Reader Self-efficacy

Sally responded to the statements on the RSPS (Henk & Melnick, 1995) on three separate occasions. Sally consistently scored 36 on all three administrations of the Progress Scale (Grade 6 mean of 39; $SD = 5.1$). According to this instrument, Sally felt her reading abilities were improving. On the other three scales (Observational Comparison, Social Feedback, and Physiological States) Sally demonstrated small differences in her scores on all measures. According to the RSPS manual (Henk & Melnick), Sally's scores were in the average range. Her scores for the Observational Comparison Scale were 18, 24, and 19 (Grade 6 mean of 21.3; $SD = 4.6$). For the Social Feedback Scale, Sally scored 29, 33, and 31 (Grade 6 mean of 32; $SD = 5.5$), and for the Physiological States Scale she scored 30, 31, and 30 (Grade 6 mean of 30.5; $SD = 6.2$).

Situational Context

During the paired reading sessions, Sally followed along silently on her copy without losing her place while I read. She answered the comprehension questions in our discussions, and demonstrated good word recognition as judged by her high percentages of word accuracy.

As the study progressed, Sally seemed to enjoy the reading sessions more and made a greater effort to do better. As Sally improved her reading fluency skills and charted her progress daily, she began to relax somewhat. Her facial, arm, and hand muscles were no longer tight or clenched, and she smiled more often. In addition, she began to elaborate more about what was going on in the story during our discussions. However, she did not initiate the discussions or ask questions. Sally was tenacious and motivated to participate. For example, even on a day when she had a cough and scratchy throat, she wanted to continue with the session.

During paired reading, when Sally came to a word she did not know, she would hurry through it by mumbling and quickly go on to the next words in the sentence. When we talked about the strategies she used when she came to a word she did not know, she paused and thought for a long time. Then she said, "Sometimes I sound it out. I see if it makes sense, and if I read it and it doesn't make sense, I read it again." Sally's own thinking about her reading skills differed somewhat from how others viewed her skills. For example, in contrast to her teachers' concerns about her textbook reading, Sally reasoned, "My social studies book is easy. But I'd rather read other things. Like, I like fiction better, so I read my textbooks slower." She was not motivated to read her textbooks in the same way she was motivated to read other materials that interested her.

After each paired reading session I calculated Sally's reading fluency rate. Then, she plotted her data point on her graph. Sally's reading fluency rate improved substantially over the course of the study. For example, Sally had a baseline mean reading rate of 84 words per minute, while her Subphase 5 mean reading rate was 146.9 words per minute, and her maintenance mean reading rate was 140.6 words per minute. In addition, Sally's last generalisation probe (although not her highest) showed an increase of 44 words per minute from her baseline mean reading rate. This demonstrated generalisation in Sally's independent oral reading rates. Although Sally usually smiled when she reviewed her progress as noted on her graph, she was not demonstrative in sharing her feelings about her progress. Sharing her feelings about herself as a reader seemed difficult for Sally. She continued to be shy and quiet when the conversations centred on her, and she often responded to such personal inquiries with one-word or two-word answers.

Sally was very sensitive to her surroundings. That is, she was concerned with the way her peers and teachers viewed her. During one of our reading sessions I observed an interesting occurrence. The reading sessions were usually held in the library, but on one occasion we had to meet in the teachers' workroom because the library was in use. We began the session as usual, and Sally took her turn reading a passage. While she was reading, her language arts teacher walked in the

room to get a few supplies, and Sally became noticeably tense. She was not comfortable at all reading in front of her teacher. Her voice and hands trembled, and she made more errors and self-corrections than usual. In talking about it later, Sally confided that she was embarrassed to read in front of that particular teacher, because she felt the teacher did not like to hear her read. At this point in time, Sally's reading self-efficacy was low. Her own perceptions were influenced by what she thought the teacher thought of her, and this, in turn, produced feelings of anxiety for Sally.

Sally's Perspective

Although Sally was reserved and shy, and reluctant to talk very much about her experiences with reading in our reading conversations, she is the true insider and expert on her lived experience. Therefore, Sally's own words and thoughts help uncover what the experience of reading was like for her.

From reviewing my field notes and transcriptions of our reading conversations, two ideas stood out. First, Sally had a definite purpose or motivation for wanting to increase her reading fluency: to read better in church. Second, reading in front of others was an anxiety-producing activity.

Sally was cautious in responding to questions about her reading. For example, during the third week I asked her how she felt about reading aloud in our sessions. She simply noted, "I can feel myself reading faster, and I really like the story," and did not elaborate further.

As we got to know each other better, Sally talked about herself a little more. During one of our reading conversations, approximately halfway through the study, I asked Sally if she enjoyed reading. She reported "I like to read, but I hate to read in front of other kids." This was somewhat of a dilemma for Sally because one of her goals related to oral reading. For example, one day in talking about what advantages there were in being a more fluent reader, Sally noted "I want to read better 'cause I want to do the readings in church. My mother is a reader at church, and I want to, too." Sally was motivated and had her own purpose for improving her reading.

