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A Single-Subject Experimental Design: A Reading Recovery Child's Change Over Time in Writing

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SUNY COLLEGE AT BROCKPORT

A Single-subject experimental design: A Reading Recovery child's
change over time in writing

By

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Abstract

A single-subject experimental design of one Reading Recovery child's change over time in writing. In this thesis I will observe one of my first round Reading Recovery students writing over a twenty-week period. After the fifth, tenth, fifteenth and twentieth week intervals the child's writing will be examined against a rubric to observe the changes in vocabulary/spelling, sentence structure, directional principles and language quality. The scores of each section will be examined to see if a change in the child's writing has occurred.

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CHAPTER I

Statement of the Problem

Purpose

The purpose of this single-subject experimental study was to observe the changes over time in writing for one Reading Recovery student.

Introduction

The first years of school are crucial because they lay the foundation in literacy learning of all the verbal learning that follows in an individual's school career. This foundation needs to be sound. Writing can contribute to the building of almost every kind of inner control of literacy learning that is needed by the successful reader (Clay, 1998). Teaching reading and writing together provides great experience to enhance a child's literacy development. Clay (2001) states, "Writing helps build the sources of knowledge upon which the reader must draw, the processes needed to search for information in print, the strategies used to combine or check information, and an awareness of how to construct messages" (p. 17)

Need for the study

Research has concluded that writing is a critical component in early literacy knowledge. The children who are in the Reading Recovery program are reading and writing every day. Does the child's daily writing change over time by the teacher and child interactions? Do the conversations before writing help? Will teaching reading and writing as a reciprocal entity enhance the child's learning? This study will look at one child's writing component to see the changes in the child's writing over time.

Definitions

Single-subject Research

Single-subject research is defined as a time-series design in which an intervention (active independent variable) is given to four or fewer participants. A single-subject research design is used to answer questions about the effects of specific treatments on individuals over time. Information from single-subject studies helps document how individuals change over time (Gliner, Morgan, & Harmon, 2000).

Reading Recovery

Reading Recovery is a one-on-one intervention program for children who are having difficulty in reading after one year of school. This

program is an intensive daily half-hour lesson taught by a specially trained teacher whose teaching activities are selected to meet individual needs (Clay, 2001). Reading Recovery is also defined by Lyons, Pinnell & DeFord (1993) as "a system-wide intervention that involves a network of education, communication and collegiality designed to create a culture of learning that promotes literacy for high-risk children" (p.2).

CHAPTER II

Review of the Literature

Purpose

The purpose of this single-subject experimental study was to observe the changes over time in writing for one Reading Recovery student.

DeFord (1980) states that messages in a child's life are present in store signs, road signs, products labels and books. These encounters with visible language let the child begin to organize according to the purpose of making differentiation in meaningful ways. It is the combinations of print, situational cues and appropriate meaningful context that aids the child in the organization of print environment. However, the child must differentiate in order to begin to write the letters of the alphabet or begin to read.

Writing is of critical importance for learning to read in an early literacy intervention because writing promotes learners from neglecting or overlooking many things they must know about print, and reveals information about the learners' ways of working that their teachers need to know about. In students' writing of messages we can observe young children making links between speaking, reading and writing (Clay, 2001).

Wharton-McDonald, Pressley, and Mistretta-Hampston (1998) call these links “engagement.” “Engaged” is defined as the student being actively involved in a learning activity. When students are reading, writing, listening, or talking about a relevant topic, they are considered to be engaged.

There are four advantages of learning to write as one becomes a reader. The first advantage is that writing fosters slow analysis. Writing words forces attention to the visual details of printed language. It also allows for the observation of organizational and sequential features of printed language. The second advantage is that writing highlights letter forms, letter sequences and letter clusters. Writing forces the attention on the features of letters that distinguish one from another. The third advantage is that writing has the ability to switch between different sources of knowledge. This includes the hierarchy of information in print, such as, letters into word, words into phrases and phrases into sentences and stories. The fourth advantage writing has to offer is that the cognitive advantages can be predicted. This will enable the students to link, compare, contrast and self-correct in writing (Clay, 1998).

DeFord (1980) suggests that the “key elements in children’s leaning about writing are a rich, meaningful print environment, varied

opportunities for individual exploration, and a willing, supportive audience” (p.162).

Reading Recovery and the Writing Component

Reading Recovery is an early intervention program designed for first grade students who have received the lowest scores in reading and writing. The children are selected for the program using a combination of six individually administered diagnostic measures (Ruzzo, 1990). These six components are: 1.) Letter Identification. This is given to determine if the child can identify 54 letters of the alphabet, the upper and lower case letters, and the type set for the letters a and g. Responses that are acceptable include the alphabetic name or a sound that represents that letter or a word for that letter. All confusions and unknown letters are also noted. 2.) Word Test. This is where the children read 20 words from the high frequency word list. 3.) Concepts about print. This is a small book, where the teacher reads the book to the child and the child has to “help” the teacher. Such questions asked are: “Show me where I start reading?” and “Which way do I go?” 4.) Writing Vocabulary. In a ten-minute time limit, the child is asked to write down all the words he/she knows. 5.) Dictation. A sentence is read to the child and the teacher asks him or her to try to write it. This is done to see if the child can hear sounds in words

and represent them with the appropriate letters: 6.) Running Record. The running records are the most powerful tool for the Reading Recovery teacher. This is where the behaviors of the child are analyzed as they read to find evidence of those “in the head” strategies. The level of text difficulty that the child can read at 90% accuracy or better is determined by this (Lyons, Pinnell & DeFord, 1993). Once chosen for the program, the child meets with the Reading Recovery teacher one-on-one, thirty minutes each day for a maximum of twenty weeks (Ruzzo, 1990).

In Reading Recovery writing happens every day in every lesson of a child’s program. It is interwoven with reading. Writing is the fourth component out of six in a daily lesson. The child generates a message for the writing portion of the lesson from personal experiences or from a book read at some point during the lesson or a previous lesson. The teacher and child work together in a highly scaffolded manner to represent the message. It was devised to provide the highly supportive mediation that may be needed by those children who have not actively begun to engage in reading and writing by the time they are in first grade (Lyons, Pinnell & DeFord, 1993).

In a Reading Recovery lesson, the teacher and child are “sharing the pen.” This “sharing of the pen” is also referred to as “shared writing” or “interactive writing.” Fountas and Pinnell (1996) describe “interactive

writing.” In interactive writing, the adult and child work together first to compose a message. Then they write it, sharing the pen so that the child can use his growing knowledge of the forms of writing (p. 61).

