Reflective Practitioners in the 21st Century: A Framework for Ongoing Teacher Professional Development

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Abstract

As a Reading Recovery Teacher Leader, it was possible to study a group of teachers learning to teach Reading Recovery. It was observed that not only did the teachers eyes open to the possibilities of student learning, but also to their own learning. With this in mind, the focus of this study is to follow a group of three teachers who are transforming their learning during the 2008-2009 academic year. Parallel to their learning, a new theory of offering professional development will be explored, that could be employed beyond the confines of Reading Recovery.

The methodology employed facilitates the generation of a new theory surrounding professional development. The alternative theory of professional development is offered as an attempt to imitate the success of teachers learning through Reading Recovery professional development.

Chapter One

The Tides of Change in Education

If we, as planners of teacher professional development, are looking to make change in teachers' educational practices, we must first look to ourselves and how we understand the process of change in the field of education. We must also remain true to ourselves in realizing what is possible and what is not possible in offering continued professional development. Within any educational system, change must be reframed (Reeves, 2009) from a personal attack, to a new meaningful opportunity, with space and time for teachers to gain trust in the process and in the facilitator. Trust, when discussing change at the grassroots level is difficult. Fundamentally, the change needed is concerned with altering the tides of teachers viewing themselves as technicians rather than reflective professionals (Adams & Tulasiewiz, 1995). Reflective practitioners are described as effective teachers whose understandings come through the consistent practice of reflective thinking. There has been a big push to re-professionalize teaching more in line with the needs of 21st Century society (Furlong, 1996). Wagner (2010) classifies these needs as a curriculum of processes. Research indicates that a curriculum of processes may be referred to as habits of mind (Costa and Kallick, 2009). The sixteen habits of mind listed in Costa's and Kallick's work promotes a practice of engaging with complex problems, dilemmas, and conflicts whose resolutions are not immediately apparent in school, in the workplace, and in life. If there is a belief (Schmitt, Askew, Fountas, Lyons & Pinnell, 2005) that any improvement in student achievement requires improvements in teacher performance, then it is time to act within that professional culture. This is needed to bring about change to present perceptions regarding on-going teacher professional development.

Historically, teachers were seen to base their practice on a body of technical or specialized knowledge that was beyond the reach of the layperson. Better education systems and information technology opened up a field of infinite possibilities for learning in the 21st

Century (Furlong et al, 1996). This has ultimately forced a change in how we view education in the 21st Century. Informed and skilled teachers are essential and will not be available without high quality, intensive and continuous professional development (Schmitt et al, 2005). Teachers now need to develop a body of knowledge-based skills that include the arts and technology and to possess literacy and numeracy knowledge. Included in that mix they must have health, fitness and qualities of endurance that promote mental, as well as physical health. Since the Second World War, teacher education has been under constant scrutiny (Wideen & Grimmet al. (Eds.), 1995). Teachers are required to undergo longer periods of education, significant parts of which need to go on within an educational setting.

Change in teaching practice must be reframed (Reeves, 2009) from a personal attack on teachers to a new, meaningful opportunity, with space and time for teachers and educational partners to gain trust in the process. Fullan (1993) postulates that teachers should be the roots of any change initiative. This should bring planners of professional development to ask themselves how to plan a learning activity that would be successful in changing teacher attitudes, knowledge, and ultimately their practice alignment so it is more in tune with today's needs. If professional development is the key to student success (Schmitt et al., 2005), then attention to teacher learning is obligatory in today's climate of change. Over the last years, working with teachers sparked an interest to better understand how successful professional development was planned and carried out to make a positive change in teachers' learning and practice. As a Reading Recovery Teacher Leader it was possible to study groups of teachers, year after year, in the process of learning to become Reading Recovery teachers. It was observed that not only did the teachers eyes open to the possibilities of student learning, but also to their own learning. With this in mind, the focus of this study is to follow a group of teachers learning to teach Reading Recovery and be part of the transformation of their learning. Reading Recovery is an early intervention that targets Grade 1 students who have been identified as experiencing reading and writing difficulties (Clay,

2002). The professional development is offered to teachers during an academic year of

continuous and sustained study. Pinnell (1991) advocates that this interactive staff

development model is an example of applied learning to both children and teachers. It is

based on the learner constructing their own knowledge (Askew, 2009), through the use of

their own language, where experiences are presented for refinement and extension by others

(Pinnell, 1991). Herman and Stringfield (1997) touted the Reading Recovery professional

development as an exemplar for effective teacher professional development. Through a

process of planned, sustained professional development (Clay, 2005), Reading Recovery

professionals were observed to take on learning and incorporate that learning in their practice.

Along with this change, it was continuously observed that some teachers demonstrated

leadership at their schools or within the system after this period of professional development.

Observing that change in teacher behavior, as the Reading Recovery Teacher Leader, was the

impetus that led to an interest in describing how and what teachers learned over that year. To

fully understand that process, the teachers learning during the Reading Recovery professional

development would have to be studied. This meant that teachers would have to be followed

while involved in the specific process of learning to teach Reading Recovery (Clay, 2005). It

was hoped that the journey of following the teachers would help to solidify the abstract

concept of learning, into a concrete process of professional development that could be

employed beyond the confines of Reading Recovery. This proposed model of professional

development would hopefully facilitate the beginning of a journey for teachers becoming

reflective practitioners in their own field of study. Reading Recovery learning is very well

planned (Pinnell, 1991) through a three-tiered process, but the professional development was

meant for the Reading Recovery intervention. This researcher had no notion of improving or

changing the process of Reading Recovery professional development. It was decided early

on that:

1. Learning by teachers within the process of professional development would be the focus.

2. The process of offering Reading Recovery professional development at the district level would not be altered. Teachers were studying to become Reading Recovery teachers and it was important to protect their interests as well as the systems interest in offering Reading Recovery as an early intervention. Reading Recovery is protected by its trademark, and if altered it would not be considered Reading Recovery. Therefore, any extra work would be accomplished outside the confines of Reading Recovery.

3. For this study, the analysis of data obtained from teachers would be collated, analyzed and explained in two ways. The first set of data collected is the materials used as part of Reading Recovery professional development and they would remain the same. The second set of information is the additions added to broaden the data set and have information beyond the reach of Reading Recovery. This information was not considered part of Reading Recovery professional development, but was in addition to the required Reading Recovery materials. Personally, this was a time of great speculation about offering quality professional development to teachers. On two fronts, it was also a time of great excitement epistemologically. It would inform practice while also hopefully adding to a bank of knowledge reached by a larger audience. The starting point for this investigation would have to be tri-fold. The necessity existed to thoroughly explore and lay bare the learning taking place during the Reading Recovery professional development. This would involve observing and reporting on the learning process in action in a Canadian setting. Secondly, developing an opinion based on the varied theoretical underpinnings would be necessary. This would aid in describing the change or transformation in teacher learning. In the end, it would be important to formulate a new theory to use the

knowledge gained in a Reading Recovery milieu in a constructive manner beyond the

confines of Reading Recovery.

Summarized, the planning for this project would consist of following teachers as they

learned to teach Reading Recovery. The information gathered would be used to investigate

the learning taking place during a process of professional development. The hope is that it

will show how the changes in teacher attitudes and knowledge augmented or transformed

over the year. If any conclusions may be drawn, they would be used to further the knowledge

on how to plan and present quality professional development in other areas of professional

needs as determined by practice.

Teachers are working in complex and unpredictable situations and must make minute-

by-minute judgments, which are in the best interests of their students (Feiman-Nemser,

2009). Today's teachers must be encouraged to be highly skilled individuals who develop a

body of knowledge, foster autonomy, and take responsibility for teaching students in

everyday situations. The teaching profession has become or is fast becoming a profession

that demands highly motivated, skilled individuals who are ready to meet the demands of

present day society (Zhao, 2009). They have great personal and professional responsibility to

share in the education of a generation of individuals ready to meet new challenges.

Education as a professional body has been coming under constant criticism because of the

needs of present day society for a relevant knowledge base (Darling-Hammond & Mac

Laughlin, 1995). The profession is constantly criticized because the nature of professional

knowledge is under constant debate and change. Autonomy in the field is questioned as

nothing more than protection of interests and avoiding accountability. The discussion about

responsibility in education is seen as nothing more than maintaining the status quo for the

convenience of the professional (Furlong, Barton, Miles, et al. 2000). This is harsh criticism,

in a field of study that is constantly debating the value and necessity of knowledge, which

may be considered vital to the evolution of an educated population ready to take on the

world.

Some see the education field as not responding to the demands and needs of the

students within present day society (Zhao, 2009). This is where we, as agents of change in

the field, can attempt to understand the process and the work that is needed to make the

change happen. There is a necessity for teachers to remain current with their understandings.

This can be a difficult journey because of the constantly changing debate over what

knowledge is needed and valued to make this change. This study represents an investigation

into how to plan, execute and evaluate professional development for teacher learning.

Initially, if there is a determination of teacher learning, it is important to understand how a

phenomenon such as professional development fosters that learning. No miracle or perfect

solution is sought. A shift in beliefs and a better personal understanding about the planning

of professional development for teachers is determined to be necessary for this investigator.

Professional development, at its foundation, must empower teachers to view learning as

positive and necessary for the continuation of an effective teaching profession (Continued

Professional Development (CPD),2009, April 17). The goal of continued learning is to

empower teachers to become lifelong learners (Office of Lifelong Learning (OLL), 2009)

while not being overwhelmed by the stress of constant change. Teachers must be valued and

helped to remain current in practice so that they still embrace a career as a teacher.

Over 10 years ago an opportunity presented itself to study Reading Recovery

(Reading Recovery Council of North America (RRCNA, 2009, May 18) theory and practice.

This year of study solidified the notion that professional development must be ongoing,

supported and valued as an important part of an educational system. The learning was

constantly applied and revised within one's own teaching practice. Critical reflection was an

integral part of the professional development and it was fostered through written assignments,

after lesson discussions, after teacher visits, and constant debate about how to improve one's

own practice. An important part of the professional development was the time that was set-aside for teachers to discuss teaching and practice. Since then, this investigator's employment has been to facilitate teacher professional development through Reading Recovery, so that teachers break a cycle of literacy failure for children who are beginning their educational journey. Over time, Reading Recovery professionals seemed to change their view of what it meant to be literate and how to teach children to read and write. Also, it was interesting to observe that change happening over the first year of study. Simply stated, the research interest of this study involves studying the learning during Reading Recovery professional development to:

1. Investigate the learning process in action and the impact on teachers' practice. How do teachers learn?

2. To develop an opinion through analysis of theoretical underpinnings that describes the changes in learning over time. Is there a transformative process in learning? This interpretation would be based solely on observations, events and conversations and linked to present educational theories.

3. To create a generic professional development model that is based on the evolving theory throughout the research process that could be migrated to teaching beyond Reading Recovery. Is it possible to create a generic framework for professional development from the lessons learned? In the end, this researcher will have learned more about teacher learning through planning and presenting professional development to adults.

With the goals of this study in mind, the second chapter will be a presentation of a methodological framework. This frames the project and will drive forward the validity and reliability of the body of work within the study. The third and fourth chapters will examine teacher learning based on the theoretical foundations of how they learned, and where this knowledge might lead a professional educator in offering quality professional development.

Data will be collected that includes conversations, observations and events that lay bare

teacher's opinions on knowledge gleaned from theory, practice and the self determination of

their educational needs. The qualitative data collected during the 2008-2009 academic year

will be coded using a matrix, triangulated, and compiled while the data that is quantified will

be organized and reported according to simple statistical procedures. The fifth chapter

includes the summary, discussion and conclusions. The discussion and conclusion will

revolve around the planning of future professional development from the analysis of the

research. The planning of future professional development will rest on the changing attitudes

of teachers about learning, and change in actual practice of teaching children over the period

of their year in professional development.

In times of changing societal values, attitudes and employment opportunities, it is

time to examine our own beliefs and practices toward educational norms. Our beliefs are

based on our background knowledge, so it is also important to examine and then study

current theory and practices to update our own constructs of learning in the 21st Century.

Fullan (1993) argues that teachers should be the roots for all change within a system. As a

teacher who works with other teachers, it is important and appropriate that this educator

investigate how a change in personal knowledge and practice might ultimately better meet the

needs of teachers in the 21st Century. Knowles, Holton and Swanson (1998) eloquently

stated that to understand how others learn, we must first understand how we learn.

Subsequently, as a teacher of children and adults, adding the title of researcher could

potentially complicate the dynamics of the group to be studied. These include ethical and

reliability concerns throughout the process. Planning a solid foundation for this study is of

paramount importance to help counter these claims and will help quash any limitations of this

study. One might argue that it will be difficult to fairly report on the evidence because of the

differing roles of the examiner. It could result in bias and an appearance of lack of rigor in

the analysis and reporting of findings. Therefore, the second chapter is the theoretical

foundation that grounds the research in acceptable methodology and it will attest to the

reliability of this research. Aptly, this chapter is titled "*Plotting the Course*".

Chapter Two

Plotting the Course

Reading Recovery: Teaching Children to Read and Write

The goal of Reading Recovery is to dramatically reduce the number of first-grade students who have extreme difficulty learning to read and write and to reduce the cost of these learners to educational systems (Clay, 1990). Reading Recovery is a short-term intervention of one-to-one tutoring for low-achieving first graders. Reading Recovery serves the lowest-achieving first graders which are classified as the students who are not catching on to the complex set of concepts that make reading and writing possible. As mandated by the Canadian Institute of Reading Recovery (2006) the group of three (3) teachers participating in this study first selected a carry-over student, if there was a need. This means that the student did not complete their series of lessons the previous year and they will finish their series of lessons during the current year. Second, the teachers chose a student if they had transferred from another school and they have not finished their series of lessons. Third, the teacher administered *An Observations Survey of Early Literacy Achievement* (Clay, 2006) to any six year old student not considered to be making good progress or is new to the school. This survey of behaviour includes:

- An identification of the letters of the alphabet task,

- A concept about print task,

- A word reading task,

- A writing vocabulary task, and

- A hearing and recording sounds task.

As part of the Observation Survey a running record is administered that helps to detail the reading behaviours exhibited by the student. Individual students receive a half-hour lesson each school day for 12 to 20 weeks with a specially trained or training Reading Recovery

teacher. Daily 30-minute Reading Recovery lessons are individually designed and individually delivered by specially trained teachers. Using a wide range of procedures, teachers make moment-by-moment decisions within each lesson to support the individual child. In Reading Recovery, careful observation of reading and writing behaviors guides teaching decisions. As teachers gather data, they align their teaching with what a child actually does. Reading Recovery teachers are trained to use Clay's *An Observation Survey of Early Literacy Achievement* (Clay, 2006) to assess each child's strengths and confusions. The first 10 sessions of lessons provide further opportunities for assessment as the child engages in reading and writing. These 10 sessions are known as an opportunity to roam around what is known by the student. A record or log of observations is kept and lessons are planned accordingly.

After the 10 roaming around the known lessons are complete, Reading Recovery lessons begin. The teacher takes a running record of the child's progress on text reading every day and uses the data to plan future reading lessons. Writing is also a component of the lesson. The lesson record document is of utmost importance to the teacher. This record informs the teacher of the minor or major changes to the child's behaviour towards literacy. This record includes:

- Notes on familiar reading. The student has seen this text before and it should be an easily read text.

- Notes of the reading behaviors from the running record.

- Notes on the strategic activity on text used by the student. It should also be noted if it is prompted or observed.

- Notes on any letter work done by the student.

- Notes on writing that include the message composed and how the child constructed words and learned new words.

- Notes on the use of space, concepts, sequence and phrasing in reading and writing.

Each lesson consists of reading familiar books, reading yesterday's new book and taking a running record, working with letters and/or words using magnetic letters, writing a story, assembling a cut-up story, and reading a new book (Clay,2005). The teacher creates opportunities for the child to problem solve and provides just enough support to help the child develop strategic behaviors to use on texts in both reading and writing.

A series of Reading Recovery lessons has two positive outcomes:

1. The child meets grade-level expectations and can make progress with classroom instruction, no longer needing extra help. Once it is observed and noted that the child has made significant progress, the student is again administered *An Observation Survey of Early Literacy Behaviors* (Clay 2006) by an unbiased teacher. This helps to guarantee the validity of the results. The student will discontinue their series of lessons.

2. The child makes significant progress but does not reach grade-level expectations. Additional evaluation is recommended and further action is initiated to help the child continue making progress (Clay, 2005).

Professional Development

Professional development is an essential part of Reading Recovery, utilizing a three-tiered approach that includes teachers, teacher leaders, and university trainers. Professional development for all Reading Recovery professionals begins with an academic year of graduate-level study and continues in subsequent years. At the District level, with the support of the teacher leader, Reading Recovery teachers develop observational skills and a repertoire of intervention procedures tailored to meet the individual needs of at-risk students. The comprehensive staff development model ensures the quality of teaching and implementation in schools and systems. Integral to Reading Recovery professional development is the use of a one-way glass, with class members observing lessons and talking about a child's behaviors and a teacher's teaching decisions. At two week intervals the

teachers within this study took part in this staff development. This teacher lesson format consists of three sections:

1. The Introduction – This section lasts approximately 10 minutes and includes a lead into the session by choosing a focus and then moving quickly into the introduction of the children.

2. Teaching – This section lasts approximately 65 minutes and includes an acknowledgement of the teacher's efforts. Two teaching sessions follow, one after another. There are always two teaching sessions, which might include a video lesson if the PD group is small.

3. The Discussion – This section lasts approximately 50 minutes and includes a specific discussion of the lessons with each teacher, a general discussion about reading and writing and concluding with a discussion of implementation issues.

Ongoing professional development is at the heart of Reading Recovery's success. This continued learning keeps professionals up-to-date on recent changes in Reading Recovery and ensures that professionals at all levels deepen their knowledge about implementation and teaching. The Canadian Institute of Reading Recover Standards and Guidelines (CIRR,2006) provide detailed information about professional development at all levels of Reading Recovery. Ongoing professional development, coupled with strict adherence to standards, assures the quality of Reading Recovery.

Reading Recovery Research

Reading Recovery is a widely researched intervention for young children having extreme difficulty with early literacy learning. Reading Recovery has been examined by high-quality experimental and quasi-experimental studies, and by qualitative studies on various aspects. Reading Recovery's strong experimental research received high effectiveness ratings in all four domains from USDE's What Works Clearinghouse (RRCNA, 2009, May18). After 30 years of research, more than 100 references to Reading Recovery

appear in The Education Abstracts Index and Academic Search Premiere Index. Studies described in this section are grouped according to frequently asked questions (RRCNA, 2009, May 18). These questions are:

- Is Reading Recovery effective?

- What is the evidence for children's continued progress after Reading Recovery?

- Does Reading Recovery influence student's self-esteem?

- What do research reviews say about Reading Recovery?

- Is Reading Recovery cost effective?

- Does Reading Recovery meet the criteria for scientifically based reading research?

Background on Reading Recovery Criticism

Reading Recovery is a scientifically based early literacy intervention used in North America since 1984 (RRCNA,2009, May 18). Reading Recovery has drawn criticism from a small but vocal minority who hold differing views about the beginning reading process. Although critics often quote research, advocates can be confident that the vast majority of research evidence supports Reading Recovery. The critic's work has been rebutted by experts in the field of early literacy learning (see Appendix Q) and they are briefly discussed in Chapter 3.

Methodological Framework

To understand the scope of this study, it is important to have a clear rationale of the guiding principles that will move forward the telling of this story. The story to be told, in this case, is the phenomenon of the learning taking place during a period of Reading Recovery professional development. This story is told in the first person narrative as the researcher/Teacher Leader is part of the group and trying to teach, learn and conduct research at the same time. To begin, it is necessary to set the stage with a methodological framework that will help to validate the study by having reliable results. This may only be done if the rationale behind the framework is sound and supports the collection and analysis of the acceptable knowledge in a discipline.

Cochrane (1981), when he wrote about having a clear concept of teaching, stated that not all learning requires teaching. Trying to bring about learning entails much more than telling, and the most important measure of successful teaching is the quality and quantity of student's learning. This study is interested in examining the quality and quantity of learning by a group of teachers in the field of education. The teachers became the students during the academic year of 2008-2009. Examining epistemological considerations, there must be rationale behind what knowledge could be generated by conducting a study with this group of teachers. When looking to the prevalent outlooks on what is considered epistemologically viable to the field of social sciences, one cannot ignore the prevalent schools of thought on what is considered knowledge. Bryman and Teevan (2005) discuss three main thoughts on how to view a study within society that will yield acceptable knowledge in a discipline. Notably, the first position is positivism and that supports the application of natural science methods (Ledoux, 2002). This method seeks to elucidate the rules that govern the natural world by applying an empirical and scientific method to the study of a problem. The term natural science is used to distinguish it from the social sciences, which apply the scientific method to study human behavior and social patterns while in their social reality. Another train of thought is the whole notion of empirical and critical realism. The overall belief of this position is that natural and social sciences can and should use the same approach to the collection of data. In this way, reality may be understood by describing, accounting for and understanding the relationship between objects. The third notion is to interpret actions and the social world from the participants in the studies point of view. The focus is to grasp the social reality and interpret it in terms of concepts, theories and the literature of a discipline. This has been described as interpretive or phenomenology.

If we are to discuss the interpretivism of social reality within social research, then we must also factor in the ontological view within this study. Ontology is described as (Merriam, 2009) a state of being while being involved with social entities where there is a

reality external to themselves. This could result in the temporary build up of social

constructions from the perceptions and actions of others. The objectivism school of thought

implies that a phenomenon confronts the individual and exerts pressure to conform. The

constructionist, on the other hand, states that the participant is an active player in the social

construction of their own reality.

This study will purport that the epistemological phenomenology of grasping social

reality will ground the work. At its underpinning, it will fundamentally be positioned in a

common sense interpretation based on current theoretical postulations of those studied. It

will add to the foundation of knowledge surrounding teacher learning within the field of

education by showing their journey to add to their background knowledge. Specifically

stated, this would be the learning through a process of sustained professional development.

Ontologically, the group will construct its reality by acting upon their truth, and conversely

by being acted upon within their group and educational environment. To be more specific, it

might be concluded that the professional development group can't be taken out of their

overall sociological construct. The teachers are acted upon and they act upon the reality

within a school board as well as within their own professional development group. They also

impact a larger context of students and society by their teaching. Conversely, they are also

being acted upon by their participation within a learning process undertaken through

professional development.

Design of Research

As with any investigation, it is necessary to have a problem to solve. As so often

exists, there is no simple solution to solving an existing problem. When that problem exists

within an established institution such as a school system, there are many proponents of a

quick fix or finding a simple solution to a complex issue. Clay (2005), in her multitude of

publications, often alludes to tying ourselves to a simple theory, when in reality it is

tremendously complex. In this way, this study tries to simplify and lay bare a process that is

stunningly complex. Simply stated, that process is teaching teachers to teach. The language

chosen to describe the problem(s) for this study is an attempt to simplify the description of

the concept to be studied, but not the content to be reported. The overlying problem is

gaining an understanding of:

- A process of teacher learning that leads to better practice, better knowledge about

  theory, and to watch teachers develop a greater understanding of their own

  professional needs.

As with any problem, when a solution is sought, it normally leads to the formation of other

areas of interest. These areas of interest stem from the initial problem and may be considered

a sub-set of the original problem.

- Over a period of time, develop an opinion through analysis of theoretical

  underpinnings to describe the changes in learning.

- As the learning evolves, formulate an opinion regarding the process of professional

  development that facilitated the learning and develop a personal construct to be used

  beyond Reading Recovery.

The specifics of the problem to be studied and the ontological focus will lead to the

constructing of a theory while studying the phenomenon. Bryman and Teevan (2005)

describe this type of study as revolving around a particular focus or case. More specifically,

they describe this type of study as an empirical case study and it is used to investigate a

contemporary phenomenon within a real life context. In this circumstance, an exploratory

case study will be conducted that will be grounded in theory. The deployment of this method

will lead to the expansion of a theory based on the data collected. The analysis of data is then

grounded in present day theory and it will ultimately lead to the generation of a new theory

about the process of learning through participation in professional development.

A single case will be studied. This case study is comprised of three (3) teachers who

are part of a group of five (5) teachers studying to teach Reading Recovery. Two (2) teachers

opted out of the study as they felt that it would add to their workload. They are participating

in the year of initial professional development (Canadian Institute of Reading Recovery

(CIRR), 2006) with a few exemptions. One of the standards (CIRR, 2006) requires that all

teachers teach four children daily, but this was not possible because of the Grade 1 population

at each school. All teachers participating in this study taught two students daily. A written

exemption was requested and granted(CIRR, 2006) because of the nature of the School

Districts geographical configuration and school populations. The rationale (Stake, 2006)

categorizing this study as a single case study design may be described as:

- It leads to a better understanding of certain parts of the phenomenon.

- The particular collection of information determines the case.

- The parts make up the information or share a common character or condition.

- The common characters or conditions are categorically bound together.

- The parts studied will help to tell more about the phenomenon.

This is more correctly described as the Quintain (Stake, 2006), where a target is studied by

examining parts of the phenomenon. On this occasion, the problem will be investigated by

the collection of evidence from the three participants. Then, with the present theory

grounded in the data collected, there is room to postulate a new theory or theories on how and

what they learned through professional development. Figure 2.1. – The Quintain, represents

Stake's (2006)description of the Quintain.

Figure 2.1.   The Quintain
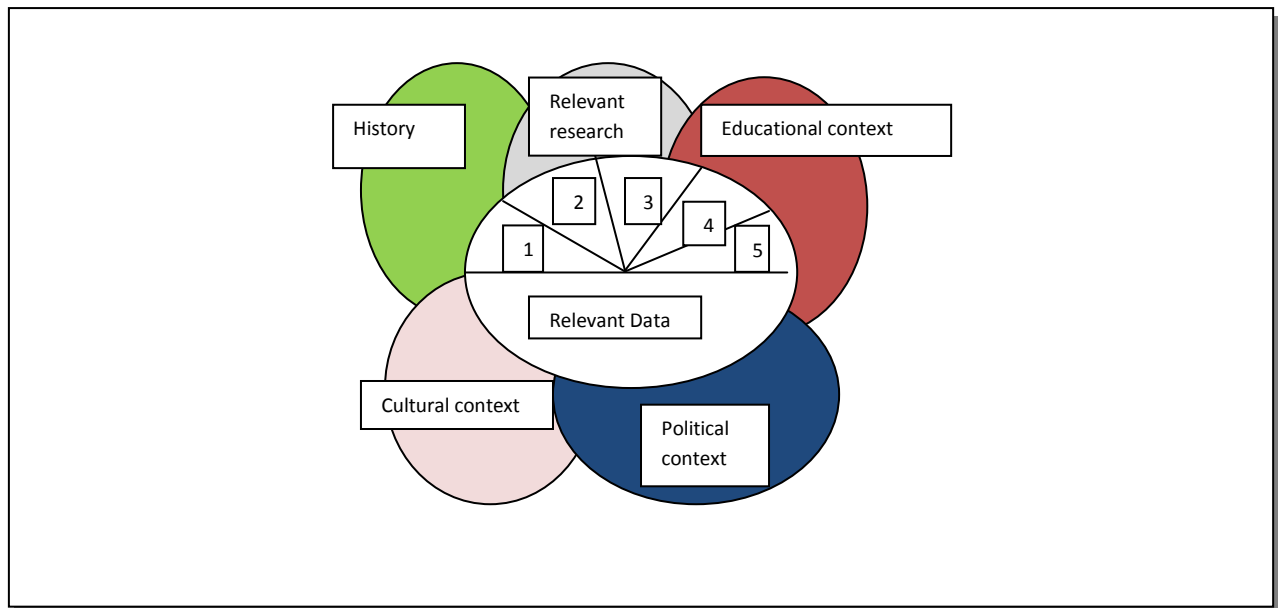
The basic outline of the research is now evident, but there is also a need, when conducting social research (Bryman & Teevan, 2005) and especially case studies (Stake, 1995) to lay out a specific protocol. It is understood that by laying out a protocol, it is a way of increasing the reliability of a case study. Reliability refers to the extent to which research findings can be replicated (Merriam, 2009). Its very specific use is intended to guide the investigator in carrying out the collection of data from the three (3) participants in the Quintain of this single case study.

The Case Study Protocol

Introduction

This is an overview of the whole project. Its intent is to focus the study and give the researcher a clear path to the collection and analysis of data, and then the researcher must be able to draw conclusions based on the findings. As previously stated, the problem is to gain an understanding of:

- A process of teacher learning that leads to better practice, better knowledge about theory, and to watch teachers develop a greater understanding of their own professional needs.

As with any problem, when a solution is sought, it normally leads to the formation of other areas of interest. These areas of interest stem from the initial problem and may be considered a sub-set of the original problem.

- Over a period of time, develop an opinion through analysis of theoretical underpinnings to describe the changes in learning over time.

- As the learning evolves, formulate an opinion regarding the process of professional development that facilitated the learning.

Progressing beyond this point without a theoretical framework to further guide this researcher is pointless. The theoretical framework that follows is based on the works of Stake (1995, 2006), Merriam (2009), Bryman, Teevan (2005), and Yin (2009). They are researchers that focus on social research, and especially on building and reporting on good case study work.

The Research Design

The Study

This study will be a single case study. As described by the Quintain (Stake, 1995) where three (3) participants take part in the Initial Reading Recovery professional development. Once the requirements of the training are fulfilled (CIRR, Standards and Guidelines, 2006), they will be certified as Reading Recovery teachers. The period of professional development is one academic year of planned and sustained learning and is classified as a longitudinal study. The Reading Recovery professional development undertaken will be aptly discussed in Chapter 3. The decision to classify this study as longitudinal, stems from the duration of the professional development and the extent of the time spent in meetings. This study takes place during the 2008-2009 academic year, which makes it a 10 month long study. It is meant to offer an exploration through the collection of data, which will show a change over time in teachers learning, as well as pertinent literature on teacher learning, professional development, practice and knowledge about their

professional self. The exploration is expected to lead to the development of a theory in

regards to offering good professional development beyond Reading Recovery. At this point,

the data to be collected and analyzed will be considered mixed. This study will include both

qualitative and quantitative data that will help develop a new theory on professional

development. The grounded theorists postulate that the analysis of the data is based on the

notion that the ever developing theory will lead and drive forward the investigation. One

might look on it as building a story, using your own and others work, to create a new piece of

work, or an elaborated story. A more elaborated definition of grounded theory will be

forthcoming in the next section of the protocol.

Principles of Data Collection

There are two types of data that will be collected for this study. As the Reading

Recovery initial professional development modus operandi requires following a certain set of

standards and guidelines (CIRR, Standards and Guidelines, 2006) that is where the data

collection must begin. The Reading Recovery Teacher Leader has a responsibility and

obligation to fulfill the mandate set out by the school district and also by the Canadian

Institute of Reading Recovery to deliver a prescribed model of professional development.

This did not change because I was the Teacher Leader and the researcher. The second set of

data is the information that is to be collected above and beyond the confines of offering

Reading Recovery professional development. These two sets of data are listed in Table 2.1. –

Types of Data, along with the tools that will be necessary to collect the data during this

longitudinal exploratory study. A brief rationale is included as to why this data is important

to the study.

Table 2.1.

Types of Data

Reading Recovery Data	Tools	Rationale of Reading Recovery	Additional Data	Tools	Rationale of Additional data

		data			
Conversations – After group teaching sessions, during group sessions, after and during individual sessions,	Digital voice recorder	This was a starting point. Since conversations were a large part of the learning process it was important to document.	Conversations – Interview – post study	Digital recorder	I wanted to gage where the teachers felt they were now in their learning and how the PD had helped them in understanding reading and writing theory in their own practice. We normally did not do this in Reading Recovery.
Events – Videos Teaching Sessions Teaching children	Video camera Session notes Lesson Records Predictions of Progress Observation Survey Summary Multiple Assessment Summary	This data was all supplied by the regular sessions or Reading Recovery PD. It was collected and used as the data for the study.	Events- No new events were planned		As I had to some how collect data, I felt that it was necessary to video tape some of the sessions. Some were not video taped because I was innodated with information and forgot.
Products – Running Records – assessment for learning Reading progress – record of acceleration Writing progress- development of writing skill Teacher notes	Compilation of Running Record information about learning Reading Levels Graph shows change over time Writing Vocabulary	These products were used in Reading Recovery PD.	Products- Initial and Final questionnaire Case Study Learning journal	Questionnaire Collection of case study information Paper or electronic journal access	I felt that I did not know the teachers well enough and that I needed a little more information about their background knowledge about literacy and how that knowledge

Teaching children	Chart shows change over time Lesson records				changed over time. We mostly dealt with children's data and I wanted more information on the teachers.

Timeline of the Study

As this is a study that is taking place over a relatively long period of time, it is imperative that there be a timeline set for the collection of the data. This timeline is divided into the months of an academic school year and a matrix is created to organize and allow for the continuous analysis of revolving theory involved in a grounded theory approach.

Table 2.2.

Data Collection Timeline and Coding Record

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Conversations- After group teaching	████████████████████████████▶									
Conversations- after and during individual sessions	████████████████████████████████▶									
Conversations- Interview										▶
Events- Teacher analysis of own video					████████████████▶					
Products- Running Records	████████████████████████████▶									
Products- Reading progress	██████████████████████████████▶									
Products- Writing		██████████████████████████▶								

progress										
Products-Teacher notes										
Products-Teaching children										
Products -Initial and final questionnaire										
Products-Case Study										
Products -Learning journal										
Innovation Configuration										
Year End Evaluation										
June Self Analysis										
Analysis of Case Study										

Analysis of Data

A mixed method of data collection will be undertaken. A Glaserian outlook (The Grounded Theory Institute (TGTI), 2010, April 16) of viewing all records of learning as data is employed. Qualitative and Quantitative data will be collected and analyzed along the lines of a grounded theory approach. The Grounded Theory approach is where the analysis of data is done almost in a reverse fashion from traditional research. It is a continuous approach, where there is a constant collection and analysis of data. This method is classified as conceptualizing the abstraction of the passing of time (TGTI, 2010, April 16). On this occasion the researcher is tasked with both inductive and deductive thinking to make a sensitive analysis of evidence that is produced by teachers in a learning situation. The collection of qualitative data (Stake, 2006) will be coded, grouped into similar concepts; then categorized. The Grounded Theory Institute (2010, April 16) advocates that this is the basis for the creation of a new theory. They also list stages of evolvement in the process of coding the collected information. Table 2.3. – *Coding of Qualitative Data – A*, is the initial process

of coding that will be used in this study to facilitate the evolvement of a new theory on

facilitating teacher learning. Following the presentation of the matrix for coding, a

discussion will ensue on each step of the process. This will advance the type of analysis for

each piece of data collected.

Table 2.3.

Coding of Qualitative Data- A

Stage	Purpose
Codes- Open coding	Identify anchors-key Points – Investigate a process of learning. Memoing- writing memos
Concepts- Axial coding	Coding similar content – grouped • Practice • Theory • Self Memoing
Coding Descriptors	• Practice- Overall improved practice. • Theory- knowledge about literacy theory. • Self- knowledge about the professional self.

The first part of the coding process will be to tease out some key points that lend

themselves to the process of learning within a time of professional development. The second

part is undertaken to narrow the information into similar groups of concepts. Since we are

concerned with teachers in an educational setting where they are learning as part of a

professional development group, we might establish concepts such as practice, theory and

self. The third part of the process of coding involves using all the previous identified anchors

and concepts to create specific categories. The resulting categorization will form the basis

for a creation of a new theory. In this case we might see categories such as:

1. Overall improved practice – practice.

2. Knowledge about literacy theory – theory.

3. Knowledge about the professional self - self.

In summary, all observations, products and events will be coded using whether it was

classified under practice, theory or self. The information from each observation, product and

event will be summarized. This summary will include each mention of practice or overall

improved practice, theory or knowledge about literacy theory, and self which I classified as

knowledge about the professional self. The information from the sets of data are coded and

included as appendices.

The collection of quantitative data will be derived from two (2) areas of this study.

The first is from the data listed as events situated within the timeframe of this study. It is

expected that this information will be quantifiable. This will allow for a simple statistical

analysis where results may be listed by using the mean and/or a percentage. This will be used

to compare results and it will be reported as frequency tables or bar charts. The second set of

quantitative data is expected to appear during the coding of the qualitative data. It is

expected that during the coding, there will be instances where information is grouped,

counted and reported as percentages. This would again be used as a means of comparison.

In this case in point, every mention of the concept will be counted as part of the total using

practice, theory and self. Again, it will be reported as a frequency table or bar chart.

During the evaluative portion of this study, it is expected that the types of data

presented under the titles of conversations, events and products will be triangulated within the

confines of the selected specific categories (see Table 2.3.) to form the basis of the closing

theoretical contention(s).

Limitations

It is important to note that due to the lack of experience as a researcher, certain

limitations were found to exist with regards to the collection of certain pieces of data. I found

that I had a framework for the detailing and collection of data, but I should have had a

concrete plan in place before beginning the study. This resulted in some issues that led to

limitations within the reporting and collecting of data. The first issue detected was the lack

of a file created on a complete audio recording of group sessions. I was so overwhelmed with

my three roles that I somehow overlooked audio taping some sessions. Only certain parts of

sessions were recorded and in retrospect the whole session should have been recorded. With the recording of the complete session, the development over time of new theory, practice and attitudes about learning could have been expanded.

The second issue revolved around the collection of data on the Reading Recovery lesson records. More time could have been spent on recording teacher learning on this record as opposed to keeping a separate journal. This Reading Recovery lesson record should have been considered their journal of thoughts. It would have facilitated a richer collection of data on what the teachers were thinking and learning daily.

The third issue revolves around the construct validity of certain data collection instruments. The initial and final questionnaires, as well as the post interview, were not tested for construct validity before the collection of data. It is also important to be clear that the Innovation Configuration Map (2005) of poling attitudes on professional development was adjusted to the perceived needs of this study. It was again not put through a test for construct validity.

The fourth issue is that the group will construct its reality by acting upon their truth, and conversely by being acted upon within their group and educational environment. To be more specific, it might be concluded that the professional development group can't be taken out of their overall sociological construct. The teachers are acted upon and they act upon the reality within a school board as well as within their own professional development group and especially by the Teacher Leader. I impacted this group in what I wanted them to learn, especially the add-ons beyond Reading Recovery.

An exemption is sought from the normal Standards and Guidelines from the Canadian Institute of Reading Recovery to form a group of five teachers in the professional development group. The minimum number within the group is at least eight (8). As previously mentioned, three of the group decided to be participants in this study. All data is collected from a small sample of three (3) participants. This is further compounded by

incomplete data sets while reporting on the learning of the teacher participants within this study.

Judging the Research Design

Table 2.4.

Criteria for Judging the quality of the Research Design

Tests	Case study tactic	Phase of research in which tactic occurs
Construct validity – Identify correct operational measures for the concept being studied.	• Use multiple sources of evidence • Establish a chain of evidence • Have key informants revise draft case study report • Limitations • Principles of data collection	• Before data collection • Data collection • Composition
Internal validity – seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conditions.	• Do pattern matching • Do explanation building • Address rival explanations	
External validity – defining the domain to which a study's findings can be generalized. Whether a study's findings can be generalized beyond the immediate case study. The external validity problem has been a major barrier in doing case studies. Analytical generalization, the investigator is striving to generalize a particular set of results to some broader theory.	• Use theory in single case studies • Limitations • Building a personal theory	• Data collection
Reliability – the goal of reliability is to minimize the errors and biases in a study. THE CASE STUDY PROTOCOL	• Use case study protocol • Develop case study database • Follow principles of data collection • Recognize criticism of Reading Recovery	• Data collection

	• Recognize limitations of data collection	

Ethical Considerations

Throughout the creation of the research design, there was a constant effort to refer to the British Educational Research Association's (BERA) Ethics and Educational (2004) regulations regarding the participation of individuals within any research project. The following considerations were reviewed, and where written permission from participants was needed, it was obtained, and stored in a secure area for future reference.

The ethical considerations for this project are listed as:

- Reading and discussing with a supervisor the British Educational Research Association's Revised Ethical Guidelines for Educational Research (BERA, 2004).

- Reading and discussing with a supervisor the Research Code of Conduct of the University of Nottingham (2009, June 28).

- Awareness of and discussion with a supervisor the relevant sections of the Data Protection Act (1998).

- Data gathering activities involving schools will be carried out only with the agreement of the head of the school.

- The purpose and procedures of the research, and the potential benefits and cost of participating will be fully explained to the research participants at the onset.

- The researchers' full identity and role within the educational system is revealed to participants.

- Participants were informed that data collected will be treated in the strictest confidence and will only be reported in anonymous form within the boundaries of the research objective.

- All participants were asked to give explicit, written consent to participate in the research, and where consent is given, both researcher and participant will have a copy of the consent.

- Undue pressure will not placed on individuals or institutions to participate in research activities.

- The treatment of research participants will not in any way prejudice their involvement, in the Reading Recovery professional development, if they choose not to participate.

- All participants are provided with contact details (and those of a supervisor), in order that they make contact to any aspect of the research, should they wish to do so.

- Participants are made aware that they could freely withdraw from the project at any time without risk or prejudice.

- Research will be carried out with regard for mutually convenient times and negotiated in a way that seeks to minimize disruption to schedules and burdens on participants.

- At all times during the conduct of the research, the researcher will deem to behave in a professional manner and will take steps to ensure that neither the researcher nor the research participants were placed at any risk.

- The dignity and interests of the research participants will be respected at all times.

- The views of the participants will be greatly respected and sought in the creation of this project.

- Special efforts will be made to be sensitive to differences relating to age, culture disability, race, sex, religion and sexual orientation amongst research participants, when planning, conducting and reporting on the research.

- Data generated by the researcher will be kept in a safe and secure location and will be used purely for the purposes of the research project.

- Research participants will be given access to any data kept on them.

- All necessary steps are taken to protect the privacy and to ensure the anonymity and non-traceability of participants.

- As an administrator within a school board, an Advanced Criminal Records disclosure form has been completed, which is included in a permanent employment file.

In following these ethical standards put forth by BERA (2004), the participants may feel confident that the ethical integrity of this project is grounded in epistemological and ontological principles that will guide in the formation of a new theory built around learning and professional development.

Ascertaining the Strengths and Weakness of this Case Study Design

The written works of some key people (Yin, 2009, Merriam, 2009, Bryman & Teevan, 2005, Stake, 1995 & 2006,) in the field of conducting case studies advocate that there are key strengths to committing to and carrying out research in the field. The case study protocol is laid out to draw on these noted strengths of a case study method of conducting research. They advocate that:

- A case study is analogous to a single experiment, and many of the same conditions that justify a single experiment also justify this research. Its classification also includes it as an empirical inquiry that follows a systematic procedure.

- A case study is not limited in scope and sequence. It may represent a simple or extreme case in the field.