According to Sally, reading was an activity she enjoyed, so long as she did not have to read in front of her peers. Her reading self-efficacy was closely tied to what other people thought about her abilities. Throughout the study, Sally continued to feel she was not as good a reader as her classmates. She was concerned about this, and to complicate matters she was planning to go to a new school in September for the new school year. This was both exciting and anxiety-producing for Sally. She was particularly concerned about getting up in front of a class at the time of the study and in the future. We talked about giving oral reports in her classes. Sally noted, "If I wrote it, I feel more nervous, and I kinda shake. But if it's from a book or something, that's better. But I still hate it."

In reflecting on how she thought other students viewed her reading skills, Sally had the following to say:

> I don't really know what they [other students] think. I like to read to myself. But it depends. I like to read, if I have the right book—especially the first chapter. If it's not interesting, I don't read the rest. But, I don't like to read in front of people.

In summary, Sally was polite, very softly spoken, and shy. She liked to read, and had a sizable collection of books of her own. However, she confessed her dislike and panic over oral reading, and was concerned that she did not read as well as her classmates. However, Sally had her own purpose for improving her oral reading skills. She wanted to be a reader in church, like her mother, and expressed the hope that she would be able to read faster and more smoothly for that reason. Sally enjoyed graphing her progress, and was consistently determined and hard working during the sessions. Although Sally made excellent progress in improving her reading fluency, she continued to express a lack of self-confidence in her reading abilities. In light of Sally's revelation that her goal to improve her reading skills was due in part to her desire to read orally for her church congregation, perhaps a performance-based reading experience would have helped boost her confidence. For example, Reader's Theatre (Bos & Vaughn, 2002), a strategy in which students perform a play or a book, would provide practice with rereading the same text in a public arena. One suggestion would be to use Reader's Theatre in conjunction with paired reading, so that Sally could first experience success with fluency-building in a private setting (since she reported being shy in front of her peers), and later gain experience and success with reading with her peers in a more public format.

Discussion

Vygotsky's (1986) perspective on development and learning provided a guiding theoretical framework for this study. Accordingly, in instructional contexts, the ideal role of a teacher is to provide scaffolding to develop students' learning within their zones of proximal development. Vygotsky emphasised the importance of identifying skills that the child cannot do alone but is capable of doing with the assistance of an adult or skilled peer. Additionally, Vygotsky's perspective placed the source of motivation both in the child and in the child's socio-cultural environment. The paired reading intervention in this study was based on these ideas. That is, the less-skilled reader and the more-skilled researcher collaborated in increasing reading fluency skills. Paired reading included both modelling/observation and collaborative dialogue components. Historically, Sally experienced reading fluency problems. These problems were characterised by slow, choppy, or halting reading, with little phrasing or emphasis. Within the context of paired reading, Sally worked within her zone of proximal development. Sally was provided with the necessary scaffolding to increase her fluency skills and, as the results indicate, she made substantial progress in reading fluency over the course of the study. By the end of the study, Sally read faster, smoother, and with more phrasing and emphasis.

These results are consistent with previous research (e.g., Rasinski & Fredericks, 1991; Tingstrom, Edwards, & Olmi, 1995; Torgesen et al., 2001). Paired reading was expected to facilitate fluency improvement for several reasons. First, Sally had

an immediate model of a fluent reader to emulate. In addition, the identity of any unknown words in a passage was revealed during the listening phase. However, in order for the modelling and listening components to have an impact, Sally had to be actively engaged. The paired reading sessions were very interactive, and Sally was very involved in the entire process.

Historically, researchers have differed in their assumptions about the reasons some readers fail to develop fluency skills. Some researchers have attributed reading fluency to the development of automaticity (LaBerge & Samuels, 1974), while others maintained that fluency develops when readers use several sources to construct meaning (Clay, 1979). Other researchers have suggested that fluency was related to exposure to print and practice (e.g., Nathan & Stanovich, 1991). It is probable that there are reciprocal effects from these component subskills in the development of efficient reading. That is, with the development of automaticity, word recognition occurs effortlessly and allows for the higher level processing involved in the construction of meaning. In turn, better comprehension skills and more exposure to print provides for expanded word recognition skill development. Paired reading provided daily practice reading passages of connected text. Sally was exposed to large amounts of print in a setting that promoted engagement and emphasised increasing reading fluency.

Goal-setting and concrete evidence of progress also played a role in the outcome for Sally in this study. According to Stipek (1998), one way to influence children's learning is to influence their goals, and Bandura (1997) suggested that most people value the self-respect and the self-satisfaction originating from a job well done more than material rewards. Achieving personal goals promotes self-satisfaction. Therefore, goal-setting and goal attainment may serve to reinforce and motivate the learner even more. Sally actively participated in her choice of reading material, setting criterion levels (goals), and monitored (graphed) her own daily progress in meeting those goals.