Observations play an important role in a Reading Recovery lesson. The teacher must constantly be observing the behaviors the child is displaying in order to adjust her teaching. By observing children as they write, we can learn what they understand about print, the messages in print and what feature of print they are attending to (Clay, 1993a).

Writing is a critical component of a Reading Recovery lesson. Clay (1985) states that:

Children’s written texts are a good source of information about what a child’s visual discrimination of print is, for as the child learns to print words, hand-and-eye support supplements each other to organize the first visual discriminations. When writing a message, the child must be able to analyze the word he hears or says and to find some way to record the sounds he hears as letters. (p. 35)

In a Reading Recovery writing lesson a powerful strategy for teachers to use is to encourage children to say words slowly as to hear the sounds that letters make in order to write those letters in their writing (Clay, 1991).

Caulkins (1986) states, “As children become more fluent, the gap between their speech and their writing decreases and they are more apt to write without verbal accompaniment” (p. 58).

Writing is crucial to the development of reading strategies in early literacy experiences. Reading Recovery teachers tend to spend more time on writing early in the child's program and less time on writing at the end. Since writing slows down the process, it simultaneously allows the child to form concepts about how print operates (Lyons, Pinnell & DeFord, 1993).

In writing, every interaction in teaching and learning can be related to reading. Neither is a memory task alone, a sound analysis alone, nor a practice task alone. The goal in both reading and writing is to turn the process over to the student as soon as possible. Therefore, the teacher goes from most support to least support to promote this independence (Clay, 1998).

This concept of high support to least support is a type of scaffolding (Lyons, Pinnell & DeFord, 1993). In 1975, Bruner (as cited in Lyons et al., 1993) stated that this kind of interaction or "scaffolding" is where the adult "enters only to assist, making it possible for the child to participate in the learning event" (p. 12). In 1998, Cazden (as cited in Lyons et al., 1993) also agreed that this interaction is "a very special kind of scaffold that self-destructs gradually as the need lessens and the child's competence grows" (p. 104).

There are three scaffolding phases that the Reading Recovery teacher must go through as the child becomes more independent. The first phase is close monitoring and intervention. This is where the teacher and child are co-constructing the writing. The child is able to contribute some letters. The second phase is when the teacher acts as a prompt and a reminder to the child. The teacher prompts or reminds the child of connections the child has and what he knows. The last phase is where the teacher is reactive. This is where there is little interaction between the child and the teacher. The child has internalized the prompts and monitors his writing (Clay, 2001).

Ruzzo (1990) states that "Reading Recovery isn't about a bag of tricks but rather about bringing an understanding of ongoing assessment-knowing where kids are all the time, understanding them as readers and writers and knowing their strengths" (p.2).

Teacher and Child Conversations

When a child writes, he/she has to make a lot of decisions about how to communicate what he wants to say. This clear, effective writing often begins with talking (Pinnell & Fountas, 1997).

Reading Recovery is designed around opportunities for teacher and children to talk together while the child is deeply involved in reading and

writing. The conversation is a foundation of the teaching in Reading Recovery (Kelly, Klein & Pinnell, 1996). It is increasingly apparent that conversation is an important support for learning (Clay & Cazden, 1990). It is this conversation exchange that tailors the lesson to the individual child and makes each lesson unique.

Vygotsky (1978) defines the zone of proximal development (ZPD) as the distance between the child's individual capacities-what he or she can do without help (zone of actual development) and the capacity to perform with support of a teacher. The teacher demonstrates, prompts and/or questions, allowing the student to participate in the writing activity that would be impossible for him or her to do alone. The language between the teacher and child provides a powerful tool for both thinking and communicating around verbal and nonverbal behaviors. Without the teacher's guidance, the "at-risk" child may not have been able to develop these problem-solving skills. Under adult guidance, the child's ZPD is extended (Lyons, 1993).

McDermott (1997) describes a "trusting relationship" between the teacher and the child. By trust, he does not mean a basic definition, but one which suggests that both the teacher and child know what is expected and have trust that they are working together to achieve a goal they both value. Rogoff (1990) describes this shared problem solving involving

active learners participating with a more skilled partner as apprenticeship. Wood (1988) has described this interaction as experts helping novices to push the boundaries of their own learning. They do with assistance what they could not do alone. New thinking comes from new conversations. Through these conversations, we help our children learn. Reading Recovery makes possible the power of teaching as conversation.

Fullerton and DeFord (2000) suggest that the conversations between the child and teacher for writing be short, yet genuine. The teacher comments should mirror and reflect the child's comments. Nodding your head and having eye contact lets the children know that they have the floor, and you are listening to what is important to them. The genuine conversations about important events in their lives drive the children to want to write what is important to them. By encouraging them to write what they know about, their best writing will be on what they know and care about. (Pinnell & Fountas, 1997).

Caulkins (2001) quotes the poet Theodore Roethke, "If your life doesn't seem significant enough, it's not your life that isn't significant enough, but your *response to your life*" (p. 494). As readers and writers, our students need to learn that the details of their thoughts and experiences are important.

Reciprocity between Reading and Writing

Many of the procedures needed in early reading are practiced in early writing. There are many ways in which reciprocity occurs in a Reading Recovery lesson. Reciprocity is defined as a “mutual dependence, action, or influence” (Merriam-Webster, n.d.). When we refer to reciprocity in Reading Recovery, most often we are referring to the connections that can be made across reading and writing through teaching and learning actions. Each reading or writing act has the potential for providing a context for learning and influencing the other (Clay, 1998). Reciprocity occurs when the teacher and child have interactions or conversations, or when there is a teaching-learning situation and the reciprocity is felt, shared, and shown by both sides.

There are a number of similarities between reading and writing. These similarities include the storage of knowledge about letters, sounds and words that they can draw upon. These are the ways in which known oral language contributes to print activities, some similar processes that learners use to search for the information they need to solve new problems, and the ways in which they pull together or integrate different types of information common to both activities. Some examples of the aspects of literacy activities which are shared by reading and writing

include how to control serial order in print, how to use phonological information and how to search, monitor, self-correct and make decisions about words (Clay, 2001).

Wollman-Bonilla (2001) states that the children's understanding to recognize and appropriate text cues and strategies that make writing effective may help them approach reading with a sense of the writer's intentions. The awareness of these intentions may contribute to the children's growth as readers.