- A case study is meant to represent a typical occurrence and to capture the circumstances and conditions of everyday or commonplace situations, but it is also a form of inquiry that does not depend solely on ethnographic or participant-observer data.

- A case study investigator has the opportunity to observe and analyze phenomenon in a social setting, and may be valued as an adjunct to an experimental procedure rather than as an alternative to them.

- A case study allows for studying the same group over a period of time; this can help track anticipated stages at which the changes might occur. With a mixed method of data analysis, more complicated research questions may be addressed by the collection of richer and stronger array of evidence.

- A case study opens up a research design that deserves consideration where ontologically the constructionist point (Bryman, & Teevan, 2005) to the fact that the active role of an individual in the social construction of a social reality does exit and offers epistemological value to the field of education. These same key people (Yin, 2009, Stake, 1995 & 2006, Merriam, 2009, Bryman & Teevan, 2005) are also mindful that there are many critics to this type of study. It is important to acknowledge the possible pitfalls to this type of study. It is important to keep in mind the case study protocol laid out in this methodological framework would enable this researcher to argue the validity and reliability of the results. That protocol was created to answer the following concerns regarding case study research. The concerns are listed as:

- A case study researcher being accused of lack of rigor in data analysis because there are no randomized field trails or "true experiments", which allows for little basis for scientific generalizations.

- A case study generated by members in the field are tasked with fairly reporting all evidence, which leads to the contention that there is a limitation in the ability to explain "how" and "why", which ultimately leads to accusations of bias on the part of the researcher.

- A case study is difficult to complete because it takes time and the results often lead to massive, unreadable documents.

- A case study protocol which defines the specific skills has not been formally defined and this may lead to confusions on what constitutes researching and reporting cases.

- A single case study design is vulnerable because any analytic conclusions that would arise are based on one ontological perspective. The information would not be as powerful as those findings coming from a multiple case study design.

- A single case study design may also lead other professionals in the field to question this researcher's ability to do empirical work beyond a single case study.

- A case study's validity and reliability may be questioned because of a lack of control over the data collection environment. It could lead to questions of possible failure to replicate the results under similar conditions.

Looking Forward – Creating a Theory

Moving on from the concrete methodological framework necessitates situating the research group in an ontological context that will help to explain the epistemological value of the resulting theory. Throughout the study the three (3) participants must be considered social entities with a reality that is constructed from their perceptions of their involvement in professional development to foster learning (Merriam, 2009). The foundation of where the reality of this study resonates for this body of work is multi-facetted. This chapter began with a discussion of ontological and epistemological perspectives. It is important to understand that threaded throughout this study will be the Objectivities' ontological (Bryman & Teevan, 2005) position as well as the Constructivism's ontological (Bryman & Teevan, 2005) position based on:

- Placement in Canadian society.

- Placement within the school board.

- Placement and engagement within the process of professional development.

- Engagement and cohesion of the group studied.

The development of a new theory grounded in the research depends on the ontological perspective of the participants, the background information or theory on the perceived problem, and the new information collected from the data to solve the studied problem and

bring epistemological closure to this project. The formation of this new theory begins in

Chapter 3 – *Navigating the Tides of Change.*

Chapter 3

Navigating the Tides of Change

Building a Theory

The goal of this study is to understand and improve practice in the field of offering professional development to teachers in an educational system. Having been part of the Reading Recovery family for the last 10 years as a Reading Recovery Teacher Leader, many teachers have passed through the initial Reading Recovery professional development. It was observed that these groups of teachers were more apt to move on to administrative positions, either at the district level or at the school level. How did the professional development contribute to this phenomenon? What did these teachers learn that contributed to this fact? Reading Recovery teachers were working hard with the children they were seeing in Reading Recovery, but what was contributing to them being better teachers and administrators? The question that was really interesting was: If Reading Recovery teachers are considered exemplary, (Burroughs-Lange, 2009, Burroughs-Lange & Douetil, 2007, Pressley & Roehig, 2005, Herman & Stringfield, 1997, Pinnell, Lyons, DeFord, Bryk & Seltzer, 1994) what contributed to their development as exemplary teachers?

It is gratifying that teachers were open to being part of this study. But, it meant that they were the sole focus of the study. At times, they wanted to be left alone to process what they were hearing and seeing. They weathered through the year and they survived intact. Their names have been changed to protect their anonymity as required by ethical considerations (BERA, 2004). The study group, consisted of three (3) participants. All the teachers had graduated with a Bachelor of Education, with a focus on Elementary Education. One of the teachers had spent most of his career working with adults and was relatively new to teaching young children to read and write. Two of the teachers were in their third or fourth years of teaching and were teaching young children in either a classroom or resource setting. In summary, all teachers had and were teaching young children to read and write. They

chose to be part of the process of professional development to become Reading Recovery teachers.

In previous years, when offering initial Reading Recovery professional development it was offered with an assumption that most teachers were not familiar with the theory put forth by Clay (2005) on how young children learn to read and write. Clay (2005) best summarizes this theory as teachers aiming to produce independent learners whose reading and writing improved whenever they read and write. Specifically, children become independent (Clay, 1993, 2001, 2005) when:

- Early behaviors are appropriate, secure and habituated.

- If they learn to monitor their own reading and writing.

- If they search for several kinds of information, in word sequences, in longer stretches of meaning, and in letter sequences.

- They discover new things for themselves.

- They check that one kind of information fits with other available information.

- They repeat themselves as if to confirm what they have read or written.

- They correct themselves, taking the initiative for making any sources of information they have found fit neatly together.

- They solve new words by any means.

This year, for the purpose of this study, it was decided that it was not appropriate to assume that teachers were not familiar with the central tenants of reading and writing theory. It was important to discover what general repertoire of knowledge about reading and writing each participant was beginning this period of professional development. The resulting discussion is based on the administration to teachers of a self-assessment tool (see Appendix C). There was a duel focus to this self-assessment process. The first was to get a general idea of understandings regarding certain concepts that could be discussed within Reading Recovery and also beyond that, while involving the present day education system. This is

classified as the first section. The second part was to get a sense of their own theory

regarding reading and writing and how they were teaching children to read and write. This

part is classified as the second section. This tool was administered in September 2008, and

again in June 2009 when the professional development period was terminating. This self

assessment tool was not part of the original design of Reading Recovery, but was included to

collect more information regarding the learning process. The results are presented to show

the change over time in their perceptions of what they learned over an academic year of

study.

The presentation of the information is divided into two (2) organizational units. The

first section consisted of showing the teachers' change over time in their attitude towards

their learning. The second section reports on their attitude towards literacy theory and

practice over time, from the beginning to the end within the period of the professional

development. The reporting of these data attempted to gage attitudinal changes of learning

that happened over the year.

Change Over Time in Learning

After the first meeting, the teachers were asked to seriously think about what they

knew about teaching children to read and write. This would include their university initial

teacher professional development and their years of teaching experience. A self-assessment

document was developed that would meet the needs of this study (see Appendix C). This

tool consisted of two (2) sections:

Section 1 – Likert Scale

Section 2 – Questionnaire

Both sections revolved around the teachers' work and involvement within the process

of professional development to teach children to read and write. Their theory, attitude and

how they practiced teaching young children to read and write in their particular educational

setting was sought. The self-assessment document was administered in September 2008 and

again in June 2009. The Likert scale was constructed to include aspects of the learning that

are inherent in teaching young children to read and write. The first part of the self-

assessment document sought to measure understandings around educational knowledge

necessary in teaching and learning. The defining vocabulary was chosen because of the

frequency of the use of the term or probability of them having to know what it means within

their practice, which includes Reading Recovery. Alternative assessment and inclusion are

considered important in the current climate of educational policy (Tri-County Regional

School Board (TCRSB), 2004) surrounding Special Education in Nova Scotia, Canada.

Action research and constructivism in the present system of school improvement in Nova

Scotia (TCRSB, 2009, January 8) is an integral part of planning a personal plan of study to

improve practice. Higher order thinking skills or metacognition (Bloom, 1956 & Marzano

and Kendall, 2007) are foundational constructs in understanding how we learn as adults.

There was no discussion of the concepts before the administration of the document. The first

question posed included:

>   How familiar are you with the implications and applications of:

- Alternative assessment? The Learning Points Associates ™ group (2011, June 8)

  ascertains that any assessment, criterion- or norm-referenced, used to assess children's

  acquisition of outcomes used to create a response to a question or task.

- Inclusion? Considers that all students are full members of the school community and

  they are entitled to the opportunities and responsibilities that are available to all

  students in the school (NSDOE, 2004).

- Multiple intelligences? We learn by a multitude of ways (Armstrong, 2009).

- Action research? Investigate practice – self study (Creswell, 2005).

- Constructivism? We construct together from mediated action. Constructivism is a

  theory of knowledge or epistemology that argues that humans generate knowledge

and meaning from an interaction between their experiences, ideas and while interacting with others (Kim, (2005).

- Higher order thinking skills – Critical thinking and reflection. The idea is that some types of learning require more cognitive processing than others, but also have more generalized benefits (Bloom, 2009 August 19).

- Metacognition - Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning (Livingston, 2011,May 8).

The respondents were asked to rate their understanding for each category as very familiar, somewhat familiar, heard the term or unfamiliar. A simple statistical procedure was then used to collate the results. A measure of central tendency was used to allow for a showing of a frequency distribution. Two frequency polygons were then used to make and show comparisons of the change over time in learning. It is important to clarify that there is no reporting of the results on multiple intelligences. This was decided because of a possible confusion and the multiple ways of viewing the term multiple intelligences. I simply meant to poll the opinions of the teachers on their knowledge on the different ways of learning, and I should have used different terminology to gage a response. The Likert Scale was scored by:

Very Familiar	Somewhat Familiar	Heard the Term	Unfamiliar
4	3	2	1

The most any one teacher could score was a total of 24 points on the scale. All respondents' who completed the questions pre and post professional development are reported. This was done because it is easier to see the changes that took place in learning if we look at individual opinions. It was important for the teachers to relate their progress according to how they understood their change in learning over time. Please remember that the following data are teachers' opinions of their change over a 10-month period of study.

Section 1 – Likert Scale

The first section of the self-assessment document is a Likert Scale, which is used in this case for the polling of understandings of learning over the year of professional development. Three teachers were polled twice during their year of professional development, which encompassed September 2008 to June 2009. If there was not a change over time in learning, during this period of time, then reporting on the type of professional development undertaken would be mute. The professional development would have been ineffective, and not worth reporting and repeating. Therefore, it was decided that the reporting of results from the self assessment tool's administration was important to be reported first. This means that the change in the teachers' learning was reported first. Section 1, the Likert Scale, and Section 2, the Questionnaire, report the changes over time within the participant's understanding of their own learning. It reports general assumptions as asked for on the assessment tool, but little as far as specifics of learning. If there is change to their learning, then it would be appropriate to continue with a study to investigate and understand the initial problem of this study.

This section is reported teacher by teacher to show change over time in their personal understandings. The Likert Scale was administered in September 2008 and again in June 2009 and reported as part of the whole case.

Participant # 1 – Erica

Erica is an elementary classroom teacher whose responsibility includes teaching young children to read and write as well as studying to teach Reading Recovery. When perusing the following figure, there are obvious representations of the change over time in her understanding of the listed topics with the Likert Scale.

Figure 3.1.   Erica's Learning – Change Over Time, September 2008 to June 2009
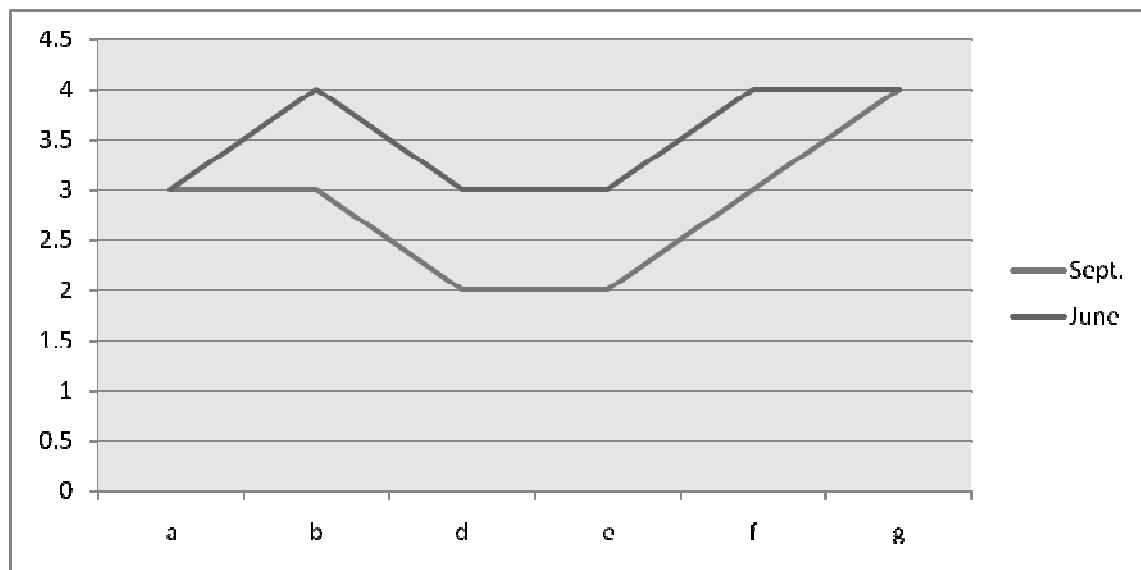
In September, Erica felt that she understood metacognition (g), as she stated that she was very familiar with the theory surrounding the concept. She also felt well-versed in alternative assessment (a), inclusion (b), and higher order thinking (f). Also noted, that in September action research (d), and constructivism (e) was a relatively unknown concept. Over the year, there was a visible change in understandings, and in June she was now somewhat familiar with the concepts. Over the year, it was evident that Erica's opinion on what she now knew had changed, and she felt that she had built on all her understandings. Change over time was easily shown, but it is important to represent the change in a different way. In using the range of the numbers on the Likert Scale, it was easy to equate a score to each question. A perfect score would be a tally of 24 points. Table 3.1. – *Erica's Self Report*, tallies the self-report on her perceived learning, over the period from September 2008 to June 2009.

Table 3.1.

 E*rica – Self Report, Perceived Level of Learning, September 2008 to June 2009*

	Question A	Question B	Question D	Question E	Question F	Question G	
Sept. 2008 Term 1	3/4	3/4	2/4	2/4	3/4	4/4	**17/24**
June 2009 Term 3	3/4	4/4	3/4	3/4	4/4	4/4	**21/24**

In term 1, or September 2008, Erica felt that action research and constructivism were her major weaknesses. She scored 17 points out of a possible 24 points on the Likert Scale. As her second response indicates in June 2009, her knowledge had increased by a representation of 21 points of the possible 24. Her understandings of action research and constructivism had increased. With the sum of the scores, it was then possible to gage a percentage of change over time in learning. This was used to show overall change over time in understandings for the period of professional development. Overall, her score has increased to 21 out of a possible 24 points on the Likert Scale. In essence, if we translate those numbers to a percentage, we see that Erica has indicated that change in knowledge had increased from 71% to 88% over the period of professional development.

Table 3.2.

Erica – September 2008 to June 2009, Overall Change Over Time in Learning

September	June
71%	88%

After a full 10 months of Reading Recovery professional development, she answered that her understandings had increased from 71% to 88% over the year. This is a difference of 17% increase in what she had reported knowing in September. If you again look at the

frequency distribution figure (see Figure 3.1.) and the differences in percentages reported (see Table 3.2.), you see that her confidence regarding her knowledge about alternative assessment, inclusion, action research, constructivism, higher order thinking and metacognition has increased her personal knowledge by 17% over the year.

Participant # 2 – Nora

At the time of this study, Nora was a resource teacher and all her teaching experience was at the lower elementary level. She had been teaching for about eight years. Nora completed the self-assessment tool in September 2008 and again in June 2009, at the end of the initial Reading Recovery professional development. Figure 3.2. – Nora's Responses, represents the change over time in her opinion, of her own learning.

Figure 3.2.   Nora's Responses – Self Report on Perceived Learning
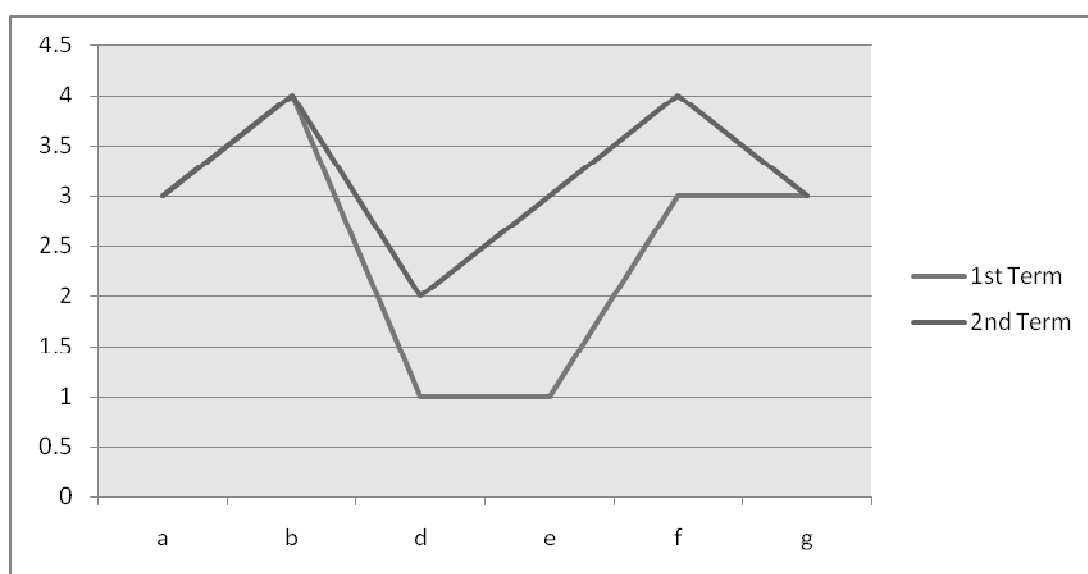
As we see, Nora felt that her knowledge had increased in all but alternative assessment (a) and metacognition (g). The biggest difference was the increase in her understandings around the theory of constructivism (e). It was important to see growth in the two areas that she considered her major weaknesses. She was still not sure of action research (d) and what it meant to her. It was gratifying that she felt that her understandings of higher order thinking (g) had increased, but in June she was questioning her understanding around

inclusion (b). In using the range of numbers on the Likert Scale, it was again easy to allocate

a percentage to the growth in Nora's perceived understandings from September to June. To

do this, it is necessary to quantify each question, so that a final tally for each term may be

achieved. This tally is used to compare the change over time. Table 3.3., represents this

comparison.

Table 3.3.

Nora's responses – First and Last Term, September 2008 to June 2009

	Question A	**Question B**	**Question D**	**Question E**	**Question F**	**Question G**	
September 2008 Term 1	3/4	4/4	1/4	1/4	¾	3/4	**15/24**
June 2009 Term 3	3/4	4/4	2/4	3/4	4/4	3/4	**19/24**

Nora felt that she had limitations in her understandings or no understanding of action

research and constructivism. Overall, in the first term, she considered her understandings of

the listed concepts to be at approximately 63% of a possible 100%. After completing the 10

months of Reading Recovery professional development she indicated that her understandings

had increased in the areas that she had originally flagged as challenging her understandings.

Her overall score, in the third term, was now 79%, but action research was still a concern for

her. She was also re-evaluating her understanding of inclusion. Overall, Nora considered her

growth in understandings to have changed by 12% over the year.

Table 3.4.

Nora – Change over Time in Learning, September 2008 to June 2009

September 2008	**June 2009**
63%	79%

Participant # 3– Kelton

Kelton is an experienced teacher, but he had spent all but the last five years teaching adults. He had limited experience teaching young children to read and write. Kelton indicated that he was very familiar with the concepts until he came to action research (d) and metacognitive (g) understandings. He was questioning himself on the meaning of many concepts. He felt particularly vulnerable with his understandings of alternative assessment (a), action research (d), constructivism (e), higher order thinking skills (f) and metacognition (g). Figure 3.3. indicates the many areas of concern voiced by Kelton when he posted his opinion on the Likert scale.

Figure 3.3.   Kelton's Learning – Self Report on Perceived Learning –
**   September 2008 to June 2009**
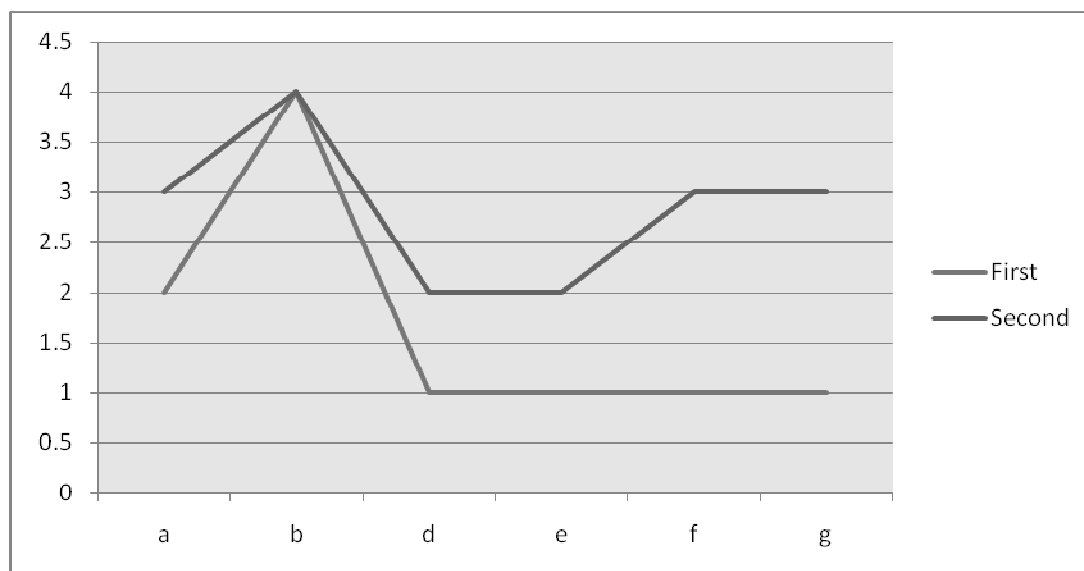
In looking at Figure 3.3. - Kelton's Learning, it is evident from Kelton's responses that he feels that his knowledge has changed over time. In quantifying Kelton's responses, Table 3.5. – *Kelton's Responses*, represents his answers to each question out of a possible score of 24.

Table 3.5.

Kelton's response – Comparison, First and Last term, September 2008 to June 2009

	Question A	Question B	Question D	Question E	Question F	Question G	
September 2008 Term 1	2/4	4/4	1/4	1/4	1/4	1/4	**10/24**
June 2009 Term 3	3/4	4/4	2/4	2/4	3/4	3/4	**17/24**

Again, it is evident that he was unfamiliar with action research (d), constructivism (e), higher order thinking skills (f), and metacognition (g). With his answers in September 2008, he indicated that he understood about 42% (10/24) of content presented. Over the year, Kelton felt that he had progressed in his understandings. His answers in June 2009 indicate that at the end of the year he had increased his understandings to 71% (17/24), which is an increase of 29%. He was still uncertain about action research (d) and constructivism (e).

As Table 3.6. – *Kelton-Change Over Time in Learning* indicates, Kelton felt that he had made tremendous gains in building on his overall learning.

Table 3.6.

Kelton – Change Over Time in Learning, September 2008 to June 2009

September 2008	**June 2009**
42%	71%

Summary

Progress is evident in learning over time for those who completed section 1 of the self-assessment document. The initial results in September 2008 indicated that a concerted effort must be set in developing an increased understanding of action research and constructivism. Table 3.7.,*Indications of Understandings*, is a summary of the concepts that teachers had expressed an overall concern with in September 2008.

Table 3.7.

Indications of Understandings – September 2008

Erica	Nora	Kelton
Action Research	Action Research	Action Research
Constructivism	Constructivism	Constructivism
		Metacognition

In September 2008, the first constant is that all teachers had issues with their understanding of action research and constructivism. The second constant is the fact that two of the teachers did not understand the underlying concept of metacognition. As indicated in June 2009, there were still some concerns expressed by teachers. Table 3.8., *Indications of Understandings-June 2009*, summarizes the concerns expressed at the end of the period of professional development.

Table 3.8.

Indications of Understandings – June 2009

Nora	Kelton	Erica
Action Research	Action Research	No concerns
	Constructivism	No concerns

These concerns were expressed by the teachers when they indicated (see Table 3.8.) that they had heard the term (2) or they were unfamiliar (1) with the term. An understanding of action research (d) was still a concern. Erica reported that she was familiar or very familiar with all concepts. It was assumed that everyone would record progress in understandings during a full year of professional development. As adults, we live our life by making meaning (Knowles, 1998) from our experiences. As adult learners, we have some different needs than children, but we still have to make sense from our experiences. If meaning is not made from our experiences, we do not add to our bank of background

experiences. It was important to understand the participants' beginning knowledge so that professional development could be properly prepared and executed to build on to their construct. Most participants began the year with limited understanding of action research and constructivism. Both are very important to teaching because of the implications around assessment "for" learning and assessment "of" learning (Davis, 2007) on teaching practice.

Section 1 of the self-assessment survey was an attempt to begin to understand that there is change over time in learning. The responses on this part of the assessment tool gave a general overall indication that learning had taken place during the year. A rationale now must be built through understanding the underlying theory that will explain learning over time. That will help to ground the data within current educational theory. This will lead to the theoretical underpinnings and allow for a greater understanding of why there was an indication from participants that they had changed their learning over time.

Ontologically, this group of teachers will begin to build their understandings from their participation and involvement in their social reality. Merriam (2009), when discussing research, indicates that this group of teachers will have two factions at work that will aid or detract from their learning. The objectivism school of thought implies that a phenomenon confronts the individual and exerts pressure to conform while the constructionists' advocate that these teachers will be an active player in the construction of their own reality (Merriam, 2009). This group will be confronted with both factions that will help to build their realities around learning within the Reading Recovery group, but also within their fit into their present educational setting.

The Realities of Learning

The educational system in Canada is decentralized. Schools, the curriculum and teacher certification are controlled provincially by a Department of Education whose head is an elected provincial minister. The departments of educations are not uniform across the

Country because of the specific requirements and needs of the Canadian population (Sheehan & Fullan, 1995). Canada is large and needs do differ by region.

All initial teacher education programs are located at the University level. Teacher education in Canada has mostly been located in faculties of education in universities for the last quarter of a century. In Nova Scotia, The Nova Scotia Teachers' College closed its doors in the early 1990's, thus transferring all initial teacher education to the universities (NSDOE, The Shapiro Report, 2000). In Nova Scotia there are seven regional Anglophone school boards, which enroll 97.2 percent of all public school students. The provincial school board for Acadian/Francophone students, known as the Conseil Scolaire Acadien Provincial (CSAP), includes the remaining 2.8 percent of students. Nova Scotia's total public school population was 145,396 from primary to grade 12 in the 2004 –2005 school year.

Fullan (2001) states that the history of intensive educational change is less than half a century old. He characterizes that change as having five stages, starting in the 1950's. Large scale reform (Fullan, 2001) of the educational system took flight in the 1990's. The Canadian Education Association (CEA) (1992) characterized those reforms as centering on government commitments to greater accountability and improvement of student achievement. The Canadian Education Association is a research and action center that was created to influence educational transformation and reform in Canada.

More specifically, in Canada, these reforms are characterized as including:

- Standardized province-wide student achievement tests.

- Province-wide school and district improvement initiatives focused on student achievement in mathematics and literacy.

- Revised curriculum to outcomes-based.

- Investment in the implementation of smaller size classes.

- Contribution to the creation of multi-sector involvement.

- Implementation of reforms to improve high school involvement.

- Introduced new programs to support increased parent and community engagement in learning and school level decision making.

Fullan (2001) simply describes these initiatives as powerful usable strategies for powerful recognizable change. But he is clear that a recognizable change requires intensive action over several years to combat the isolationism and privatization of education at the classroom level. With the pace of change, it is now more than ever important to have a globally informed populace, which is prepared for continuous change in the field of education. Efforts are being made to include and encourage continued learning at the grassroots level. Lifelong learning (Office of Lifelong Learning (OLL), 2009) must be modeled and practiced by teachers so that their students see its value and function. The fast pace of international developments and current economic globalization has necessitated fast-paced changes in education (Hudson &Lambert, 1996).

The CEA (2007), from their data collected, describes the changes within Canada, but it is necessary for me to narrow the scope to the initiatives relevant to education in Nova Scotia. The following section is a simplification of the changes that occurred and continue to occur within the field of education in Nova Scotia, Canada. The goals of this examination are to indicate how Nova Scotia has attempted to move forward, with teacher learning (NSDOE, Report and Recommendations, 2009) in this time of fast paced change within a system. This is mentioned here because of an overall emphasis on professional development and how it impacts the view on teacher learning. These changes directly impact all teachers who are part of a system while undergoing a process of professional development. This includes the teachers who are part of the Reading Recovery professional development because they are a sub-culture of the whole. Two areas of change were specifically sought:

1. An up-to-date student curriculum, and

2. A means for continued teacher professional development.

Education in Nova Scotia, as any similar system, has a hierarchy. This hierarchy begins with the Minister of Education who is an elected government official and the system is his or her ultimate responsibilities. The Minister of Education has a Deputy Minister who is responsible for a Department that helps in the overseeing of all educational initiatives. The Deputy oversees research initiatives, as well as planning and implementing new curriculum initiatives at the grassroots level. Like all government bureaucracy, the Nova Scotia Department of Education is a complicated system and the structure is better explained in The Nova Scotia Department of Education Business Plan (2009 –2010). This plan focuses on initiatives to move the education agenda forward within the province.

Since 1999, students, parents, teachers, school board members, and taxpayers have had more opportunity than ever before to express their views concerning education. Through this sharing of ideas came the first three-year plan to move education forward in Nova Scotia. In 2001 – 2002 the Nova Scotia Department of Education put forth its first phase to modernize the educational system in Nova Scotia. In Learning for Life– Planning for Student Success (2002) a three-year plan was put in place. It was based on a notion that students need a solid foundation in the early years, including support for pre-school children and smaller classes when children start school. The plan put the focus on reading, writing and math skills for all students. The teachers taking part in this study were motivated to learn by the overall goals (NSDOE, Report and Recommendations, 2009) of the province and district in relation to children becoming literate.

In 2005, at the end of Learning for Life 1 – Planning for Student Success (NSDOE, 2002& 2005), the results were evaluated and the next steps were discussed and planned at a Partners' Forum in February 2005. The goal was to continue with the vision of the early years but also continue to shape a new direction for Nova Scotia's education system. Learning for Life 2 was initiated with a clear view for the future of education in Nova Scotia. There were some clear messages sent to the educational stakeholders through the publication

of the Learning for Life 1 and 2 documents (NSDOE, 2002 & 2005). Two of these messages were that student success was the first priority and that quality teaching was the next priority.

Up until the implementation of Learning for Life (NSDOE, 2002 & 2005) Nova Scotia was proficient in offering isolated episodes of professional development days during an academic year. The education system recognized that this was not sufficient for a system that wanted to realize the changes necessary in education for the 21st Century. A school improvement planning (NSDOE, 2005) process had previously been implemented and used to move schools forward, but it was lacking depth and the changes sought were minimal. This was a good beginning, but the process was reworked to make it more inclusive of school communities within the 21st Century.

Consequently, in Nova Scotia, a plan was put in place that would encompass three (3) categories of teacher learning. This was a facilitating process to help all teachers learn at their own level, based on the priorities of an up to date curriculum and a process of school improvement through teacher learning. During this time, new priorities were set in Learning for Life 1 & 2 (NSDOE, 2002 & 2005) that enabled the schools to set smart goals. Smart goals (Haughey, 2009 July 30) are considered to be specific, measurable, attainable, relevant and time-bound. Since there now was a need to measure these goals, a system of school accreditation (NSDOE, 2005) was implemented within the province. This is considered an inclusive process that asks all members of the school community to be involved in school improvement that revolved around student and teacher learning.

With the new priorities set in Learning for Life 1 and 2 (NSDOE, 2002 & 2005) the school improvement planning process was formalized (TCRSB, 2009) in what is referred to as the Accreditation Process (NSDOE, 2005). One of the goals of the province and district was to insist that teachers know how to teach children to read and write. The teachers in this study surmised that Reading Recovery professional development could help them develop that understanding. It could be a motivational factor in their participation in the Reading

Recovery professional development. The Nova Scotia Department of Education put a plan in place that could facilitate a process of professional development that would foster learning. It was hoped that this process would meet the needs of all teachers. In following the Learning for Life educational plans (NSDOE, 2002 & 2005) it was now the responsibility of the Board's administrative staff (TCRSB Board Business Plan, 2006-10) and school leadership to see that the school accreditation process would take place. Leadership must be shown, and part of that leadership is knowing the best processes of planning and facilitating teacher professional development in today's society. Planning and facilitating professional development (NSDOE, Report and Recommendations, 2009) must be undertaken to support learning. With pressures from outside agencies on teachers, as well as their own code of professional accountability, how is it possible for teachers to build on that continuum of learning within present day society? This research has shown that teachers within the Reading Recovery group have learned, but what could be a theoretical basis for the learning that occurred over their period of time in Reading Recovery?

Postulating a Theoretical Basis for Learning

Learning has changed in the 21st Century. To successfully face higher education coursework, career challenges and a globally competitive workforce, schools must align classroom environments with real world environments by infusing 21st Century skills within the curriculum. The Partnership for 21st Century Skills report (PCS, 2009 March 2) advocates for the integration of specific skills into the core areas of math, literacy, science and history. More specifically, these are the habits of mind which Costa & Kallick (2000) advocate as being the processes necessary to succeed in today's society. These skills or habits of mind are grouped as learning and innovations skills, information media, technology skills, life skills, and career skills, while including core subjects with 21st Century themes. What were once considered essential learning outcomes have been expanded and are now more focused on problem solving skills within all educational domains (PCS, 2009 March 2).

These skills, within Canadian society, include competence with information and communication skills, good interpersonal and self-directions skills, and also an inclusion of global awareness and a financial savvy to not only survive but to thrive within our own environments. The technological era has forced the issue of instant access to information and the need to now quickly process and decide on a course of action with information. Life-Long Learning (OLL, 2009) is needed to keep up with the ever-changing societal need for current, relevant knowledge. In the present educational system, life-long learning is defined as learning from the cradle to the grave for both personal and professional enrichment with the focus on the learner (Continued Professional Development (CPD) institute, 2009 April 17).

If learning has changed, the need for teaching to change has also intensified and become necessary. With the instant access to information and the need to quickly process that information, students must not be taught only content, they must be taught to use that content. Today's students need an ability to apply their learning in different settings so that they have an interest to continue to learn. The Partnership for 21st Century Skills report (2009 March 2) advocates scalable and sustainable models of professional development for teachers which will deepen understanding of subject matter that can actually enhance problem solving, critical thinking, and other skills necessary in the 21st Century. We must live in a perpetual state of inquiry (Clay, 2005) where the focus is on learning.

Teachers are feeling the pressures of that needed change within their practice. As Adams and Tulasiewiz (1995) stated, it is not enough to be solely a transmitter of information. This alone will not accomplish the needed goal of beginning the students on a journey of life-long learning. Teachers are going to need the support of continued professional development within their practice (Cook, 1996) to make effective changes in the acquisition of knowledge and the application to practice. It is important, when planning continued professional development, that consideration of certain points be of paramount

importance to teachers who are learning in the 21st Century. Knowledge acquisition and the

learning process must be studied to tease out an understanding of how change over time

happened in learning for the group of teachers participating in this study. Fundamentally,

teachers need to have a basic understanding of how they learn, thus helping them to

understand how children learn (Mind Tools, 2009). Educational professionals who

understand the relevant aspects of brain development and who use the strategies derived from

research become more effective and exciting and will find students more engaged (Willis,

2006). Like an exercised muscle, the brain develops through repeated use. A basic

understanding of the brain is necessary to understand higher order processing of information,

which in its basic form is learning. The three respondents in this study never indicated that

they had concerns with their understanding of higher order processing of information. As

teachers, we are in constant motion, sampling our environment through our senses and

expressing our views through our ability to communicate. Our motor system continuously

relays information to our brain to help in the process of learning (Wolfe & Nevills, 2004)

with a reformation of theories. This is how we build on our understanding of our own reality.

Within Reading Recovery professional development a process to understand a phenomenon

is explicit. It is through the use of language that new ideas are tried, thus helping to

formulate or reformulate understandings (Pinnell,1991).

Our brain is in constant use by surveying our internal and external environment to

determine what's important or relevant to us at that moment. There will be no learning if

attention, memory and problem solving are not activated through a motivation of the

individual activities. Because of the Accreditation process (NSDOE, 2005) teachers are

tasked to undertake professional development that will help them learn about curriculum

issues. Since the inception of Learning for Life 1 and 2, the focus has been on reading and

writing. This is a major motivational factor for Reading Recovery teachers. This will create

the intrinsic and extrinsic motivation for action on a problem-solving activity. The following

Figure 3.4. – Engaging the Brain, is a summarized rendition of the works of Willis, (2006),Lyons (2003), and Brotherson (2005) on how we engage the brain to learn. Ontologically speaking, it is also possible to look at this process as the external and internal forces that will bring about change in learning.

Figure 3.4.   Engaging the Brain
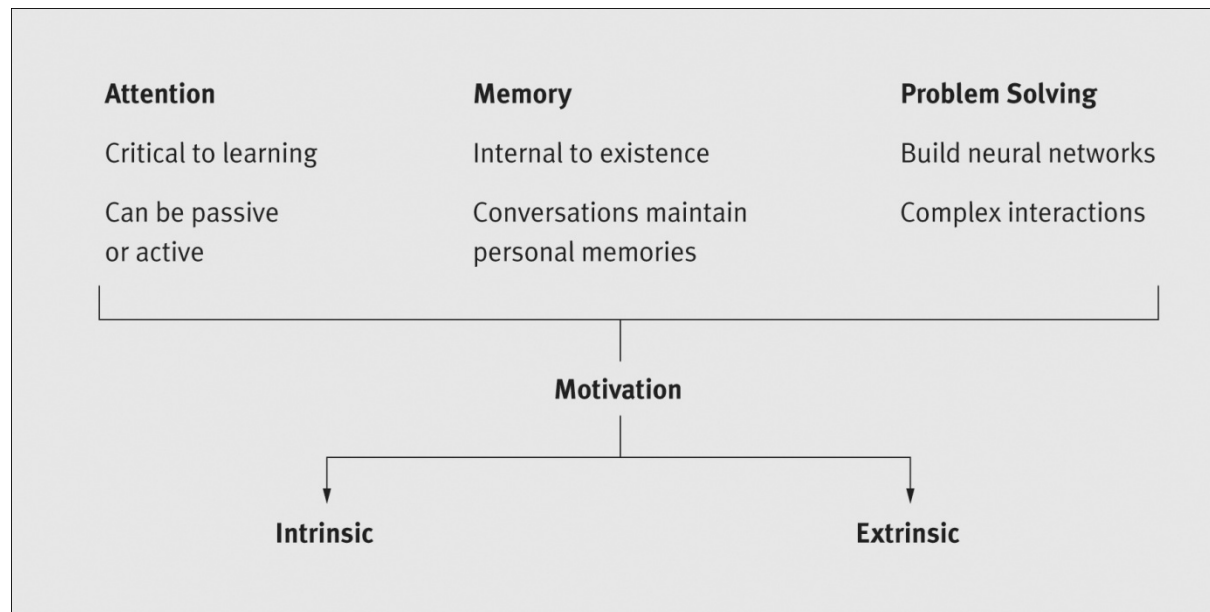
Lyons (2003) calls this a priming of the internal and external systems. This intrinsic and extrinsic process leads to the motivation to learn. In summary, we need to experience relevant intrinsic and extrinsic sensory experiences, based on current educational needs that will stimulate the growth of brain functions for us to learn. With continued research on the function of the brain, it is now recognized that adults will continue to shape their brain, building pathways, thus promoting life-long learning (Wolfe& Nevills, 2004). If we focus on adult learning (Cross, 1981, Lieb, 1991, Mezirow, 1991) through continued professional development, we should expect teachers to be able to:

1. Have an opportunity to construct conceptual knowledge by being engaged in concrete, contextually-meaningful, problem-solving activities.

2. Have an opportunity to access previously learned information and add it to the new learning.

3. Have an opportunity to construct their own understanding by being engaged in sustained, focused conversations with a more capable other.

4. Have an opportunity to be actively involved in reorganizing thinking and constructing knowledge.

5. Have an opportunity to put it in practice.

The entire above criterion has been met through the process of Reading Recovery professional development. There is a system (Pinnell, 1991) of built in checks and balances that are created by time spent in discussion during the initial phase of professional development, on-going professional development and individual professional development. Teachers are learning skills to describe, analyze and make inferences around the evidence of learning that they have recorded during their teaching. When teachers are motivated and supported in their endeavors to learn, they will come to understand that they must live in a perpetual state of enquiry that builds on their previous base of knowledge (Clay, 2005). Learning and the application of that knowledge within their practice allows for mastery and the ability to continue building on present learning. Pinnell (1991) argues that an interactive staff development model where learning is the focus has to apply to both children and teachers. It is understood that the Reading Recovery professional development must develop the ability for teachers to engage in a process that will facilitate their learning of emerging, developing and autonomous behaviors in teaching children to read and write. Reading Recovery professional development is a prime example of an interactive staff development model and planners of professional development should continue to study its implications to teacher learning. The following Figure 3.5. – Reading Recovery Teacher Learning Framework, is a visual representation of a process that could help to understand the learning undertaken in Reading Recovery by this group of teachers that participated in this study.