Furthermore, goal attainment is central to self-efficacy. Stipek (1998) suggests that four primary sources of information influence how students judge themselves in academic situations: (1) actual experience, (2) vicarious experience, (3) verbal persuasion, and (4) physiological arousal. Self-efficacy can affect how students think, feel, and behave in achievement situations. The RSPS was administered on three occasions during the study in order to explore self-efficacy. It should be noted that changes in motivation and self-efficacy are complex issues. According to Schunk (2003), students acquire efficacy information by socially comparing their own performance with the performances of others (models, peers). For example, Sally was very sensitive to everything around her, and her perception of how others' viewed her reading and her own performance probably had an impact on her view of her skills. The changing criterion design was well suited for exploring issues of goal attainment. That is, the seemingly difficult task of increasing reading fluency was organised down into subgoals (criterion levels). Meeting these proximal goals enhanced the Sally's perception of competence and sense of mastery (self-efficacy). According to Clark (1995), concrete evidence is particularly rewarding for students

who have difficulty believing they can become good readers. Moreover, students become empowered when they understand their goals and how to achieve them, and empowerment improves motivation (Clark). The reverse is also true. Fluency problems often result in a cycle of negative consequences (Nathan & Stanovich, 1991). For example, unrewarding reading experiences may lead to less reading, which means less practice and exposure to print, which in turn contributes to a continued negative impact on fluency skills (Nathan & Stanovich). These unrewarding experiences may also lead to higher levels of anxiety. For example, Sally visibly shook when her teacher walked into the paired reading session. In addition, Sally expressed her dislike of classroom oral reading. This may have resulted in negative consequences for Sally, had it not been that she had her own purpose for wanting to improve her oral reading fluency skills (becoming a reader in church). Her inner desire was strong and she was motivated to continue. As in most areas of life, and learning in particular, motivation is crucial. Thus, the relationship between self-efficacy and motivation is both important and interesting. According to Snow, Burns, and Griffin (1998), although many children begin school with positive expectations and attitudes for success, by the end of the primary grades, and increasingly in subsequent years, some students become disaffected due to problems with reading. Particularly, when students are not able to derive reliable information on their own, it is critical that they receive goal progress feedback (Schunk). In addition, it should be noted that although low self-efficacy is detrimental for learning, effective learning does not require extremely high self-efficacy (Schunk). Therefore, Sally's assessment of her abilities in reading (average scores on the RSPS) may have been relatively accurate.

In exploring the lived experience of having reading difficulties, the relational nature of motivation, self-efficacy, and anxiety came alive. The paired reading intervention was effective in increasing reading fluency, while measures of accuracy and comprehension remained stable and high. Moreover, within the context of paired reading, in her lived experience account Sally expressed changes in her self-perceptions. These findings are consistent with the unique interactions expected to develop between the skilled reader and the less-skilled reader. These results point to how sensitive children are in their views of themselves as learners and that their views are important to the learning process. Furthermore, since many students do not automatically self-evaluate their abilities, educators can prompt students to assess performance and gauge goal progress. Schunk (2003) suggests that when performance improvements become relevant, students will feel efficacious and motivated to learn and thereby will learn better.

This was an intensive intervention designed to explore reading fluency and self-perception in an in-depth case study manner. Reading is truly one of the great intellectual accomplishments of childhood. Yet, many otherwise intellectually capable children fail to attain a reading skill level necessary to promote other later forms of learning. It is important to closely examine instructional alternatives that consider the unique learning characteristics of students, and one way to do this is to investigate reading instruction and progress by deeply exploring individual readers within

one-to-one reading instruction. Single-subject research that examines the daily progress of a learner within a learning situation or context fits well with Vygotsky's (1986) ideas that learning cannot be separated from its social foundations. In the present study, the nature of the interactions between the skilled reader and less-skilled reader, as well as the change in criterion levels over time, help to illustrate the zone of proximal development and support the idea of scaffolding. This area of inquiry is important. Future research that focuses on reading fluency and reader self-efficacy with many more struggling readers will help to determine the best methods and contexts for reading instruction, so that the end result may be many more efficient and satisfied adult readers.

Limitations of the Study

Although the results of this study with respect to reading rate were very positive for Sally, there are several limitations. First, because this was a case study, the generalisability of the results is very limited. Further replication of this research across many more participants would provide a clearer picture of the effectiveness of the intervention for students of differing ability levels, cognitive characteristics, temperaments, and ages. Another limitation of the study was that the maze procedure did not provide a comprehensive enough picture of the participant's comprehension levels.

Third, although considerable effort was made to cross-check findings from one source with findings from other sources, ultimately the qualitative data were interpreted and filtered through the world view of the researcher. Every effort was made to value the participant's perspective. However, there may have been other ways of hearing, understanding, and interpreting her voice and experiences.

Finally, the generalisation probes were limited to reading passages from the next sequential part of the connected text that the participant was reading for the paired reading intervention. Over the course of the study, the generalisation probes steadily increased. However, reading connected text from entirely different reading materials would provide another avenue for exploring any generalisation effects.

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