Clay (1998) states that there are three concepts that are critical to keep in mind when teaching for reciprocity. They are:

- 1) Children construct their literacy knowledge
- 2) The literacy system is self-extending; and
- 3) Frequency of occurrence is a factor.

The ability to connect reading and writing and to learn about each process within any act of reading or writing is an important part of what Clay describes as a "self-extending system" (Lyons, Pinnell & DeFord, 1993).

Reading Recovery teachers strive to teach their students to have a self-extending system. A self-extending system is "The production of independent readers whose reading and writing improve whenever they read and write" (Clay, 1993b, p. 43). An independent reader and writer will have the following items under control. Children will have early strategies

secure and habituated, monitor their own reading and writing, search for cues in word sequence, discover new things for themselves, cross-check one source of cues with another, repeat as if to confirm their reading or writing, self-correct, and solve new words. In other words, Reading Recovery teachers have one ultimate goal of producing life-long readers and writers.

Single-Subject Experimental Design

Neuman and McCormick (1995) state that Single-subject experimental designs have many benefits to why research is valued in this form. The first benefit is that the growth of conversations, collaboration and collegiality among teachers and administrators is enhanced due to the opportunities of research. The second benefit is that the research the teachers have collected provides validation of their theories and will enhance their teaching practices. The last benefit can be shared in an ancient Chinese proverb: "Tell me-I forget; show me-I remember; involve me-I understand. Through active participation in classroom research, teachers better understand themselves as professionals, their students as learners, and the relationship between educational theory and practice" (p.122).

Single-subject experimental designs provide teachers with the research strategies needed for engaging them in measurement, analysis and reflective thinking that promote successful teaching and student achievement. It also enables the teachers to grow professionally by gathering data, reflecting on the products of their efforts, refining their methods and learning the true meaning of individual differences (Neuman & McCormick, 1995).

CHAPTER III

Design of the Study

Purpose

The purpose of this single-subject experimental study was to observe the changes over time in writing for one Reading Recovery student.

Research Question

Can direct instruction in writing during the writing component in a Reading Recovery lesson change a child's writing over time?

Methodology

Subject

One first round Reading Recovery child was the participant in this study. This was a male student, age seven, in the first grade. Throughout this report he will be referred to as Gabriel.

Procedures

This study took place over a twenty-week time frame. During that time writing samples were collected during the first, second, fifth, tenth,

fifteenth, and twentieth weeks. In the first two weeks of the child's program, called Roaming Around The Known, the writing samples that were collected formed the baseline against which all others were compared. A four-point scale rubric was used to assess the child's writing during the weeks that were collected. The rubric was based on the changes that Reading Recovery students are expected to master to be able to discontinue from the program.

The Roaming Around the Known sessions of the child's program were used to determine what the child can control and what instruction needed to occur for the rest of the program. This was done by different activities that included reading many small books, writing and letter/word work. Most of the information the teacher gathered was from careful observations. By the end of this session, it is the goal to have what the child knows to be fast, flexible and fluent.

The writing samples during this two week period were done on separate sheets of paper with the teacher assisting with the sharing of the pen on what the child was able to control or unable to control. This included, knowing certain letters and the ability to hear the sounds that the letters make. During this two-week period, there was no formal teaching done, however, sharing of the pen and teacher demonstrating certain components of what a sentence should have were included. For example,

spacing, starting a sentence with a capital, and ending a sentence with a period were demonstrated.

After each section of gathering writing samples, the teacher adjusted the teaching to what the child needed. For example, after gathering the writing samples from the first two weeks and assessing them against the rubric showed that the child needed instruction on spacing and using a capital to start a sentence. Then from the third week until the fifth week the use of spacing and capitals at the beginning of the sentence was taught and demonstrated. At the end of the fifth week the writing samples were scored using the four-point rubric to determine if the instruction has increased. Two items that were looked at were: 1.) the child's ability to control spacing and 2.) the child's usage of capitals at the beginning of the sentence.

At the end of the twenty weeks the scores for each section were examined to see if a change in the child's writing has occurred.

Analysis of the Data

The data were analyzed qualitatively. Each piece of writing was scored using a writing rubric (Appendix A). Items included in the rubric were written language level, message quality, directional principles and spelling/vocabulary.

CHAPTER IV

Results of the Study

Purpose

The purpose of this single-subject experimental study was to observe the changes over time in writing for one Reading Recovery student.

Overall Observations

Gabriel had sixty-eight lessons over a twenty-week time frame. When Gabriel came to Reading Recovery his total stanine score for the Observation Survey test was seventeen. At that time Gabriel was reading at a Level 3 which is below the 1st grade level. He was able to write only five words correctly, and hear six sounds out of thirty-seven in the Hearing Sounds in Words sections of the test. At the end of his program, Gabriel successfully discontinued from the program. His new reading level was 14, which is average in 1st grade. He also had a total of over fifty words that he could read and write independently, and he was able to hear thirty-six sounds out of thirty-seven in the Observation Survey test given in February. His overall stanine score was forty-four. On the following table illustrates Gabriel's growth in Reading Recovery.

Table 1
Beginning and Ending Assessment Scores

	Beginning Scores	End Scores
Reading Recovery	3	14
Text Level Reading		
Hearing Sounds In words	6/37	36/37
Words Written	5	50+
Stanine	17	44

Weeks1-2

After observing and analyzing Gabriel's writing on the rubric after the first two weeks of his program, he scored a 5.

In the Written Language Level Gabriel scored a 2. He used a number of repetitive sentence patterns, often which started with "I like..." or "I am...". These sentences also did not include descriptive details. In Message Quality, Gabriel scored a 1; he was able to use some letters/words to convey a message. In Directional Principles, Gabriel scored a 1; he formed some letters correctly, demonstrated some evidence of left to right and needed to be prompted often for spacing. Under the Spelling/Vocabulary section, Gabriel also scored a 1. He was able to demonstrate that he could hear sounds the letters make and write

them, he was able to write the initial letter of some words, and he was able to write his name and some high frequency words. These words include; *I, a, mom, dad, is, in, to, no, go, see, and the.* The following table is scored based on the rubric.