Figure 3.5.   Reading Recovery Teacher Learning Framework
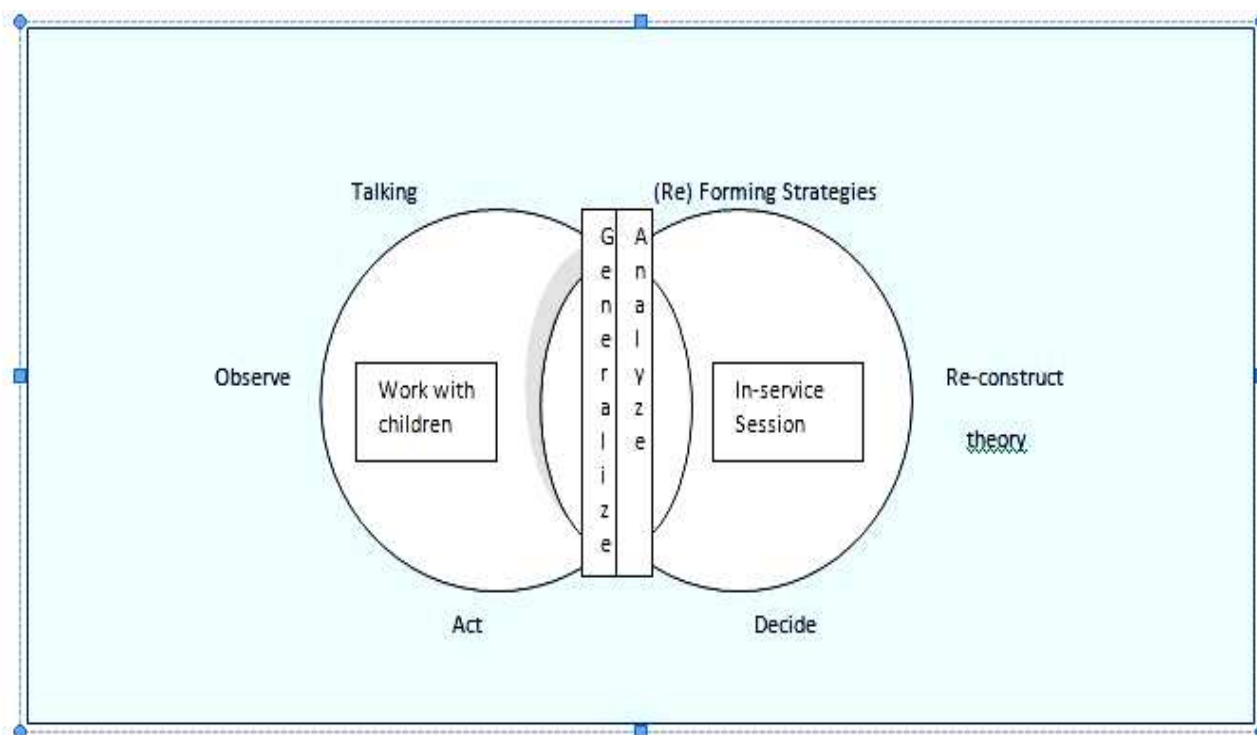
We are truly blessed with an ability to continue to learn throughout our lives (Wolfe & Nevils, 2004). The ability of the brain's plasticity allows an individual to reshape and reorganize previously learned material (Lyons, 2003). If we don't practice and use the information stored, our efficient brains will prune these memories. The adage of use it or lose it is true in this instance. Multiple stimulation from our internal and external environments (see Figure 3.4) means that better memory will be possible. If data is cross-referenced, it becomes stored rather than memorized. Like an exercised muscle, the more alternative ways there are to connect with a memory, the more efficient the traffic, the more rapid is the memory retrieval. Reading Recovery is grounded in a theory of literacy acquisition where both children and teachers learn using an unusual lens (Askew, 2009). It is the act of continually reformulating a present theory. This builds on the theory that learning takes place through action on solving problems (Pinnell, 1991). This is a major focus of Reading Recovery professional development and it might lend some insight into the learning reported by this group of teachers. The Reading Recovery staff model is based on the

assumption that language is a key factor in building theories, because language is used to represent personal experiences to others and to refine and extend our own learning. The model of Reading Recovery professional development (see Figure 3.5.) is better explained by thinking of it as an umbrella of the theory surrounding that model of learning. It was meant to train specialist to prevent reading and writing failure by children. Simply stated, it is a process of test, teach, test and then re-teach (Watson & Askew (Eds.) 2009).

        We can build stronger memory circuits by personalizing information, stimulating the senses, creating surprises that bring the brain to attention and relating the information to the previously known, and with that we can consider it mastered. It is there for us to use in novel situations. In planning professional development, maintaining alertness is crucial by having breaks with physical movement, and practicing different modes of instruction that will help build a positive emotional climate (Hatton, 2006). Our wary brain is continually challenging our internal and external environments (see Figure 3.4) to determine what is important or not. Primary emotions make us react to danger, while secondary emotions are acquired through experiences (Wolfe& Neville, 2004). Emotion builds memories and that is why, when working with adults in a school setting, it is important to remember the characteristics of adult learners (Knowles, 1998). Adults are mostly known as autonomous and self-directed if the material is relevancy-oriented to their present reality. Reading Recovery teachers are practicing on two fronts; as elementary teachers and as intervention specialists. It enables them to continually refine their own theories which are grounded in the specifics of teaching children to read and write. They must be respected as having accumulated a foundation of life experiences and knowledge in their personal and professional lives. Most adults are goal-oriented and can be motivated in many ways, if it is relevancy-based to their practice and builds on present understandings (Characteristics of Promising Professional Development (CPPD), 2009 April 17).

The major motivational aspects for an adult learner are not that different than for children. We are social beings (Vygotsky & Social Cognition, 2009 September 13) and relationships are important to us, so group work is important. The Reading Recovery staff development program (DeFord, Lyons, Pinnell (Eds.), 1991) is built on a framework that enables teachers to participate in group work on a continuous basis. It does not only depend on their time spent as a Reading Recovery teacher because group activity is a constant. It is guided by a Teacher Leader/tutor to facilitate conversations that build on understanding. The following Table 3.9. – *Group Work in Reading Recovery Professional Development*, represents that continuum of working in a group within Reading Recovery.

Table 3.9.

Group Work in Reading Recovery Professional Development

Initial professional development	On-going professional development	Individual professional development
Bi-weekly	**Every six weeks**	**As needed**
• talking	• talking	• talking
• observing	• observing	• reflection
• reflection	• reflection	• refine
• refine	• refine	
Guided by a Reading Recovery Teacher Leader/tutor		

Motivational incentives for learning with adults also stem from an interest in personal advancement or because of some external expectations that can be personal or mandated by a place of employment (AGI, 2009 April 17). As with children, there are also some barriers to an adult learner being engaged in making meaning of what they are learning (California Association of Nurses (CAN) (1988). Adults have many responsibilities in and out of the classroom. If there is never time or money set-aside for teachers to undertake some

professional development, it creates a stressed, frustrated group of teachers. These teachers

can create barriers against participating in learning activities because of external constraints.

The goal of any learning is the idea that transference of that learning will take place in

practice (Knowles, 1998). So, if you are working with adults, remember that any

professional development has to make sense and be associated to present day needs. Then

the information can be built into what they already know (Characteristics of Promising

Professional Development Programs (CPPD), 2009 April 17). The best professional

development can be derailed by lack of time and a lack of resources. Another way to sideline

good professional development is to tap into negative emotions around learning. Emotions

are one of the biggest influences (Lyons, 2003) on effective learning and change. How often

are you in a situation of offering professional development and a person in your group taps

into the emotional reserve of the remainder of the group and your professional development

is derailed?

Jacobs (2010), who is the executive director of the Curriculum Mapping Institute and

president of Curriculum Designers Inc., postulates that we must start looking at teacher

learning in a whole different way. In 1956, Bloom created a taxonomy of knowledge

domains. His overarching view was that we must build on our present knowledge through

theory, skills and attitudes to undertake a process of learning. In 2007, Marzano and Kendall

wrote about a new taxonomy that is multidimensional. It did not only include what we must

learn, but it included a process of how we might learn. Their taxonomy was an attempt to

better classify and expand other taxonomies, which included Bloom's (1956) within the

complex nature of learning. They subsequently argue that a person has a three-tiered mental

system at work to make learning of theory, skills and attitudes possible. The first tier in their

taxonomy is the self-system and it is used to determine the motivation one brings to a task.

This may be linked directly to how we use intrinsic and extrinsic stimuli in engaging the

brain (see Figure 3.4) and also about how we promote attitudinal shifts in individuals.

Attention, memory and problem solving must be activated to motivate an individual to learn.

The second tier is classified as the metacognitive system. Metacognition is defined as a

process that enables students to benefit from their instruction and influences the use and

maintenance of strategies (Livingston, 2011 May 8). The learner is provided with both

knowledge of cognitive processes and strategies and experience or practice. Simply

providing information without experience or vice versa does not seem to be sufficient for the

development of metacognitive control (Livingston, 1996). The objective is to enable all

students to become more strategic, self-reliant, flexible, and productive in their learning

endeavors (Marzano and Kendall, 2007). This is the system that effectively processes the

information to complete the task. They describe the path to knowledge acquisition through a

process of learning where they advocate for self-motivation through professional

development to develop cognitive and metacognitve ability. These taxonomies, for the

purpose of this study, are thought of as ways of engaging mentally in learning. Bloom listed

the theory, skills/practice and attitudes as central to his taxonomy, but also important in this

equation is gaining an understanding of how to facilitate learning within a process. Marzano

and Kendall (2007) updated Bloom's taxonomy (1956) of learning to include a process to

engage in learning. They lay bare what must be done, within a process, to build on theory,

skills/practice and attitudes towards self determination of own needs to create new

knowledge. We must now delve deeper into what makes learning possible to keep teachers

motivated (see Figure 3.4.) and engaged in learning new theory, skills/practice and changing

attitudes toward their own learning (Bloom, 2009 August 18). This could possibly begin to

explain the learning over time by the participants in this study. Physical engagement by

participants in professional development must be planned and executed so that participants

learn. Over the years, educational theorists have been postulating on how to best engage

teachers in professional development. An examination follows, of what are considered by

this researcher pertinent ways to engage teachers in learning. This is an attempt to shed some

light on how we might best learn new knowledge in present day society. This continuum of professional development is based on the notion that learning is a complicated process that includes many opposing theories on how we learn.

Marzano and Pickering& Pollack (2007) along with Reber (2001) have proposed that some procedural learning of knowledge is necessary to the field of education. Much of what is taught is based on knowing certain procedures or the performance of some task and that knowledge would be more focused on skill acquisition (Bloom, 1956). Procedural engagement by a participant in professional development is normally characterized by a notion that conscious understanding is not required and information could be passively received (Social Constructivist Theory (SCT), 2006). This learning is instructor centered and could be seen as procedural. We have all been part of professional development where you sit in a room with a great number of other teachers and you are told what to do within your practice. This form of professional development is considered necessary to expose teachers to new knowledge, but it must be balanced with other forms of learning. It is a necessary part of a practice, but not the only part of a practice.

Vygotsky (2009 September 13) wrote about how, as social beings we learn from each other and build on each other's knowledge. His theory of learning is generally known as social constructivism and knowledge is constructed through meaning. It's all about thinking and explaining through reasoning (Costa & Kallick, 2000). Site based learning involves the creation of professional learning communities within the school and learning is community centered (Tinzmann,2009). This is considered the cornerstone of teacher development where it must remain flexible, sustained and intensive (Young, 1998). This is where teachers have the opportunity of learning, putting in practice, discussing and perfecting their practice on site. The outcome of effective staff development must be the growth of a set of theoretical understandings where the teacher will make decisions and take action (Pinnell, 1991). As with Reading Recovery professional development, a supportive environment based on

student and teacher learning is sought. This is the level that must be in place as a follow up

to the standardized or procedural form of learning to expand on the initial learning.

A self-directed approach (Dahms (Ed.) 2008) advocates that learning will take place

when change is sought in an environment to make it a better place and is teacher centered.

This study places all responsibility on the teacher and includes action research and

phenomology research (Feiman-Nemser, 2009). Phenomology is defined for this purpose as

a literal process of the study of a phenomenon. It is a study of a part of teacher's reality.

They seek to actively understand and investigate a part of their practice (Smith, 2009). This

learning does little to promote procedural learning, so normally it is advanced teachers who

undertake this level of study. The whole process should be looked upon as a continuum of

processes that is facilitated through professional development. Clarification of this process is

offered in Table 3.10, *A Taxonomy of Teacher Engagement.*

Table 3.10.

A Taxonomy of Teacher Engagement

Knowledge domains	Bloom (1956)	• Practice/skills • Theory • Attitudes/determine own needs	What will you learn?
Mental engagement	Marzano & Kendall (2007)	• Self-system • Metacognitive • Cognitive	How will you learn?
Physical engagement	Marzano, Pickering & Pollack (2007), Reber & Reber (2001) Vygotsky (2009), Costa & Kallick (2000), Tinzmann (2009), Young (1998) Dahms (Ed.)(2008), Feiman-Nemser (2009), Smith (2009)	• Procedural theory • Constructivist • Phenomenology	When will you learn?

It would seem that teachers must work their way through a continuum of mental and physical engagements to bring about learning. Pinnell and Woolsey, (1985) followed a group of Reading Recovery teachers for a period of a year, and it was revealed that continuous shifts in learning happened throughout the professional development. It could be proposed that teachers transform their theory, skills/practice and attitudes towards their own needs when learning something new by following a pattern that could be classified as building on different leveled learning. For the purpose of this study, this process is called transformative learning (Mesirow, 1991) and it will be further explored within the next section.

Transformative Learning

Transformative learning, for the purpose of this study, is defined as a cycle that promotes an understanding of how we might take on new learning. It may also lend insight into how to make planning for change easier. When referring to *A Taxonomy of Teacher Engagemen*t (see Table 3.10), we notice that the domains of learning are dependent on the mental and physical engagement of the participant. Rationally, if learning is a transformative process, it would seem plausible that there could be an argument made that there are different levels of learning within the physical engagement of a professional development process. It is proposed here that there are three levels of learning on a continuum. They directly impact the mental and physical engagement of an individual in a process of learning. These levels are classified as:

Level 1 – Procedural

Level 2 – Constructivism

Level 3 - Phenomenology

The Continuum

The First Level of Learning

What are you telling me? This first level of learning (Bullemer, Nissen & Willingham, 1989) is categorized by a sharing of information. This type of professional

development is normally carried out with a large group of teachers present. Briefly

described, procedural learning and professional development is seen as focusing one's

attention on overt, observable changes in a behavior. Repetition is encouraged until the

behavior pattern becomes automatic and is considered known. It is not personalized and it is

generic in nature. There could be an engagement of the brain, but only if attention, memory

and problem solving are involved as depicted in Figure 3.4. – Engaging the Brain. As

planners for these generic professional development sessions, one must meet a broad range of

interests (Tools for Schools, 1998). There probably would be little intrinsic and extrinsic

motivation to engage the learner in making meaning of the information (see Figure 3.4.).

This is a classic case of transmission of information or basic learning. Bullemer, Nissen and

Willingham (1989) consider this procedural step necessary for tasks that follow a step-by-

step process. It is necessary in instances where one must perform a task without the need for

conscious thought. In the field of education, consideration might be given to follow-up forms

of professional development. Change for teachers involved in Reading Recovery

professional development is a unit of learning in itself. When Clay (1997) decided to explore

implementing Reading Recovery internationally, she had to acknowledge that there was

much novel learning for teachers. She conceded that teaching procedures, learning to

question and challenge teaching decisions and task presentation would have to be learned

early on. This novel procedural work could be classified as the first level of learning during a

period of professional development. This possibly could take place within an initial period or

term of study.

<div align="center">**The Continuum**</div>

The Second Level of Learning

What do others think? Teacher collaboration may take many forms, but the most

discussed in Nova Scotia's educational environment is a Professional Learning Community

(PLC) (NSDOE Accreditation, 2005). Ongoing teacher education is promoted at the school

level through the formation of professional learning communities (DuFour, 2004). In its simplest form, a PLC is a group of teachers who meet to discuss and plan how they will better focus on instruction and student outcomes. Vygotsky (2009 September 13) has qualified learning as a social activity. So teacher collaborative endeavors that focus on student achievement should be encouraged and planned as part of professional development. The group that comprises the PLC will focus on increasing student progress through teacher education. The five major characteristics of a PLC are based on the summarized works ofKruse, Seashore &Bryke (1994). They propose that the following five points are necessary to create a successful PLC:

1. Reflective Dialogue – Members of the community talk about their situations and the specific challenges they face. Together, they develop a set of shared norms, beliefs, and values that form a basis for action. Members of the community can use these discussions to critique themselves, as well as the institution within which they work. The focus may be on subject matter.

2. De-privatization of Practice – Teachers share, observe, and discuss each other's teaching methods with the help of peer coaching and lesson study (Brooks, 2009). By sharing practice, teachers learn new ways to talk about what they do, and the discussions kindle new relationships between the participants.

3. Collective Focus on Student Learning – Teachers are focused on student learning. They assume that all students can learn at reasonably high levels, and that teachers can help them, despite many obstacles that students face. Within a strong professional community, this focus is not enforced by rules, but by mutually felt obligation among teachers.

4. Collaboration – A strong professional community encourages teachers to work together, not only to develop shared understandings of students, curriculum, and instructional policy, but also to produce materials and activities that improve

instruction, curriculum, and assessment for students, and to produce new and different

approaches to staff development for teachers themselves.

5. Shared Norms and Values – Through their words and actions, teachers joined in a

professional community affirm their common values concerning critical educational

issues, and in support of their collective focus. The time may be taken to address

children and their abilities to learn, priorities for the use of time and space within a

school setting, and the proper role of parents, teachers and administrators.

Following the five major characteristics of a PLC that are presented, one must also

consider the importance of forming partnerships, voluntary participation and a commitment

to performance (Day, 1999). These three strands build the foundational values of the PLC

that drive change at the school level. The group also has to learn to build connections and to

trust each other in the decision-making process. Collaboration and a willingness to respect

views and opinions of other participants form the basis of that partnership. The group has to

learn that involvement is crucial for the success of their professional learning community

(Cerbin & Kopp, 2006). The core function of that learning community is to develop skills, to

grow capacity, to foster collaboration and to strengthen the community as a whole to increase

student learning (Tinzmann et al., 2009). Building on the procedural theory, developmental

theorists (Doolittle, 1997) believe that we construct our own perspectives of the world

through our own experiences. This is an active social process where meaning and learning is

developed on the basis of experiences and with others (Learning Communities (LC), 2008).

It is a social process of scaffolded learning (Marsick & Watkins, 1999). This is a perfect way

to follow up the first level or procedural aspects of learning. Throughout the process of

collaboration, the group has to determine a way to evaluate the success of the PLC in which

they are involved. The evaluation is an important part of the whole process. This site-based

learning, for the purpose of this study, has been classified as the second level of learning

(Doolittle & Camp, 1999). When referring to Table 3.5. – *Kelton's Responses*, it is evident

that teachers are involved in constructing their own knowledge. They also help others to construct knowledge.

There are advantages in having teachers as part of a PLC. One of those advantages is the fundamental belief that teacher learning will occur from participating in an educational PLC. The teachers will be able to see good practices at work and it will help to change their present understandings. Group work could push to the side the biggest roadblock to change, that of existing teacher beliefs on learning and teaching (Kruse, Seashore & Bryke, 1994). As part of the teacher learning process, there must be room for teachers to act on their own interests. Clay (1997) acknowledged that peer support was a foundational aspect of staff development. She built into the Reading Recovery framework (see Figure 3.5.) the time to question, challenge, discuss, explain, share and eventually work out issues that were road blocks to learning. The rationale was to have teachers' problem solve and build on their own theories of learning. This form of constructive learning may be classified as the second level of learning.

<div align="center">**The Continuum**</div>

The Third Level of Learning

The third level of learning (Kemmis & Wilkinson, 1998), or advanced learning, is solely an individual endeavor. The teacher might have sought answers from others and now wants to investigate a personal interest or phenomenon of educational value. The question to ask oneself is "What do I now need to learn?" Teachers may turn to action research as a way of fulfilling the need for information on a particular subject of interest. Self-directed learning (Bruner, 1994) is a form of self-reflected knowledge acquisition by studying to understand and explain a phenomenon. The scope of their autonomy is in transforming their practice (McLaren & Giarelli, 1995). Clay (2005) strongly advocated for each teacher to challenge their present assumptions about reading and writing. The Reading Recovery staff development framework (see Figure 3.5.) expects that teachers fully participate within a

collegial network that is facilitated by a Teacher Leader/tutor. The purpose is to carry forward learning to be able to problem solve outside the confines of the group and to advocate for their own learning. This form of phenomenology learning (Livingston, 2011 May 8) is classified as the third level of learning.

If we are examining teacher learning based on its theoretical foundations, professional development should reflect the foundational views of these learning theories as well as knowledge acquisition through a learning process described by Marzano and Kendall (2007). We can see how the domains of learning, mental engagement and physical engagement transfer into current practices of offering professional development in the 21st Century. Summarized, theories of knowledge acquisition, theories of learning and professional development, up to this point may be shown to tentatively complement each other. They may encompass a process for planning professional development. They could be considered the foundations of the learning process and would equate to the different levels of learning. A summary, Table 3.11 – *Foundations of Learning*, has been formulated to briefly describe the foundations of learning proposed by the works of Bloom (2009 August 19), Bullemer et al. (1989), Doolittle &Camp (1999), Bruner (1994) and Marzano and Kendall (2007). This is a tentative framework that may change or grow during the course of this research due to the development of a theoretical foundation in understanding a process of learning. It is meant to summarize a potential learning process for teachers. This might help to explain what has to be learned over time by the group of teachers participating in this study. It also offers an interpretation of a cycle of learning that is grounded in Blooms taxonomy (1956), Marzano and Kendall's (2007) taxonomy, and the theories of how we learn through the actual physical engagement of that learning. The following Table, *Foundations of Learning,* represents the notion that learning may be looked upon as a continuum to build on knowledge, as skills/practice, theory and educational attitudes towards their own learning.

Table 3.11.

Foundations of Learning

Theory		
	Teacher Learning Category	**Professional Development**
Procedural	Standardized 1st level of learning Theory, skills and attitudes	Stand alone One or more days
Constructivism	Intermediate 2nd level of learning Theory, skills and attitudes	Site based Ongoing professional learning community
Phenomenological	Advanced Action Research/phenomenon 3rd level of learning Theory, skills and attitudes	Self-directed Ongoing- self directed

Developing a Personal Subject Construct

Up to this point, there has been an attempt to further clarify and put into perspective

an understanding of a process of learning for teachers. The remaining review will attempt to

focus more on knowledge acquisition for teachers and what they must learn within their own

reality. *A Taxonomy of Teacher Engagement* (see Table 3.10.) explained by bringing into

play the underlying theories of what, how and when we must learn. It was further explained

that there were indications that learning was a transformative process that followed a path

along a continuum. This study clarified that path as procedural learning, constructing

learning or phenomenon learning. That path could also be referred to as level one, level two

learning and level three learning. Theorists recognize that there is a continuum to learning

based on the self-system, cognitive and metacognitive demands of the task (Bloom, 1957,

Marzano & Kendall, 2007, Mesirow, 1991, & Pinnell & Woolsey, 1985). For a complete

summary of Marzano and Kendall's new taxonomy (2007) of learning, please refer to

Appendix M. A summary of Bloom's original taxonomy (2009 August 19) is included for

perusal in Appendix N.

No matter the level of learning deemed pertinent, Delors (1989) writes that we must

consider four pillars of learning within the knowledge domain (Bloom, 1956) to be effective

in carrying forward the learning. He strongly suggests that learning in the 21st Century is

complex and the four learning pillars of knowledge must be studied and understood. This

would help the individual to understand what must be done to acquire and develop the

knowledge needed to further their personal understanding and practice. They may also be

linked to the Reading Recovery teacher learning (see Figure 3.5.) presented in the works of

Pinnell (1991). These four pillars of knowledge are learning to be, learning to live together,

learning to do and learning to know. They could also serve as part of the knowledge base

that Marzano and Kendall (2007) proposed in their taxonomy of learning. These four pillars

of knowledge also include Bloom's (1956) notion that skills and attitudes are important to the

profession. Thus, the four pillars of knowledge, add to the learning domains, shown in Table

3.11. - *Foundations of Learning*, and would further explain what is considered knowledge.

Table 3.12.

Four Pillars of Knowledge

Learning to be	Teachers have to act with greater autonomy, use judgment and assume personal responsibility.
Learning to live together	Teachers have to work as a community to promote student learning.
Learning to do	Teachers must learn their occupation. This includes skills, competence and putting it into practice. Learning to do calls for new types of skills.
Learning to know	Teachers must enrich their acquisition of knowledge by engaging in a never-ending process of learning.

Historically, at the school level, education systems tended to emphasize the "learning

to do" which is basic/procedural or the first level of learning for teachers (Bullemer et al.,

1989), to the detriment of other types of learning. If you ask teachers, they are going to tell you that the important part of teaching is "learning how to do" which are also part of the standard learning or the first level of learning characterized in Table 3.11., *Foundations of Learning*. It can become intermediate learning if an understanding of the underlying theory is studied and shared with others. Teachers' underlying belief is that learning how to teach the actual craft, is what is important (Fullan, 1993). They believe that by the act of teaching they are promoting the necessary skills for success in today's society, while in reality they don't have any idea of the theory underpinning the practice. Working with others helps to advance teachers' knowledge to a second level of learning and it is necessary that teachers share and help each other. They could be classified as educational technicians (Adams & Tulaisiewiz, 1995) when in reality they must become practitioners whose reflected work guides that practice (Pohlm, 2000). Is it possible to have a system in place that facilitates and guides teachers to be better reflective practitioners? Part of the *Foundations of Learning*, tentatively presented in Table 3.11., and the *Four Pillars of Knowledge* presented in Table 3.12. is the notion that teachers have to build a personal subject construct of knowledge(Atherton, 2009) that enables them to move from the first level of learning to a third level of learning on an ongoing basis. This personal subject construct is the total of what the teacher knows at a particular time in their career. Building a personal subject construct of knowledge (Atherton, 2009) is critical to teaching in the 21st Century. Teachers who are undergoing some form of professional development must be guided to build on their personal subject construct. This construct can continue to grow and develop through the different levels of learning within their practice. The Reading Recovery teacher learner framework (see Figure 3.5.) ends with the teacher reconstructing their own theory. A personal subject construct must include the tentatively proposed *Foundations of Learning* in Table 3.11. and the *Four Pillars of Knowledge* set forth by Delors (1989) (see Table 3.12.) in the report of UNESCO on learning in the 21st Century. The three sections of the construct are

meant to also incorporate the knowledge domains (Bloom, 2009 August 19) of skills, theory

and attitudes towards their own learning from the *Taxonomy of Teacher Engagement* (see

Table 3.10.).

Most likely the procedural form of professional development, or the first level, will

fall short in building a complete construct of knowledge because of the focus on technical

skills (Adams & Tulasiewiz, 1995). It could be viewed that this learning would be more

along the lines of "learning to do', as was postulated by Delors (1989) in the *Four Pillars of*

Knowledge presented in Table 3.12. If the learning never went beyond this level, a teacher

would most likely depend on a pre-packaged curriculum that didn't allow for any

individuality of material. The construct may be strengthened by involvement in the second

level of learning. Becoming a member of a professional learning community could further

help the teacher to develop that knowledge. To further strengthen the construct, the teacher

may advance to a third category of learning and ask himself or herself, "What do I now need

to learn?" (Mezirow and associates, 1990). The teacher could take on a personal project of

educational study.

With the building of a personal subject construct, the educator is learning about

theory, skills/practices and attitudes on self needs. Many teachers develop skills in one area

but they don't seem to build a cohesive, complete construct of understanding in their field.

Education for some teachers becomes a simplification of a complex process (Clay, 2005). It

would be a necessity for an educator to push to the third level of learning and perfect their

construct of learning within their field to be considered a Teacher Leader or a leader in the

field of education. Some would consider this to be characteristic of an exemplary teacher

(Pressley & Roehrig, 2005). Exemplary in one's profession may be defined as deserving

imitation because of excellence (Merriam-Webster, 2010 August 15). At this stage, the

subject construct of knowledge is comprised of all three levels of learning, the theory behind

the learning, teacher learning and the *Four Pillars of Knowledge* (see Table 3.12.) to form a

subject construct (Atherton, 2009). Figure 3.6. –*A – Teacher Personal Subject Construct*, is a beginning representation of a teacher's personal subject construct, which is based on the combined works of Bloom (2009 August 19), Delors (1989), Atherton (2009), Marzano & Kendall (2007), & Clay, 2005). This representation of the personal subject construct is tentative, and it is expected to expand as more information is gathered on the subject of teacher learning, teacher knowledge and professional development.

**Figure 3.6.-A		Teacher Personal Subject Construct**
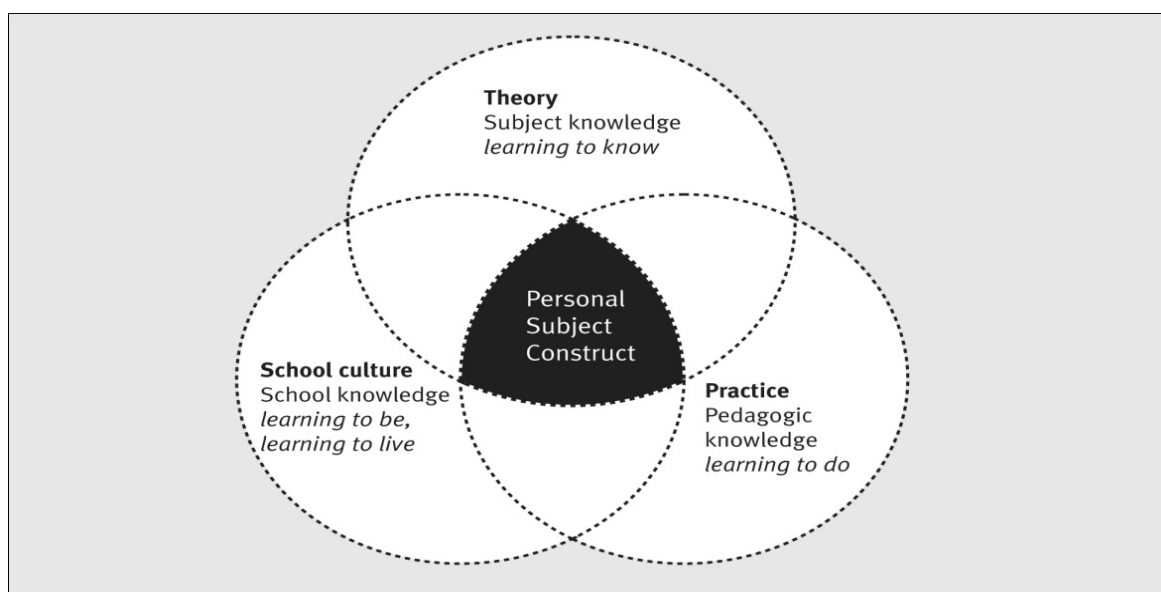
In referring back to Erica's, Nora's and Kelton's responses on the Likert Scale, we see that they have added to their personal subject construct. This is evident through their noted changes in knowledge represented by the change over time in their perceived learning. At this point, it would appear that they have followed a continuum that is grounded in a plethora of connected theoretical basis that explain the process of learning. Askew in *Using an Unusual Lens* (2009) advocates for being a constructive and active learner. A concept of transformative learning (Mesirow, 1991) might help to explain how we remain active and construct our own learning, is being explored. This is the beginning of forming an understanding that will be further developed and explored within the presentation and analysis of future data from the group of participating teachers.

In the field of education, pertinent knowledge for today's cohort of students, is changing and evolving daily (Zhao, 2009). Some teachers feel that if they ignore the changes they will go away (Shulman and Shulman, 2004). With the advent of the technological age, we see information transfer at a speed never seen before (Fullan, 2001). A knowledge society has been born, and with its birth teachers must adjust their sails to the prevailing winds. Teachers are not alone on this journey, but everyone must learn to sail to the best of their abilities. Shulman (1999) set the field by posing three questions that developers of professional development and teachers determining their own learning must pose before planning any learning opportunity. These questions are:

- What is professional learning?

- How can teachers be helped to acquire and develop that knowledge?

- What do teachers need to know and do in their practice?

These questions posed by Shulman expand the notion of what constitutes a personal subject construct. An expanded construct will help to determine what teachers need to know and do in their practice so that they may drive forward their own learning. So, planners of professional development must first have a good understanding of what is to be learned. Then a process of knowledge acquisition will take place so that a transfer may happen to teachers' practice. Atherton (2009 April 20) states that we must build on a personal subject construct within our own field (see Figure 3.6.-A). Further to building a construct Marzano and Kendall (2007) listed in their taxonomy of learning that knowledge in education may have three classifications of theory, skills/practice and attitudes. The analysis of the data presented on the second part of the self-assessment survey will hopefully help this researcher further develop a greater understanding on the development of a personal subject construct.

The second section of the self-assessment survey consists of a questionnaire. This is proposed to gather more information or evidence of learning which is used to better clarify the understandings developed from the first section of the self-assessment survey.

Change Over Time in Learning

Section 2 – Questionnaire

The second part of the survey (see Appendix C) asked the teachers to give their view of reading and writing theory, and how they taught reading and writing. The questions posed for the second section were to further gage the teachers understanding of theory, skills and attitudes in relation to literacy, and how they practiced teaching reading and writing. The results from the questionnaire were summarized and similar concepts were sought as a means to code the data (Merriam, 2009). This inquiry was focused on learning about theory, learning about practice and also learning about the professional self. Figure 3.6.-A – *Teacher Personal Subject Construct,* listed knowledge as practice/skills, self and theory. Learning about the professional self, is reported as percentages to show a personal level of understanding at that time. This percentage was realized by counting the number of times teachers mentioned that they had learned about their professional self. It was then determined how many times personal understanding of self was mentioned. This total was then divided by how many times individual teachers mentioned "self". A simple mathematical procedure was used to find a percentage.

Table 3.13.

Term 1 –Personal Subject Construct – September 2008

Theory	**Practice**	**Self**
Reading and writing everyday	Daily exposure	50%
Word solving/comprehension strategies	Directly taught	67%
Guided practice – repeated	Mini/lesson –whole group	78%
Strategy	Meeting area	
Modeling and doing	Sharing time	
Reading and writing is a process	Demonstrate	
	Word list	
	Home reading program	

In September 2008, at the beginning of Reading Recovery professional development, the teachers listed a limited ability to verbalize their thoughts on reading and writing. Much of what was mentioned was item based. Words such as strategy were mentioned but there was no elaboration of the term, so it was assumed that there would be a limited understanding of what it meant. Gratifying, under practice, was the fact that reading and writing were listed as everyday activities and that they must be taught directly. Essentially, it was difficult to gage an understanding of what was known by the responses that were recorded at this time. The respondents were vague, and it seemed like they were just putting down words they had heard. Within the column entitled "self" we see the percentage of three teachers who indicated that they could assess and verbalize their own learning needs. The teacher's responses to the same question in June 2009 were a bit more elaborated and sophisticated. Again, their answers were summarized and coded using theory, practice/skills and self.

Table 3.14.

June 2009 – Personal Subject Construct

Theory	Practice	Self
Reading and writing are linked.	Reading and writing everyday	75%
Teach letters/sounds/words in context.	Sense of ownership	78%
Make meaning from the known.	Reading and writing genres	78.5%
Use structure.	Integrated across curriculum areas.	
Use visual information.	Time to practice.	
Daily.	Introduce new words/word lists/context.	
Reinforce strategies.	Choice of books.	
Reading strategies.	Reading workshop.	
Begin early.	Mini lessons/whole lessons.	
Immersed in reading and writing.	Home reading program.	

At this time, it was important to see that the teachers were now talking about strategic activity using the sources of information of meaning, structure and visual information. Their

understanding of how to integrate this within their practice had also shifted to including

reading and writing within their daily teaching, whatever the topic. There was a definite shift

over the year in understandings, as was evident in the increase in their ability to verbalize

their own learning needs.

Early in December 2009, because of the vagueness of responses, the three teachers

who took part in this study were interviewed (see Appendix K). It was important to follow

up and question what and how they felt that they had improved in their overall knowledge

about teaching reading and writing. In June 2009, this group was under tremendous stress to

finish their yearly work with Reading Recovery and also with their other teaching

assignment. The answers to the end of year self-assessment survey might have been rushed

and not their best responses. Therefore, it was decided that a follow up interview was

appropriate. The major interest was to understand how they felt that participating in Reading

Recovery initial professional development had increased their knowledge about literacy

practices, not only in Reading Recovery, but in their classroom practice.

Table 3.15.,*Follow-Up Interview- December 2009,* (see Appendix K) represents the

coded and summarized results again presented under theory, practice/skills and self for all

participants as included in a personal subject construct. As before, the codes are determined

by identifying key points, then grouping similar content. The difference here is that there is

no quantitative data indicated for the professional self. It had been previously determined

that there was a change over time in determining educational needs. It was deemed necessary

to list similar experiences as written by teachers to give voice to their learning.

Table 3.15.

Follow up Interview – December 2009

Theory	Practice	Professional self
I now have a whole bank of literacy knowledge. I didn't know how kids learned to read and write. Knowledge is powerful. Highly complex.	I have learned about assessment practices and analysis Don't take the comments personal, everyone learns at their own pace It's hard work to teach reading and writing. I focused on bits and not the whole All my students didn't get Reading Recovery but they got teaching that went along with it.	The benefit of seeing and discussing teaching. I still find it hard to reflect on myself. Before Reading Recovery I was second-guessing my ability as a teacher. I was narrow in my views about reading and writing. I now question things and search for answers. I bring meaning to the process. I now teach in Grade 4 and I went back to the basics. I had to teach from there. I learned that in Reading Recovery Set learning goals from self-analysis

We get the sense that the development of the teacher's knowledge about their own learning was very important. The percentages shown on the Likert scale (see Appendix C) indicated the change in their perceptions towards their own teaching. But, the comments garnered from the interview, clearly show an increased awareness of self-analysis and reflection that was not evident in September 2008. The follow up interview elaborates by adding a voice to the noted change in their perceptions towards teaching over a year of professional development. The explanatory comments from the interview reinforced the original suppositions of the change over time in learning that had previously been reported as percentages in Table 3.1. – *Erica-Self Report*, Table 3.3. – *Nora's Responses* and Table 3.5. – *Kelton's Responses*. To add credibility to those results, we now must turn our sights to student results in reading and writing. We might gain a better insight into why there was a

change over time in teacher's determination of personal educational needs. The following

table, Table 3.16. – *Summary – Average Growth in Reading Levels*, is a summary of the

average growth in reading levels by students over the period of professional development.

The data was collected from the Running Record (Observation Survey, 2005) listed on

Reading Recovery lesson records. It was decided that the time frame for the collection of

data would consist of three month blocks of time. This was equated to the concept of

transformative learning and the different terms of time. Therefore, term one, term two and

term three are used to indicate the passing of time. Records for each student were divided

into the blocks of time and progress, though reading levels were listed teacher by teacher.

The records indicate that there was a 25% increase in reading levels in term one, an increase

of 30% in term two and an increase of 44.4% in term three. Therefore, it is surmised that

teachers would analyze student data to determine their own needs by having an opportunity to

put their learning in practice (Cross, 1981, Lieb, 1991, & Marzano, 1991) and continuously

reconstruct their own understanding of literacy theory (Pinnell, 1991).

Table 3.16.

 Summary – Average Growth in Reading Levels

Term	Kelton	Erica	Nora	Total	Range	Average	% over term
1	4.5	5	4	13.5/54	4 - 5	4.5	25%
2	5	5	6	16/54	5 - 6	5.4	30%
3	6.6	9.5	8	24/54	3 – 9.5	8	44.4%
				54			100%

        To further solidify the notion that when teachers analyze student data and this helps

them determine their own needs, we must look to evidence from data collected from another

source. The data from Reading Recovery lesson records – writing vocabulary, was collected

to show the change over time in learning new writing vocabulary. When Clay (Watson &

Askew (Eds.), 2009) conducted her research, she indicated that one issue of doing social

research within the field of education is that no group is static. There is continuous

movement of student's, therefore, the periods of time are listed as first and second intake of

students. The first intake of children, were the children selected to participate first in the

intervention. The second intakes were the students selected after the first intake had a

participation rate of 12 to 20 weeks in the intervention. Each participant in this study was

included by using their record of vocabulary gains during their period in Reading Recovery.

The following table, Table 3.17. - *Change Over Time in Writing Vocabulary,* indicates the

number of words on average the student learned over their period of time in Reading

Recovery.

Table 3.17.

Change Over Time in Writing Vocabulary

	Nora	**Erica**	**Kelton**	**Total**
1st intake	25 3-30 range	21 2-26 range	19 5-23 range	22 2-30 range
2nd intake	34 22-46 range	29 8-34 range	28 4-34 range	30 4-46 range

On average, the first intake had learned an average of 22 words over a period of their

time in Reading Recovery. Some students began the intervention with two words, while

some students ended the intervention with 30 words. The second intake of students had 30

words on average at the end of their time in Reading Recovery. Students entered with as

little as four known words and some exited with 46 words. As teachers learned more about

theory and self, it helped develop their understanding to better their practice (Pinnell, 1991).

The following comment by a teacher summed up the whole Reading Recovery

professional development experience for this group of teachers:

"I wished I had picked up more"

Up to this point, we have seen an overlying emphasis that learning occurs over time,

and the results add on to a personal subject construct. In the field of education, pertinent

knowledge for today's cohort of students is changing and evolving daily (Zhao, 2009). Some

teachers feel that if they ignore the changes they will go away (Shulman and Shulman, 2004).

With the advent of the technological age, we see information transfer at a speed never seen

before (Fullan, 2006). A knowledge society has been born, and with its birth, teachers must

adjust their sails to the prevailing winds. Teachers are not alone on this journey, but

everyone must learn to sail to the best of their abilities to build on a personal subject

construct. Shulman and Shulman (2004) set the field by posing three questions in

understanding the development of a personal subject construct. These questions are:

- What is professional learning?

- How can teachers be helped to acquire and develop knowledge?

- What do teachers need to know and do in their practice?

These questions posed by Shulman expand the notion of what constitutes building

onto a personal subject construct. Presently, we all have a personal subject construct that

consists of theory, practice/skills and self. Perhaps an expanded construct will help to explain

what teachers need to know through professional learning so that they may drive forward

their own learning. Planners of professional development should first have a good

understanding of what is to be learned; then a process of professional development may be

possible. Beyond the foundational work understanding teacher learning, it is also a necessity

to understand how to bring that learning to an audience and be successful. Educational

leaders must learn how to teach teachers that will facilitate a change in the personal subject

construct. The journey within this study must now continue. We continue this journey by

addressing and studying the executive function (Zelaso, 2005) of professional development to

meet today's educational needs. Readers might question the pairing of executive function

and professional development. Executive function is normally thought of as a psychological

phenomenon. It is defined as the actions performed on ourselves, which direct our actions to

self-control our goal-directed behavior, and that result is the maximization of future

outcomes. We may see that it is a perfect fit within the vocabulary of teacher professional

development (Executive Function, 2009 February 19). This should be one of the goals for

any professional development initiative (CPPD, 2009 April 17). Reading Recovery is built

on a theory that learning takes place through action (Pinnell, 1991). As teachers, executive function is important on many fronts, but especially in the evaluation of our own ideas, in reflecting on our own work, and most importantly, when we seek help when needed. The *Foundations of Learning* (see Table 3.11.) are evident when developing a personal subject construct, but in addition a professional must reflect on and critically evaluate his practice. As previously presented within the questionnaire and interview, the teachers' analyzed student data to determine their own needs as well as their student's needs. The following Table 3.18. – *Change Over Time in Self-determination of Needs*, indicate the change over time in self determination of needs.

Table 3.18.

Change Over Time in Self-determination of Needs

September 2008	June 2009
50%	75%
67%	78%
78%	78.5%

After determining their own needs, critical reflection might need to be added to the personal subject construct (see Figure 3.6.-A). This is an important consideration because knowledge is being built so that professionals can advance their own learning by self-determination of their needs. Teachers must hone this ability (Livingston, 2011 May 8), but planners of professional development must foster this important function for the continued growth of a personal subject construct of knowledge. This means that planners of professional development must expand their conversations about professional learning and the planning of that professional learning. A previous argument advocated for teachers understanding the basics of a learning process (see Table 3.11.). If teachers don't understand how they learn, it is difficult to understand how children learn. Teachers analyzed student data to determine their own needs as well as their student's needs. The overall goal is to help

teachers acquire pertinent knowledge to their practice. The following two components of executive function (Stanberry, 2007) are especially important to planners of professional development. These two are described as:

- Working memory and recall – We will learn if we can hold facts in mind while manipulating information and accessing other facts stored in long-term memory. Making meaning of the process is important and necessary. Our cognitive ability is organized in clusters and this facilitates how the brain processes information. It is a covert action (Stanberry, 2007) and may refer to the function of the brain explained in Figure 3.4. – Engaging the Brain.

- Taking an issue apart – We must practice analyzing the pieces of a problem or an issue, reconstructing and organizing it, proposing and studying new ideas, and taking part in complex problem-solving activities to find a solution. This can be group oriented or it can be an individual action. This is an overt (Stanberry, 2007) action that may be further explained as a function of the brain as depicted in Figure 3.4. – Engaging the Brain.

These two actions seem necessary or essential in order for professionals to develop the reflective skills needed to expand a personal subject construct of knowledge (see Figure 3.6.-A). Teacher executive function influences performance at school, or on the job, emotional responses, personal relationships and social skills. Yet, executive function plays itself out a little differently for each individual. It involves activating, orchestrating, monitoring, evaluating and adapting different strategies to accomplish different tasks (Zelano, 2005). It also requires the ability to analyze situations, plan and take action, focus and maintain attention and adjust actions as needed to get the job done. This could be better described by Cross (1981), Lieb (1991) and Mesirow (1991) in what teacher opportunities should encounter to construct, access and be involved in to learn. This is also exemplified with the inclusion of the Reading Recovery Teacher Learning Framework (see Figure 3.5.).

The foundational keys to transformative learning (Merriam & Caffarella, 1990) are experience and critical reflection. These two points help in the development of the critical thinking skills that form the "self" of the personal subject construct. The ability to analyze your own practice is necessary as you tap into the overt and covert behaviors of your learning (Stanberry, 2007). The two behaviors activate the ability to use our working memory in recalling how to deal with pertinent issues related to our teaching. So, critical thinking skills within the development of a personal subject construct (see Figure 3.5.) are deemed necessary in and out of Reading Recovery. It facilitates and promotes learning through our ability to analyze our responses to the stimuli presented and created while teaching. To further clarify this point, Table 3.19. – Prom*oting Learning-Executive Function*, is presented to lay bare the processes of the executive function of learning. Professional development would naturally activate these processes to make learning possible for teachers. This table is derived from the works of Stanberry (2007) and Pinnell (1991), which describe the covert and overt behaviors that planners of professional development must facilitate to promote critical thinking, to re-construct a theory as part of building on a personal subject construct (see Figure 3.6.-A) of knowledge.

Table 3.19.

Promoting Learning – Executive Function

Covert Behaviors	Overt Behaviors
Mental Process – Cognitive Function	**Executive Functions**
Activation	Organizing, prioritizing, and activating to work. Initiating, planning, strategizing and sequencing
Focus	Focusing, sustaining, and shifting attention to tasks
Effort	Regulating alertness, sustaining, and processing speed Pacing, managing time, and resisting distraction
Emotion	Managing frustration and regulating emotions
Memory	Utilizing working memory and accessing recall Using feedback
Action	Monitoring and self-regulation action Inhibiting

Each mental process (see Table 3.19.), when we engage the brain, operates in rapidly

shifting interactive dynamics to do a wide variety of daily tasks that require self-regulation by

using attention and memory (see Figure 3.4.) to guide one's action. It is evident that

developing the ability to analyze our own needs in developing a personal subject construct is

linked to our ability to think critically. This will lead to questioning of one's own practice to

determine our learning needs and the needs of others. Living in Nova Scotia, Canada, one

cannot discuss professional development without considering the impact of the school

accreditation process (NSDOE, 2005). The Reading Recovery group is not an isolated entity;

they are also part of a larger learning process. This study involves three teachers

participating in Reading Recovery professional development. It must not be forgotten that

they are also part of a larger culture that includes their school environment being involved in

a process of Accreditation (NSDOE, 2005). This group of teachers is learning on two fronts,

at the school and within the Reading Recovery group. The goal of Nova Scotia School

Accreditation (NSDOE, 2005) is on school improvement at the grassroots level. It is

essentially a four phase process where its main focus is on the student learning. This should

drive teacher learning if they are critically evaluating their practice to self determine their

learning needs. The accreditation process (NSDOE, 2005) was put in place to allow teachers

to build on a personal subject construct (see Figure 3.6. -A) of knowledge that revolves

around the executive function (Zelaso, 2005) which in its purest form is critical thinking.

The Reading Recovery professional development within an accreditation system will have a

direct impact on practice, as it will help the development of knowledge and aid in the self

determination of learning needs. This system allows for all three levels of learning depicted

in Table 3.11. – *Foundations of Learning*. In this way, each school's specific professional

development needs, as mandated by their School Improvement Plan (TCRSB, 2005), the Tri-

County Regional School Board's Business Plan (2009-10), or individual needs governed by a

professional growth plan. These three teachers have learned in an environment that includes

Reading Recovery professional development embraced within the accreditation process

(NSDOE, 2005) to meet student and teacher needs.

        If critical thinking, explained as executive function (see Table 3.19.), is to be fostered

within professional development, self determination of needs, practice/skills and theory of

learning must be developed within the foundations of learning (see Table 3.11.). Professional

development must reflect the needs of a changing society reflected by the diverse needs of

teachers (Schmoker, 2006), and promote the acquisition of knowledge for both teachers and

students. Teachers need to rethink their own practice and teach in ways they have never

contemplated before. Student success depends on how teachers are able to learn the new

skills/practice, new theory and determine their own needs, and then unlearn previous beliefs

and practices (Fullan, 1993). This is where the accreditation process (2005) is a positive step

towards including teachers in their own learning. The three Reading Recovery teachers are

adding to a personal subject construct that will see a ripple effect within their whole school.

The effective development of a Personal Subject Construct (see Figure 3.6. –A) relies on the involvement of the school community in school improvement initiatives. Fullan (2001) certainly advocates for community involvement by stating that "it is abundantly clear that one of the keys to successful change is the improvement of relationships – precisely the focus of group development. Table 3.11., *Foundations of Learning* describes working together to transfer a practice at the school level as the second level of learning. Clay in The Research Project (2009) realized early that teachers' working together was an important process that allowed for a continuous refinement of knowledge to improve practice. In schools, a strong model of this is seen in the formation of Professional Learning Communities (PLC), (Kruse, Seashore and Bryk, 1994). The Personal Subject Construct (see Figure 3.6.–A), should now be expanded to include more than knowledge about theory, practice/skills and self determination of needs. These functions are, of course, central to the construct, but the construct has been expanding to include the executive function of professional development. The executive function of professional development has been discussed as critical thinking skills and must become an equal partner in the acquisition of new knowledge. Critical thinking is the thread that binds theory, practice/skills and self determination of needs together to make learning possible. Planning to help a teacher build on their personal subject construct of knowledge, as depicted in Figure 3.6. -A, has been expanded to include the executive function and now will be known as Personal Subject Construct – B.

Figure 3.7.-B   Personal Subject Construct

Executive function – critical thinking

Theory
Subject knowledge
learning to know

Personal
Subject
Construct

School culture
School knowledge
learning to be,
learning to live

Practice
Pedagogic
knowledge
learning to do
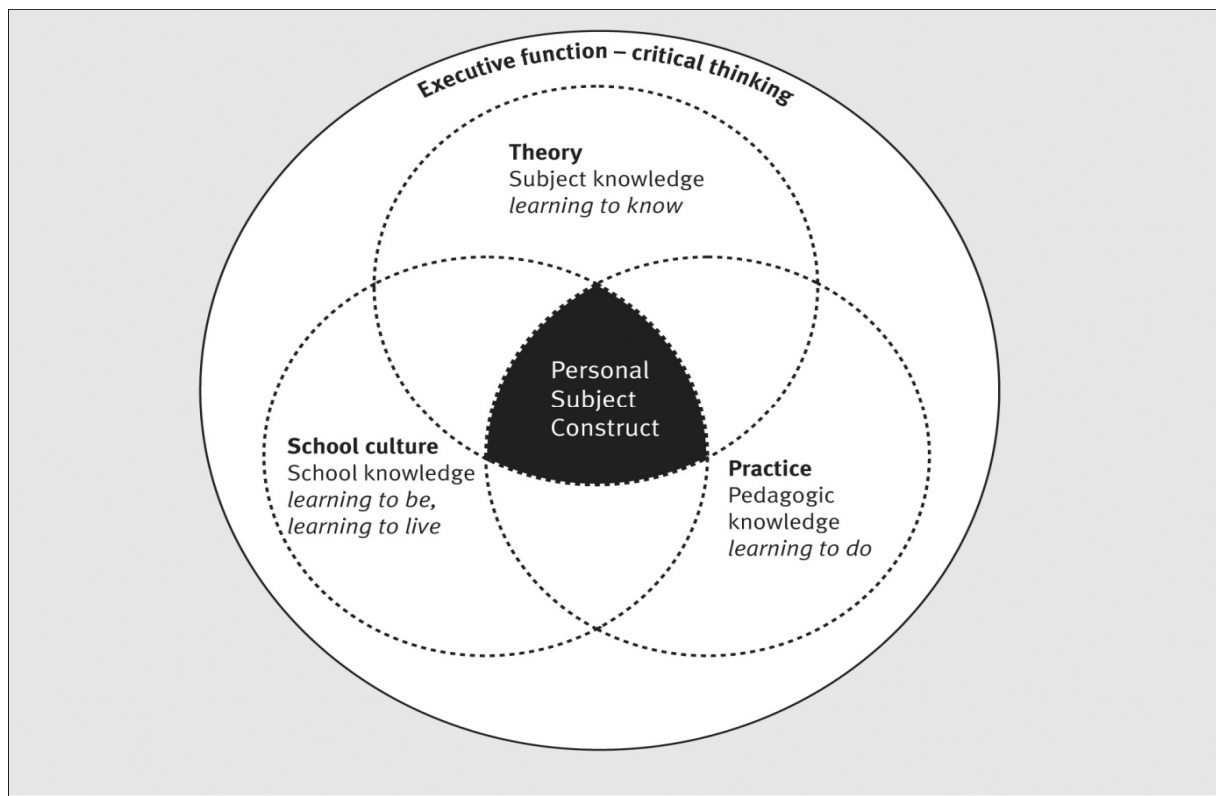
Professional development, at its core, must be learner-centered (Marzano and

Kendall, 2007) and with the inclusion of critical thinking it becomes teacher-centered.

Learner-centered professional development includes not only the student but also,

necessarily, the teacher. Professional development for teachers must be seen as on-going and

focused (Fullan, 1998). A career-long perception of teacher learning is needed if we are to

see quality time allocated to the cultivating of new teacher knowledge, new practices and

change within a knowledge-based society (Davis, Sumara & Luce-Kapler, 2008). We must

move beyond the industrialized-age mentality of assembly line production to an age where

cerebral flexibility to problem-solve and think critically will be valued and compensated

(Fullan, 1998).

Teacher Centered Continuing Professional Development

Reading Recovery

One of the central goals of the document Learning for Life 1 & 2 (NSDOE, 2002 & 2005) was that an early literacy intervention be put in place for students who were identified as being at risk of developing literacy difficulties. Reading Recovery (Reading Recovery Council of North America (RRCNA), 2009) was adopted as the early intervention of choice for Grade 1 students in Nova Scotia. The accountability of the intervention (RRCNA, 2009 May 28) was a motivational factor in making this choice. It was universally implemented throughout the educational system in Nova Scotia, by the provincial policy makers.

Reading Recovery's (Clay, 2005) main function is to achieve two main goals:

1. The first goal is for the child to be a successful early reader and writer and for individual lessons to be discontinued.

2. The second goal is to identify children for further assessment, for longer-term assistance, and for specialist help in becoming an early reader and writer.

Reading Recovery teachers, through planned professional development, build a personal subject construct (see Figure 3.7. –B) of early literacy behaviors that enable them to put practices in place that enable individual students to close a gap of literacy achievement. There is a growing bank of research (DeFord et al.(Eds.) 1991, Schmitt, Askew, Fountas, Lyons & Pinnell, 2005, Watson & Askew (Eds.), 2005) that explains the ratings Reading Recovery receives as an excellent intervention that is effective in teaching young children, who are at-risk, to read and write. Teachers of Reading Recovery build a strong personal subject construct (see Figure 3.7.–B) in how to teach children to read and write. It is a system that focuses on student learning through sustained teacher professional development (CIRR Guide sheets, 2007). Teachers must become reflective practitioners who are focused on teaching reading and writing (Clay, 2005). Teachers enter Reading Recovery as students, not learning to read and write, but learning to teach reading and writing. The expectation for

teacher learning is high, both with theory and practice. They are supported by a Reading

Recovery Teacher Leader. Fostering critical thinking, it would seem, is important throughout

the process to achieve success. This is not to say that there are not detractors from the

success of this intervention in teaching children to read and write. Farrall (2006), Elbaum,

Vaughn, Moody (2000), Grossen and Coulter (1999) all have questions and critiques of

Reading Recovery. Their major critiques are listed as:

- The teaching of reading and writing is missing certain key points.

- It lacks an independent research base.

- It discriminates against poor, minority students.

- It is not cost effective.

- It doesn't reduce the need for Special Education.

- It does not raise the literacy rates nor do the children maintain their gains.

When Reading Recovery was first conceived in 1976, it was then rooted in 30 years

of research, critique and advocacy (Watson & Askew (Eds.), 2009). Clay had already spent

those years working with children who were becoming literate. This initial research

challenged established assumptions about literacy behaviors and how children experiencing

challenges in becoming literate should be taught. In publishing, *The Research Reports,*

(Clay, 2009) she shared the research process with the world to shed transparency on the

methodological framework of the development of Reading Recovery. Through the

development of an interactive staff development model (Pinnell, 1991 & see Figure 3.5.)

learning is applied to both children and teachers. The characteristics (Schmitt, et al, 2005-

Chapter 8) of the Reading Recovery staff development model are:

- That it is inquiry-oriented.

- That construction of understandings is through observation, reflection and discussion.

- Using live case examples to discuss and build a base for making teaching decisions.

- That teachers challenge their own assumptions.

- That teachers challenge others assumptions.

- That while teachers are learning, students are learning, and this should show in the results.

Since the inception of Reading Recovery, there has been an abundant bank of research completed on the learning duality of the process. In *Using an Unusual Lens* (Watson & Askew (Eds.) 2009, pp.101-130) Askew writes about the research methodology and the multitude of ways of observing students to gage results. The unique methodology when undertaking research within the confines of Reading Recovery has led to some critiques of the intervention. In New Zealand, MacDowell (Watson & Askew (Eds.), 2009, pp. 133-161) states that Reading Recovery research is criticized on the basis of the organizational changes in schools, the behavioral changes in teachers and the predication on classroom instruction. This changing landscape makes it hard to study. Teaching in Reading Recovery is built on the notion that students and teachers behaviors will change over time. Clay (Watson & Askew (Eds.) 2009 pp. 35-100) stated early on that she used an unconventional research design that allowed for varying lengths of time and a school to school implementation to gather evidence of success. She acknowledged and built this into her design when conducting a study. This has created continuous issues for the research community, as it didn't allow for a scientific methodology. In North America (Iverson and Tunmar, 1993), indicated that there was no random sample when they conducted their research and that their data was subjective. Swartz (Watson & Askew, (Eds.) 2009, pp. 162-189) also indicated that like in New Zealand, Reading Recovery in North America was difficult to explore with experimental studies. It would be difficult to maintain control groups with an unconventional research design (Clay, 2009). Shanahan and Barr (1995) indicated that they were under a misconception that only the students who make sustained gains were included in the data collected to track student progress, thus skewing the results. When put to the test, What

Works Clearinghouse (IES, 2009 May 15), a branch of the United States education system,

indicated that five Reading Recovery scientifically based studies hold true. What Works

Clearinghouse only reviews scientifically based studies. These studies replicate and extend

the early research project of 1976. Of the multitude of studies on Reading Recovery, many

were not included for perusal because they were not scientifically based. In the United

Kingdom and Ireland, Burroughs-Lange (Watson & Askew (Eds.) 2009, pp. 190-217)

indicates there were two issues at the forefront when discussing Reading Recovery. These

two had to do with the public purse and readiness. The critiques were asking if the cost to

individuals and society was showing enough of a return on investments in early literacy

achievement. Supporting evidence has come from Brooks (2007) who reviewed and re-

analyzed forty-eight different literacy intervention schemes. He argued that Reading

Recovery showed through their national report in 2006-2007 that it delivered the outcomes

promised in early literacy achievement. The London Evaluation study (Burroughs-Lange &

Douetil, 2007) explored the issue of readiness. The children who had received Reading

Recovery during the year were reported by their teachers as having made greater progress

across a range of learning, not only in literacy. In 2007 (Hurry & Sylva) a follow up on an

earlier study conducted in 1992-93, where they re-analyzed the results and represented the

results in 2007. This study was important because it reiterated that children who took part in

Reading Recovery at the age of six showed significant positive effects for children who were

complete non-readers. Clay recognized that there were limitations to doing social science

research in Reading Recovery. In the New Zealand national monitoring phase of 1976-1983

(Clay, 2009) she stated that issues with conducting research revolved around in house

assessments by teachers, the unconventional design of grounded theory, and that teachers

learning takes place through action. Learning for teachers and students does not remain

static, therefore; it is difficult to study. All of this should not detract from continued learning

about theory, practice and self built into a personal subject construct. Questioning should be

the act that leads to the development of an expansion of a personal theory or even future theories. There has been an expansion of understandings around the development of literate behavior since Clay first began to investigate and challenge assumptions about young children learning to read and write (Ballantyne, 2009). Clay's goal was to always look for evidence that Reading Recovery was valuable to the system that had implemented the intervention. In Nova Scotia, since implementation, 20-25% of the Grade one population has bridged a gap in their literacy learning. We could expect that the professional development followed by teachers has helped in students and teachers learning.

If the executive function of professional development (Zelaso, 2005) is creating critical reflective practitioners, it is necessary that a solid foundation of professional development be built into the design of the professional development, moving teachers beyond technical expertise (Adams & Tulasiewiz, 1995) in presenting lessons. It is not enough to know what must be learned, it is imperative to know how it will be learned. A personal subject construct of knowledge in Reading Recovery is based on the generic construct initially presented in Figure 3.6.-A, and expanded in Figure 3.7.-B. The following construct of knowledge demonstrates what Reading Recovery teachers must learn to make them successful teachers of reading and writing. The construct has four (4) components which clarify the theoretical foundation (Clay, 1993) and procedures of Reading Recovery professional development (Clay, 2005). Together these four (4) components lay the foundation of knowledge and the path to learning that comprises the professional development necessary for Reading Recovery teachers.

Figure 3.8. - C   Personal subject construct in literacy
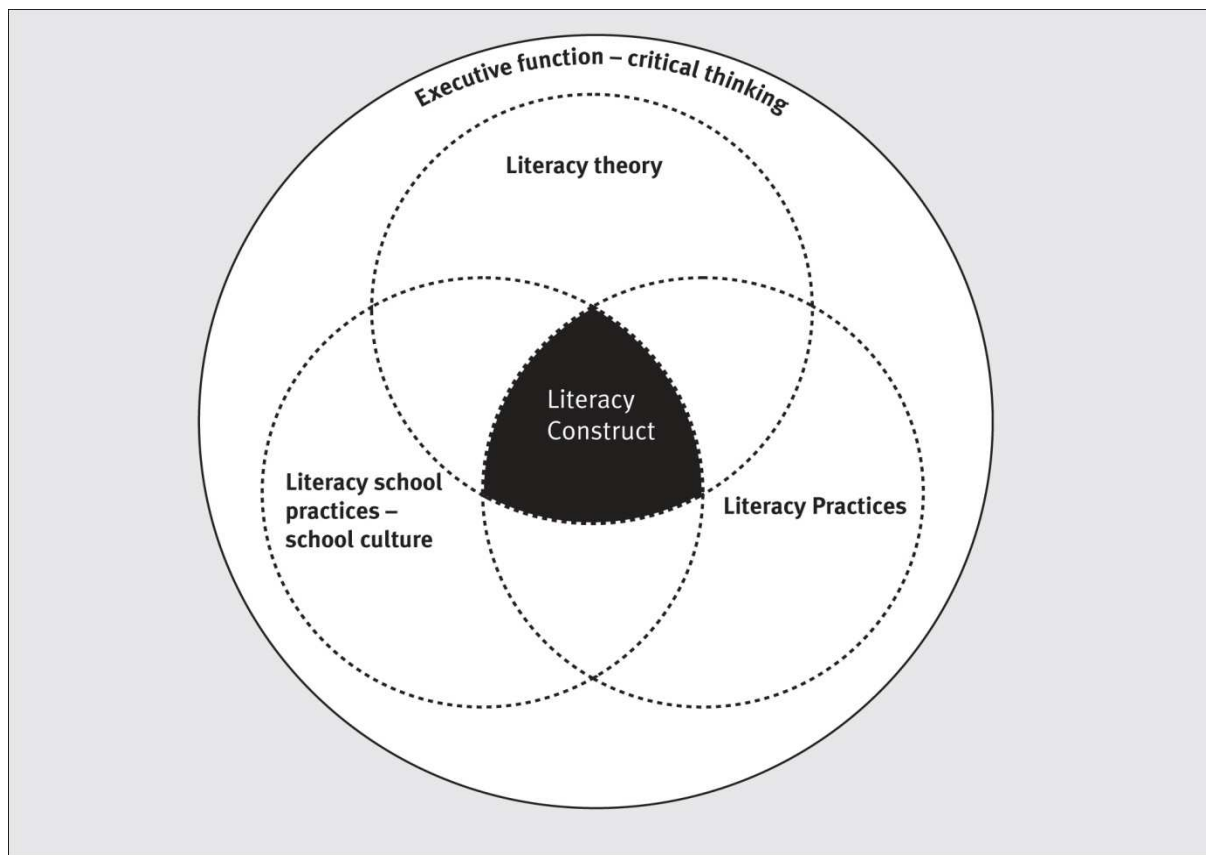
The two (2) goals of Reading Recovery relate directly to student achievement, but it

has long been evident that student and teacher achievement occur simultaneously. As

Pressley and Roehrig (2005) aptly states, system reform, school reform, and program reform

depend on teacher reform at heart. They observed that Reading Recovery trained teachers

were considered exemplary primary teachers. Their research has shown that trained-in-

Reading Recovery teachers were consistently in the exemplary group. It can be surmised that

Reading Recovery professional development (see Figure 3.5.) is very effective in producing

highly knowledgeable, exemplary elementary literacy teachers. The following discussion of

learning through a process of professional development is intended to further explain the

learning undertaken by the three (3) teachers participating in this study. There is no

consensus on the best framework for continued professional development (Goals 2000), but it

is agreed that a combination of approaches, ideas and techniques will help learning and

growth in one's chosen profession. The one thing that is agreed upon is that it is crucial to

ensure proficiency in certain basic processes (Cook & Rasmussen, 1994). These basic

processes have been classified in the personal literacy construct (see Figure 3.8.-C) and this

construct lays the foundation for learning about literacy. This literacy construct is further

explained as:

- Part 1 – Educational Theory – Literacy theory learning involves teachers

  understanding how and why children use meaning, structure and visual information to

  self-monitor, search, crosscheck and self correct with the information in their

  environments. They must become strategic readers who can problem solve to become

  better readers and writers (Clay, 1993).

- Part 2 – Educational Practice – Teaching children to be strategic in their actions

  involves learning about Reading Recovery procedures (Clay, 2005), planning for

  individualized instruction, learning to observe children's progress, knowing what to

  observe, learning to assess reading behaviors, analyze data, collaborate with peers,

  reflect on practice within a group and as an individual on a daily basis.

- Part 3 – Educational Culture with a self determination of needs – Teacher learning in

  Reading Recovery is fostered by being part of a professional learning community

  (Pinnell, 1991), all focused on the same goal of learning and teaching children to read

  and write. This is an integral part of self-determination of needs within a practice.

  Three levels that include Reading Recovery trainers, Teacher Leaders and teachers

  within that framework, support the overall professional learning community. The

  culture and practice is further strengthened by the implementation supports at the

  level of the school district. These supports include financing, time resources,

  technology and staffing needs at the school level.

- Part 4 – Further, ongoing strengthening of the literacy construct is necessary; in fact it is the thread that binds all parts together. This is the facility to reflect critically on one's learning, thus pushing forward personal learning goals (Pinnell, 1991).

Logically, this chapter attempted to link learning of new knowledge to its theoretical foundations. The first section of the self-assessment tool gaged a general idea of teacher opinions embedded into present day theory and educational policy. The second section of the self-assessment tool was administered in an attempt to investigate the building of knowledge within professional development that is linked to the theoretical underpinnings (Marzano & Kendall, & Atherton, 2009 April 20) of continually developing a personal subject construct over time. The next chapter, *Reaching a Destination*, will continue to build on an understanding of transformative learning undertaken by the Reading Recovery professional development group.

Chapter Four

Reaching a Destination

Teachers participating in Reading Recovery professional development had changed their overall knowledge of literacy processes. This was supported by the evidence presented in Tables 3.13., 3.14., 3.15. and Table 3.18. – *Change Over Time in Self-determination*. This was a good beginning indication that they were transforming their learning from procedural to questioning a phenomenon within their practice. The time frame for professional development is divided into term one, two and three because of the underlying theory that belays the fact that learning is a process (Mezirow, 1991) that takes time. Table 4.1. – *Learning Framework*, is a summary of the learning framework that partially explains how learning is transformed over time. DeFord, Lyons and Pinnell (1991) while editing *Bridges To Literacy* indicated that there is a clear showing of a shift over time from only using skills to teach, to the development of orchestration abilities that helps teachers to problem solve issues around literacy acquisition. This chapter will continue with an investigation of the specifics of teacher learning, over a period of time. This is better explained within a learning framework (see Table 4.1.), which presents a specific timeline that could be followed when collecting and analyzing teacher data. This will attempt to show some specific changes in teacher learning. This learning framework is not meant to disparage or change the staff development process presented in the works of Clay (2005). This new professional development framework is meant to be used as an organizational tool that could explain the transformation of learning by a group of teachers learning to teach Reading Recovery. It is contrived from the theoretical foundation discussed in Chapter 3. The analysis and reporting of the data within this framework is to solidify the notion that learning transforms over time. Once the specifics of learning are evident, an attempt is made to further clarify the continued

process of professional development through its basis in theory. It begins with an attempt to

link learning in Reading Recovery with general learning theory.

Table 4.1.

Learning framework – Reading Recovery and Generic Framework

Learning Theory: Behavioral Timeline: Term 1 – September to December		
Learning Goal	**Processing**	**Planning Reading Recovery PD**
Standardized learning Structured environment Focus on knowledge	Low order processing Directed P.D. What do I need to learn? What do students need to learn?	Standardized professional development. 1 day in-service Reading Recovery • Assessment • Procedures
Timeline: Term 2 – January to March		
Site-based learning Focus on knowledge and practice. Transformative learning	Scaffolded processing What do I now need to learn?	Site-based professional development Accreditation – school based Reading Recovery • Sessions • Visits
Timeline: Term 3 – April to June		
Self-directed learning Knowledge, application and evaluation Transformative learning	Higher Order processing – metacognition What have I learned?	Self-directed professional development Professional Growth Plans Reading Recovery • Sessions • Visits

        With the development of this framework, it gives specific purpose to the professional

development as well as to determine the necessary evidence to collect during this time of

professional development. For anyone not familiar with initial Reading Recovery

professional development, there are 18 sessions spanning an academic year. Each session is

2.5 hours in length and encompasses a focus, lessons study and discussion of theory and

teaching. The Reading Recovery Teacher Leader plans the sessions and facilitates the

sessions. Throughout each proposed term, the Teacher Leader will visit the teachers to work

one-on-one with the teacher. Over the span of the year, there are at least five visits to each

teacher. Each teacher within this study was visited at least five (5) times during this period of

professional development. Within this study, this is classified as lesson study (Brooks, M.,

2009). A discussion takes place regarding the teaching and the theory based on the

observations garnered from the teaching of a lesson. If the Reading Recovery staff model is

based on the assumption (DeFord, Lyons, Pinnell (eds.), 1991) that language is a key factor

in building theories around learning, then the ensuing discussions will enable the teachers to

refine and extend their experiences over time. Essentially, there is a transforming of learning

as explained in Table 4.1. – *Learning Framework*. Reading Recovery's staff model is

comprised of planning guidelines for the first four months of the intervention (CIRR, 2006)

that situate teachers immediately in teaching children. This is described as necessitating the

learner to build on the known while they construct new knowledge (DeFord, Lyons, Pinnell

(Eds.) 1991). I have taken the liberty of using the frames of reference of the underlying

theory of learning (see Table 3.1.) to categorize teacher data on learning. This enables a

categorization of data within a period of time as described in Table 4.1., *Learning

Framework*. This means that term one is characterized by procedural learning, term two is

characterized by developmental learning and term three is characterized by individually

studying a phenomenon.

How and what data to be collected was a daunting decision to make. Being a novice

at taking the time to record detailed results, I found it to be a daunting task to decide how to

critically analyze all the data collected from teachers and then reformulate it in a different

way to show evidence of learning. To formalize the findings there had to be a way of

organizing, analyzing and reporting the findings. It was important for me not get too caught

up in the collecting of data. The teachers and their learning had to be the priority and I had to

be careful to not deviate in performing the duties of a Reading Recovery Teacher Leader. It was a balancing act throughout the year as I was part of these two groups.

Data Collection and Analysis

Part of the data collected was the everyday work performed by the Reading Recovery teachers. The only difference was that the data is collected, recorded, stored, and then formalized by an in-depth analysis within the professional development. The data is coded and reported in the appendices at the end of the document. All teachers, according to their self-analysis in chapter three, had built on to their personal construct of literacy (see Figure 3.8. - C). I felt that I did not have enough data so it was necessary to collect and analyze more data based on the focus of the professional development sessions. For this study all the data collected was referenced and organized by terms of time as listed in the learning framework (see Table 4.1.) to show the transformation of learning. The first set of data, which is strictly Reading Recovery records, consisted of conversations after sessions and visits, Teacher Leader comments and observations, teacher opinions from lesson record entries, student progress data and observation survey information and analysis (Clay, 2005). Reading Recovery professional development allows for the collection of student and teacher data because of the extensive tracking of both student and teacher progress. The second set of data collected consisted of their learning journal, and the lesson video analysis. This documentation is not usually collected during Reading Recovery professional development, but a formalized collection beyond discussing an issue was sought for this study. A third set of data was included because of Reading Recovery teachers fit within a school improvement process of accreditation (NSDOE, 2005). Since they were part of the accreditation process it was important to include some information that would include their views on standards of practice within a system. In September 2009, a professional development committee (Educational Professional Development Committee (EPDC) made recommendations that professional development offered as part of an accreditation process, should have standards

of practice. The EPDC advocated that the National Staff Development Council (NSDC, 2001) standards for professional practice have excellent potential as a guide for designing and implementing professional learning in Nova Scotia. Simpson and Montgomery (2007) have already written that Reading Recovery meets the context, process and content standards for quality professional development (2007). These standards reflect the context, process and the content that support professional learning within a system. Simply stated, these standards are explained as:

- Context standard – Knowledge about literacy theory. Articulates the intended results of professional development on practice.

- Process standard – Knowledge about the professional self. This is possible by the analysis of student data to determine own needs and then to determine student needs.

- Content standard – Knowledge about practice and skills. Demonstrates and articulates a deep understanding of literacy behavior.

It is evident when looking at these standards that they may be directly equated to Blooms (1956) , Marzano's and Kendall's (2007) taxonomy of learning and they are linked to the personal subject construct (Atherton, 2009 April 20). These taxonomies are then transformed into a personal subject construct (Atherton, 2009 April 20). The taxonomies and construct includes learning about theory, practice/skills and self determination of needs in an educational setting. Therefore, the learning criterion listed by Bloom (1956) and Marzano and Kendall (2007), are now formalized and validated by creating a list of standards to guide in the acquisition or formation of these learning domains. So, for the purpose of this study, I felt that it was appropriate to ask teachers to complete an Innovation Configuration Map (2005) to gage their opinions of how well they were meeting the standards of good professional development within the confines of Reading Recovery professional development that was included within a system of Accreditation (NSDOE, 2005). The teachers' answers are categorized under five headings from always, frequently, most times, sometimes and

never. Their answers are presented throughout this document to gage their opinions on their

learning.

Using the types of data available, it is possible to triangulate the information under the

headings of conversations, events and observations that took place during a year long period

of professional development. This triangulation is critical in helping to determine construct

validity, internal validity, external validity and the reliability in the evaluation of this study.

The following Table 4.2., *Analysis of Data- Framework,* is an organizational structure that

will make the organized collection of evidence possible within the timeframe of this study. It

is linked to the timeline of data collection (see Table 4.1.) during the formation of the

methodological framework.

Table 4.2.

Analysis of Data Framework

Term 1	Analysis	Session Focus
Data Collection **Conversations** – after visits, after sessions **Observations** – Teacher Leader comments, teacher opinions, Teacher Leader observations, Predictions of progress, lesson records **Events** – journal, student data, and initial analysis of observations survey (2005), innovation configuration map	Triangulation Conversations Observations Events Coding of data: • Theory • Practice • Self	**Sept 10 –11** – Administration of Observation Survey **Sept 15th** – Analysis of Observation Survey **Sept 30th** – Moving into instruction **Oct 7th** – Observing Active problem solving **Oct 21st** – Exploring the processing change in Reading and Writing. **Nov 4th** – Teaching for Effective processing **Nov 18th** – Teaching for the constructive use of information – strategic

		activity

Term 2	Analysis	Session Focus
Data Collection **Conversations** – after visits, after sessions **Observations** – Teacher Leader comments, teacher opinions, Teacher Leader observations, Predictions of progress, video analysis **Events** – journal, student data, end analysis of observation survey, case study.	Triangulation of data Conversations Observations Events Coding of data: • Theory • Practice • Self Matrix	Session Focus **Jan 21st** – Reviewing progress – knowledge and teaching **Feb 10th** –Reviewing progress- knowledge and teaching (continued) **Feb 25th** – What is known? **March 10th** – Teaching for problem solving (Evidence) **March 31** – Teaching with progress in mind.

Term 3	Analysis	Session Focus
Data Collection **Conversations** – after visits, after sessions **Observations** – Teacher Leader comments, teacher opinions, Teacher Leader observations, Predictions of progress, video analysis **Events** – journal, student data, end analysis of observation survey, case study.	Triangulation of data Conversations Observations Events Coding of data: • Theory • Practice • Self Matrix	**April 16** – Teaching through effective communication: verbal and non-verbal **April 21st** – Problem solving on continuous text – Taking words apart in reading. **May 6th** – The Observation Survey: an assessment to guide our teaching. **May 19th** – Knowing what to teach. **June 10th** – Reflecting on Teaching and Learning **June 16th** – Data collection

The conversations, observation and event documentation collected as data (see Table

2.3.) were coded into the three broad categories of theory, practice and self. The codes are

linked toBloom's (2009 August 19) and Marzano and Kendall's' (2007) taxonomies of

learning and then are built into the foundation of a Personal Subject Construct (Atherton,

2009 April 20). It is important to again note that this group of work is linked by the

underlying theory of how it is postulated that learning takes place over a period of time. The

reporting of results is divided into term one, term two and term three. This is a depiction of a

timeframe built on the foundation that our learning is transformed over time (see Table 4.1.)

and along the lines of the theoretical basis postulated. Term one is meant to span the time

period of September 2008 to December 2008. The second term is meant to run from January

2009 to March 2009, while the third term begins in April 2009 and finishes in June 2009.

The following analysis of learning is to show the passage of time while the teachers develop

and transform their knowledge through professional development.

TERM 1 – September to December 2008

Linking Conversations, Observations and Events

Showing change over time in learning

Evaluation and assessment of student information used to inform teaching is a very

important part of Reading Recovery. It is the evidence collected that enables the teacher to

make decisions regarding the day-to-day teaching of children and to determine their own

educational needs. The Observation Survey (Clay, 2002) is the tool utilized in the initial

evaluation of children. It is a criterion-referenced tool that enables the teachers to group

students according to needs (CIRR, Canadian Stanines, 2008) (see Appendix I). The

Observation Survey consists of five tasks and the Running Record. The five tasks are letter

identification, concepts about print, word task, written vocabulary and hearing and recording

sounds in words. The Running Record is an observation tool to record reading behaviors so

that teachers can base their teaching on current information. It is an assessment "for"

learning (Davis, 2007). The teachers need to be able to analyze the results of the assessment

to decide what they must teach their students. Since they were beginning Reading Recovery professional development, it was important to examine conversations, observation, and events data collected to see how:

1.   Their knowledge about their professional self is perceived.

2. Their knowledge about literacy is perceived.

3. Their knowledge about practice is perceived.

Knowledge about Professional Self – Process

The analysis of student learning is an important and fundamental part of Reading Recovery (Pinnell, 1991). It is by assessing and analyzing that needs may be identified, and then a solution may be sought. Running records (2002) are administered to determine the reading level and also the ability of the student to orchestrate their own learning (Pinnell, 1991). The teacher must work with the student to build on their understandings. The lower the reading level, the more teaching that has to happen to scaffold learning and build on the known (Clay, 1998). Figure 4.1. – Running Record, shows us that the mean running record results for students within the first and second intake, indicates the known at that moment for these students.

Figure 4.1.   Running Record – On Entry to Reading Recovery – Reading Levels
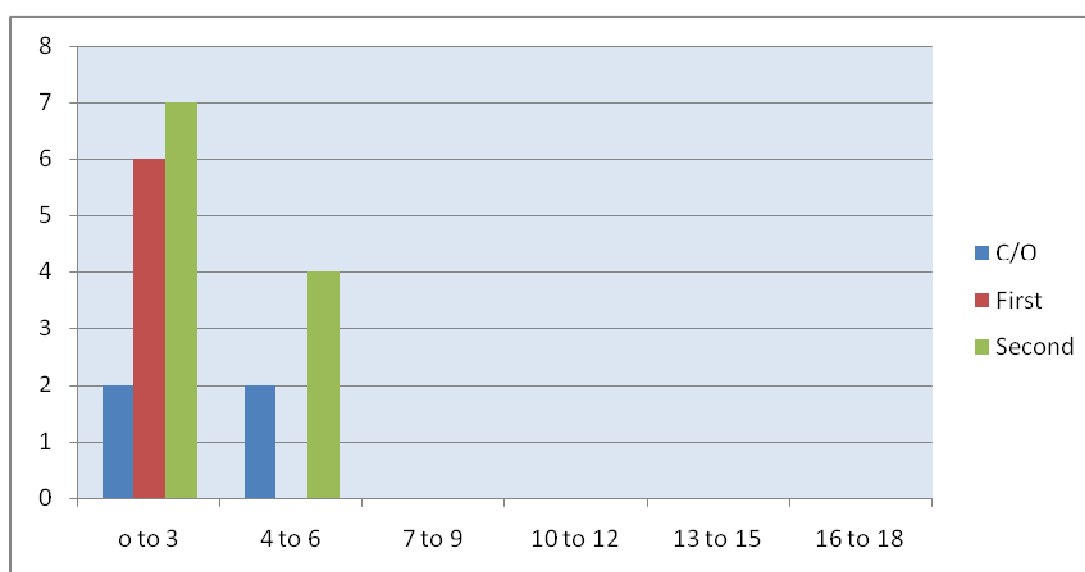
As perceived by the children's reading levels, the children being taught in Reading Recovery have specific literacy needs on entry to the intervention. After spending at least a full year in school, they are experiencing some difficulty building on their reading and writing portfolio. It is necessary to explain the terms carry-over. Carry-over students did not have time to complete their series of lessons the year before and they continue on into the next academic year while they are in Grade 2.

All students entering Reading Recovery are perceived as being at risk of developing an achievement gap in literacy development. The Reading Recovery teacher must teach to bridge that literacy gap where the students will reach the average band of their classmates (Clay, 2005) by the end of their series of lessons. The teachers must be well versed in theory and teaching procedures to scaffold the changes in the literacy behavior sought. They must continue to assess "for" learning (Davies, 2007) on a daily basis. There were a few ways to gage the teacher opinions in regards to how they perceived their learning. The first was to examine their writing in their journal. As all qualitative data, the coding matrix (see Table 2.3.) was used to organize the themes of theory, practice and self. The difference here is that practice has two sub-categories listed as organization and procedures. Coding was complete and then to quantify the results, each mention of the code was counted to gain a percentage of the total score. In reading the teachers' journals, (Appendix I) at this time, it was evident that the teachers were focused on the organization of the lessons. Their journals indicated that they had four (4) specific areas of concern. These were:

1. Organization of lessons.

2. Theory about being literate.

3. Their observations and what they meant.

4. Procedures of teaching children to read and write.

Table 4.3.

Term 1 – Journal Entries

	Organization	Theory	Observations	Procedures
Kelton	14% N=4/29	38% N=11/29	14% N=4/29	34% N=10/29
Erica	7% N=4/59	19% N=11/59	19% N=11/59	56% N=33/59
Nora	14% N=3/21	33% N=7/21	14% N=3/21	38% N=8/21

Procedures were evidently tremendously important during the first term. The learning

in this term was classified as basic or procedural according to the levels of learning (Bloom,

1956 & Pohlm, 2000). This includes lower level processing and would include specific,

directed professional development. At this point the teacher's concept of theory is item

knowledge and the time necessary to complete all the records necessary to plan for

accelerated learning. We also must be aware that organization and procedures may be

classified together under one heading. Together they are part of a practice or involve

knowing certain skills. Table 4.4., *Journal-Organization and Procedure*, is a summary of the

percentages of times that practice was mentioned. The organization of their lessons and the

Reading Recovery procedures are their major focus at all around 50% of their comments.