Table 2
Rubric Scores at the End of Week Two

Rubric Description	Scores Out of 4
Written Language	2
Message Quality	1
Directionality	1
Spelling/Vocabulary	1
Total Score	5

At the end of the two-week Roaming Around the Known portion of his program, I knew that there were three items that I had to work on based on observations and the rubric. These were; to teach the child to use spaces between words, to have him begin a sentence with a capital letter, and to end a sentence with a period or other form of punctuation. Teaching language used was to ask Gabriel questions such as “How are we going to start your sentence?” or “What do we need at the end of a sentence?” Also during the cut-up sentence time, I would have Gabriel leave spaces between his words to represent spaces during writing.

Weeks 3-5

During the next three weeks and up until the fifth week's rubric check I continued to teach for these three items. At the end of the fifth week, I looked at the rubric and the observations of Gabriel's writing and I scored them. He scored a nine.

In Appendix B1 are writing samples from the fifth week and my scoring for them. All the underlined words or letters are those that Gabriel was able to contribute. Everything that is boxed is the way I code for when I bring that word up to the practice page to teach him how to stretch words to hear their sounds. On the lesson dated 10-15, Gabriel was able to contribute three known words; *like*, *I* and *the*. He was also able to contribute 1st letter and started to demonstrate knowledge of hearing middle and end consonant sounds. In Appendix B2, dated 10-16, Gabriel contributed six known words (I,like,to,my,in,the), beginning and ending consonants and increasing his knowledge with two words brought to boxes for stretching their sounds.

The following was noted on the rubric. In the Written Language Level, Gabriel scored a three. He demonstrated an ability to write one sentence that includes more descriptive details in them. For Message Quality, he wrote many known letters/words to convey a message that is understandable to read by others. For Directional Principles he formed

many letters with ease. There was some teacher prompting for spaces and left to right writing and for return sweep. Under the Spelling/Vocabulary section, Gabriel demonstrated that he could record some dominant consonant sounds by using sound boxes to stretch words to hear their letter sounds, and that he can write many high frequency words. Such words include; *am, on, like, my, can, and me.*

Table 3
Rubric Scores at the End of Week 5

Rubric Description	Scores Out of 4
Written Language	3
Message Quality	2
Directionality	2
Spelling/Vocabulary	2
Total Score	9

Also based on my observations I was noticing that Gabriel was starting to “take things on” during writing, such as saying before he begins to write that “there needs to be a capital” or “a period goes at the end of the sentence” when he was finished writing.

Weeks 6-10

During the next four weeks until the tenth week rubric check, I continued to work on spacing, return sweep, punctuation and sound boxes. I also wanted to start working on increasing Gabriel's independence while writing. I wanted him to start writing right away with those words he knew, or getting ready to stretch words slowly in boxes. I did this by prompting Gabriel to "do his job", and demonstrating how to use boxes to stretch the words to hear their sounds. During that time I noticed a change in Gabriel's writing, he wanted to be in control about what he wrote about, and that is exactly what I wanted for him.

In Appendix C1, Gabriel's writing improved in that he was able to contribute five known words, all beginning, middle and ending sounds, and took two words to boxes. I also introduced transition boxes, by demonstrating in order for Gabriel to visually see the silent -e at the end of the *have*.

As a result Gabriel's score went up a point to ten in the tenth week rubric check. Gabriel moved one point in the Message Quality section from a two to three. He wrote more of his own ideas about his own observations, and experiences that are interesting to him, and that he included most known letters and words to convey a message. All others areas stayed the same in score. However, Gabriel increased his

knowledge on high frequency words that he contributes to his stories.

These included words such as; *look, up, we, yes, and, cat, dog, and will.*

The following table illustrates his increase in scores according to the rubric.

Table 4
Rubric Score at the End of Week 10

Rubric Description	Scores Out of 4
Written Language	3
Message Quality	3
Directionality	2
Spelling/Vocabulary	2
Total Score	10

Weeks 11-15

During the next four weeks, I noticed that Gabriel was increasing his knowledge and understanding of why we write and what it means to be a writer. We worked hard on the reciprocity between reading and writing which is why I feel he has had the most growth during these past four weeks. We discussed in great detail about why reciprocity between reading and writing is so important to a student's learning and once he understood that, he took off with his own learning.

Some activities that demonstrated the importance for reciprocity between reading and writing were by making analogies in his writing from those known words he can read and write to unknown words needed in writing, by demonstrating making and braking words, such as *look* to *book* to *shook*, then on to word building. An example of word building would be *in* to *win* to *wind* to *window*.

During the fourteenth week, I decided to increase Gabriel's love and knowledge for writing and started co-constructing a book with him. The first day of our book was a web that I wrote from his dictation. Using a center circle, I wrote the title that he wanted and on spiderweb-like lines, I wrote the story out for him. This web was designed so that each day that he came to me we wrote one page in his book.

During the fifteenth week, we were on the last page of our nine-page book. In Appendix D1, I have included a copy of Gabriel's book, titled *Cars that got fixed up*. Gabriel was able to contribute ten known words, and was in letterboxes to hear the sounds that the words make.

At the end of the fifteenth week, Gabriel scored a twelve. He increased in every area while continuing to work on Message Quality. In the Written Language Level, he continued to demonstrate that that he could write descriptive detailed sentences. In Directional Principles, Gabriel could form most letters with ease, while the teacher had less and

less prompting for spacing, and return sweep because the child was taking these on. In Spelling/Vocabulary, he was able to record most beginning and ending consonants while experimenting with some middle consonants and some vowels as place holders, and with endings, such as -s, -ed and -ing. He also gained a number of new high frequency words, such as; *here, come, you, book, love, day, today* and rhyming words that have -*ook*, and -*an* as their endings. These include; *book, took, cook, shook, man, ran, tan*, etc. The following table demonstrates Gabriels growth along the rubric.

Table 5
Rubric Scores at the End of Week 15

Rubric Description	Scores Out of 4
Written Language	3
Message Quality	3
Directionality	3
Spelling/Vocabulary	3
Total Score	12

Weeks 16-20

Over the last four weeks of Gabriel's program, I concentrated on increasing his independence, more descriptive sentences and word knowledge. During the eighteenth week, Gabriel wanted to write another book titled *The dog that didn't have a home* (Appendix E). In this book, he was able to contribute all known words with ease; there was no prompting in the areas of spacing, return sweep and punctuation. Each day he wrote on an average of twenty-two words per story or three sentences in length, and out of those twenty-two words he wrote between fifteen and seventeen words on his own. Therefore, at the end of his twenty-week program, Gabriel discontinued and was independent in his writing and reading. When I looked at the rubric again on the last day he scored a perfect score of 16.