Table 4.4.

Journal – Organization and Procedure, First Term

Names	Organization and Procedures
Kelton	48%
Erica	63%
Nora	52%

Further to their comments about organization and procedures, they were really worried about not knowing what to do and discuss during their conversations. Their concerns about their fears of incompetence and lack of knowledge about literacy theory were voiced as questions of why the university didn't offer "specialization" at the elementary level. Their comments (see Appendix H, K) were not a surprise because of their initial answers on the self-evaluation questionnaire that formed their initial personal subject construct (see Appendix D). They had written about "what" they were doing, but not "why" they were doing the activities.

During this time, it is very important to visit the teachers at their school setting. The Teacher Leader observed that they had many questions and mainly wanted to know "what" to do with their students. The teachers were visited at least twice, and they were mostly interested in procedures. At this time, the conversations were mostly about answering the teacher's questions. The most frequent questions were: Is it right? What are the answers? How can we be putting out teachers who don't know the basic concept of teaching reading and writing? The teachers wanted answers about what they should be doing next and had very little patience hearing that it is a process and you will understand. At this point they didn't really want to understand in depth, they wanted procedures and reassurance that it was "what" they were supposed to be doing.

At the onset of Reading Recovery professional development, the teachers completed an Innovation Configuration map (Appendix F)) of NSDC's standards (2005) as it applied to their situation in Reading Recovery at their school. In Reading Recovery, analysis of student assessment is of primordial importance. Both formative and summative assessments (Davies, 2007) are important to inform teaching and learning. We look to student assessments to gage what we must learn to teach, then the ability to analyze the data is of utmost importance to their own learning. From their answer to outcome 4.1 (see Figure 4.2.) they indicated that

there were issues with them analyzing student data to determine what they had to learn to

effectively teach at this time of the year.

Figure 4.2.   Analyzing Student Data – Term One

Innovation Configuration – Outcome 4.1
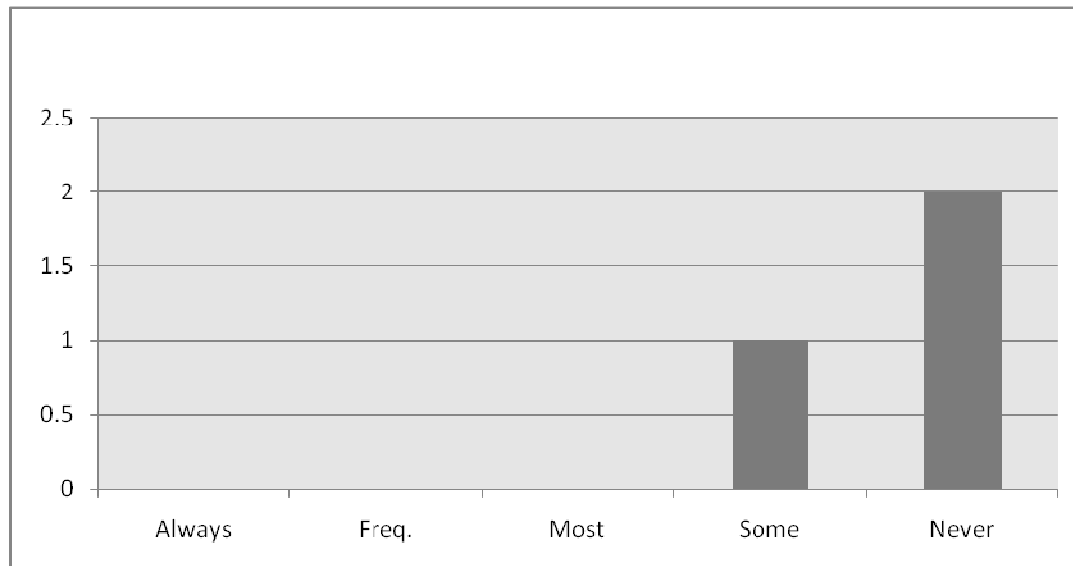
Most teachers at this time were concerned with knowing "what" to do and not "what"

it meant to them. Limited analysis of student and self-analysis of information was also

evident from their answers to Outcome 7.4 (see Figure 4.3.). Using basic technology to help

analyze their practice in the 21st Century is an essential part of them understanding their

teaching decisions. There is a range of answers to the utilization of technology within their

practice. This led this researcher to write that, at this time, teachers were depending on the

Reading Recovery Teacher Leader to tell them what they should be doing within their

practice and not using other means to analyze their own teaching.

Figure 4.3   Using Technology, Innovation Configuration – Outcome 7.4
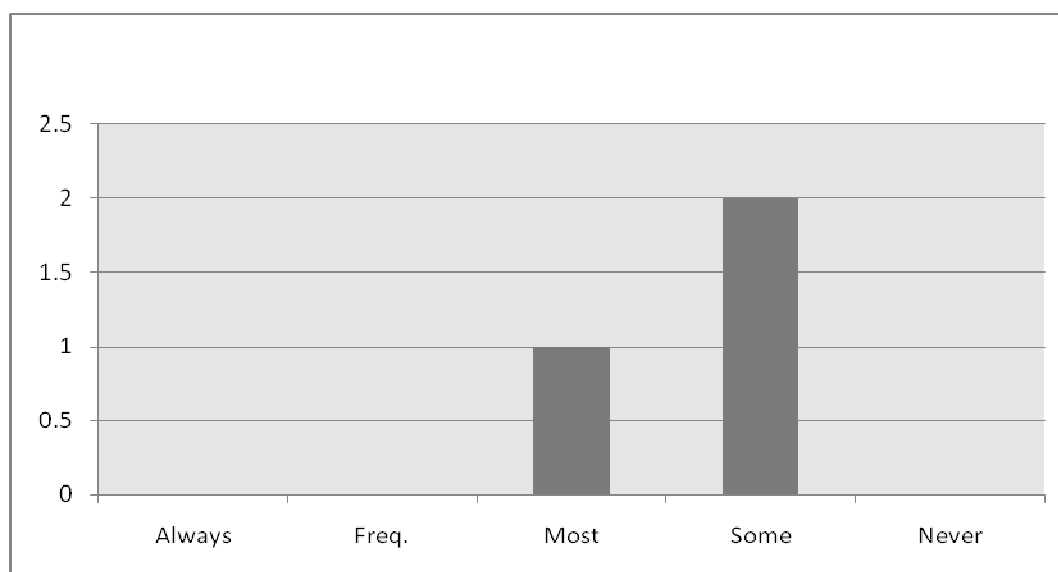
It seemed that they were so engaged in procedural steps that higher order processing, or the executive function (see Table 3.19.) of professional development was not yet evident. They were also not using other resources available to them in developing higher order thinking, while depending on the Teacher Leader.

 **Knowledge about Literacy Theory on Practice - Content**

At this time in their learning, the teachers seemed to be trying to simplify a theory by dividing it into items. This might be an after-effect of the pre-packaged programs that we see marketed in today's educational world. It could also be explained as a way of making sense of what they are learning. We build meaning from our background knowledge and these teachers were indicating that they were not familiar with some of the theory on what is considered literate behavior. During the teacher visit, this was confirmed by the comments after the lesson. Such questions as "Problem solving, what does this mean?" "What is effective teaching?" and "How do I understand how children learn to read and write?" were common themes heard by the Teacher Leader. The focus was to expand their thinking about learning to read and write by commenting and building a discussion on and about strategic activity, observation and recording what they see of children's behavior. Then they must decide what to teach. Each personal subject construct (see Figure 3.8.-C) was different. It

might be explained by the confusions shown with their answers on the Likert Scale of the

self-assessment tool (see Appendix C) in Chapter 3. There had to be a balance between

"telling" and leading them to "discover" an understanding of what they were seeing and

hearing. They had to build on their understandings of literacy theory and it was different for

everyone. The examination of their journal (see Appendix I) indicated that there was a shift

taking place in their thinking by comments that indicated that a "mind shift in

understandings" was taking place, but there are more comments on the frustration, how they

are in survival mode. One teacher commented on the fact that the "whole process was trying

her patience".

        During this time, the teachers had their first experience of completing the predictions

of progress for the student (Clay, 2005). This is the educational plan for the student, long-

term and short-term. It was encouraging to see that there was more of a focus on where they

must journey with this child. It was still item based or procedural but that was expected, as

this plan focuses on specific places the child would need intervening. The important part

here is to know "what" must be taught, "why" it should be taught, and "how" it is to be

taught. At this point the "what" and "how" are important and necessary. This was their

focus and it is necessary. The children need to be engaged daily in the process and working

with the teacher. The teacher is learning the "why" and hopefully will be able to eventually

articulate the process of literacy learning that is beginning. The teacher's low level

processing should develop into higher level processing over the year. They are developing

their personal construct of literacy (Atherton, 2009 April 20). The teachers were not focused

on their own learning yet. They had to understand that all children can learn, and they have

to understand theory about learning and teaching and then how to apply it. The children are

challenging to teach but high expectations must be maintained to successfully close the

achievement gap. Figure 4.4. – High Expectations, represents answers to Outcome 10.2 of

the Innovation Configuration map. It indicates that most teachers are not focused on high

expectations for their students at this point in the professional development.

Figure 4.4.   High Expectations, Innovation Configuration – Outcome10.2
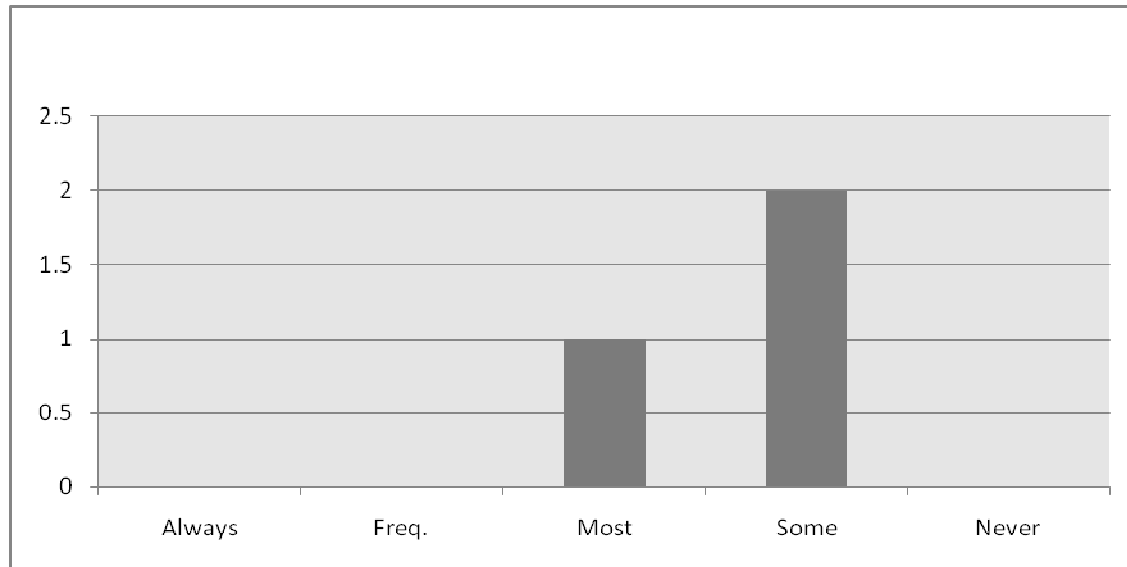
As of yet, teachers were not thinking along the lines of developing their skills in

teaching. Normally, if you have high expectations for your students, you will also have to

transfer those high expectations to yourself. It would seem that teachers are very self

centered at this point in time. If we are trying to express high expectations for students, it is

important to bring the important players in educating a child on board. Fostering partnerships

within the school and with parental figures is important in establishing and maintaining an

understanding of high educational expectations. Developing partnerships must be fostered

and considered an important skill in helping to communicate high expectations beyond the

confines of the field of education. Figure 4.5. – Partnership, Innovation Configuration,

Outcome 12.1 represents answers to their contact with families or community stakeholders to

help build partnerships within their own educational community.

Figure4.5.   Partnership, Innovation Configuration – Outcome 12.1
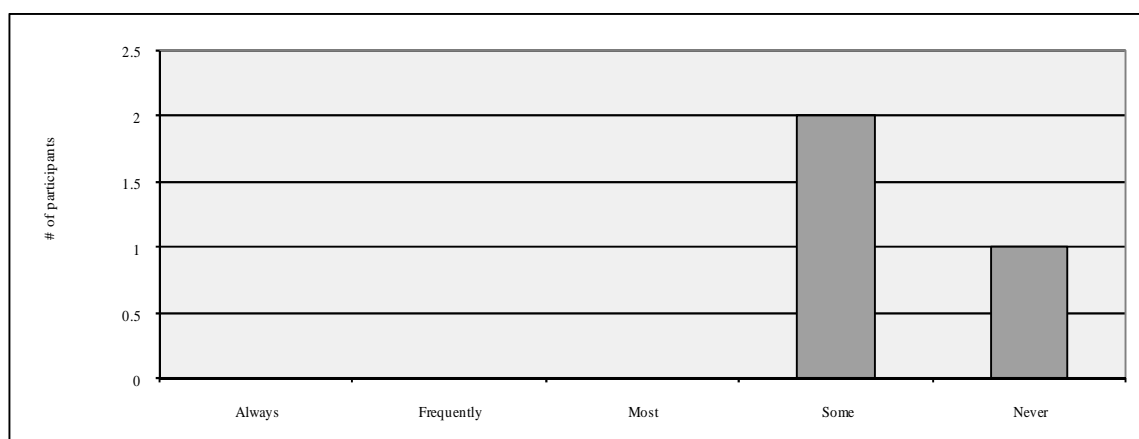

In the first term, learning "why" we teach the material is not considered a priority by teachers. This is a very self-centered individualistic part of the learning process. This process includes little self-analysis, little student data analysis, little involvement with families and higher expectations are not a focus for every teacher.

**Knowledge about Literacy Skills and Practices - Content**

It was interesting to investigate how learning was impacting views of literacy and how they saw it as improving their skills in teaching reading and writing. It was more about empowering them to take risks and not to make them dependent on the Teacher Leader as the "expert". There is no expert, as knowledge continues to grow exponentially about how children learn to read and write. It is a scaffolding process so that teachers learn while in the process of teaching children. Comments in the observations (see Appendix H) made by the Teacher Leader indicated that the teachers were frustrated because I would not readily supply an answer. Clay's (2005) states that literacy theory is continually evolving and our understandings change with that evolutionary process. The teachers' comments led me to believe that they wanted concrete quick answers. They had issues with time limitations and commented in their journal on the fact that they never had enough time to plan, reflect, and write.

Towards the end of the first term there seemed to be a beginning shift in understandings. They were beginning to see how they could transfer their learning to the other part of their practice. This was confirmed by the comments in their journals. (see Appendix I). They talked about the assumptions they had when beginning Reading Recovery and how these assumptions about reading and writing were changing. Some of these assumptions listed were that " I was teaching from how I was taught", I just "assumed they could read", "Am I teaching grade 1 to read and write?", and "I am thinking and questioning" about how I am teaching. One teacher commented in the opinions part of the self-evaluation survey (see Appendix D) she "didn't give how to teach reading much thought", and if the children couldn't read, it "was the resource teacher's problem". This opinion was changing because the teachers were now realizing that it was their responsibility to teach all children to read and write. It was encouraging to see this assumption was changing as the term progressed.

Site-based learning (see Table 4.1.) involving a Professional Learning Community is considered the single most important way of teachers improving their practice. As previously discussed, with an Accreditation process (NSDOE, 2005) in place, working as part of a professional learning community is encouraged at the school level. These teachers are part of two professional learning communities. One is as part of the school culture and the other as part of Reading Recovery. Having completed the Innovation Configuration map the Outcomes 1.1 (see Figure 4.6.), 2.1 (see Figure 4.7.), and 2.3 (see Figure 4.8.) indicated that time spent on collaboration, leadership development and planning was necessary for these teachers to help in development of an ability to critically self-analyze (see Figure 4.2.) their own teaching. Hopefully, if more time and effort was spent on involvement in these three activities, self-analysis would improve over time.

**Figure 4.6.   Collaboration, Innovation Configuration – Outcome 1.1**
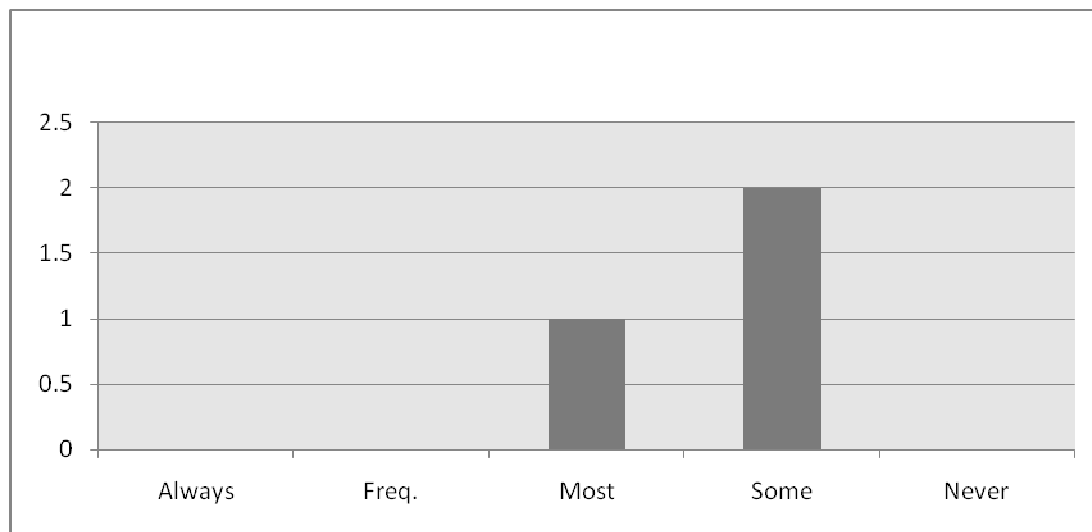
Learning is socially mediated (Vygotsky, 2009 September 13). Collegiality is important to constructing an understanding of the theory supporting the practice. Constructivism as a social activity is necessary to foster a school culture built on student success through teacher learning. Reading Recovery professional development focuses on teacher learning that will develop leadership skills of confidence in one's ability to understand what is taught, how it should be taught, and finally understanding why it should be taught.

Figure 4.7.   Leadership Development, Innovation Configuration – Outcome 2.1
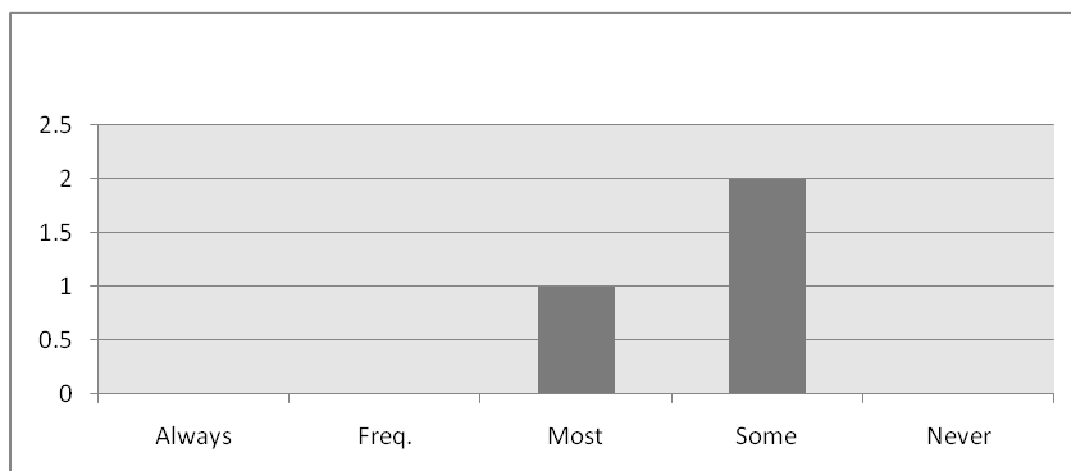
Historically, teaching is a profession that was very individualized. Working within a global knowledge society, this is no longer encouraged and efficient. This phenomenon could have

been encouraged by the belief that offering standardized professional development (see Table 4.1.) would bring about long lasting change in practice. It was a practical solution to a complex issue. This practice is changing as education becomes a global phenomenon that needs teachers to be open to change. The second level of learning recognizes that learning within a professional setting and being part of a group with the same goals will bring about lasting change. This Reading Recovery group needs to make changes in the area of leadership and planning if they wish to improve their practice. These teachers were still focused on the individual or themselves as when they began the Reading Recovery professional development. They had to begin the process of developing their persona as part of a learning team if they were going to benefit as much as possible from learning as part of a group.

Figure 4.8.   Planning, Innovation Configuration – Outcome 2.3.
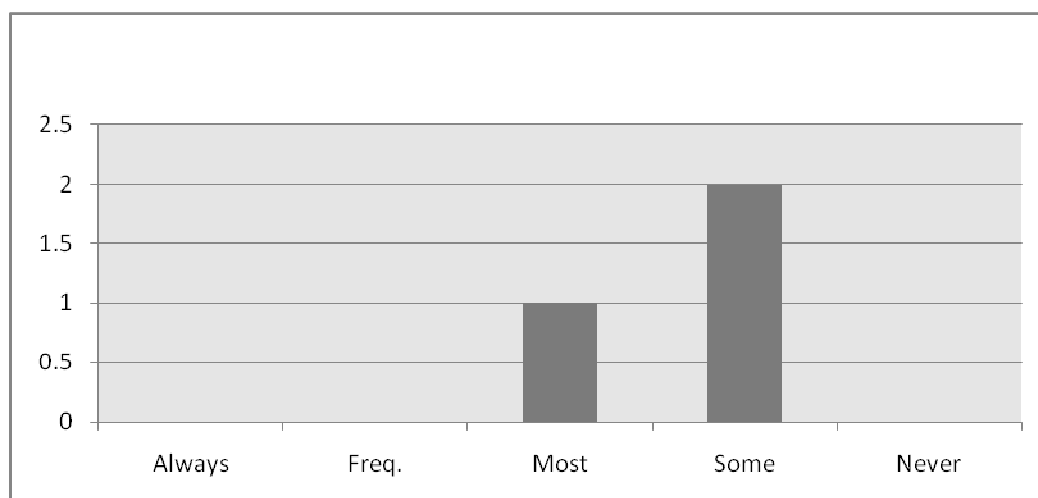

All participants of the Reading Recovery initial professional development were involved in some planning at the school level. The accreditation process (NSDOE, 2005) with a focus on professional learning communities makes this an important aspect of change at the school level. So, working as part of a group should not be a foreign concept, but for these teachers they seem to still be working mostly in isolation. Working as a group of educators, in Reading Recovery, is important because the teacher is helped by others to make teaching decisions to accelerate student progress (Pinnell, 1991). They construct each other's

understandings. Collaboration within Reading Recovery is important on many levels, but none more than for the student's literacy progress.

Figure 4.9.   Running Record – Carry Over Students

Student Progress – Reading Levels – Entry/Exit
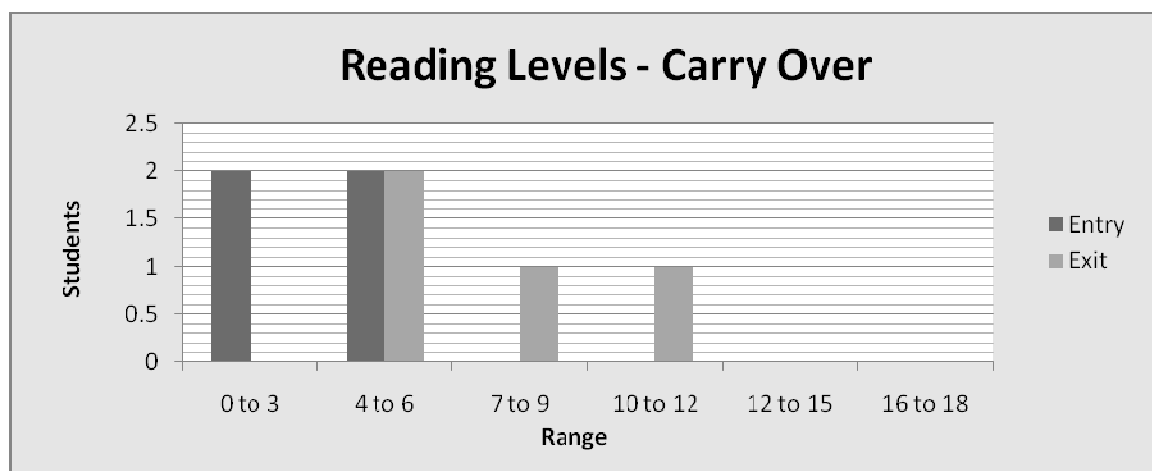
Students carried over from the previous year were completing their series of lessons and those students were ready to move on after 20 weeks of instruction. All students made progress from their entry to their exit from Reading Recovery. Teachers are learning but at this time they were limited in being able to identify their learning priorities (see Figure 4.7.). The executive function of professional development (see Table 3.19.) is to have the skills of self-analysis necessary to determine what students must learn to be a better teacher and determine what they must learn as teachers. At this point, all indicators imply that teachers are not yet effectively identifying what they must learn to be more effective as literacy teachers of at risk students.

Figure 4.10.   Running Records – First group/ Entry reading levels
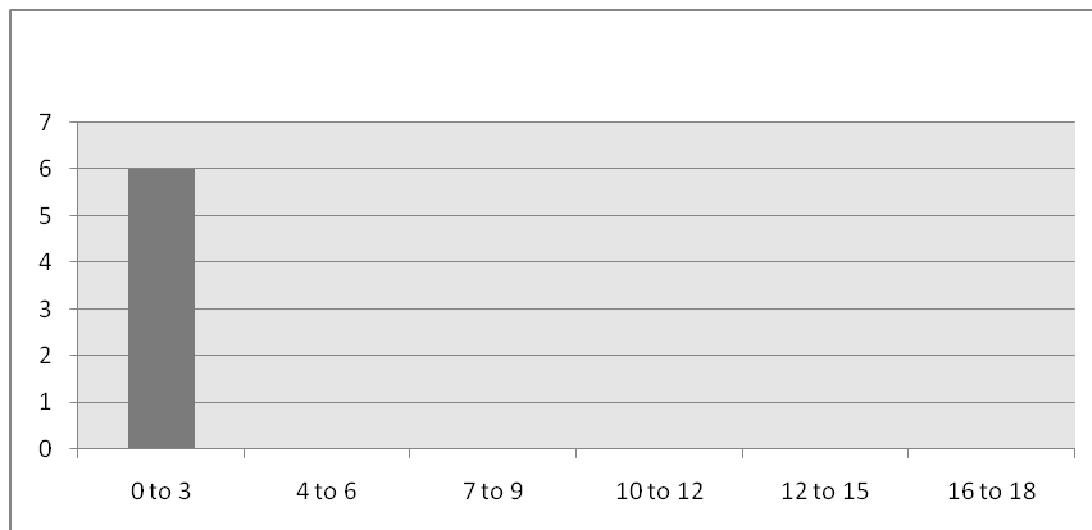
After the carry-over students exit the intervention, the Observation Survey (Clay, 2002) is

again administered to identify another group of children who would benefit from Reading

Recovery. The children entering Reading Recovery are reading between dictated text and

level 3. As the teachers learn more about theory, practice and about their own learning needs

we should see more of a transformation in learning. The data gleaned from conversations,

events and observations during the first term of professional development, indicated that

teachers are focused more on the procedural aspects of learning about their practice than on

learning the underlying theory or even examining their own educational needs. The first term

summary is presented as a way to observe the triangulated results from conversations, events

and observations during the first term.

Table 4.5.

Summary – Term 1 – September 2008 – December 2008

Conversations, events and observations

Content	Procedural aspects
Process	Limited data analysis to determine students needs and own needs
Context	Teacher Leader "telling" versus "revealing"

TERM 2 – January 2009 to March 2009

Linking Conversations, Observations and Events

Showing change over time in learning

The second term's focus is to build teachers self-confidence and knowledge around how to observe students and vocalize what they see. They then must plan their teaching and support their decisions using the underlying literacy theory as their rationale. There has to be a shift from low-level processing to mid-level processing that is supported or scaffolded by the Reading Recovery group.

Table 4.6.

Term 2 – Reading Recovery Learning

	Learning	**Processing**	**Planning P.D.**
Developmental Theory	Site based leaning Focus on knowledge and practice. Transformative learning	Scaffolded processing What do I now need to learn?	Site based professional development Accreditation – school based Reading Recovery Sessions Visits

Knowledge about Professional Self

Keep in mind that the executive function (see Table 3.19.) of professional development is the ability to self-analyze one's own learning needs. This group of teachers is hopefully developing the skills to describe and analyze to make teaching decisions (DeFord et al, 1991). This helps to develop exemplary teachers who may develop professional expertise (Stringfield, Waxman & Padron, 2000). This process is, I have deemed, transformative learning (see Table 4.1.). It is categorized as putting in place the resources necessary for change over time in teachers' personal subject construct (see Tables 3.13.& 3.14). It is important to see the building on the lower level processing of the first term and shift the teacher learning to more of an understanding of "why" teachers must push the boundaries of their learning. This process is built into the professional development model that has been validated in research studies as an important factor in the interventions success (Pinnell, Lyons, DeFord, Bryk & Seltzer, 1994). It includes a continuation of scaffolded practice in Reading Recovery while also being part of the accreditation process at the schools (NSDOE, 2005). If we wish to see greater collaboration (see Figure 4.6.) and leadership development, (see Figure 4.7.) it cannot only be encouraged in Reading Recovery.

Scaffolding the acquisition of theory and practice is a focus in Reading Recovery throughout the year, but a shift is necessary to move beyond simply acquiring item knowledge. There needs to be a move towards linking literacy theory with item knowledge to orchestrate the whole process. This will help differentiate instruction as needed by the student. According to the three categories of learning (see Table 4.1.), learning that is sustainable must include a group-focus, site-based and involve a professional learning community rationale. Reading Recovery as a group, would be considered a professional learning community with its focus on student learning through teacher proficiency. But it can't stand alone! It is a sub-culture within the larger school culture focused on student achievement.

The second terms' focus is on student and teacher data to show the change over time in learning literacy theory and seeing improvement in practices through involvement within Reading Recovery professional development. The resulting observations of teaching practices by the teachers and Teacher Leader developed and honed skills so they could see the theory transferred to practice. The three levels of expertise in the Reading Recovery staff development model help to scaffold learning (Stringfield et al., 2000). The teachers were now beginning to use their own observations to evaluate student evidence for teaching. The teachers had been in Reading Recovery for about four to five months and some shifts in their understandings were beginning to take place. They were beginning to look and see what the child could do, instead of what the child couldn't do in reading and writing. In the first term, they were looking but they couldn't see what they didn't understand. So, understanding the theory was opening up a lens to their learning and acquisition of knowledge about literacy development. They were starting to use the terminology of literacy theory by the evidence of their comments in their journal (see Appendix I). Comments like "the students were using meaning and structure," teachers commenting that they were "prompting" as a call to action, she "knows all basic concepts", the students were "trying to use visual information", the student was "predicting," using " all sources of information", the students are "cross-checking" and "confirming,", and "self-correcting," and "problem-solving". The teachers were also talking about "phrasing" and how the reading should sound. This is important because students who are phrased in fluent reading are orchestrating all sources of information in their reading to comprehend the story (Clay, 2005). They are living the adventure!

As part of studying the lessons, after group sessions and individual sessions, the teachers spoke about theory and practice, and how to connect the two. They talked, as a group, about analyzing reading to be able to make decisions about teaching, and about what they must learn about theory and practice. We talked about what the child had to accomplish

to be a good reader and how to connect this to the procedures they were asked to do. It is

expected by now that the teachers would have a good grasp of the Reading Recovery

procedures. They can now begin to focus on theory to be able to better individualize lessons.

We also talked about assessment for learning (Clay, 2002) and how this determined what

they must teach. This would also help them determine what they had to learn to be better

teachers. They must become a constructive learner (Askew, 2009). This is very important,

because the results of outcome 4.1 (see Figure 4.2.), of the innovation configuration map

showed teachers were not proficient in the analysis of student information to plan instruction.

Much of the learning was about the actual procedures of the practice of how to teach, but they

were building a broader vocabulary and they were able to use it to describe their teaching

decisions. This was included within their practice by their comments (see Appendices D, G, I

& J) on building "a reading and writing vocabulary", "how to teach the child to search,

monitor and solve on their own", "the importance of observations and knowing what to

observe", and to continue to build on the continuum of the " known". They were now

starting to find what the student knew and build from there. If the teachers could gage what

the student knew, they could also determine what they must learn as part of the process.

Again, as they were working on building the continuum of the known with their students, I

was working on building this same concept with the teachers. During Reading Recovery

field trials in 1978-79 (Clay, 2009), consultation and not prescription was important to

developing teacher expertise.

In their journals (see Appendix I) the teachers continued to write about their concerns

about the theory, how hard it was to observe students' progress and to know where to go from

there, in transferring knowledge to their Reading Recovery lessons or practice. There was a

shift away from the organizational aspect of Reading Recovery. The discussion was more

about the theory and understanding the practice. But then again, individual differences in

teacher's understandings must be valued and built upon to see a change over time in instructional practices.

Table 4.7.

Comments – Journal- Theory, Practice and Self

	Kelton	Erica	Nora
Organization	18.5% N=5/27	n/a	9% N=1/11
Theory	22% N=6/27	36% N=20/55	18% N=2/11
Observation	22% N=6/27	18% N=10/55	27% N=3/11
Procedures	37% N=10/27	45% N=25/55	45% N=5/11

The comments from their journal, in the second term, were transcribed and coded by using the coding matrix (see Table 4.8.). As in the first term, organization and procedures may be considered as part of practice and skills based. When organization and procedures are compared across the first and second term, we still see a good concentration of time spent on talking about practice and skills.

Table 4.8.

Comments – Journal – Practice

	Organization Term 1	Organization Term 2	Procedures Term 1	Procedures Term 2
Kelton	14%	18%	34%	37%
Erica	7%	None	56%	45%
Nora	14%	9%	38%	45%

Except for Kelton, the organizational aspect of the lessons was decreasing while a focus still remains on procedural aspects of the lesson. Procedures will probably remain a

focus throughout the year because teachers are trying to find ways to individualize lessons

and they will focus on procedures. Clay (2009), when she was considering implementing

Reading Recovery internationally, said that teaching includes the integration and

verbalization of complex behaviors. She also stated that asking teachers to learn and

verbalize was theoretically frustrating for many people. Evidently, theoretical understandings

develop over time with practice in teaching and peer support. During this period, the carried-

over students had finished their series of lessons in Reading Recovery and now the Grade 1

students who had commenced their series of lessons in September were coming to the end of

their series of lessons. The teachers were going to be choosing other students for the

intervention and it was time for them to analyze their own learning according to students

initial and end reading levels.

Figure 4.11.   Running Records – Entry and Exit
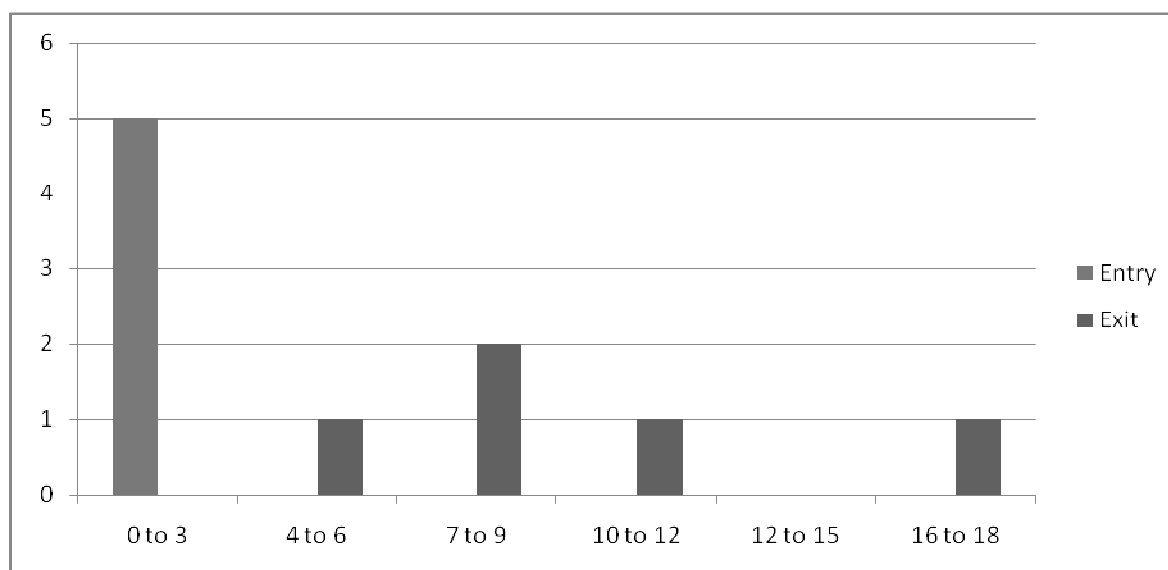
These reading levels were obtained through an administration of the Running Record

task as part of the Observation Survey (Clay, 2002). Figure 4.11. – Running Record-Entry

and Exit, shows the students' progress during their time in Reading Recovery. Teachers were

learning with their students, just on a different level of understanding. These students had

begun the year with the teachers and they were now readers, compared to when they started

the intervention. In their journals (see Appendix I), teachers felt that they had learned more

about observation and theory. An attempt was made to draw the teachers away from having a sole focus on the procedural aspects of the lessons; to a move towards analysis of the decisions that they were making within the lessons. The number of comments revolving around the procedures still permeates their thinking about teaching. Novel learning that includes teaching procedures must also include time to question, challenge, discuss, work-out, explain and share with a group the decisions that were made (Clay, 2009). Change does take time!

Knowledge about Theory on Practice

Students who are beginning their series of lessons are expected to have short-term and long-term plans while in Reading Recovery (Clay, 2005). Teachers have the responsibility of setting learning goals for their students. It was possible to note their predictions (Appendix J) for their students. It was evident that their language was changing regarding their understanding of theory linked to the practice of teaching. They were now talking about teaching the child to problem-solve using meaning, structure and visual information. They wanted the child to monitor at the point of error and to self-correct that error. Their use of language was changing which indicated that they were beginning to understand strategic activity in reading and writing. Their comments were less about specific items and more about connecting all the pieces together through reading and writing. The teachers were starting to do this with their students and they were doing this with their evolving learning about reading and writing. Knowing what they had to teach indicated to them what they had to learn. They were now talking about fostering independence in reading and writing. While they were talking about the child gaining some independence from them, I was working on teaching them to have more independence in their own problem-solving at difficult situations. They had to start making some decisions on their own regarding teaching and being confident of those decisions. They had to evaluate student evidence to see what they must learn to improve their practice.

The teacher conversations after lesson study started to take on a whole different meaning. They talked about accelerated learning, building the foundations of a self-extending system, making good teaching decisions, prompting as a way to call the child to take an action, learning to use precise language and how they were enabling the child to problem-solve. They started to use language that describes literate behavior and their understandings were building. At times they were still focused on item knowledge like "reading the words", but it was changing and they were working towards understanding the reciprocal nature of reading and writing.

The writing in their journals (see Appendix I) was starting to shift to a more complex language and understanding of the underlying theory. Comments were being made that they had to focus more on strategic activity, that reading and writing was not a passive process, they had to teach to build the networks in the brain, and that teaching at times had to be specific and focused. It was gratifying to see some questions being asked about their own teaching. "Am I effective?", "Can I make this better?", "What have I learned today?""What have I taught today?", "What will I teach tomorrow?" These questions are all necessary to advance learning in a positive direction. If we compare the mention of theory in the first and second terms, we see Erica having made significant shifts in her writings about the theoretical underpinning. It was perplexing to note that there was a decrease in Kelton's, and Nora's writing about theory.

Table 4.9.

Journal – Comments on Theory

	Term 1	Term 2
Kelton	38%	22%
Erica	19%	36%
Nora	33%	18%

The comments in their journal regarding theory were better versed but there were less of them. This was a surprise, as the comments were more sophisticated and it was expected that there would be a greater focus on learning about literacy theory. Upon further investigation, it was noted that the comments surrounding observations had increased or remained relatively elevated. In the second term, there were many more comments about their observations than were noted in the first term. Askew (2009) in *Using an Unusual Lens* noted that the staff development model is grounded in observation of children as they were becoming literate while they develop a theory of literacy processing.

Table 4.10.

Journal – Comments on Observations

	Term 1	Term 2
Kelton	14%	22%
Erica	19%	18%
Nora	14%	27%

Their efficacy in observing and noting those observations had increased and this can only be achieved through a better understanding of the underlying literacy theory. They are building on a theory grounded in their data collection of children learning. Observation leads to theory building (Schmitt, Askew, Fountas, Lyons & Pinnell, 2005, pp. 93-101) because they become more articulate about children's behaviors and what they might mean to their teaching. So, through better understanding of theory, these teachers are able to observe and qualify their evidence to make better teaching decisions.

Knowledge about Literacy Behaviors and Skills/practice

Conversations at this time were beginning to be more about transference of their learning in Reading Recovery to their practice in and out of Reading Recovery. This was essential for the child but asking teachers to apply what they were learning to their own teaching was of primordial importance. It was never suggested to the teachers that the

Reading Recovery procedures were appropriate for use in their classroom as a whole. Clay (2009) emphatically states that the teaching procedures are not recommended for the majority of children. What can be argued is that the learning about how to teach children to read and write will empower teachers to effect change in their overall practice (Lange & Burroughs-Lange, 1994). The comments in their journals (see Appendix I) made regarding this were, "increasing their understanding of how young children learn", "not only about reading and writing, but learning in general." They were also questioning how they were learning and how they were applying this learning. They were asking themselves: "What have I learned about the process of young children learning to read and write?" and "What have I learned about myself as a teacher?" They were beginning to ask themselves some very hard questions. They needed to be led to answer those questions. It was important for them to ask themselves "What have I learned?", "What have I taught?", and what do I now need to learn?" These questions could be classified as teacher prompts that call them to take some action. Subsequently, increasing their knowledge base in literacy would ultimately add to their personal subject construct (Atherton, 2009 April 20).

In their journal (see Appendix I) they also wrote about the professional development. Their comments were varied, but the most frequent were that "There is no better professional development than talking with peers, watching others teach and answers to your questions", I am also "finding ways to improve my resource program", that "building trust is important to the process of internalizing information". With this information, they described that they were "growing as a teacher" and they "abandoned procedures that were counterproductive". They were so happy that it was "student and teacher centered". The professional development is inquiry-oriented where teachers construct their understanding via observations, reflection and discussion using live case examples where they build a base for teacher decision making (Schmitt et all, 2005, pp.121-160).

This learning couldn't be summed up any better than the following teacher's comments: **"I know I would not be teaching reading the way I do, nor would I know how to observe children in the way I do, I am so grateful that I have had this opportunity."**

In offering a short summary of the second term, it could be surmised that teachers had developed and changed in the use of their language in describing student's progress and in the ability to describe their own learning. Listed in their observations, they were noticing students' behaviors and were able to better explain their teaching decisions because of a better understanding of how children learn to read and write. When Clay (2009) was writing about implementing Reading Recovery internationally, she wanted it understood that change during the year of professional development was a unit of learning in itself. It is a process of uncovering hidden assumptions within their collegial network.

Table 4.11.

Term 2 – Summary – Content, Process and Context

Content	Change in the complexity of language used
Process	Analysis of evidence = observation = decisions
Context	Change in the complexity of language used

TERM 3 – April 2009 to June 2009

Linking Conversations, Observations and Events

Showing change over time in learning

Within the third term, teachers are directed towards more self-directed inquiry. They now have had optimal time to observe reading and writing behaviors that inform their intuitive understandings of cognitive processes (Schmitt et all, 2005). I assumed that their teaching should reflect their growing understandings. They are expected to have a bank of knowledge regarding literate behavior and apply the knowledge to their practice. Self-evaluation of learning is a focus within this term where they now have some ability to

interpret and transfer that learning to their own teaching (Shannon, 1990). The third term is characterized by the teachers having and continuing to develop the ability to evaluate, describe and then explain the results of their teaching. They have to continue on the journey of transformative learning to be an informed effective Reading Recovery teacher.

Table 4.12.

Term 3 – Plan for Learning

Theory	Learning	Processing	Planning P.D.
Phenomelogy	Self-directed learning Knowledge, application and evaluation Transformative learning	Higher Order processing – metacognition What have I learned?	Self-Directed professional development Professional Growth Plans Reading Recovery Sessions Visits

Knowledge about the Professional Self

While nearing the last months of Reading Recovery professional development, the teachers' comments from their journal (see Appendix I), their written observations, student progress and Teacher Leader comments were organized and coded using the coding matrix (see Table 2.3.). Teachers had been well underway in their teaching and building of understandings around literate behavior. The most written in this section is about "reflection", "better analysis" the "running record", and "don't assume" that the student knows more or less than they do. There is a continuous mention of the notion of item versus whole, as we had many discussions regarding the need to bring meaning to the teaching for the student. Not dividing the teaching into little bits of information is essential to bring meaning to students learning to read and write. It is important as a teacher to remind oneself that if we divide a complex theory (Clay, 2001) into its smaller parts, the students will do that also. The understandings must begin to consolidate so that teaching is solidified, leading to

the teachers commenting on the whole versus the parts of lessons, and the theory. All

teachers' comments were now more focused on discussing and questioning the theoretical

foundations underpinning Reading Recovery.

Table 4.13.

Term 3 – Journal

	Kelton	**Erica**	**Nora**
Organization	n/a	13% N=2/15	n/a
Theory	75% N=15/20	47% N=7/15	72% N=13/18
Observation	16% N=2/20	20% N=3/15	6% N=1/18
Procedure	15% N=3/20	20% N=3/15	22% N=4/18

During my observations, there seemed to be an attempt on the teachers' parts to

convey the notion that they had to analyze their own teaching and learning. They should

know what they must learn. This meant that student assessments were important for

informing practice but it then should lead to self-assessment. Through the coding of their

comments in their learning journal (see Appendix I), it is apparent that over the year there

was a change over time in the number of times the teachers discussed the theory. They

needed to take risks in their teaching, and then to analyze where it had led them in their

journey of understanding their own practice. To gather more information on fostering teacher

abilities to interpret and verbalize their learning they were encouraged to video lessons. The

Reading Recovery staff development model does not require video analysis of lessons. Since

the principles of Reading Recovery professional development (Pinnell, 1991) are to develop

the skills to describe, analyze and make inferences while teaching, it was felt appropriate to

use video analysis as evidence of learning for this purpose. Therefore, the teachers were

asked to instill in their practice the notion of videotaping their lessons. This could become a habit and promote individual lesson study. This was the perfect time for them to be able to self-assess and view their own practice. They did videotape (see Appendix L) three lessons during the last months of professional development. The comments listed are for the analysis that they did on their own teaching. In their analysis they commented on: "I don't know if I was teaching", "Experience in teaching is important", "Continue to reinforce the taught", "Not using the terminology", "I am doing all the work", "I have to bring it together", "I guess I didn't realize that he was at a loss for meaning", "He is trying to remember", "I am monitoring for him", and "I made assumptions". The most notable change is that all teachers were now commenting on theory to rationalize practice. This is reinforced by the change over time listed in Table 3.13. – *Personal Subject Construct-September2008* and Table 3.14. – *June 2009-Personal Subject Construct.*

They were also talking about the principle of phrasing and fluency, teaching so that they use the three sources of information, going from the known to the unknown. They were talking more about strategic activity, problem solving, having a change in thinking and remembering that the brain and emotions influence the student's progress. There was still evidence that when they were struggling to understand, they reverted back to teaching for items and not reciprocity. There were significant changes over the period of professional development towards procedural aspects of the lessons. They were able to verbalize the areas they now had to work on within their personal subject construct. This was very encouraging because they were beginning to self-analyze and not depend on me for "tolds". They were beginning to take responsibility for their learning but as is evident in Figure 4.2. – *Analyzing Student Data*, there needs to be a continuation of an emphasis on observation to improve practice.

They seemed to understand the two goals of Reading Recovery. The first is the notion of diagnostic teaching. They realized that they were closing the literacy gap with all

the children they worked with during the year. Discontinuing their series of lessons was

important but overall learning was more important. Student data, such as reading levels,

indicated that children were learning and the teaching was helping to close the literacy gap.

Running Records of reading were used to gage the progress in reading and in turn indicate

teaching is the cause. The outcome of effective staff development must be the growth of a set

of theoretical understandings that enable the teacher to make decisions and then take action

(Pinnell, 1991). Their understanding of theory had changed considerably over the span of an

academic year.

Table 4.14.

Development of Theory over Time

	First Term	**Second Term**	**Third Term**
Kelton	38%	22%	75%
Erica	19%	36%	47%
Nora	33%	18%	72%

On entry to Reading Recovery in February, the range of reading levels for the

students was from dictated text to Level 6. It is evident that teachers are building their

knowledge about theory and practice and then applying it to their practice. A great deal of

time was spent on building the skills that would foster the ability to analyze their own

teaching decisions based on the evidence. The mediums used were lesson study (Brooks, M.,

2009) to learn and use diagnostic techniques that develop the skills to describe, analyze and

in the end make inferences to teach (Pinnell, 1991).

**Figure 4.12.   Running Record – Second Group, Student Progress Reading Level
           Entry - Exit**
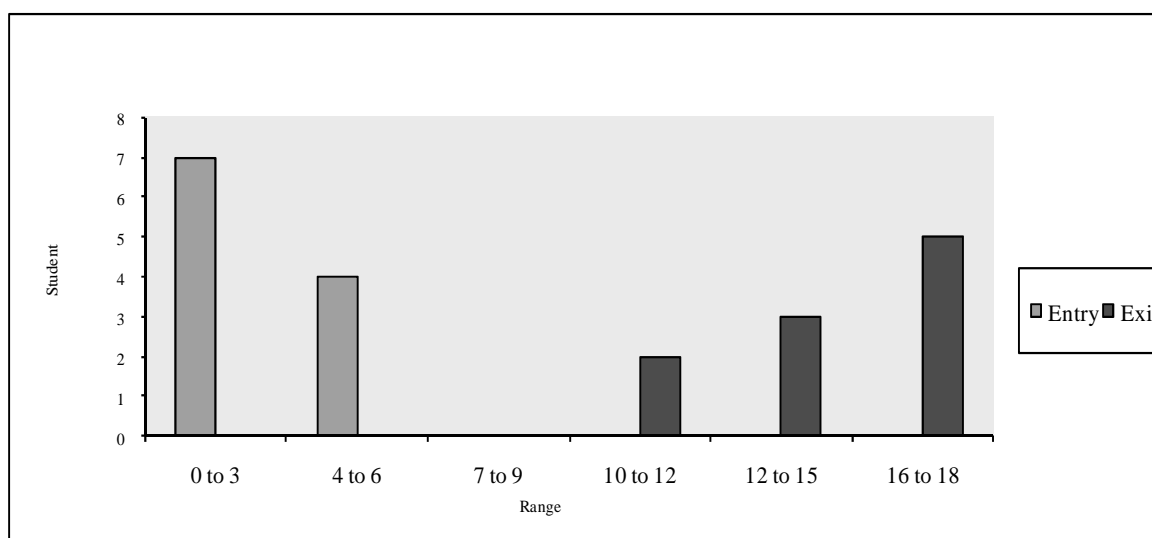
Evidently, as shown in Figure 4.12. – Running Record-Entry - Exit, reading levels changed over the year. During the year, the range of entry reading levels were similar, but as the year was ending, their exit results had increased exponentially. This could indicate that as teachers' knowledge increased, so did the literacy behavior of students.

Table 4.15.

Student Reading Levels – Change over Time

Carry over students			First students			Second students	
Entry	Exit		Entry	Exit		Entry	Exit
0 – 6	6 – 12		0 – 3	4 – 18		0 – 6	10 – 18

I decided that self-analysis of teaching decisions was so important, that teachers were asked to carry-out a simple case study (see Appendix G). The Reading Recovery staff development model (Pinnell, 1991) does not include completing a case study. This was administered to garner more information regarding the self-analysis ability of teachers. One of their students was chosen and followed for four weeks. Teachers were asked to analyze their teaching using their lesson records. It was evident that there has been some progress in this domain but there is still much work to be done. Teachers had to effectively analyze

evidence of student learning to determine their own learning needs. Progress had been made

in self-analysis, and the use of vocabulary such as "strategic activity" and "orchestration" that

is indicative of higher order processing by the teacher. This would be classified as the third

and most advanced level of learning (see Table 3.11.). This process is self-directed and it

takes self discipline and time. Over this period, awareness built that teachers are smart and

they do build a vocabulary, but that vocabulary might be catch phrases that a Teacher Leader

expects to hear. It seemed that they could use the vocabulary as a whole range of catch

phrases but it might mask the fact that there are no deeper understandings of the actual

theory. They could verbalize the vocabulary but did they really understand? I commented

that there "was not enough teaching for reciprocity in reading and writing". They were

treating the process of reading and writing as two complete, separate entities. In turn, this

was an indication of what I had to teach.

There was evidence that a change in the teachers' ability to self-analyze was

developing. This was evident from their response to Outcome 4.1. (see Figure 4.13.) of the

innovation configuration map. If we compare the first term with the third term, there has

been some movement, but it is limited.

Figure 4.13.   Analysis of Data, Innovation Configuration – Outcome 4.1
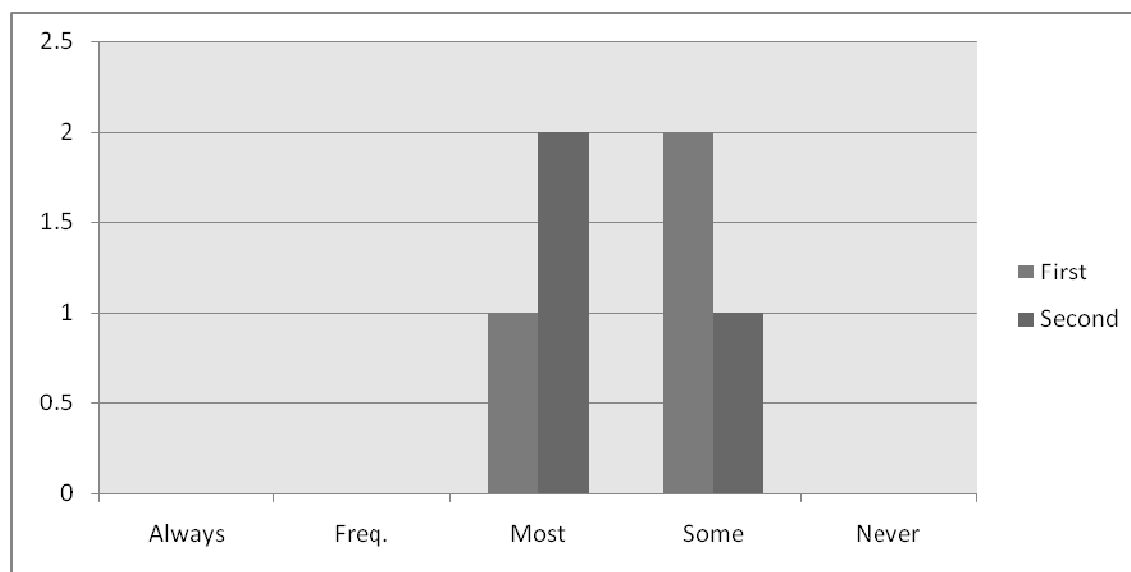
Also reported in the first term, the use of technology was not a strong point for this group.

They touched on many sites that were important to Reading Recovery, but technological

competence was not a focus within the professional development. Although it was not a

focus, there has been some movement on the teachers trying out new sites for obtaining

information on learning and teaching.

Figure 4.14.   Technology- Innovation Configuration – May 2009 – Outcome 7.4
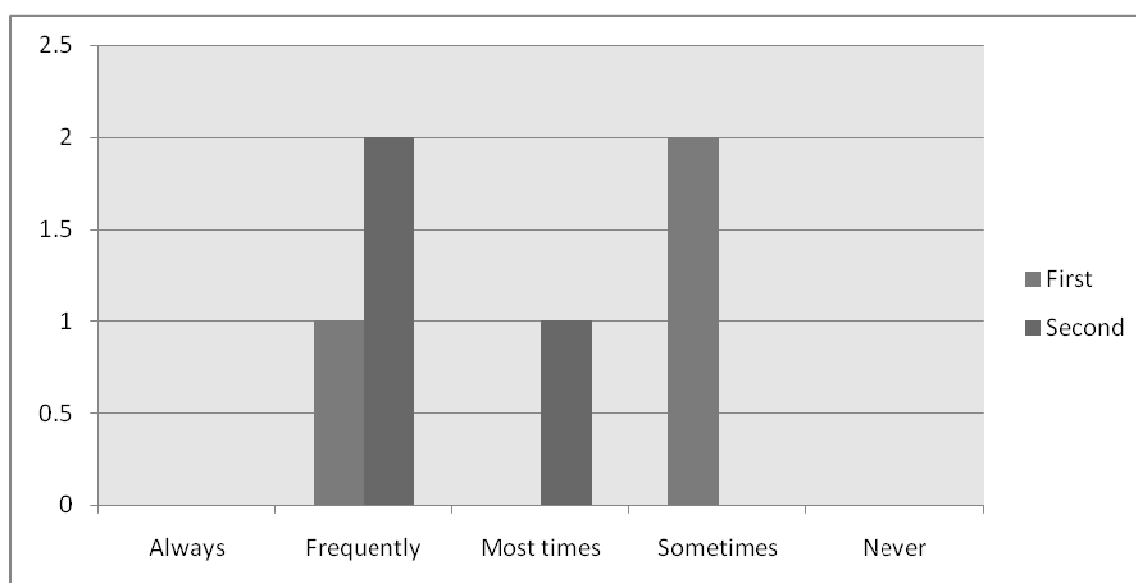
These teachers had made progress in self-analyzing but it was determined that this behavior

would still need scaffolding to happen. Reading Recovery has a support system (Clay, 2009)

that includes three concentric circles to continue to support teacher learning beyond the initial

year of Reading Recovery professional development. Training also continues after the initial

year with a built in renewal system to update them on new ways to be effective in their work

with children (Schmidt et al., 2005).

Knowledge about Theory on Practice - Context

In my observations, I noted that the group was starting to be more comfortable with

verbalizing the literacy processes. They had to be prompted, but they could verbalize the

process. These conversations centered more on strategic activity, orchestration,

independence and looking for evidence of what had been taught. As we ask students

questions to prompt problem-solving, the same was asked of them. These questions are:

"What did I teach today?"

"What am I going to teach tomorrow?'

"What now must I learn?"

They were talking more about assessment to guide their practice and extending their understanding of what it means to be a reader and writer. The comments, at times, noted that they were more like their students than they thought. They wanted to process at lower levels, where they were being told what to do, instead of self-analyzing to problem-solve more independently. They don't necessarily want to understand the "why", but they want to know the "how" with procedures. Teachers at this time commented that the biggest barrier for their learning was a lack of time. Pinnell (1991) in *Bridges to Literacy*, concedes that few argue about the need for professional development but the greatest barrier to effective professional development is in agreeing how it must be implemented. For the teachers, time was their enemy. They didn't have enough of it.

The conversations after the sessions (see Appendix L) and the visits, evolved into talking about self-analysis and trusting the student data while combining it with teacher observations to make teaching decisions. Everyone wanted to know what good reading and writing looked like at the end of a series of lessons. Some had commented that: "You could see it build", "I assumed", "Scaffolding", "Student self-evaluation", "Taught to focus on items", "Need the theoretical background", and "Transference to classroom". Two teachers summarized their year using the following comments:

**"Having the ability to think on my own and problem-solve."**

"Ask myself a lot of "W" questions."

The comments in their journals (see Appendix I) and the June 2009 self-analysis (see Appendix D) indicated that they were beginning to make connections between the theory and practice. Through the analysis of their lessons they were verbalizing that their first group of students didn't have the same advantage as the second group. They were also concerned

about how the students were transferring the learning to the classroom. The students needed

to be taught to transfer the learning between the two sites. If this is not taught, it is difficult

for students to make that transition. By the end of the year, confirmation of understanding

was strengthening, and this was evident by their comments reported in the summary section

of the Observation Survey (2002) in June 2009 (see Appendix L). Their main concern was

that the students become more independent in reading and writing. My concern was for the

teachers to become more independent and knowledgeable in their acquisition of theory, and

use it in their practice.

During the year, there was more and more talk about involving parents/guardians in

the teaching process. They were not expected to teach, but it was important for

parents/guardians to be aware of the process of what was happening with their children. At

the end of the year, there has been some progress (see Figure 4.15.) in involving parents in

their children's education, especially Reading Recovery. We depend on parents to help and

understand how important it is to be literate in a changing world. We must build that link

between the home and school. The inner circle of implementing Reading Recovery within a

system is the learning that the children will undertake within their time in the intervention.

Parents or guardians are part of this initiative to promote learning.

Figure 4.15.   Partnerships – Innovation Configuration – May 2009 – Outcome 12.1
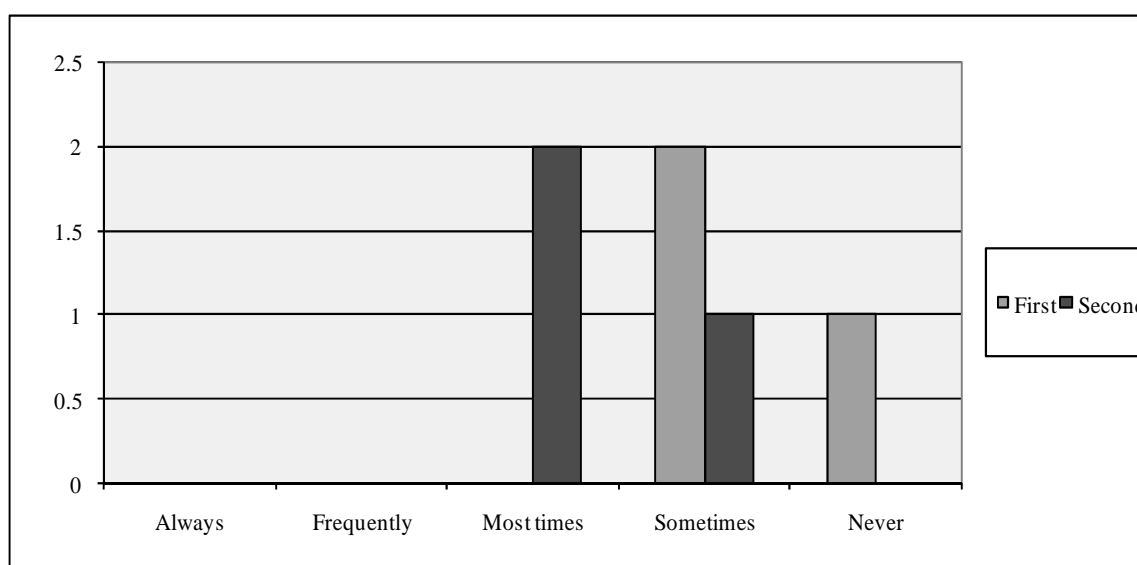
There is still a great deal of work to be done to include families in the process of understanding the education of their children. This would be an opportune time to make the stakeholders aware of why and what the professional development encompasses to promote the education of their children. Technology could be a valuable tool to keep in contact with parents and educational stakeholders. Outcome 7.4 – Technology-Innovation Configuration Map 2009 (see Figure 4.14.), commenting on technology also indicated we had some progress to make in this area.

Knowledge about Literacy Behaviors and Skills/practice – Content

In the conversations after sessions and especially with their analysis of the case study (see Appendix G), the teachers verbalized that it was very hard to analyze their own teaching. One teacher made the comment: "I don't know what I learned. That is the hard part!" They realized that this had to be done but it was not easy for them. They also stressed that they learned that they had to concentrate on their positive strengths and build on them. The issue of barriers to learning also was reiterated in that they didn't have enough time. They felt that Grade 2 teachers have to be reinforcing the same teaching in subsequent years so literacy professional development is a necessity for all grade level teachers. They verbalized that Grade 2 teachers needed to especially continue to reinforce the learning of Reading Recovery students.

There were comments that the learning from the Reading Recovery professional development was enabling the teachers to focus on children who were still at risk but were not chosen for Reading Recovery. They could apply the learning to their classroom setting. (Clay 2009) argued that staff development should enable teachers to make decisions that they might adapt to each child's idiosyncratic patterns of competencies. It is hoped that this adeptness in decision making would be applied in all appropriate teaching venues. Differentiation could happen in their classroom. They really liked the fact that they worked

as a group, helping each other to learn. They became a strong professional learning community. Again some of the teacher's best described their knowledge acquisition as:

"I think that we have to focus on early years."

"If you don't know any better you will revert to the known."

"Your previous teaching experiences will determine how you teach."

"Sharpens my teaching of students outside of Reading Recovery."

"Isolated bits – No meaning!"

The whole integration of "what", "why" and "how" was coming together. The teachers had to be continually prodded to self-analyze. Higher order thinking and processing must be developed when discussing literacy theory and practice. It is argued (Burroughs-Lange, 2009) that learning and effective teaching seems to fall into three areas of continued enquiry:

- Early literacy acquisition.

- Teacher learning.

- Effecting educational change in ephemeral political contexts.

Advocacy for quality professional development is an ongoing process that will hopefully encourage teachers to be aware of their strengths and work on building on their known. Teaching is a continuous process of questioning and finding answers. In Reading Recovery, professional development continues in subsequent years. It is a way of expanding the understandings of the initial year of professional development. Building a complex theory of reading and writing is an ever-changing continuum. Teaching and learning should reflect this!

Learning is a social event, and we learn from each other. If we do not have the time to work and consult with other teachers involved in and out of Reading Recovery, how can we develop and educate the whole child? Teachers are meeting with other teachers, but Outcome 1.1 (see Figure 4.16.) indicates that teachers meeting times are limited. If limited

time is allocated to working together, developing a higher order thinking process is difficult. If teacher learning is grounded (Askew, 2009) in observations of children as they learn, it would seem that time is of the essence in becoming better teachers. If time to meet is an issue, it is difficult to develop leadership at the school level. There would be no focused meeting times where an issue could be discussed in detail.

Figure 4.16.   Opinion on Times to Meet – Change Over Time
Innovation Configuration – Outcome 1.1
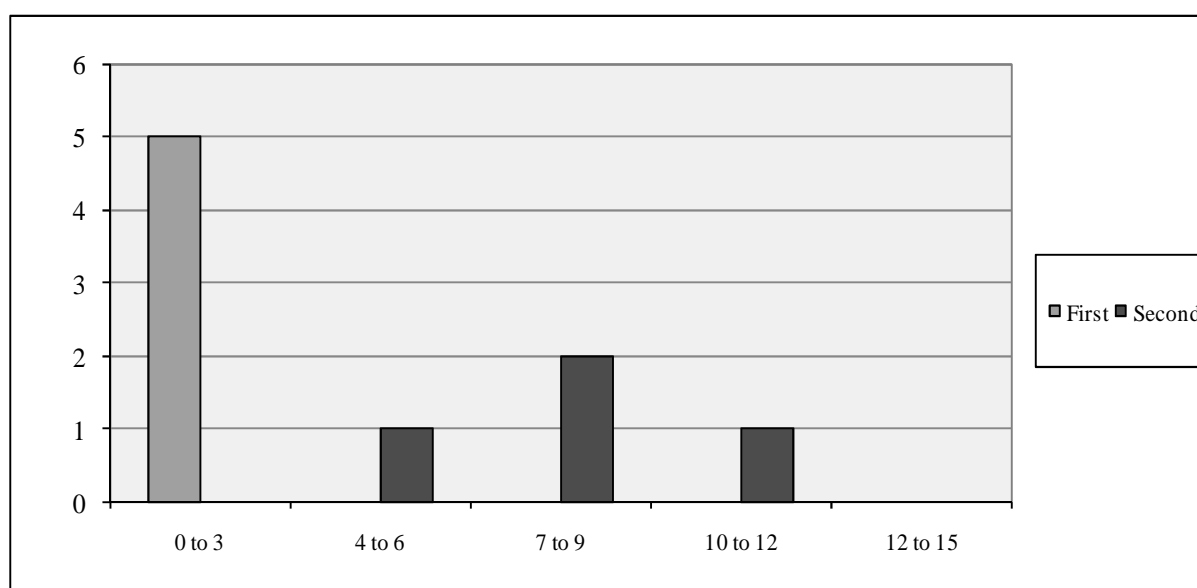
Reading Recovery has time built into the professional development process, and part of the plan is built on long-term learning. After the initial year of professional development there is a continuous focus on building the personal subject construct (see Figure 3.8.-C). Learning is considered essential and continuous. Clay began the Reading Recovery project in 1976 (Ballantyne, 2009) and present day Reading Recovery is rooted in at least 30 years of research, critique and advocacy that continues into the 21st Century.

Reading Recovery can be part of the accreditation process (NSDOE, 2005) where teachers are encouraged to form Professional Learning Communities to focus on student achievement. Time is allocated to meet and exemplary teachers may share expertise which creates a culture that may develop leadership abilities. Teachers should have an opportunity to continue to build on their personal subject construct in subsequent years. Reading

Recovery as part of the implementation circle demands through acceptance of standards and guidelines (CIRR, 2006) that teachers meet on a regular basis. It is important for teachers to interact and try ideas and formulate or reformulate understandings (Pinnell, 1991). This is how a phenomenon is understood. There are at least eight ongoing professional development sessions for Reading Recovery teachers each year to continue to develop knowledge and practice in Reading Recovery. This will continue to add to the teacher's corpus of literacy knowledge, promoting leadership in the field. Table 4.16. – *Term 3-Summary*, is a summary of transformative learning in the third term of learning and teaching.

Table 4.16.

Term 3 – Summary

Content/Practice	Building an understanding that theory underpins practice
Process/Self	Self-analysis – intermediate level that needs to be scaffolded
Context/Theory	Without knowledge of theory – can't teach – Early years important

Teacher Centered Continuing Professional Development

Learning from Reading Recovery

This evaluation of teachers' data indicates that there has been a transformation of learning. They built a body of knowledge to add to their personal subject construct (see Table 3.13. and 3.14.). Since the administration of the self-assessment tool (see Appendix C) there has been further development of the personal subject construct that includes an elaborated understanding of knowledge acquisition through theory, skills and self analysis. Teachers put tremendous time and effort in learning during the year of professional development. Within the confines of the Reading Recovery staff development framework, (see Figure 3.5.) teachers transformed their learning. With the collection of conversations, observations and events, three areas were studied, coded and reported as the learning that took place over a period of time. It was evident that teachers had undergone a sustained

period of professional development that was grounded in theory, collaboration, on-going

assessment of student and teacher knowledge as well as a learn/teach mentality that was

supported by a mentor. The first set of information used was supplied by teachers with their

self-assessment questionnaire (see Appendix B &C) that formed their personal subject

construct within the first and third terms of their professional development. The change over

time in their understandings was noted and recorded in Chapter 3.

The following Table 4.17., *Comparison- Theory, Practice and Self -Change Over Time*, is a summary that depicts the change over time in learning that the teachers underwent

during a full academic year of professional development.

Table 4.17.

Comparison – Theory, Practice and Self

 Change Over Time in a Personal Subject Construct

Theory	Teacher	Teacher Leader
Term 1 - Theory	Reading and writing everyday Word solving/ comprehension strategies Guided practice – repeat Strategy Modeling and doing Reading and writing a process Reading and writing are linked.	Focus on procedural aspects of lesson
Term 3 - Theory	Reading and writing are linked. Teach letters/ sounds/words in context. Make meaning from the known. Use structure. Use visual information. Daily Reinforce strategies Reading strategies	Building an understanding that theory underpins practice.

	Begin early. Immersed in Reading and writing	
Practice	**Teacher**	**Teacher Leader**
Term 1 - Practice	Daily exposure Directly taught Mini/lesson –whole group Meeting area Sharing time Demonstrate Word list Home reading program	Telling versus revealing
Term 3 - Practice	Reading and writing everyday Sense of ownership Reading and writing genres Integrated across curriculum areas. Time to practice. Introduce new words/word lists/context. Choice of books. Reading workshop. Mini lessons/whole lessons. Home reading program	Without knowledge of theory – can't teach Early years are important
Self	**Teacher**	**Teacher Leader**
Term 1 - Self	50% 64% 67% 78%	Limited self analysis and limited student data analysis
Term 3 - Self	75% 76.3%	Self-analysis – intermediate level that needs to be scaffolded

	78% 85.7%	

Reading Recovery, if included within the umbrella of accreditation (NSDOE, 2005) should help the school improvement process through teacher and student learning. There are indications from this research that teachers and students will benefit from the Reading Recovery professional development. The school as a whole might benefit if the teacher shares the knowledge with colleagues, but only if the teacher shares. There are indications (see Figure 4.16.) that teachers don't pay particular attention to working with other teachers. As Reading Recovery is very specialized and focused professional development on literate behavior, this knowledge may be utilized beyond the confines of Reading Recovery. It should be possible to transfer the learning gleaned from this study about professional development to other educational settings. Clay (2009) makes it clear that the teaching procedures were never meant for general use within a classroom. Therefore, it is understood that the Reading Recovery staff development model was meant for use in the development of Reading Recovery teachers. There was no attempt to alter the Reading Recovery professional development framework, but the theory underpinning the development of teacher learning through a process of professional development will be utilized within educational ideology of planning professional development within a system. If Reading Recovery teachers are considered exemplary (Stringfield et al. 2000, Pressley & Roehrig, 2005) the foundational theory on learning is sound and can be used to create a generalized professional development framework that is grounded in theory, collaboration, on-going assessment of student and teacher knowledge along with a teach/learn mentality that is supported by a mentor. This study was founded on the understanding that a new theory of professional development beyond Reading Recovery would develop from this research. It was decided early on that the methodology would be grounded in theory of learning and professional development and that would allow for the postulating of a new theory that grew
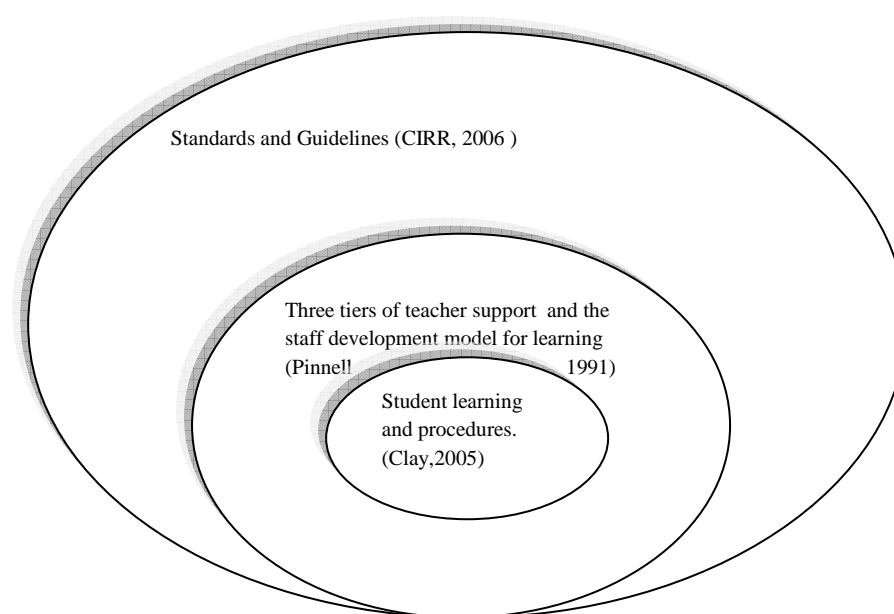
from studying the learning undertaken in Reading Recovery. Reading Recovery teachers

have often been described as exemplary teachers (Presley & Roehrig, 2005) that are

empowered (Burroughts-Lange, 2009) by their search to understand a phenomenon (Pinnell,

1991). They develop professional expertise through a process of staff development that is

grounded in more than 30 years of research and development (Clay, 2009). Since then,

Reading Recovery professional learning model has been validated in research studies as an

important factor in Reading Recovery's success as an intervention (Pinnell, Lyons, DeFord,

Bryk & Seltzer, 1994) prompted this study. It must also be realized that the Reading

Recovery staff development model was conceived for Reading Recovery implementation and

was never meant for other implementations. When Reading Recovery was first conceived in

1976 it was then rooted in 30 years of research, critique and advocacy (Watson, Askew,

2009). Clay had already spent those years working with children who were becoming

literate. Her initial research challenged established assumptions about literacy behaviors and

how children experiencing challenges in becoming literate should be taught. In publishing

The Reading Recovery Research Reports (Clay, 2009) she shared the research process with

the world to shed transparency on the methodological framework of the development of

Reading Recovery. Through the development of an interactive staff development model of

learning, it was discovered (Pinnell, 1991) that learning is applied to both children and

teachers. The major characteristics of the Reading Recovery staff development model were

discovered to be:

1. Interactive.

2. Both students and teachers learn.

3. A constructive learning process.

4. A notion to build on the known.

5. Language based.

6. Research based.

7. Preventative versus descriptive.

When Clay (2009) replicated her original study, she concluded that the good results achieved were gained on the risky foundation of the implementation. Implementation standards and guidelines were deemed necessary and they were created to maintain integrity of the intervention. When Reading Recovery migrated to North America (Clay, 2009), it was necessary to develop standards and guidelines that would remain true to the original work and it would mean that data from a fully implemented intervention would be available. In Canada, the Standards and Guidelines of Reading Recovery (CIRR, 2006) were developed by the Canadian Institute of Reading Recovery. At its roots, Reading Recovery is built on a foundation that includes three concentric circles that supports teacher and student learning. The outer circle is the implementation, the middle circle is the three tiers of teacher expertise and the inner circle is the student (Pinnell, 1991). This is the framework that grounds the initiative in research and promotes learning. The framework is much more complex than presented, and Figure 4.17. – Overview of Reading Recovery Implementation, is only meant to offer a snapshot of a complex process.

Figure 4.17.   Overview of Reading Recovery Implementation

Standards and Guidelines (CIRR, 2006)

Three tiers of teacher support and the staff development model for learning (Pinnell   1991)

Student learning and procedures. (Clay,2005)

The group of teachers participating in this study did build on their own theory of what they needed to learn. Studies conducted on Reading Recovery professional development made clear that shifts in learning from skills to orchestration of theoretical understandings (Pinnell & Woolsey, 1985, Pinnell, 1991, Herman and Stringfield, 1997, Pinnell et al, 1994) was possible for teachers. The teachers participating in this study also made changes in their learning. This was explored and further explained by the use of Atherton's theory that we must build on a personal subject construct of learning (see Figure 3.8.- C). This construct was applied so that there might be an expanded understanding of the learning that was equated to learning theory. This was a different way of looking at teacher learning within Reading Recovery professional development. I sought a construct that could be easily understood and applied it in other situations beyond Reading Recovery. It is a way of understanding and showing through research what Clay might have meant when she coined the term orchestration of theoretical understandings. The personal subject construct was built on the foundation of learning theory widely understood today (see Table 3.1.).

Teacher learning, as described in the Teacher Learning Model (Pinnel, 1991) lists that learning changes over time from emerging, developing and then becomes autonomous. It was important in planning and carrying out this research that a process becomes evident that learning was being transformed. Pinnell (1991) indicated that research clearly shows the shifts from skills to orchestration. It was important for me to tease out the theoretical implications of Mesirow's (1978) notion of what he meant by transformative learning. This again was a different way of looking at planning for Reading Recovery teacher learning over time. His work laid down the foundation of looking at professional development over a period of time based on the theoretical rationales of present day learning ideologies. This was where I had the idea of dividing the Reading Recovery professional development into blocks of time over the year emanated. These timeframes allowed for the tracking of evidence to show change over time in teacher learning. In the first, second and third terms I

could show the transforming of a personal construct of knowledge over the span of an

academic year.

So, looking back to Chapter 2, the development of rationales for the conducting of

this research is grounded in the theory surrounding Reading Recovery professional

development. This is not a study about Reading Recovery but it is about the learning through

professional development that enables the teachers to transform their learning. The

continuum of learning is what must be understood so that it may guide the construction of a

generic framework to conduct future professional development outside the confines of

Reading Recovery.

How to Plan for Transformative Learning?

The Reading Recovery staff development framework is very well developed and its

integrity is maintained by very specific standards and guidelines. Learning in Reading

Recovery was documented, analyzed and discussed along the lines of what and how it was

learned. The learning was summarized into a personal subject construct (see Figure 3.8.-C)

and then the learning is described as transformative (see Figure 4.1.) over time. Again, there

was an attempt to look outside the Reading Recovery professional development model to

explain the process of transformative learning. This was an effort to help me understand

professional development beyond the boundaries of Reading Recovery but would yield the

same major characteristics of the Reading Recovery staff development model. Over the span

of this study, a pattern of processes began to develop that might explain why Reading

Recovery teachers become known as exemplary teachers (Davis, Sumara & Luce-Kapler,

2008, Fitzharris, Jones, & Crawford, 2008, Farrall, 2006, Pressley & Roehrig, 2005). This

was necessary, if there was to be development of an understanding around offering

professional development beyond Reading Recovery that had similar results reported by

Reading Recovery. A pattern of processes necessary to learning began to take shape during

the conducting of this research within the confines of Reading Recovery professional

development and the literature on professional development. The following Table 4.18. –

Pattern of Processes, is presented to list the pattern of processes to this point, but it is not

meant to suggest that there is a sequence to these processes.

Table 4.18.

Pattern of Processes

Pattern of Processes
• a determination of academic needs
• a process that organized the learning or some type of plan
• a need for standards that guided the implementation
• an assessment of the process that would re-evaluate the needs of professional development
• grounded in theory
• collaboration
• on-going assessment of student and teacher
• learn/teach mentality
• an understanding how adults learned
• mentor/Teacher Leader
• transform teacher and student learning

The construction of a new framework is meant to look at the process of implementing

professional development that lays a foundation for a change in teacher learning. As before,

central to this change is knowing what personal subject construct (see Figure 3.8. - C) or

knowledge is needed to make the changes. What do you want the teachers to learn? This

construct is the core of any professional development framework and it will change with the

determined needs of a system, teacher or initiative. The conception of a new framework for

professional development is like a geological survey. You have to dig through many layers

to get to the core. In this case, the core is the personal subject construct (see Figure 3.8. - C),

and from the core I assumed that there must be a process in place that builds outwards on the

personal subject construct. The efficacy of the professional development will determine the

growth and success of the personal subject construct. The layers that are built around the core are the parts of the professional development that must be considered to maintain active intrinsic and extrinsic motivation (see Figure 3.4.) proposed to make learning possible.

To meet the goals and characteristics of Reading Recovery (Clay, 2005) it is necessary that there is a solid foundation of professional development built into the overall design of offering the intervention. As previously stated, knowing what must be learned is not enough. What follows is a way of looking at offering professional development that could explain the process undertaken in transforming learning. The patterns of processes (see Table 4.18.) developed during this research must be explained. How could this be done?

I had to think about what is possible for individual learners as they continue to change. When professional development permits practitioners to take different routes to the same desired outcomes, we may see the expansion of possibilities. Changes in offering professional development may come about because of an examination of effective teaching procedures based on current theory that leads to an action to better one's practice. With thinking about the learner having changed, it is now time to stretch my own thinking again. Reading Recovery professional development has been linked to the success (Pressley & Roehig, 2005) of teaching and learning. How could that success be replicated outside the confines of Reading Recovery by incorporating the pattern of processes within the design?

The Design of a Generic Professional Development Framework

The First Ripple

With an understanding that the pattern of processes had to be explained in a concrete manner, it was time to consult the theoretical understandings of planning professional development. The pattern of processes uncovered must fit into a plan for professional development to see similar results in learning as the teachers in Reading Recovery. The framework for designing effective professional development, developed by Cook and Rasmussen (1994), can lead schools through a process of identifying, understanding,

planning, carrying out, and evaluating change. This framework can be made to fit with the

pattern of processes (see Table 4.18.) uncovered within this research. This framework

consists of:

1. Identification - The inner core of the framework is the literacy construct previously

   presented (see Figure 3.8 - C), and lays the foundation by describing the needs of a

   system or learner.

2. Understanding – This might be better explained as understanding the needs of a

   system or learner.

3. Planning –This section is categorized by the need to have a framework that carries the

   learning forward.

4. Carrying out - the third section is carrying out the plan or implementation.

5. Evaluating change - finally there is an accountability piece that is considered the

   evaluative phase of the whole process.

The developing framework will be discussed in the order that they were numerically

presented. The pattern of processes that were summarized from the research work thus far

will be included to inform the link between the learning as part of Reading Recovery

professional development, and background literature on learning. A proposed professional

development framework that may be used outside the confines of Reading Recovery will be

developed. This new framework begins with a description of the first ripple moving outward

from a personal subject construct of that proposed construct. The first ripple consists of the

four steps proposed by Cook and Rasmussen (1994).