Gabriel was able to demonstrate the ability to write three plus detailed sentences, write using all known letters and words, form all letters with ease, and demonstrated that he could hear and record all beginning, middle and end consonants. Gabriel could use a variety of word ending, chunks, clusters, and he could write a number of high frequency words. Gabriel demonstrated these with out teacher prompting. This is the final scoring based on the rubric and my observations.

Table 6
Rubric Scores at the End of Week 20

Rubric Description	Scores
	Out of 4
Written Language	4
Message Quality	4
Directionality	4
Spelling/Vocabulary	4
Total Score	16

CHAPTER V

Conclusions and Implications

Purpose

The purpose of this single-subject experimental study was to observe the changes over time in writing for one Reading Recovery student.

In conclusion, Gabriel's writing has improved a great deal in all areas. At the beginning of his program, Gabriel was very dependent on the teacher for many things throughout his writing. He was writing repetitive sentences, requiring teacher prompts for spacing, punctuation and return sweep, writing very few known words or letters in a sentence, and demonstrating an understanding of sound boxes. However, he was able to only hear a few sounds.

At the end of his program however, Gabriel was writing independently. He wrote on average twenty-two words per story or three descriptive sentences. He needed no teacher prompting for spacing, punctuation, and return sweep, Gabriel was able to contribute fifteen to seventeen known words in his stories, and he was able to demonstrate an

understanding for letter boxes because he knew spelling patterns and the ending in words.

I felt a number of things contributed to Gabriel's success in Reading Recovery. These included the research I found that stated how important conversations are between a teacher and student; that the sentences or stories that child writes has to be genuine; the importance of reciprocity between reading and writing, and all the knowledge I knew of Reading Recovery. I felt that my new knowledge for writing and the great deal of time spent looking at the child's writing and behaviors along with the rubric improved my teaching. I felt that I was able to individualize more with what the child needed the most work on and taught hard for those on the off weeks.

Implications for the Classroom

I have learned a great deal from this study. The most important item was to individualize with what that child needed most and teach for that. After doing this study on one of my first round students, I had a new perspective on teaching reading and writing. For my second round children, I began right away with teaching for the importance of reciprocity between reading and writing and individualizing each one of their lessons to accommodate what they needed most. We also have genuine

conversations about their experiences to draw stories from. I also looked at what behaviors they are or aren't showing me and stemming my lessons from that. I feel that I have grown as a teacher in Reading Recovery.

Implications for Future Research

Some suggestions for future research might include doing this experiment with three to four students. If I were to do another study I would want to see if this had any effect on all four of my Reading Recovery students. I would pick one semester and see if this individualizing in the area of writing would have any effect on them. If you are not a Reading Recovery teacher, I would suggest picking two to three students who you feel need the most work on their writing, and using this research data and rubric to teach for what it is each child needs most. I have never had a deeper understanding for writing or had a child more invested in his writing than I have doing this project. It truly was eye opening to see the transformation in his writing and to see my perspective on teaching writing change.

References

- Caulkins, L. (1986). The art of teaching writing. Portsmouth, NH: Heinemann.
- Caulkins, L. (2001). The art of teaching reading. New York City, NY: Addison-Wesley Education.
- Clay, M. (1985). The early detection of reading difficulties (3rd ed.). Portsmouth, NH: Heinemann.
- Clay, M. (1991). Becoming literate: The construction of inner control. Portsmouth, NH: Heinemann.
- Clay, M. (1993a). An observation survey of early literacy achievement. Portsmouth, NH: Heinemann.
- Clay, M. (1993b). Reading recovery: A guidebook for teachers in training. Portsmouth, NH: Heinemann.
- Clay, M. (1998). By different paths to common outcomes. York, ME: Stenhouse,
- Clay, M. (2001). Change over time in children's literacy development. Portsmouth, NH: Heinemann.
- Clay, M., & Cazden, C. (1990). A Vygotskian interpretation of reading recovery. In L. Moll, Ed., Vygotsky and Education: Instructional Implication and Application of Sociohistorical Psychology. New York: Cambridge University Press.
- DeFord, D. (1980). Young Children and their Writing. Theory into Practice, The Ohio State University, Vol. XIX, No. 3, 157-162.
- Fullerton, S. & DeFord, D. (2000). Teaching for reciprocity: Developing a self-extending system through reading and writing. The Running Record, pp. 1-8.

- Fountas, I & Pinnell G. (1996). Guided reading: Good first teaching for all children. Portsmouth, NH: Heinemann.
- Gliner, J., Morgan, G., & Harmon, R. (2000). Single-subject designs. Journal of the American Academy of Child and Adolescent Psychiatry, 3, 1327.
- Kelly, P., Klein, A. & Pinnell, G. (1996). Learning through conversation. The Running Record, pp. 1-3.
- Lyons, C. (1993). Interpreting teacher/student interactions in reading recovery from a Vygotskian perspective. The Running Record, pp. 42-46.
- Lyons, C., Pinnell, G., & DeFord, D. (1993). Partners in learning, teachers and children in reading recovery. New York, NY: Teachers College Press.
- McDermott, R.P. (1997). Social relations as contexts for learning in school. Harvard Educational Review, 47, 198-213.
- Neuman, S. & McCormick, S. (1995). Single-subject experimental research: Applications for literacy. Newark, DE: International Reading Association.
- Pinnell, G. & Fountas, I. (1997). Help America Read: A handbook for volunteers. Portsmouth, NH: Heinemann.
- Rogoff, B. (1990). Apprenticeship in thinking: Cognitive development in social context. New York: Oxford University Press.
- Russo, K. (1990). Saving James. (case study of struggling first grader's success in improving reading skills under reading intervention program). Instructor, pp. 1-4.
- Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

Wharton-Mcdonald, R., Pressley, M., & Mistretta, J. (1998). Literacy instruction in nine first-grade classrooms: teacher characteristics and student achievement. The Elementary School Journal, 99, 101.

Wood, D. (1998). How children think and learn: The social contexts of cognitive development. Cambridge, MA: Basil Blackwood.

Wollman-Bonilla, J. (2001). Can first-grade writers demonstrate audience awareness? Reading Research Quarterly, 36. 184.