Identification and Understanding

Beyond identifying what is needed by a system, it is first important to develop an

understanding of what personal subject construct the teachers are presently working from

within their practice. It is not enough that the teachers learn to critically reflect on their

practice. It is also important that a facilitator is responsible for offering the professional

development; share in the process. The first thing the facilitator must do is to pose some

questions that must be answered by the teachers. These questions help in the understanding

of what constitutes the teachers present personal subject construct (see Figure 3.8. - C). In

Reading Recovery, it is important to start from the known, so it is important to investigate

what constitutes the teachers present understandings of literate behavior. This study began

with the administration of a self-assessment tool (see Appendix C) that was meant to gather

information about their personal subject construct and the results were reported in Table 3.13.

– Term 1-*Personal Subject Construct-September 2008*, Table 3.14. – *June 2009-Personal

Subject Construct* and Table 3.15. – *Follow up Interview-December 2009*.

Some further points or understanding that a facilitator of professional development

might consider for understanding teachers personal subject construct are:

- Understand the teacher's perspective.

- As with children, you have to build on the teacher's strengths.

- Keep in mind that these are adult learners that must be respected and involved in the
  process.

- Understand that teachers will be threatened and frightened by not being in control of
  what they are learning.

- Understand that assessment for learning will be difficult.

- Understand that their teaching methods might only include a traditional framework of
  reference.

- Understand that the time commitment is important to consider.

- Understand that for some teachers the learning curve will be great.

- Understand that teachers want quick fixes, without knowing the theory.

- Understand that learning is a process – Learning to do, learning to be and learning to
  be part of (Delors, 1989).

The above considerations comprise a summative evaluation of what the teachers know and understand as being their personal subject construct of teaching. It is important for teachers to evaluate each point so that a plan can be implemented to build capacity within their practice in order to maximize student's achievement. A literacy construct of knowledge would be expected in Reading Recovery and it is presented in Table 4.19.– *Literacy Construct of Knowledge-Reading Recovery*, as an example of a beginning personal subject construct. This summarizes what comprises a personal subject construct of knowledge for teachers involved in the year-long Reading Recovery professional development.

Table 4.19.

Literacy Construct of Knowledge – Reading Recovery

Theory	Practice	Self	Critical thinking
Beliefs of literacy education Belief of assessment practice What must be learned about theory	Build on strengths Actual assessment practices What must be learned about practice	Adult learners What control do they have Present teaching methods Time commitment	Want quick fixes, and must be made to think, reflect and try Understand that learning is a process – Learning to do, learning to be, learning to be part of (Delors, 1996)

Once there is an understanding of the needs around learning that must take place, it is time to plan the professional development. A good first step is again asking questions. These might include:

- What formats and approaches are used in the design? Are learning theories considered? (Clay, 1993, 2001).

- Which approach might be necessary to explore in detail?

- Having decided on the changes and learning necessary, what might enhance the plan?

- What are the resources?

- Have you thought about the teacher learner categories from Chapter 3? (see Table 3.11.)

- Have you thought about professional learning communities? (MacQueen, 2001)

- Have you thought about Accreditation? (NSDOE, 2005)

- What is the evaluation plan? Identify possible criteria for evaluating the overall design and process.

- How will you support teachers?

- Have you thought about lesson study? (Brooks, 2009)

Asking questions might help but the planning is much more involved than just posing questions. At this time I was thinking about the Reading Recovery staff development model (Pinnell, 1991) as an involved process built on the foundation of time and research. Therefore, I assumed that it is important to include the seven principles of highly effective professional learning (Department of Education and Training, 2005) that include the pattern of processes (see Table 4.18.) uncovered during this study. These are listed as:

1. Professional learning is focused on student outcomes.

2. Professional learning is focused on and embedded in teacher practice.

3. Professional learning is informed by the best available research on effective learning and teaching.

4. Professional learning is collaborative, involving reflection and feedback.

5. Professional learning is evidence based and data driven.

6. Professional learning is ongoing, supported and fully integrated into the culture and operations of the system – schools, networks, regions and the centre.

7. Professional learning is an individual and collective responsibility at all levels of the system and it is not optional.

For this study, an attempt was made to discover a way of understanding the process of learning during Reading Recovery professional development. The research in Reading

Recovery suggests that teacher's understandings change over time. How was this possible? To understand, organize and eventually explain the learning, the Reading Recovery data surrounding learning was evaluated and explained. To do this, prevalent learning theories (see Table 3.11.) were consulted so that a concrete explanation may be offered toward that process of learning over time. Within Chapter 4, this led to the categorization of transformative learning.

Planning the Professional Development

The following plan is proposed as a way of looking at transformative process of learning. This timeframe is meant to deconstruct and reference time as a process to learning. Reading Recovery professional development is transformative learning (Mesirow, 1991) at its best. This is an alternative view of how learning may be understood and planned. This is done so that I may possibly understand the conceptualization of the professional development process undertaken by the research group while involved in Reading Recovery and then be able to use it independently of Reading Recovery.

Table 4.20.

Planning for the Learning Process – Reading Recovery

Level 1, Term 1 – September to December

Time of Year			
	Theory	**Type of P.D.**	**Reading Recovery**
Term 1 Lower order processing of cognitive function Take notes Collect programs to teach Introduction to literacy theory	Procedural Theory Inactive and active participants	Standardized PD Procedural/practice Sessions Primary stage of PD www.teachernet.gov.uk (2009) Focus; Shown how, and why	1. Lesson study • Individual • Group 2. Theory • Guidebook • Articles 3. Research • Collection of data 4. Practice • Daily teaching • What has student learned? • What do they now have to learn? 5. Assessment • What have you learned? • What do you now want to learn? 6. Resources • Materials • Coach

The second level of the planning process should bridge the gap between practice and the use and understanding of the underlying theory. This has been classified as Term 2 and is explained in Table 4.21. – *Planning for the Learning Process-Reading Recovery-Level 2, Term 2-January to March.*

Table 4.21.

Planning for the Learning Process – Reading Recovery

Level 2, Term 2 – January to March

Time of Year			
	Theory	**Type of P.D.**	**Reading Recovery**
Term 2 Bridging the gap between lower order and higher order (cons) cognitive function	Developmental Scaffolded – Vygotsky – Learning is socially mediated (2009) Links practice to learning www://cipd.co.uk Prepare for more responsibilities Active participant	Site Based Theory + Practice 6 sessions Intermediate Stage www.teachernet.gov.net (2009) Focus; Capturing useful experiences Assess practical benefits What can we do now that we couldn't before? Within school - coaching, mentoring, school networks www.cipd.co.uk (2009)	1. Lesson study • Individual • Group 2. Theory • Guidebook • Articles3. 3. Research • Study of data 4. Practice • Daily teaching • Practice video analysis • What have they learned? • What do they now have to learn? 5. Assessment • What have you learned? • What do you now want to learn? 6. Resources • Materials • Time • Coach • Research • Technology

The third level of the planning process should see teachers using theory to understand their practice and make decisions based on their understandings of that theory. This has been classified as Term 3 and is expanded in Table 4.22. – *Planning for the Learning Process-Reading Recovery, Level 3-Term 3-April to June.*

Table 4.22.

Planning for the Learning Process – Reading Recovery

Level 3 – Term 3 – April to June

Time of Year			
	Theory	**Type of P.D.**	**Reading Recovery**
Term 3 Higher order processing of cognitive function Learning diary Records Logs	Critical Theory Scaffolded Links learning to practice and own goals Active participant Activates cognitive clusters Phenomenology	Self-Directed Theory and Practice – Metacognition 6 sessions Final stage www.teachernet.gov.uk Focus; What is reflective learning? Accept responsibility for own learning. Learn how to learn. Use new knowledge and skills Reflection becomes routine www.cipd.co.uk See learning as intrinsic part of job.	1.Lesson study • Individual • Group 2. Theory • Guidebook • Articles 3. Resources • Research • Data analysis • Coach • Technology 4. Practice • Daily teaching • Video analysis • What have they learned? • What do they now have to learn? 5. Assessment • What have you learned? • What do you now want to learn?

As the above tables illustrate, the plan that is proposed helps to understand the possible learning process undertaken within Reading Recovery initial professional development. The plan is depicted and divided into three phases of learning. The levels of learning (see Table 3.1.) are delineated as periods of time during the year based on the theoretical postulations of how we may learn.

Teachers that were part of this group had their understandings change over the course of the offered professional development period. At the end of the period of initial Reading

Recovery professional development, the teachers seemed ready to be more independent in

making teaching decisions. They also seemed able to effectively decide what they must now

learn. This is a journey that I classified as transformative learning (Mesirow, 1978).

Learning is never this simple. There is a continuous blurring of the lines between the three

steps that require the student to move forward and backwards throughout the journey of

transformative learning to build their personal subject construct (see Table 3.8. - C).

Carry out the Plan

Now that an understanding and plan have been put forward, it is important to carryout

or implement the plan. Reading Recovery professional development is set to meet the needs

of the teachers, whatever the level of understanding from the teachers. When involved within

the Reading Recovery family, it is imperative that the standards and guidelines proposed by

the Canadian Institute of Reading Recovery (2006) be understood and adhered to, so that

implementation of the intervention is successful. The standards guide the process. This

structure allows for checks and balances to ensure focused and sustained teaching and

learning by the teachers and their students. There must be a commitment to ongoing

professional development if change is to happen (Fullan, 2001). Reading Recovery planners

have made sure of this by registering the trademark, thus ensuring compliance to the CIRR

standards and guidelines (2006). A system must adhere to these guidelines to offer Reading

Recovery as an early intervention. Checks and balances are woven throughout the process of

professional development.

There is also a three-tiered support network of Reading Recovery Trainers, Teacher

Leaders and teachers, to help foster learning and bridge any learning gaps. The Canadian

Institute of Reading Recovery (CIRR) is the governing body, which advocates for the

Reading Recovery Trainers and Teacher Leaders to be in place to offer the professional

development at a district level. So, continued support and advocacy for excellence in

teaching and learning are expected. The success of the intervention depends on the teacher's

ability to teach children to read and write. The planning process also takes into account how

adults learn (see Table 3.10.) and then the professional development is founded on the belief

that learning is transformational and is done as part of a community of learners. This was

illustrated in Table 3.11. – *Foundation of Learning*, where categories of learning, categories

of offering professional development, foundations of learning and the different levels of

learning are then all linked to a process of learning. This is not a linear process but one that

continually fluctuates throughout the learning process.

Because learning is a transformational process, there are numerous in-services

planned during the year. In Reading Recovery, there are approximately 46 hours of planned

professional development sessions during the year. Each in-service session consists of a

theme or focus, lesson study, discussion of lesson to apply theory to learning, teaching and

practice. There is a time for discussion of implementation issues and a self-evaluation of the

learning for that day. Table 4.19. – *Literacy Construct of Knowledge-Reading Recovery*,

Table 4.20. – *Planning for the Learning Process-Term 1*, Table 4.21. – *, Planning for the

Learning Process-Term 2*,and Table 4.22. – *Planning for the Learning Process-Term 3*,

examines the type of Reading Recovery professional development activities that take place

during the first, second and third terms of this framework.

The 46 hours consist of 18 meetings throughout the year, where the study of lessons is

the main focus of the learning. Lesson study (Lewis, 2002) is a very important part of the

learning process. Lesson study is a process for identifying goals for student learning. One

teacher teaches, followed by a sharing and analysis of the lesson. This is better explained in

Figure 3.5. – Reading Recovery Teacher Learning, the proposed learning process. There can

be a refining of the lesson and re-teaching may happen. Reflection is an important and

integral part of the whole process. Also, as part of this year of initial professional

development, the Teacher Leader visits with the teachers a minimum of five times. This is

another aspect of lesson study and it gives individual teachers the opportunity to focus

specifically on their own teaching. In all, the formal professional development consists of approximately 51 hours of professional development during an academic year.

In summary, a new framework for professional development must have a structure in place that supports the implementation of group work, support for teachers, and time and opportunity for lesson study as part of a group or on an individual basis.

Describing the Effectiveness of the Design

Following the implementation of the professional development initiative, it is imperative to describe the effectiveness of the design. An evaluation is important to the process. Any conceptual framework is, of course imperfect. The framework presented may seem simplistic in nature, but in essence is very complicated. School systems and professional development facilitators have access to many pre-packaged professional development kits which seem attractive because of the complexity and time needed to plan effective relevant professional development. The re-conceptualizing of the Reading Recovery professional development framework, with the help of teachers in their initial year of teaching Reading Recovery, has clarified that professional development is complex and difficult to plan and evaluate. Evaluation of the learning in Reading Recovery is evident by the collection of the data relating to student learning (Clay, 2002). As well, important information is available through the observations of lessons, and the resulting Teacher Leader notes. The observations noted along with conversations and information gathered and noted as events may be collected, coded and reviewed by the Teacher Leader. In the United States of America, *The International Data Evaluation Center* (IDEC) (2010, June 25) codes and nationally collates their Reading Recovery data. Canada presently does not have a centrally organized evaluation center to collect and report on data trends. All data in Canada is collected in the Atlantic, Central, Prairie and Western regions of the country. The Reading Recovery trainers have assumed the responsibilities of reporting data for the country. Reports are written at the school, provincial and national levels to measure student progress

and postulate the needed changes to implementation. The collection of data may be as

simplistic as collecting reading levels at different points during the year.

Looking beyond postulating a framework that could be used to foster learning, I

linked Cook and Rasmussen's (1994) professional development framework to the patterns of

processes that were discovered to exist in Reading Recovery professional development.

Table 4.22. – *Links*, offers a way of looking at a link between Reading Recovery learning

through professional development and the generic framework offered in the works of Cooks

and Rasmussen (1994).

Table 4.23.

Links

Cooks and Rasmussen's framework	Pattern of Processes in Reading Recovery
Identification	• a determination of systemic needs
Understanding	• a determination of academic needs
Plan	• a process that organized the learning or some type of plan to explain the process • a need for standards that guided the implementation • An understanding that no professional development stands alone
Carry-Out plan	• An organizational process must be in place to understand transformational learning
Evaluate plan	• An assessment of the process that would re-evaluate the needs of professional development and the needs of the teachers.

The following Figure 4.18. – Four Step Process in Planning Professional

Development, depicts a visual representation of a partially developed professional

development framework that incorporates the patterns of processes (see Table 4.22.) and the

Cook and Rasmussen framework to build a generic process that may be used outside the

walls of Reading Recovery to still see the development of teachers (Pressley & Roehrig,

2005) with exemplary practices. This figure is meant to depict the levels of a change process.

while considering the personal subject construct is central to understanding the whole

process.

Figure 4.18.   Four Step Process in Planning Professional Development
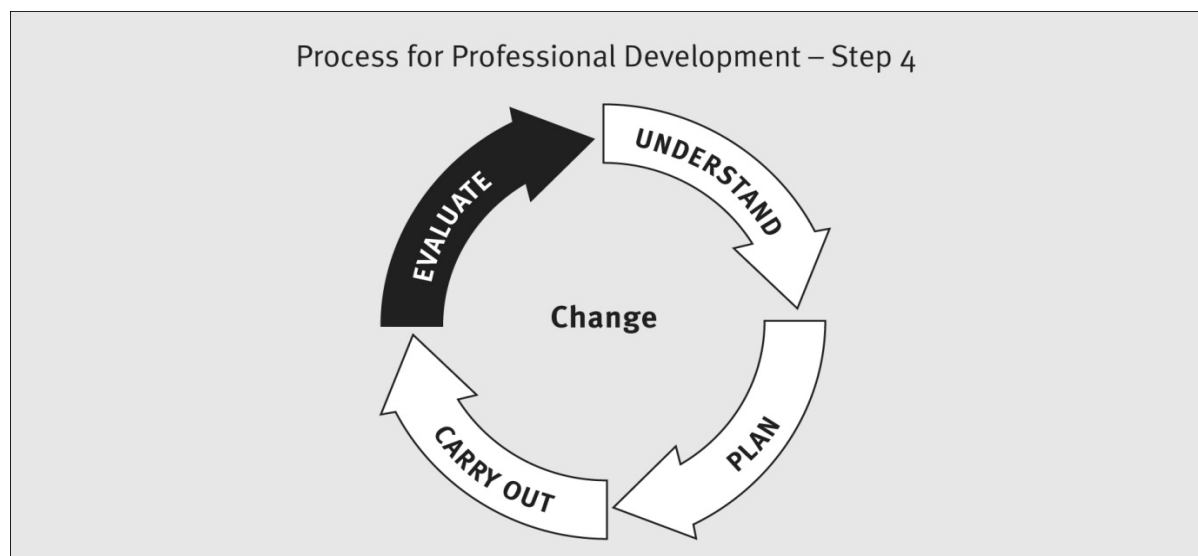
The first ripple of the generic professional development framework incorporates the

foundational construct of a complex process. The generic framework cannot end at this point

because it was felt that Reading Recovery had such a good system of checks and balances

(CIRR, 2006) to ground the implementation that any new framework must also have some

specific checks and balances. There must be a system of checks and balances that ground the

framework to the personal subject construct (see Figure 3.8. – C). In consideration of this, a

second ripple along a continuum of planning professional development could be considered

so that the initiative is sustainable. Part of the success of Reading Recovery is an inclusion in

the planning process of standards that guide and protect the integrity of the process and types

of learning required. With that in mind, a second ripple is proposed for the generic

framework.

The Second Ripple

Standards

Throughout our lives, there are certain standards and principles that guide us to be good and productive citizens of our communities. It is similar when planning professional development. The National Staff Development Council (NSDC, 2001) has set out standards that may be followed when planning professional development. If consulted, these standards will keep the goals of professional development on track. The process can help to define quality and measure fidelity of professional development (United Nations Literacy Decade, 2003 –12). You may also choose to administer an innovation configuration (2005) that permits an examination of teacher opinions on the standards of the professional development. The NSDC's standards (2001) are laid out in three broad categories and under each category are the desired outcomes. For the purpose of this study, I modified them to include Reading Recovery. I thought that it was important when planning initial Reading Recovery professional development to keep in mind the three broad categories of the standards.

Context Strand

The first strand or category is a context standard. In its basic form this standard deals with knowledge about literacy theory. More specifically at the end of the professional development the teacher can:

- Articulate the intended results of professional development on practice.

- Articulate the benefits of professional learning.

To meet the context standard the teachers must:

- Meet regularly with colleagues during the school day to plan instruction which includes Reading Recovery.

- Align work with school improvement goals (NSDOE, 2005).

- Participate in varied learning teams, some of whose membership extends beyond present involvement.

- Participate in instructional leadership development experiences.

- Serve in a variety of instructional leadership roles.

- Contribute to the planning of school-based professional learning.

- Articulate the intended results of PD on teaching practice.

- Advocate for support of professional development.

- Articulates the benefits of professional learning.

- Participates in professional development during the workday.

- Accesses funds to support learning priorities.

- Receives external and internal support related to learning priorities.

Process Strand

The second strand or category is a process standard. This standard is defined as teachers developing the knowledge about the professional self. More specifically, at the end of the professional development the teacher can:

- Analyze data to determine their learning needs.

- Analyze data to determine the students' needs.

To meet the process standards the teacher must:

- Analyze student data to identify adult learning priorities at the classroom, school, and regional level.

- Analyze a variety of data to identify learning needs of the professional.

- Work with colleagues to use the data to establish professional learning goals.

- Analyze relevant student data in order to monitor and revise improvement strategies.

- Contribute a variety of data to evaluate the impact of professional development.

- Collect and analyze data to determine the impact of professional development.

- Use educational research when making instructional decisions.

- Participate in a variety of appropriate staff development designs aligned with expected improvement outcomes.

- Participate in long-term and in-depth professional learning.

- Implement new practices as a result of follow up sessions.

- Use technology as a component of professional learning, when appropriate.

- Participate in a variety of professional development experience appropriate to career stage.

- Engage in professional development that considers participant concerns about new practices.

This professional development must also involve collaboration (PLC), where the teacher:

- Participates in a culture that is characterized by collegiality and shared responsibility.

- Develops knowledge about effective group process.

- Collaborates successfully with colleagues.

- Uses effective conflict management skills with colleagues.

- Uses technology to support collegial interactions.

Content Strand

The third strand or category is a content standard. Broadly defined, this standard advocates teachers having to demonstrate a deep understanding of literacy behaviors and develop literacy skills to improve their practice.

To meet the content standards, the teacher must:

- Demonstrate a deep understanding of subject matter that helps students to meet rigorous standards.

- Use appropriate instructional strategies that help students meet rigorous standards.

- Use various assessment strategies to monitor student progress toward meeting standards.

If the NSDC considers these standards important for staff development, Reading Recovery has to be put to the test of meeting these national standards. Simpson and Montgomery (2007), states that Reading Recovery meets the NSDC's standards for professional development. It is important that a comparison of the NSDC standards and Reading Recovery take place. Appendix O, lays bare the equating of the Reading Recovery professional development and the NSDC's standards. It is concluded that Reading Recovery adequately meets the Context, Process and Content standards for good professional development. These standards are the thread that help to bind the four step process in planning professional development (see Figure 4.18.). When defining the Context, Process and Content standards, it was discovered that they equate to the knowledge included in the personal subject construct (see Figure 3.8. – C). The Standards (NSDC, 2001) link directly back to the central core of the learning that includes practice, theory and self. This link has led to the expansion of the coding matrix (see Table 2.3.) to include NSDC's (2001) standards. This linkage helps to solidify the viability of the generic professional development framework by acknowledging what must be learned as central to a professional development initiative.

Table 4.24.

Coding of Qualitative Data – B

Stage	Purpose
Codes-Open coding	Identify anchors-key Points – Investigate a process of learning. Memoing- writing memos
Concepts-Axial coding	Coding similar content – grouped • Practice • Theory • Self Memoing
Categories-Selective coding	Similar concepts • Context • Process • Content Memoing

Theory-Theoretical codes	A collection of explanations A) *Context* – knowledge about literacy theory. Articulates the intended results of the professional development on practice and is able to articulate the benefits of professional learning B) *Process* – knowledge about the professional self. The analysis of student data to determine own needs and determine student needs. Articulation of these processes is listed and grouped. C) *Context* – knowledge about literacy theory. Articulates the intended results of the professional development on practice and is able to articulate the benefits of professional learning. (The conversations, products and events are transcribed and the information is coded. The coding involved counting or writing <u>each</u> mention of the coding topics. The information is then arranged under the coded headings. The information then can be qualified or quantified.) The coded documents are included as Appendices.

Context – Knowledge about literacy theory, Process – Knowledge about the professional self, Content - Overall improved practice

A further validation of how important the standard of practice is to planners of professional development is included in *the Report and Recommendations of the Education Professional Development Committee in Nova Scotia* (2009). This committee recognized that there has to be set standards of practice that link to theory, practice and a self determination of teacher needs. This would enable teachers to become highly effective educators.

Teachers, as adults have some specific wants and needs that are different from the students they teach. The third ripple of the generic framework is an attempt to acknowledge and understand that adults as learners should be considered in any professional development initiative.

The Third Ripple

Adult Learners

Chickering and Gamson (2009) when discussing good practices, propose some principles that could define good professional development for adults. One of those principles is understanding how adults learn. Professional development for adults must be respectful of the audience and the experiences they have had. This principle forms the third

circle or ripple of my proposed professional development framework. When discussing any

kind of professional development, keep in mind that good practice encourages student-faculty

contact. This contact should be frequent and productive. Reading Recovery is built on the

foundation of daily teaching of students. Teachers constantly practice new learning and see

change in action (Pinnell, 1991).

Good practice encourages active learning. Reading Recovery is planned on the

foundation of scaffolded instruction, daily, and requires the student:

- To take on what they have learned, perfect it and then move on to higher order

  literacy processing. The student, as well as the teacher, takes on new learning every

  day.

- To give prompt feedback. Reading Recovery teaching is one-on-one and may teach

  to the specific needs of the student daily. Teachers are supported in learning the

  theory and practice by referring to the Reading Recovery Guidebook and the Reading

  Recovery Teacher Leader to scaffold their learning. The Teacher Leader scaffolds

  teacher learning.

- Emphasize time on task. Reading Recovery daily teaching is focused on the needs of

  the student. Teachers must make every effort to teach every day as small gains are

  made with the hardest to teach. This process also facilitates the teachers' learning.

- To communicate high expectations. Reading Recovery teachers always expect that

  students will master reading and writing at an appropriate level. Teachers are then

  expected to master the procedures and theory to improve their practice.

- To respect diverse talents and ways of learning. Reading Recovery expectations are

  that the learning is individualized and supported. This is represented for both teachers

  and students.

Adults must be respected as learners and have time to process their learning. The

different ripples of this generic professional development framework are presented with

change or transformation of learning in mind. This change would be in the development of a

personal literacy construct of knowledge as described in Figure 3.8. – C. Change doesn't

have to be complex and difficult to achieve, but it has to be the goal for any professional

development initiative. Change can take on many forms and it is important to plan the type

of change you are seeking. Reeves (2009) clarifies change as creating short-term wins that

will sustain long-term change. This includes recognizing effective practices, simply and

clearly throughout the year, and emphasizing effectiveness that makes the case for change

compelling. Change also has to be seen as having moral or ethical imperatives instead of

simply improving test scores.

The creation of the generic framework attempts to address the basic patterns of

processes discussed while offering Reading Recovery professional development and build a

new framework of professional development that could be offered beyond the confines of

Reading Recovery as explained in Tables 4.18. – *Pattern of Processes*. There is no

consensus on the best framework for continued professional development (Goals 2000), but it

is agreed that a combination of approaches, ideas and techniques will help learning and

growth in one's chosen profession. It is, however; universally agreed that it is imperative to

have an expectation of proficiency in certain basic processes (Costa and Kallick, 2009).

Following is a visual representation of the semi completed model with the differing

levels of activity necessary to make learning possible. The use of this framework could

possibly promote the development of a construct of knowledge in whatever field studied.

Figure 4.19.   Framework – Professional Development Transformative Learning
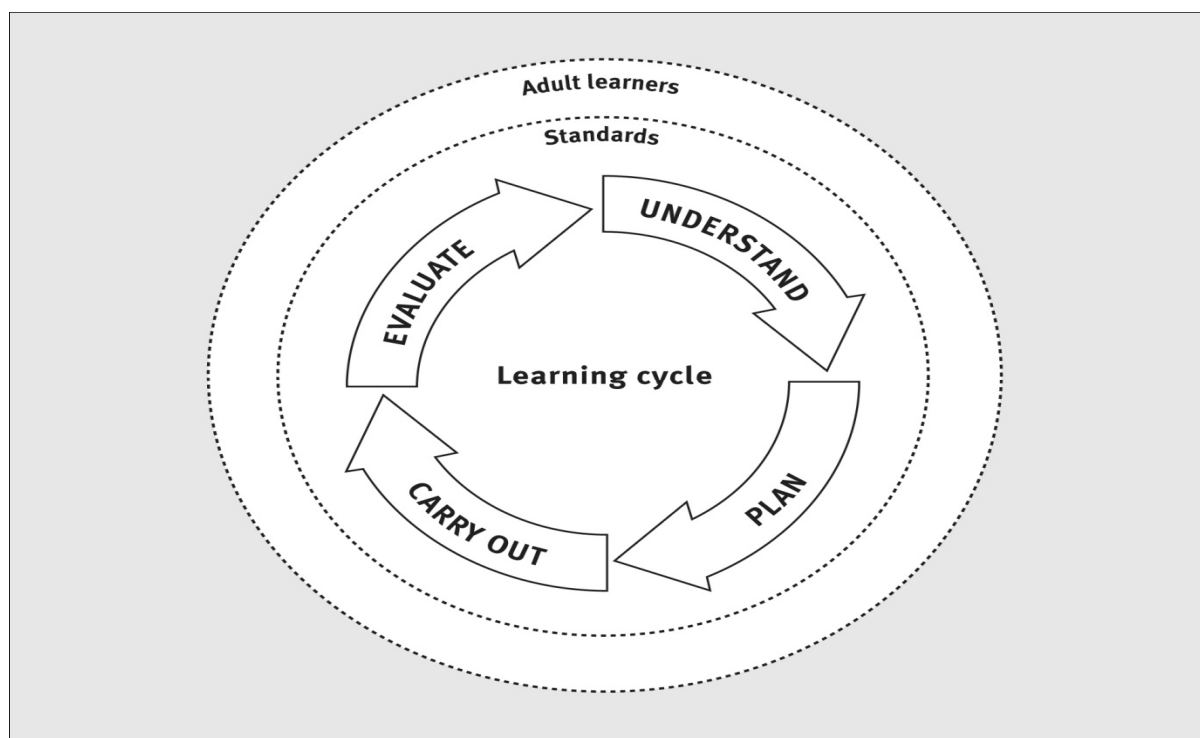
It takes this process of transformative learning (Mezirow, 1991) to make change happen

at the school level and to develop exemplary teachers (Pressley & Roehrig, 2005). This

framework was conceived by studying the learning undertaken while part of a group studying

to be Reading Recovery teachers. The true test of its efficacy is in the resultant degree of

change in teacher attitudes towards theory, practice, and school culture, as intersected by

critical reflection to form a personal construct of knowledge. The teachers within this study

did change their personal subject construct by following a continuum of transformative

learning over a period of time. Over the period of this study, I have attempted to link the

learning and processes of professional development associated to Reading Recovery to a new

framework that would also help teachers develop exemplary teaching practices.

Chapter 5, *Touching Solid Ground*, is a discussion of a compilation of lessons learned and

proposed future research interests. This will all lead to formulating a conclusion about the

learning undertaken by a group of teachers learning to be Reading Recovery teachers. As

part of that conclusion, a theory is proposed that contributes epistemologically to the

formation of leadership in offering professional development.

Chapter 5

Touching Solid Ground

Summary

Within the 21st Century there has been a globalization of resources, technology, finance, and education (Jacobs (Ed), 2010). Many would argue that this has come about because of the death of distance, free movement of goods, fragmentation of production and the free movement of people (Zhao, 2009). This has severe consequences for individuals who are part of the world of education. The world of education involves all and any individuals who pertain to have an interest in the field of educating a future generation of children. What challenges will be faced by the world of education? How can students be prepared to meet the needs of a society that is on a continually fast-paced period of change? The basic challenges in the field of education are multifaceted. These challenges include the provision of an education that helps individuals to secure a job to provide for themselves and their families, and to help them live and work while interacting with different cultures. Children must adopt a global view in education (Jacobs (Ed), 2010) where they develop into global citizens. If the education systems are to create global citizens to meet the future needs of a society, they must also develop a teaching fleet that will meet these needs. This, then also requires developing teachers into global citizens. That is the challenge for all individuals in the field of offering leadership in ongoing teacher professional development.

This study was a journey better described as an exercise in learning more about teacher professional development, and teacher learning in the 21st Century. The central tenant of this study was to investigate three areas of interest and answer three questions:

1. How do teachers learn?

2. Is there a transformative process in learning?

3. Is it possible to create a generic framework for professional development from the lessons learned?

It is the teachers' journey through Reading Recovery professional development and their learning that led to the generic framework and the formation of a new theory on professional development. In applying what I had learned from the teachers' learning, what I knew about Reading Recovery, and what I discovered about the current theories of learning and professional development, it appeared that the development of a new theory on professional development is appropriate. This theory is presented in Figure 4.19.

The original interests and questions led to the formation of other questions that would have to be garnered with an answer before concluding the story of three teachers involved in learning. I continually tried to build on my knowledge of learning and to remain true to a grounded theory approach that continues to build on my knowledge of professional development.

1. What positive impact did professional development have on teacher's educational practice and how is it linked to the new framework?

Within the study, it was shown that theory, practice and self knowledge changed over time with on-going professional development. This added tremendous value to the personal subject construct for each teacher, thus changing their practice in a positive manner. Learning by these teachers was examined, summarized and reported using the theoretical underpinnings of present day educational practices. It was determined that, with well-planned, ongoing professional development, learning is impacted in a positive manner. The change in teachers personal subject construct intimately changed their practice. These Reading Recovery teachers began the year with limited ability to self-analyze their opinions, their knowledge and their practice. Through a process of transformative learning undertaken with Reading Recovery professional development, they were able to change their personal subject construct of literacy. During the year they practiced observing, noting and explaining evidence of learning, which build on their knowledge about literacy theory. This enabled them to have a greater ability to look at their practice and learn from their own teaching. At

the end of the year, they were able to self-analyze with the help of the group or the Teacher Leader. This ability to self-analyze with the help of others within a professional learning community was necessary and part of the process for continued learning within their profession. A professional learning community is very important to the development of knowledge for teachers that will promote student learning. This group will continue over the years to develop an ability to self-analyze through ongoing Reading Recovery professional development. It is clearly evident that time is needed for teachers to transform and add to their personal subject construct. They spent 10 months in intensive, focused and scaffolded instruction, where, in my opinion, they reached the second level of learning. This learning was fostered by them being part of the Reading Recovery professional learning community.

Most school-based learning is fostered by teachers being part of an effective Professional Learning Community at the school level. With the comments taken from their self-assessment, all participants had increased their basic understandings of concepts relevant to teaching Reading Recovery by a range of 7.2 % to 25 % by the end of the year. It was encouraging to observe the change in their opinions, knowledge and practice over the period of the professional development.

The third level of processing, or the ability to be self-directed within their practice is not yet perfected. This was shown to be a difficult concept for these teachers as was evident from their change over time within their personal literacy constructs. They were still having a difficult time understanding action research, which at heart is a self-directed study. This fact was further solidified in the third term when some of the teachers voiced: "I don't know what I learned." Indicating that when left on their own it was difficult to analyze their own practice.

The following Table 5.1. -*Analysis of Change over Time in Process Knowledge,* summarizes the process undertaken in their personal concept to how they developed the ability to self-analyze their knowledge about theory and practice.

Table 5.1.

Summary – Analysis of Change over Time in Process Knowledge

Limited self-analysis and limited student data analysis	**Term 1**
Analysis of evidence = observations = decisions	**Term 2**
Self-analysis – intermediate level that needs to be scaffolded	**Term 3**

The year began with teachers wanting me to "tell" them what to do and "how" to do their teaching. During the year, I had to weigh the benefits of revealing what the teachers must do within their practice, versus telling the teachers what to do. If there was a habit that I tried to avoid, it was dependence by the teachers. The goal, for the teachers, was for them to understand theory that was imbedded within their practice. Their ability to observe their students was necessary, and from those observations they were expected to verbalize the student's learning. During the third term the teachers were realizing that without the knowledge of the theory, they couldn't explain what behaviors were necessary for a literate student. They were just beginning to understand the theory, thus facilitating the process of verbalizing their observations of student behaviors. They practiced observing others through lesson study within the Reading Recovery Professional Learning Community. If they couldn't verbalize their observations, they would have problems individualizing lessons to meet the needs of their students.

When studying a lesson or lessons, revealing a concept was important, to not set up a culture of total dependency on others. Teacher problem-solving was encouraged, when they were part of a group and also when they were faced with planning individualized lessons at their schools. There was an expectation that the teachers were committed to learning about product knowledge. Reading Recovery professional development was provided but the teachers had a tremendous responsibility to learn and they were expected to study.

The following Table 5.2. – *Summary*, *Analysis of Change over Time in Context Knowledge,* summarizes the process of the change in the teacher's ability to observe literate behavior through an understanding of literacy theory.

Table 5.2.

Summary-Analysis of Change over Time in Context Knowledge

"Telling" versus "revealing	**Term 1**
Observations – seeing and the ability to explain a behavior	**Term 2**
Without knowledge of theory – can't teach Early years are important	**Term 3**

Within the first term, teachers were concerned with the procedural and organizational aspects of the lessons. They wanted to know how to organize themselves, their space, etc., and what procedure to be used with their students. They were new to Reading Recovery and they were outside their comfort zone. Many indicated in their journal, that it was a scary process where they felt that they had no control and so little knowledge about how to teach children to read and write. As the year progressed, teachers were talking more about "why" things were happening and not only about "what" they should be doing within their lessons. Their language became more complex and they were able to verbalize what they should be seeing, observing and doing within their lessons. They practiced observing and then verbalizing the observations to clarify understandings.

During the third term, teachers began to better self-analyze their practice. This determined what they were seeing and then being able to explain it. Student assessment was daily and without expertise, they would not be able to inform their own practice. How can you comment on and assess something you know nothing about? An understanding had to be fostered and built around observing, assessing and then practicing what they had learned. Theory underpinned all understandings of the observable behaviors students were presenting to them.

Table 5.3., *Summary*, *Analysis of Change over Time in Content Knowledge*,

summarizes the changes that came about in their practice over the 10 months of professional

development.

Table 5.3.

Summary – Analysis of Change over Time in Content Knowledge

Focus on procedural aspects of lesson	**Term 1**
Change in complexity of language	**Term 2**
Building an understanding that theory underpins practice	**Term 3**

Within the confines of the Reading Recovery professional development framework

(Pinnell, 1991) teachers transformed their learning. With the collection of conversations,

observations and events, there was a possibility of studying their learning over time. An

analysis of that data was undertaken, while considering the interests of this researcher in

conducting this study.

Table 5.4., *Comparison – Content, Context and Process Knowledge, Change Over

Time,* depicts the first term comparisons in types of learning taking place.

Table 5.4.
Comparison – Content, Context and Process Knowledge, Change over Time – First Term

Content – Theory			Context – Practice			Process – Self	
Teacher	**Teacher Leader**		**Teacher**	**Teacher Leader**		**Teacher**	**Teacher Leader**
Reading and writing everyday Word solving/ comprehension strategies Guided practice – repeat Strategy Modeling and doing Reading and writing a process	Focus on procedural aspects of lesson		Daily exposure Directly taught Mini/lesson – whole group Meeting area Sharing time Demonstrate Word list Home reading program	Telling versus revealing		50% 67% 78%	Limited self analysis and limited student data analysis

First Term

Content Knowledge

If compared, the analysis I did and the questionnaire completed by the teachers

seemed to be indicating the same trend. Even if teachers were asked to comment on theory,

they were more focused on procedural aspects of learning to read and write. It indicated that

understanding of literacy theory was limited to items versus strategic activity.

Context Knowledge

Teachers indicated that "doing things" will enable children to learn to read and write.

They are right, to a point, but when asked to comment on theoretical aspects of literacy they

were not able to accomplish the task. It was evident that they would want to be told how to

organize and what to teach the children in Reading Recovery.

Process Knowledge

All teachers felt that their knowledge about certain aspects that were important to Reading Recovery were lacking. Some teachers felt that they were at a greater disadvantage than others. This was indicated by how they rated themselves, percentage wise, with their knowledge. I indicated that there was a limited ability, at this time, to analyze student data to inform practice. At this time, they would not be able to answer the following question: What do you now need to learn? It would be easy to foster a culture of dependency rather than a culture of problem-solvers.

<div align="center">

Third Term

</div>

During the third term, there was an expectancy that teachers would begin to see themselves as Reading Recovery professionals who could problem-solve difficult questions regarding their students' needs in Reading Recovery. The following Table 5.5. - *Comparison, Content, Context and Process Knowledge, Change over Time*, depicts the third term comparisons.

Table 5.5.

Comparison– Content, Context and Process Knowledge, Change over Time – Third Term

Content – Theory			Context – Practice			Process – Self	
Teacher	**Teacher Leader**		**Teacher**	**Teacher Leader**		**Teacher**	**Teacher Leader**
Reading and writing are linked. Teach letters/ sounds/words in context. Make meaning from the known. Use structure. Use visual information. Daily. Reinforce strategies. Reading strategies. Begin early. Immersed in reading and writing.	Building an understanding that theory underpins practice		Reading and writing everyday Sense of ownership Reading and writing genres Integrated across curriculum areas. Time to practice. Introduce new words/word lists/context. Choice of books. Reading workshop. Mini lessons/whole lessons. Home reading program	Without knowledge of theory – can't teach Early years are important		75% 78% 78.5%	Self-analysis – intermediate level that needs to be scaffolded

Content Knowledge

Teachers are now commenting on processes that include reading and writing, and that strategic activity is important and necessary. An important fact is that the comment of "make meaning from the known." They have to teach to bring meaning to the whole process for the

child. I clarify this as teachers building an understanding that literacy theory underpins their

practice.

Context Knowledge

Teachers are now discussing activities that are going to promote literate behavior.

They are discussing more than just "things to do," but they are now aware that reading and

writing is cross-curricular. The best way we may discuss reading and writing is to think of it

as a way of life and not a subject to be compartmentalized. My comments are a reminder to

us that practice is important but without the foundational work of theorists we would just plot

a course of action with no valid benefit. There wouldn't be a rationale for what is taught.

Process Knowledge

Teachers felt that their knowledge had increased over the year. The Teacher Leader

was cognizant that the teachers were at the second level of learning, where they needed

scaffolded instruction to increase literacy knowledge. Some teachers could develop into

independent learners, but this group had not yet reached that level. They now understood the

benefit of working within a group to study practice and theory. From this comes a change in

attitude towards the whole process of learning. It's recognized that all knowledge-acquiring

is relevant to the present situation, and that it is not possible to know it all. Learning is a

constant process. There were no feelings of inadequacy because it was built on a culture of

inquiry and learning.

Their view of practice changed because their understanding of the underlying theory

enabled them to rationalize their teaching decisions. They were also able to explain their

practice and continue to build on their understanding of literate behavior. This enabled the

teachers to bring meaning to the process, where they could observe the progress of their

students. They were empowered to take chances, with scaffolded assistance in Reading

Recovery and at the school level with the school improvement process. Over the year they

learned to trust one another, increased their bank of knowledge and in the end their attitudes

on learning had changed, to include working to improve instruction through scaffolded learning.

The examination of their learning had been sub-divided into Content Knowledge, Context knowledge, and Process Knowledge, but in reality these three sources of knowledge must be seen as a part of the whole process. All three sources of knowledge are necessary to make effective changes to practice. These teachers have shown that their practice had changed over time. With continued professional development, these teachers have the potential to master the third level of learning, self-directed learning of a phenomenon. In subsequent years, they may choose to follow that path of professional development within their practice.

It was evident, throughout this research that teachers cannot learn in isolation. The process, procedures and supports must be imbedded into a much larger framework. A greater understanding of the pressures of implementing professional development must be sought to make lasting change a possibility. This led to the generation of the second question.

2. **What more has to be understood around teacher learning to implement quality professional development?**

After the proposition of the generic framework for professional development (see Figure 4.19.) it was realized that the journey of understanding and facilitating learning will continue to develop and evolve. It is important that any framework continue to evolve as educational theory evolves. It is apparent from some of the data collected that parental involvement and school organization to promote teacher and student learning continue to evolve and that will promote learning. There is also the issue of a greater need for the public at large to understand the complexities of teaching and learning in the 21st Century. With these considerations in mind, it was decided that the above question would help to drive forward future research on teacher professional development. It would also enable the

continued development of the generic framework for professional development (see Figure 4.19.).

So, to complete this part of the journey, answering the above question is necessary to continue to drive forward the development of a theory about professional development. As the question is general in nature, I decided that at least four areas of interest could qualify for further study.

The four areas deemed important that could entail further study are classified as:

1. Planners of professional development need to keep the public informed and involved.

2. Planners of professional development need to have a school environment conducive to learning.

3. Planners of professional development must call teachers to action, thus promoting self-fulfillment of educational goals.