Directional Principles

Spelling/
Vocabulary

	1	2	3	4
Directional Principles	<ul style="list-style-type: none"> • Forms some letters correctly. • No evidence of spacing. • Some evidence of left to right. 	<ul style="list-style-type: none"> • Forms many letters with ease. • Teacher prompting for spaces. • Teacher reminding for left to right. • Teacher prompts for return sweep. 	<ul style="list-style-type: none"> • Forms most letters with ease. • Some teacher prompting for spacing. • Child begins to take spacing on. • Little teacher prompting for left to right. • Some teacher prompting for return to sweep. 	<ul style="list-style-type: none"> • Forms all letters with ease. • No teacher prompting for spaces, return sweep or left to right.
Spelling/ Vocabulary	<ul style="list-style-type: none"> • Can hear sounds letters make but cannot write them. • Can write initial letter. • Can write name and some high frequency words. 	<ul style="list-style-type: none"> • Can record some dominant consonant sounds (sound boxes). • Can write many high frequency words. 	<ul style="list-style-type: none"> • Can record most beginning and ending consonants (transition boxes). • Experiments with final-e, endings such as -s, -ed, -ing. • Vowels as place holders. • Can write most high frequency words. 	<ul style="list-style-type: none"> • Can record all beginning, middle and end consonants. (letter boxes) • Uses a variety of word endings. • Starts using chunks and clusters. • Uses all vowels correctly. • Can write all high frequency words.

39

I Like Jeffs black
car that was
Fire coming out
of the back.

5-10
10-15-02
Appendix B1

40

¹I ⁷like ³to ride my
in back card in my
time

5-11
 10-16-02
 Appendix B2

I Like Thanksgiving

because you get to

HAVE turkey and
Potatoes with gravy.

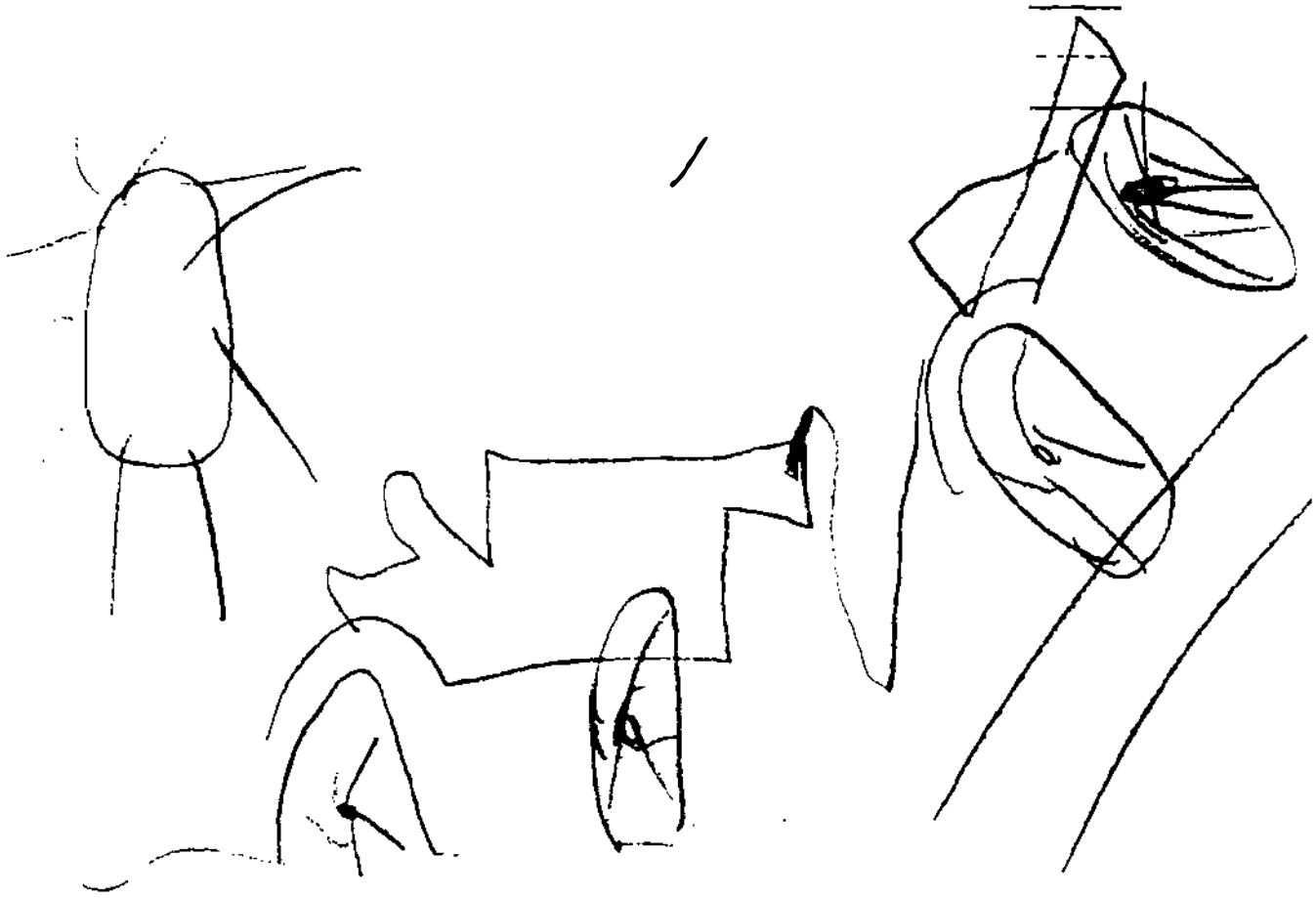
10-28

11-22-02

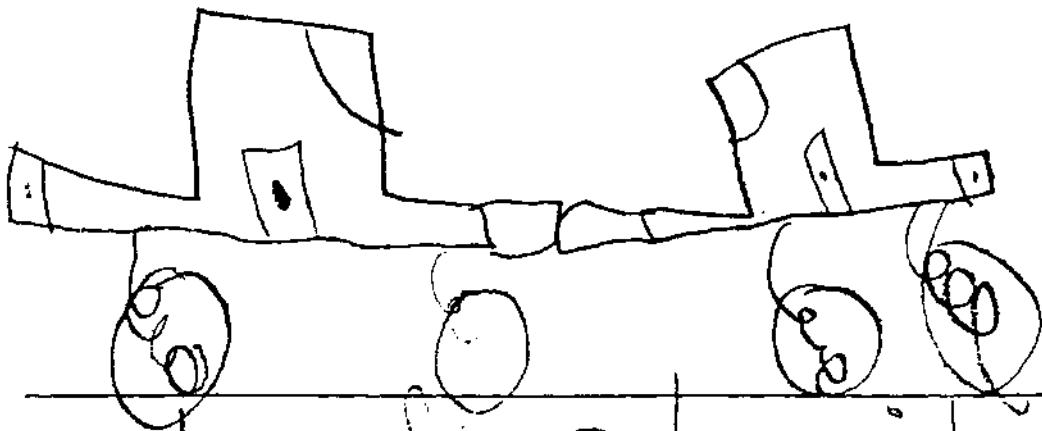
Appendix C1

Cars that
got fixed
up.

by. Gabriel
Appendix D1



One car got
stuck in the
mud and the
mechanic came

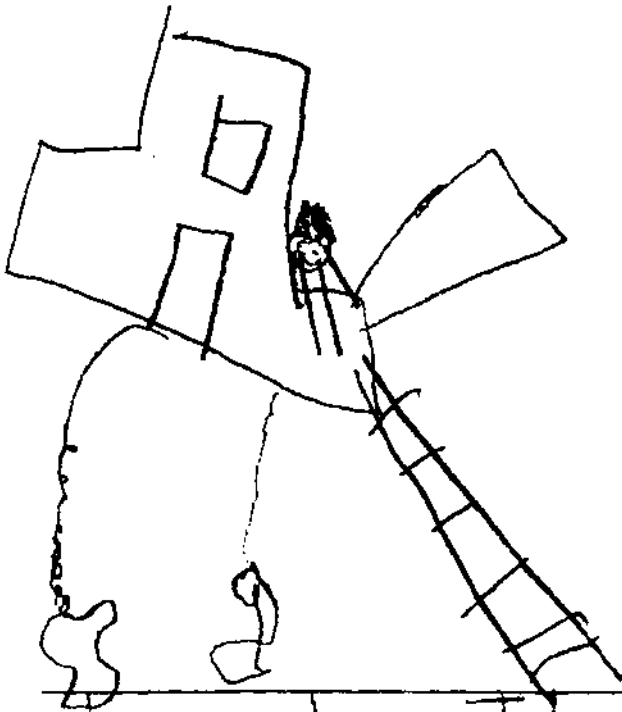


and fixed it.

Then a monster

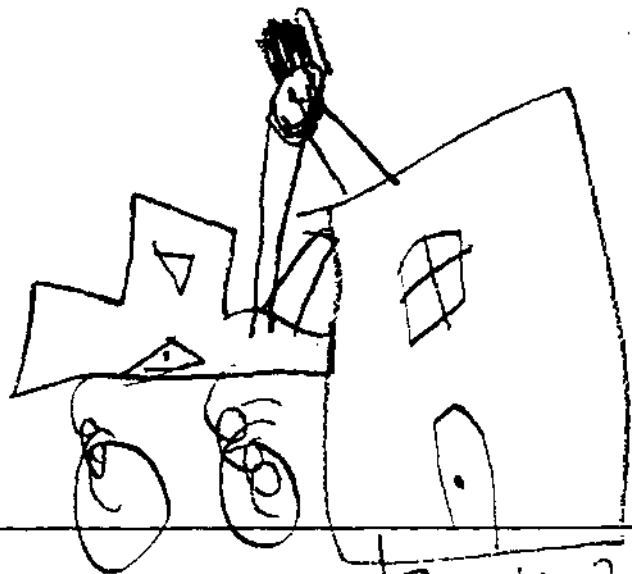
truck got crushed

by another monster



Tracks! The mechanic
came and fixed
it up.

A charger ran



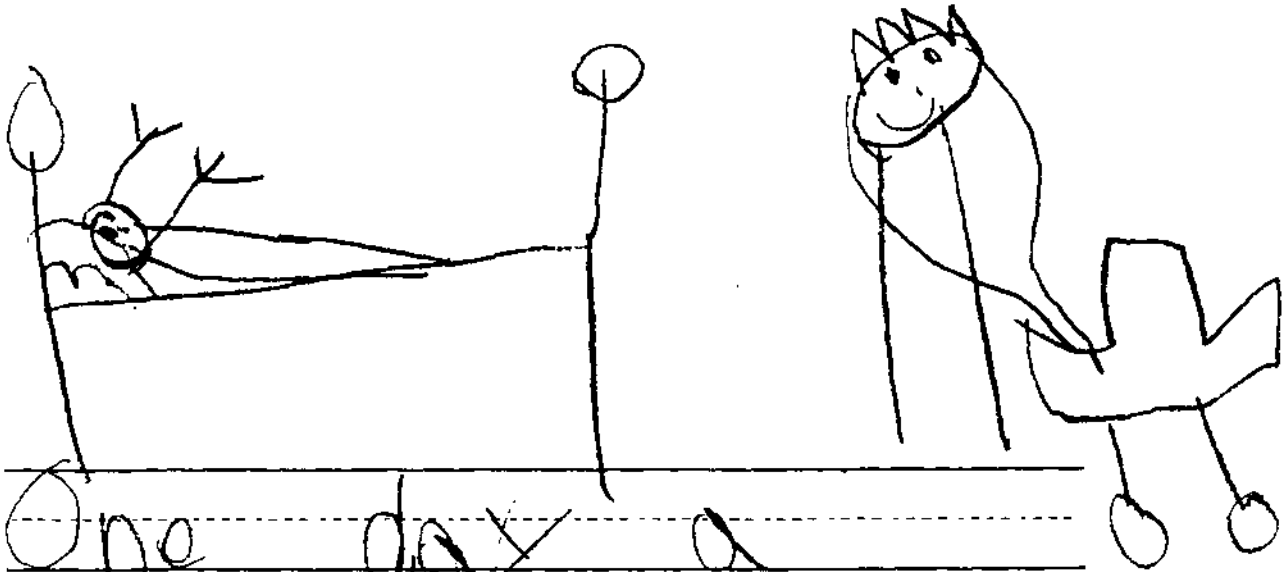
in to a house

and the mechanic

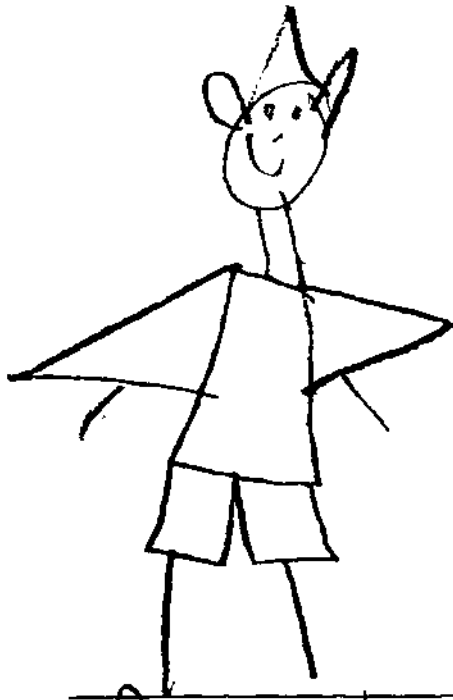
came and fixed

it up.

1-

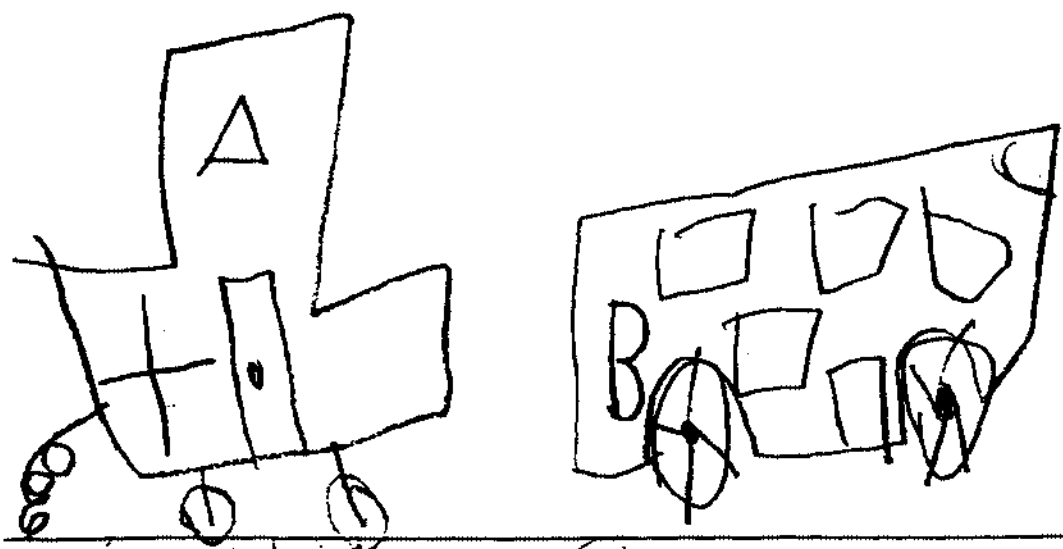


One day a
mechanic was Sick
and another
mechanic came and

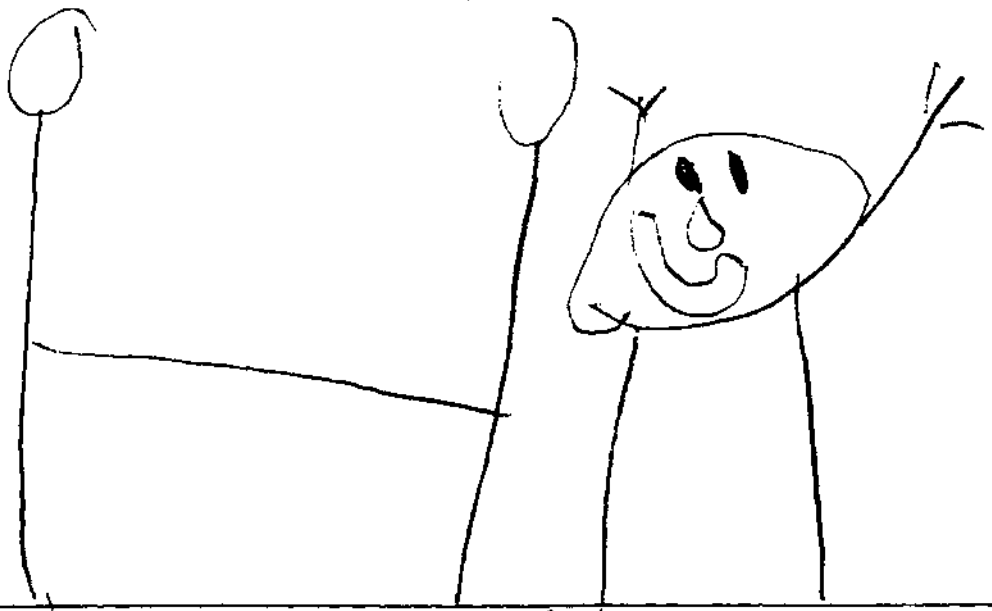


M T W T R F

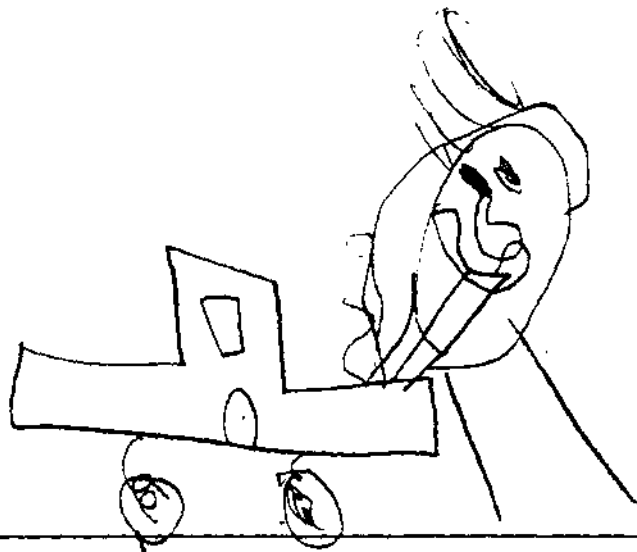
fixed all the
other cars up.
On Tuesday a
mechanic's track



wouldn't start
So he had to
ride the bus to
work that day.



Then the
mechanic that was
sick got better.
He fixed the



truck up.

the end

The dog
that didn't
have a home
by Gabriel
Appendix E

One day no one
liked the dog.
So he had to
find a home.

The Dog went to
his friend's
house and asked
if he can stay

with him.

But he said "no

you can't."

The next day
he went to his
father's friend's
house and he

asked him if
he can live with
him but he said
"no, you can't."

Then he went to
a human's house
then he stayed
in front of it

and a human
came out and said
"Would you like to
live with me."

The dog was happy
because the
human said that
he can live with

him. The end