4. Planners of professional development must make the process more overt.

These four considerations will be briefly explored as they relate to future research possibilities. It is recognized that this summary is offered as an enticement for future researchers to investigate these four areas. These four considerations for future research are discussed sequentially, but they don't necessarily occur sequentially in practice.

1. Planners of professional development need to keep the public informed and involved.

This second statement involves the need to inform the public of the need for professional development. Reading Recovery's attempted involvement (see Figure 4.15.) of parents or guardians in understanding and supporting their child's growth as a reader and writer is important. As part of the implementation process of Reading Recovery, there are suggestions to involve some educational stakeholders. This group would involve parents, principals, board members and community members who hold an interest in educational matters. As Nova Scotia education is publically funded with an approximate budget of 30 million dollars (Nova Scotia Government budget, 2010), second only to health expenditures

within the province of Nova Scotia, this has to become an important process within the body of the professional development.

As such, another ripple to the framework could be added to make the public a serious consideration for future professional development planning initiatives. This circle would be classified as the public. This ripple should be added but because, at this time, it is an opinion offered by this researcher it will only be included on the fringes of the framework. It is recognized that more study must be done on the topic to tease out a process that would strengthen the generic professional development framework. Although reform efforts have changed expectations for teachers, the public perceptions do not seem to change. We could surmise that expectations for teachers have not changed because of the stakeholders' own experiences in the public education system. They might assume that the system has remained static, and the system they knew is still the system in place. If we look at large industries, they have Public Relation departments. Within this time of great change, it should be a priority. The public's perception of teachers' work seems to exclude a notion that teachers must continue to learn within their profession. There has to be an understanding that a continuation of focused learning is necessary to remain current within one's personal subject construct. Change cannot happen if all involved are not informed of why there is a need for change through professional development. Clay (1987) addressed the need for societal change when planning for effective professional development. She wrote about how all levels of a system must take responsibility for student's learning.

So, the generic professional development framework could be updated so that the public perceives professional development as a valuable, necessary part of a well-functioning system. The Royal Academy of Engineering (2009) offers courses in public communications that tend to include communication strategies, media training, preparing a communication event, public perceptions, and how to prepare and analyze public opinion surveys. They have realized that successful change requires an informed populace that encourages and

understands the need for the change. In the field of education, there does not seem to be an understanding of the importance of an informed public in understanding the face of education in the 21st Century. Public policy which includes education is voted on by the public, so in the field of education, I believe that having a population that understands the challenges of teaching in this era is deemed necessary.

There are no more proposed ripples to add to the generic professional development framework, but three other considerations remain that should be studied. This next consideration will influence teachers' attitudes towards professional development.

2. *Planners of professional development need to have a school environment conducive to learning.*

In Chapter 3, some of the discussion (see Tables 3.13., 3.14., 3.15. and 3.8. -C) revolved around the executive function of professional development. The executive function of professional development was described as the overt and covert behaviors of adults that lead to a metacognitive ability to self-analyze that drives forward learning. Critical thinking skills, within the development of a personal subject construct, is the executive function of professional development. These activities facilitate the building of or adding to the personal subject construct. This is a necessity in the 21st Century that will continue to develop over the years. There has to be a process in place at the school level that will advance teachers' learning to the second level of learning (see Table 4.1). Living in Nova Scotia, one cannot discuss professional development without considering the impact of the accreditation process. Clay (1987), when implementing Reading Recovery understood the importance of advocating for not only teacher change but she also realized the need for change at the school and political levels. The goal of Nova Scotia School Accreditation (NSDOE, 2005) is on school improvement at the school level that involves all the school population. It is essentially a four (4) phase process where its main focus is on student learning that drives individual teacher learning.

This generic model of professional development may not be applicable to all systems that don't have a process at the school level that will encourage Professional Learning Communities for teachers to scaffold each other's learning. In Nova Scotia, since this process presently exists, the framework could be applied. But, there seems to be a need for additional study on how the state, the district and the school fit into the development of their teaching personnel, especially metacognitive abilities to drive forward their own learning.

3. *Planners of professional development must call to action teachers to promote self-fulfillment of education goals.*

This third statement involves promoting and supporting metacognitive growth with teachers. Teachers have to effectively self-analyze their practice to drive forward their own practice. If the function of planners of professional developments is to promote learning, then part of that planning has to be to encourage teachers to continue to learn after formalized professional development ends. Teachers must continue to add to their own personal subject construct. Critical thinking has been determined to be the executive function (see Figure 3.7. - B) of any professional development initiative. Through the use of theory, practice and school culture, which is the foundation of a Professional Learning Community, planners of the professional development must give over some responsibility to the teachers to learn beyond formalized professional development. Teachers must develop a culture of professional responsibility towards their own learning.

Planners of professional development must practice using the covert and overt behaviors of learning (Manz & Sims, 1980) so that teachers learn to incorporate this type of learning within their everyday practice. Teachers must continue to flourish with help from others within the field. In Reading Recovery, teachers were encouraged to use the following self-evaluation questions, to think about their practice.

- What have I taught?

- What has the student learned?

- What have I learned?

- What do I now need to learn?

The following question should be added for all teachers to use within their learning:

- How will I learn what I need to learn?

In Table 3.11., the *Foundations of Learning*, teacher learning and professional development are discussed as the foundations of learning. The professional development was discussed as having three tiers and presented as stand alone, site-based, and self-directed. Teachers must bridge the three types of professional development and use them effectively at all levels to remain current in the 21st Century. So, it is proposed that more study must revolve around the school level to include lesson study (Brook, 2007) and the whole notion of lifelong learning (OLL, 2009 August 12).

The fourth, and last, considered topic of study involves teachers being more involved in the professional development process. It has to be a self fulfilling process, based on present needs. This means, in part, having the time to discuss practice with peers so that they may scaffold their own learning, and then practice what they have learned.

4. Planners of professional development must make the process more overt. Teachers need to study their lessons and be able to discuss the results.

Reading Recovery has a process in place to accommodate lesson study (Brook, M., 2009) within the teaching and learning process. There has to be a process in place that allows and facilitates a process of overt and covert dialogue about one's own practice. This will facilitate and promote the executive function (see Table 3.19.) of professional development. Again, in Nova Scotia, the accreditation process (NSDOE, 2005) as a school improvement process is very important. Professional Learning Communities, as part of the function of the accreditation process, are an essential part of site-based learning. Even if there is a process in place, there are still perceived areas of weakness. An integral part of learning, beyond or as

part of a Professional Learning Community is the support of an educational coach or mentor. Teachers must share some professional responsibility, but they need a supportive environment that encourages learning.

In Reading Recovery, the professional development has a Teacher Leader who advocates for the teachers' needs within the system. If education is a social activity (Vygotsky, 2009 September 13) teachers' needs may be met in two ways. These two ways include working within a Professional Learning Community and/or working with a mentor. Working with a mentor would enable teachers to scaffold from a first to a second level of learning, or from a second to a third level of learning (see Table 4.22.). A mentor may aid teachers to be more self-directed in one part of their learning. This information then can inform and be discussed with other members of their Professional Learning Community. With the aid of a learning community and a mentor, a teacher may incorporate the four pillars of knowledge (see Table 3.12.) within their professional life to continue to take some responsibility for their own learning as part of their personal subject construct.

Reading Recovery teachers built on their personal construct of literacy through effective professional development that is supported state-wide, system-wide, and school-wide. Most importantly, the teachers are invested in their learning to bring the process together (Willis, 06, Lyons, 03, Brotherson, 2005). They have transformed their learning (see Table 4.1.) through supported professional development.

This study began with an inquiry into whether a professional development model may be created that would see the formation of exemplary teachers. The Reading Recovery teachers who were studying to teach Reading Recovery were followed for an academic year. The learning and processes were equated to a new framework based on current learning theories and processes of professional development. Their learning within the Reading Recovery staff development model of professional development was recorded, summarized and coded so that the information could be equated to present day theoretical ideologies.

This information was then transformed into a generic model of professional development that may see teachers develop into exemplary teachers. Table 5.6. – *Future Research Possibilities*, is a summary of the proposed future areas of study beyond the proposed generic framework that includes the state, system, school and individual. These areas of study could possibly strengthen the proposed generic framework for professional development

Table 5.6.

Future Research Possibilities

	Framework	**Future Study**
State	Policies	Policies – research, curriculum, etc.
District	P.D Framework Personal Subject construct	Know your audience Public relations
School	Professional Learning Community	School Culture Mentor or Coach
Individual	Resources- Professional responsibility	Resources – Professional responsibility

Conclusion

Considering the limitations of this study and the critiques of Reading Recovery, it is felt that this study's use of Reading Recovery learning and professional development has offered me an unusual lens to better understand teacher learning and professional development. If we are to believe that the essential learning outcomes are continuously expanding (Costa & Kallick, 2009) and are now more focused on problem-solving, then we must look to effective professional development that will engage the brain (see Figure 3.4.) so that learning will take place. Professional development needs to prepare teachers for wherever or whenever or whatever they are teaching. We must think globally, even though education is funded locally; we must make a priority the knowledge teachers will need to educate a future generation of globalized movers and thinkers. Clay (2005) described a child's self-extending system in literacy as building a network or system that becomes smart enough to extend itself. Reading and writing then will improve whenever children read and

write, all toward a goal or level of independence. If we think of teachers and children

learning in a similar manner, it could be said that a teacher's self-extending system includes

building a network or system that becomes smart enough to extend itself. A teacher's

personal subject construct must continue to extend itself towards a level of independence

through system and personally planned continued professional development.

In looking back and reflecting on this journey, there has to be an attempt to lay bare

the learning achieved and the lessons learned throughout the whole process. The main reason

to undertake a study is to reflect and problem-solve, while working with others or as part of a

community of practice to improve the way an issue is addressed. Initially, the scope of the

research must be deemed to be ontologically viable. It should also add epistemologically to

the researcher's base knowledge on the subject. It is also hoped that the study will interest

and inform others within the field of education.

This study, *Reflective Practitioners in the 21st Century*, was undertaken for me to

better understand a process of presenting effective teacher professional development at the

district level. Since my involvement in Reading Recovery professional development was

ongoing, it was a reasonable ontological point to begin the study. Throughout the process, it

was shown that Reading Recovery professional development was effective in adding to the

teachers' personal subject construct. Once this was evident, it was possible to study the

learning within the professional development to determine the viability of it in other

professional development arenas. This study investigated the process of change while

involved in a process of teacher professional development. Then, the plan was to propose a

new framework derived from the theoretical underpinnings of the learning that took place

while learning to be a Reading Recovery teacher. The Generic Framework for Professional

Development (see Figure 5.1.) is offered as a means of planning professional development

that may develop teachers into reflective practitioners that are able to determine their own

needs in an ever changing world. It is understood that this framework will evolve with

changing educational theories. The public consideration is not added as a ripple because more research has to be completed as how it would impact the learning facilitated through the use of the framework. As previously mentioned, the public was added on the fringes of the framework to acknowledge that I consider it an important part of the process of offering teacher professional development.

Figure 5.1.   A Generic Framework for Professional Development
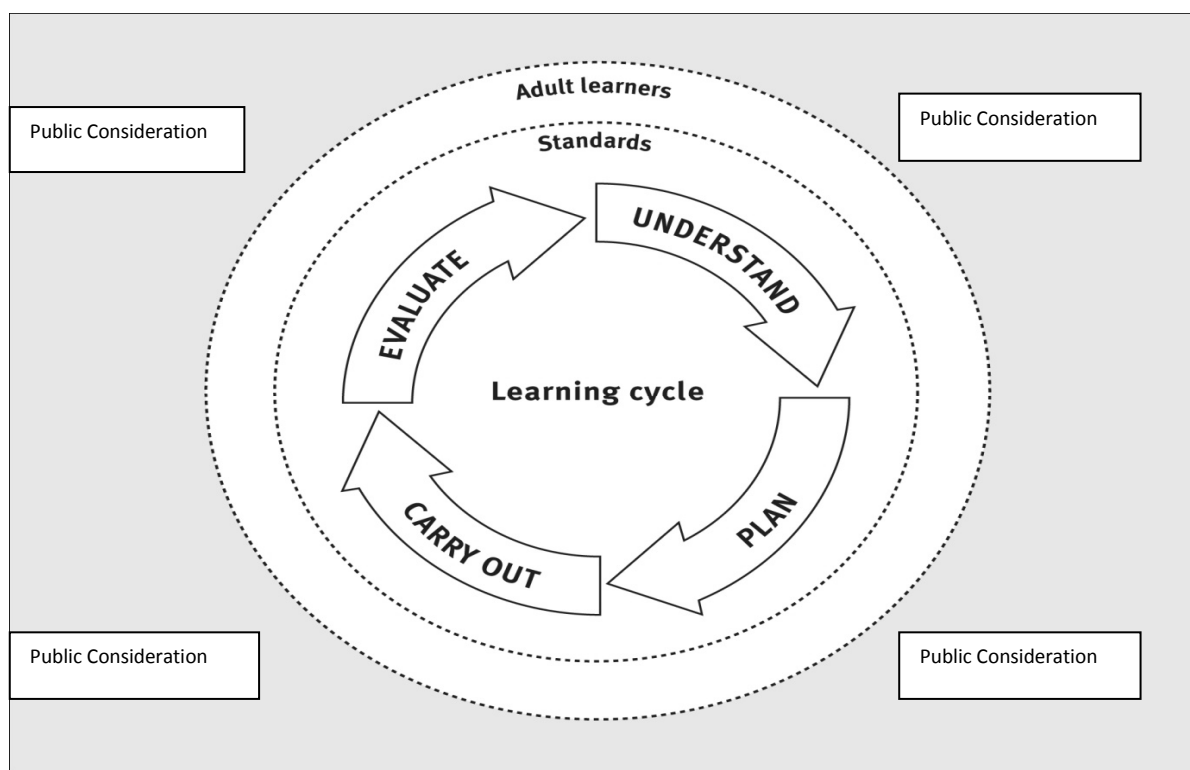
Fullan (2006) with his publication of *The Change Puzzle,* clearly details the complex path of supports that must be implemented to effect change. He advocates that tri-level reform, at the centre, must be in place before lasting change will happen. This tri-level reform must be focused at the state, district and at the school level. Leadership within tri-level reform is considered central to effective change. In this case, leadership is defined (Fullan, 2006) as consisting of five key factors. Over the course of the development of the framework, it is evident that these five key factors may be linked to the generic framework proposed for professional development. The five key factors of leadership are listed as:

1. Understanding what must change.

2. Building relationships of trust.

3. Establishing coherence as a group.

4. Sharing the purpose of the change initiative.

5. Ultimately acquiring knowledge.

These five key factors proposed by Fullan (2006) can be linked to the generic framework for professional development. I can say that the linking helps to validate the generic framework as a possible process that will support the offering professional development. The end goal, in this case, is that a teacher may contribute productively to making change within their particular context. This research has underlined the fact that change is complex, and that it must take place at the state, district and school levels. Building relationships is also of utmost importance to establishing coherence within a group. Teachers need to make meaning of the process where they can be motivated (see Figure 3.4.) to learn. So, within the scope of this study it was important to understand how adults learn, and that there are some similarities between teachers and their students when considering the learning process. Any initiative should be knowledge-building and have positive changes on attitudes and practice at the school level. It is important for all educators to continue to learn and consider learning as a lifelong endeavor (OLL, 2009). It is therefore important for leadership at any level to have the ability and focus to build on a personal subject construct.

The goal in education is to have an educated population, but this cannot take place if teachers' learning is not supported within the 21st Century. When Clay (1987) discussed implementing Reading Recovery, she understood that there were multi-level considerations needed to make lasting change in learning possible. This research project focused on the behavioral changes on the part of teachers and students. These behavioral changes by teachers and students were considered the end results. She advocated for organizational changes in schools and the need for social/political changes by the controlling authorities. She understood that these four dimensions must be in place to affect change in learning

through professional development. The district has a central role to play within the change

process. The district could be viewed as the catalyst of the change process. It is the mediator

between the state and the school. This level of leadership must focus direction on initiative,

plan appropriate strategies that enable the implementation of professional development, and

in the end they must evaluate the process of the professional development. This would

encourage, facilitate and enable the development of knowledge within the district that builds

capacity focused on knowledge, skills and practices within the 21st Century. In undertaking

this study, I was seeking to understand how to better plan effective teacher professional

development within the 21st Century which would build on my personal subject construct. I

have come to understand that change is a complex process (Fullan, 2006). It is a process that

must include the state, the school, and the district in making lasting change. It has to be

focused and ongoing. Fullan (1993) argues that teachers should be the roots for all change.

With that argument in mind, it is appropriate to conclude this research with teachers'

comments voiced during Reading Recovery professional development. These teachers'

voices (see Appendix H) reinforce the notion that reflective practitioners within the 21st

Century may change their beliefs, knowledge and practice through focused, relevant

professional development.

> **If you don't know, you will revert to how you were taught.**

> **I now can defend what I say.**

> **I am going to have to change my approach.**

> **My understanding increases every time I see someone teach.**

> **I continue to grow – progression of understandings.**

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Appendix A
Canadian Norms for the Observation Survey – June 2008
Developing Canadian Norms for an Observation Survey of Early Literacy Achievement

Sample Group and Assessment

The purpose of this study was to provide national norms for the *Observation Survey* (Clay, 2002, 2006).

The data for this summary consist of a random sample of first grade students from four provinces (Nova Scotia, Ontario, Prince Edward Island, Manitoba and the Yukon Territory. A total of 1,010 students were assessed by trained or in-training Reading Recovery teachers in schools implementing Reading Recovery. Teachers were advised to use the National Data Evaluation Center random selection process to select the two students for assessment. Students were eligible for selection in the sample if they were in grade one and were receiving their language arts instruction in English. Students were also eligible for the sample regardless of whether they were or would be receiving Reading Recovery or had been identified as having special learning needs. If the student left the school before the end of the year, the data that had been collected was used to develop the norms. No alternate students were selected.

At the beginning of the 2006-07 school year, Reading Recovery teachers each randomly selected two grade one students from their school. Each student was assessed at three points in the year using the six tasks in *An Observation Survey of Early literacy Achievement* (Clay, 2002, 2006). The first assessment period was set from September 8th to the 29th, 2006 during the first three weeks of the beginning of the school year, the second assessment period was January 22nd-February 16th, 2007 was set during the period of time which would have been the mid-point of the school year, and the third assessment period was June $1^{st} – 22^{nd}$, 2007 within the last four weeks of the school year. The completed assessment sheets were sent to the Teacher Leader responsible for the implementation of Reading Recovery in the school, the sheets were checked for accuracy of scoring; the data entered on summary sheets and sent to the Trainer at the Western Canadian Institute of Reading Recovery for data entry, analysis and reporting. Canadian Norms for the Observation Survey – June 2008

Definitions

Summary Statistics

Measures of central tendency are designed to give us information about typical scores. Two such measures – the mean and the median each of which provides us with slightly different information. The mean, the measure of central tendency is the arithmetic average. of an individual's true score. The SE is the standard error of the mean of all the observed scores. The second measure of central tendency, the median, specifies the midpoint of a set of scores.

The Standard Error (SE) is the statistic that allows us to use information about the reliability of a test to determine what the effect the error variance might have on our estimate

The Standard Deviation (SD) takes the mean as a reference point and provides an indication of the average distance between each score and the mean.

Stanine Groups

Stanine is a method of scaling test scores on a nine point standard scale with a mean of five (5) and a standard deviation of two (2). Raw scores are scaled to stanine scores by ranking the scores from the lowest to the highest and then by applying the following algorithm.

Approximately:

- 4% of the sample would be Stanine 1

- 8% of the sample would be Stanine 2

- 12% of the sample would be Stanine 3

- 16% of the sample would be Stanine 4

- 20% of the sample would be Stanine 5

- 16% of the sample would be Stanine 6

- 12% of the sample would be Stanine 7

- 8% of the sample would be Stanine 8

- 4% of the sample would be Stanine 9

See Teacher Leader Information Sheet: Stanines Canadian Norms for the Observation Survey– June 2008

Letter Identification Stanine Groups								
Stanine: 1	2	3	4	5	6	7	8	9
Fall: 0-23	24-36	37-45	46-49	50-51	52	53	54	-
Mid: 0-47	48-50	51-52	53	54	-	-	-	-
End: 0-50	51-52	53	54	-	-	-	-	-

APPENDIX B
JUNE SELF ANALYSIS STRATEGIC ACTIVITY IN READING AND
WRITING

At the end of a series of lessons and a child is ready to discontinue, what behaviors should we be seeing?
Reading

1	2	3	4
Fluent and phrasing Independent problem solving Use of all cueing systems Self-correcting	The child must be self-monitoring on a regular continual basis. Must use meaning and structure to assist him or her with difficult text while at the same time using the visual cues at all times Should be comfortable at attempting difficult words while relying on the strategies he has learned and used during lessons Phrased and fluent reading	Level 16 or better Using meaning, structure and visual cues to decode words Can break larger words into recognizable chunks Self corrects with meaning and structure Anticipates words Phrased/Fluent Comprehension	Should be able to break apart words Look for known chunks (word families, etc.) Should be monitoring his reading using visual, structure and meaning (info) Should be able to identify when he has made an error and know how to correct it Fluency and phrasing

Writing

1	2	3	4
Hearing and Recording Sounds independently Composition of a story Asking for support only when needed Using H/F word bank 40 word vocabulary Know how to get to other words from known words Risk taker Punctuate/capitalize without reminders	Should have a good control over problem solving, Hearing the sounds in sequence Large bank of written words Has enough independence that he does not wait to be helped	40 words Knows word families/chunks Composes more than one kind of sentence	Break apart words in writing Know how to get to other words by knowing chunks Should be able to say the words slowly to hear and record sounds in a word Should be able to punctuate and capitalize without prompts.

APPENDIX C
SELF-ASSESSMENT TOOL

Area Assessed: Knowledge or Beliefs

SELF-EVALUATION

1.   How familiar are you with the classroom implications and applications of:
    a) Alternative assessment
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    b) Inclusion
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    c) Multiple intelligences
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    d) Action research
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    e) Constructivism
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    f) Higher-order thinking skills
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

    g) Metacognition
Very familiar   Somewhat familiar   Heard the term   Unfamiliar

2.   Which two of these processes or activities do you most want to learn more about?

_____

_____

3.   Where or to whom in your school or district would you go to get the information you want?

_____

_____

_____

_____

4.   What is <u>your</u> theory on how to teach reading and writing? (use another sheet of paper or the back of this form)

How do you teach reading and writing? Think about the following when formulating your answer.

Organization of the classroom for teaching reading and writing.	Contents of the Classroom for teaching reading and writing
Presence and use of technology for teaching reading and writing	Opportunities for students' choice and initiative in reading and writing
Classroom management strategies for reading and writing	Classroom Climate for reading and writing

_____

_____

_____

_____

_____

_____

_____

Continue below and if necessary

APPENNDIX D
SELF-EVALUATION - ANSWERS

Erica

The scale is scored by: VF = 4, SF = 3, HT = 2, UF = 1

First

A	3
B	3
C	4
D	2
E	2
F	3
G	4

22/28 = 78.5%

Beginning

VF – Multiple Intelligences, Metacognition
SF – Inclusion, Higher Order Thinking
HT – Action Research, Constructivism
UF – none

Second

A	3
B	4
C	3
D	3
E	3
F	4
G	4

24/29 = 85.7%

End

3) VF – Higher Order Thinking, Metacognition, Inclusion
2) SF – Alternative assessment, Multiple intelligences, Action Research, Constructivism

1) HT – none

1) UF – none
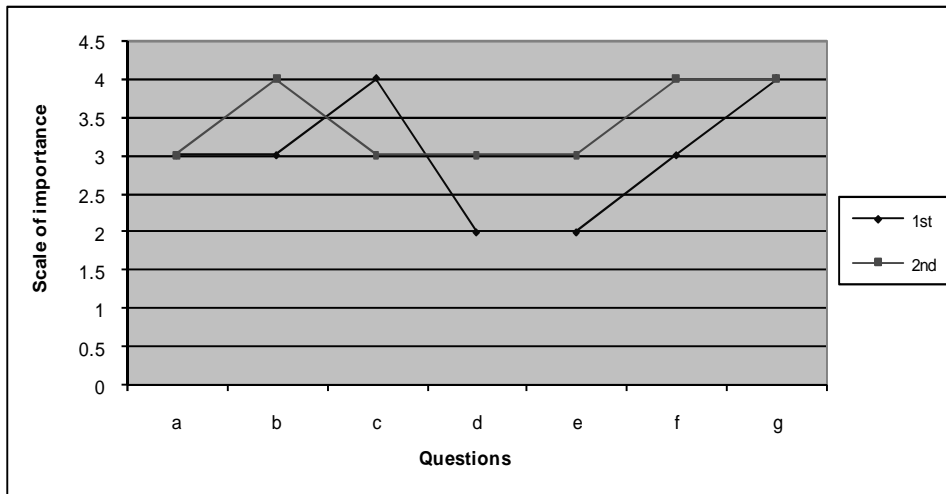
Nora

The scale is scored by: VF = 4, SF = 3, HT = 2, UF = 1

First

A	3
B	4
C	3
D	1
E	1
F	3
G	3

18/28=64.3

Second

A	3
B	4
C	3
D	2
E	3
F	4
G	3

22/28=76.3%
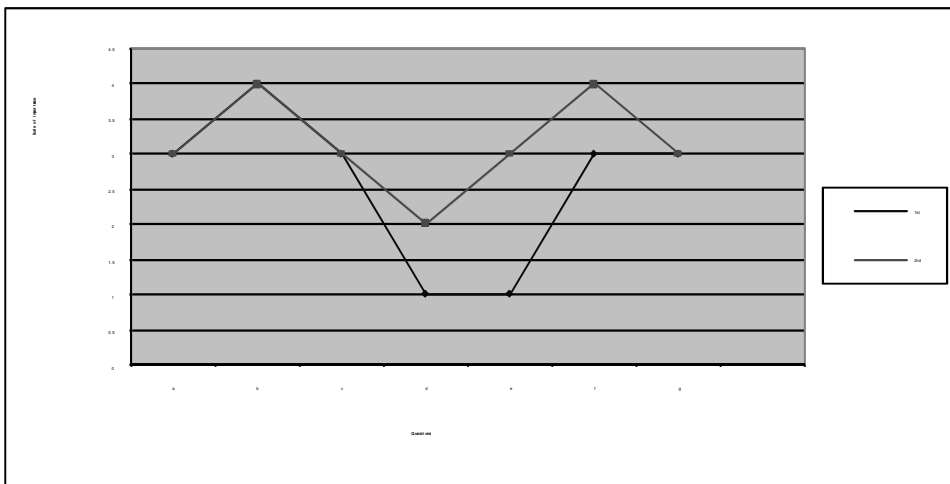
REFLECTIVE PRACTITIONERS

Kelton

The scale is scored by: VF = 4, SF = 3, HT = 2, UF = 1

First

A	2
B	4
C	4
D	1
E	1
F	1
G	1

14/28=

Second

A	3
B	4
C	4
D	2
E	2
F	3
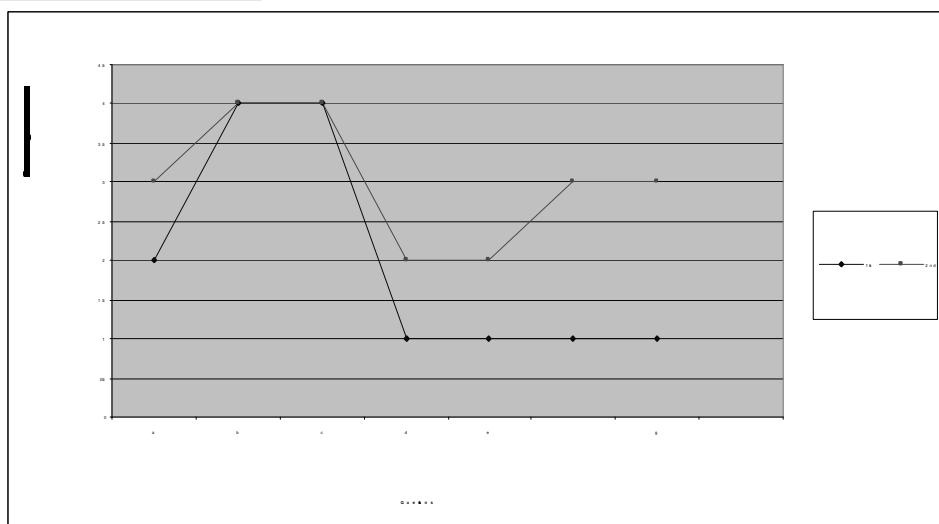
REFLECTIVE PRACTITIONERS

Opinions on how to teach Reading and Writing Early

Erica	Kelton	Nora
R- Daily activities/sustained period /diff.genres of books/word solving/comprehension strategies/focused teaching/practice/strategies/ automatic/mini lessons/whole group/scaffold/extra help W-similar/types/daily/connection between R+W/7 traits/attempts/confidence/direct instruction/conventions/opportunities In Reading I choose book	Dolch list weekly testing/word wall daily review/home reading program/phonological activities/writing and reading morning news Word families/Active Young Readers	Organization-Writing Centre. Reading Center, Guided Reading Table, Groups Technology- listening center, computers, overheads Management – work in groups, follow routine, PEBS matrix Contents – book baskets, picture books, novels, charts, boxes of markers, crayons, paper, scissors, making words, guess the covered word, portfolios, self assessments, student writing samples Opportunities- student shave portfolios for writing and reading logs for reading/varied assignments with choice Climate-friendly, inviting, right to "pass", respectful. Blocked amounts of time for reading and writing, model love of reading/writing

Opinions on how to teach Reading and Writing Late

Erica	Nora	Kelton

REFLECTIVE PRACTITIONERS

R-letters/sounds/wds within a larger text-not in isolation/make sense/structure/letters/words and hear sounds/practice/predictable/exposure/visual becomes known/ R+W taught daily/strategies

W-composing/ ownership/real/purpose/ diff. Genres/change with genres/ R+W linked/integrated across subjects/relevant /authentic

Beyond level 3 they choose the book

Reading workshop- listen to story- talk about a particular reading strategy – practice strategy- discuss where they could use strategy-

W- everyday, some days integrated into content,

Mini lessons on writing – hear sounds, spelling, high frequency words, word wall, theme,

Writing folder, share writing

Teaching from known/daily/connections/reciprocal/model/fluency/strategies

Have a wide selection of books at various levels

Time for personal reading

Read to the class- model

Encourage students to write own ideas

Work collectively with older students – organization

Try to make connection

(I don't have much experience with the use of technology for teaching reading and writing as it may apply to listening centers.

REFLECTIVE PRACTITIONERS

**Theory of Teaching Reading and Writing
Early**

Erica	Nora	Kelton
R+W activities every day – sustained period	Students learn by modeling and doing	Didn't give it much thought
Exposure to different genres	Reading and writing is a process and students learn at their own developmental level.	My educ. Was in upper elementary.
Taught various word solving and comprehension strategies		Assumed they knew how to read.
Teaching directly to the students		Provide alternative materials that could "fix" the problem
Repeated practice using strategies – becoming automatic		Resource teacher's problem
Mini – lessons		How to do it? I didn't know
Whole group learning		Read with children at a young age
Independent practice		No control over what other parents did with their children
Scaffold learning		The Later they were introduced to literacy the less likely they would be to excel
Small group sessions for extra help		The more you read and write the better you get at it.
Predictive texts		
W – Taught in a similar way as R.		
Exposure to different types of writing		
Daily writing		
Make the connection between R+W		
Intro to seven traits in writing		
Encouraged to attempt no matter how small		
Develop confidence in themselves		
Direct instruction		
Conventions		
Opportunities to practice		

REFLECTIVE PRACTITIONERS

Theory of Teaching Reading and Writing
Late

Erica	Nora	Kelton
Selection of topics that they want to read+W.	Teaching from the known is crucial.	Don't know if I have one
Sense of ownership and makes it "real"	Daily reading and connecting writing.	Now know that it is my responsibility to teach R and W.
Children need a purpose for R+W	Modeling fluency	P-12 have to be taught literacy skills
Need to understand there are various R+W genres	Reinforcing strategies.	Now a better understanding:
Understand that genre changes the way you read the book		Reading and Writing are not separate-mutually supportive. Better reading skills promote better writing and vice versa.
Understand that R+W are linked		Although a bank of sight-word is very impt reading, decoding and learning new words are best learned in context. Learning list of words with no meaning attached to them may work for the child who is a natural reader, but I doubt words for the majority. We learned to speak by being immersed in the language, learning how the words worked and adjusting that knowledge as new info came along. R+W should work the same way.
R+W need to be integrated across curriculum		
Relevant and authentic		
Taught letters, sounds and words within a larger text		
Not in isolation		
Need to make sense of structure and visually see it		The reading learner should be able to feel that he/she is in a safe environment (Emotional)
See the letter/words and hear the sounds		Learning to R+W doesn't end in elementary school
Multiple exposure to words		I can't assume as a teacher, that the student is going to make the connections to new text the same way I do
R+W taught daily		
Strategies are reinforced		
Practice		

APPENDIX E

YEAR END EVALUATION

Reading Recovery® 2008 – 2009

Comment of the effectiveness of the in-service sessions, the school visits, the teacher leader, the logistics and the social interaction.

1.   In-service session
–   Very beneficial
–   Opportunity to share
–   Learn from others
–   Videotape allowed one to look critically at improving as a teacher.
–   Video in particular was the most effective way to reflect on my learning and teaching.
–   Sessions were crucial to my learning
–   Most successful sessions were as a whole group
–   Feedback was always intended to help me in my teaching
–   To talk about problems
–   Getting together during the day
–   Learning is authentic
2.   School visits
–   Positive
–   Focused suggestions for improvement
–   School visits very effective
–   Very helpful
–   They were never threatening and the follow-up was always positive, supportive and helpful
3.   Teacher leader
–   Was not judgmental and was flexible.
–   Very easy to talk to and offered as much support as she could throughout the year.
4.   Logistics
5.   Social Interaction

What are the (1) advantages and (2) disadvantages of the model of professional development used in Reading Recovery®?

Advantages
–   Interact with other teachers
–   Observed in our own schools
–   Others can see how our students are in a natural setting
–   Behind the glass, we get to have discussions.
–   Networking, teachers P-2 especially would benefit from this training.
–   Interaction
–   The method of learning a part and field testing that part first is more rewarding
–   Trust
–   Gained the experience
6.   Disadvantages
–   The time I miss with my classroom, but the advantages far outweigh…

REFLECTIVE PRACTITIONERS

- – You are isolated in one school and often question you teaching without being able to consult.
- – No suggestions

What changes, if any, do you feel need to be made to Reading Recovery®? What do you feel could be done differently to better serve the teachers and the students?

- – More time behind the glass
- – Need more time to concentrate on the huge amount of paperwork.
- – I can't think of any

Strongly Agree – SA

Agree – A

Unsure – U

Disagree – D

Disagree Strongly – DS

Teacher Leader
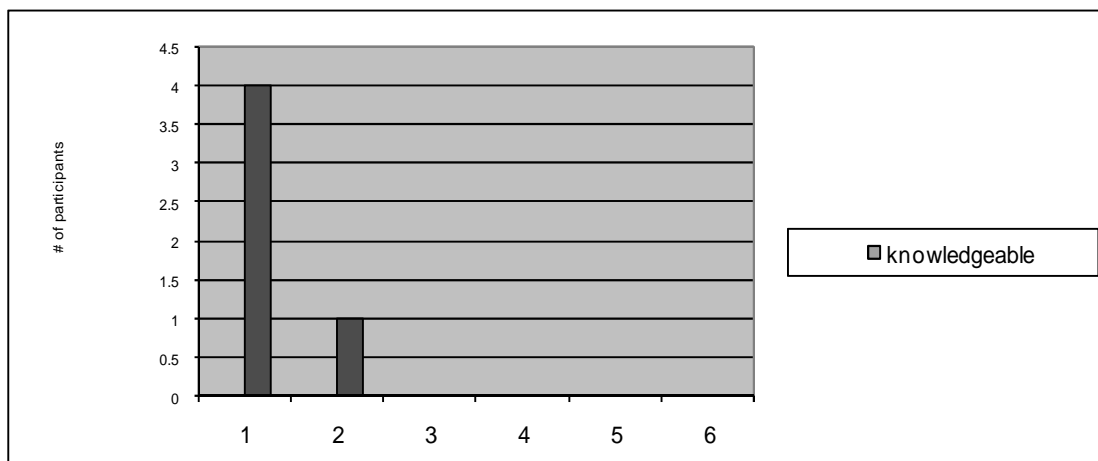
Teacher leader is knowledgeable about the subject

REFLECTIVE PRACTITIONERS

Answers questions

[chart: Answers questions — # of participants (y-axis 0 to 4.5) vs SA, A, U, D, DS. SA = 4, A = 1]
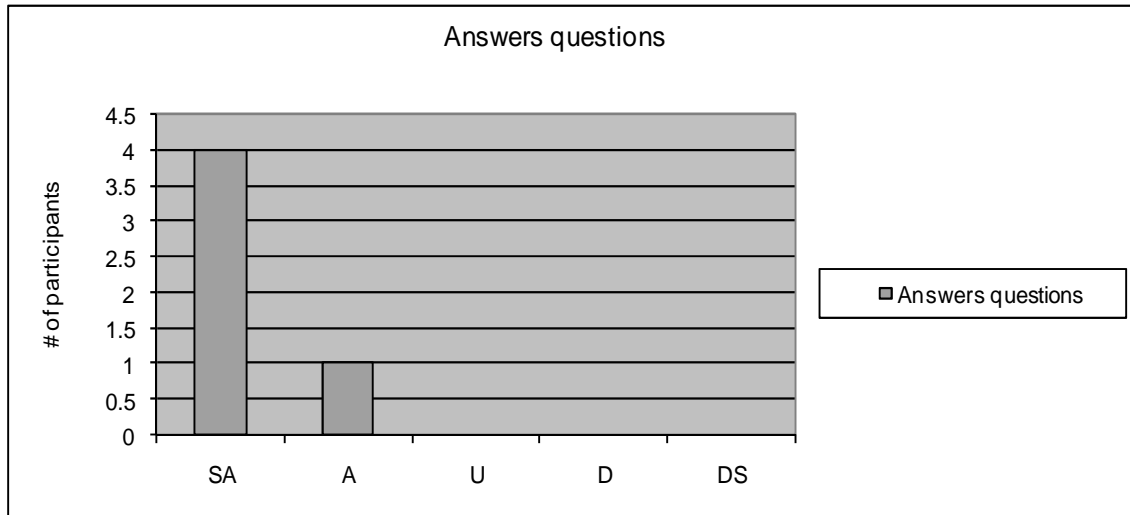
Teacher leader answers teacher's questions

Assignments

The readings facilitated understanding of the course material.

The assigned readings complemented teacher leader's emphasis during sessions.

Amount of required reading was reasonable.

[chart: Readings — # of participants (y-axis 0 to 4.5) vs SA, A, U, D, DS. SA = 4, A = 1]
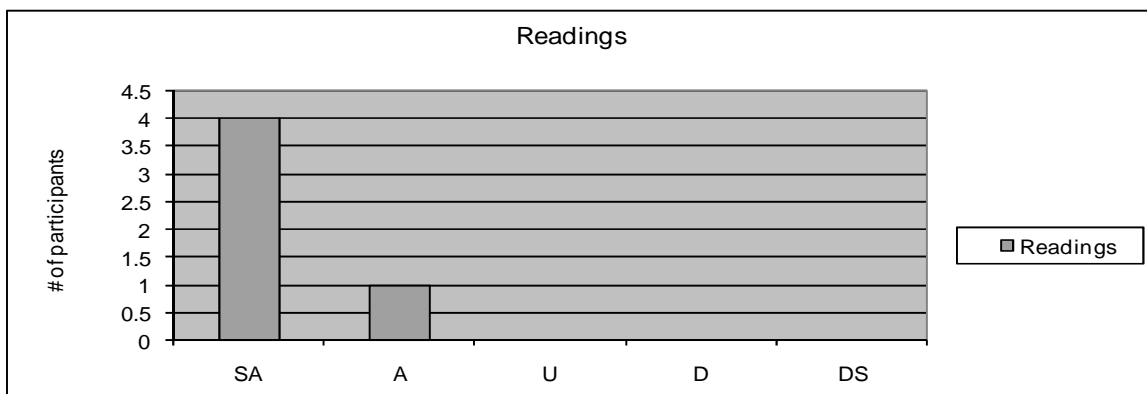
REFLECTIVE PRACTITIONERS

Teacher Leader Visits

Visits were effective
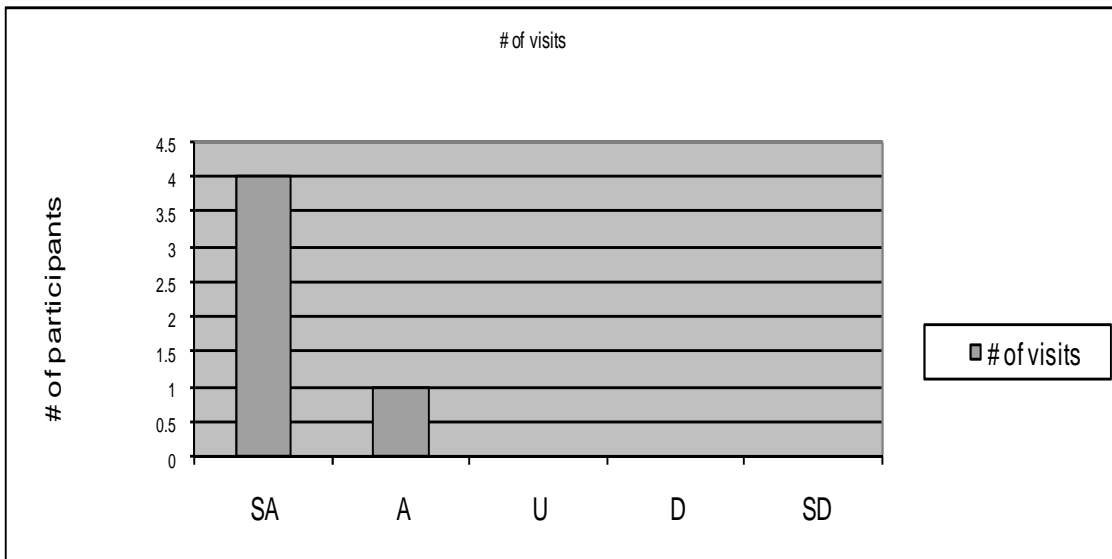
The number of visits during the year was reasonable.

Visits expanded my knowledge of the procedures.

REFLECTIVE PRACTITIONERS

<div style="text-align: center;">
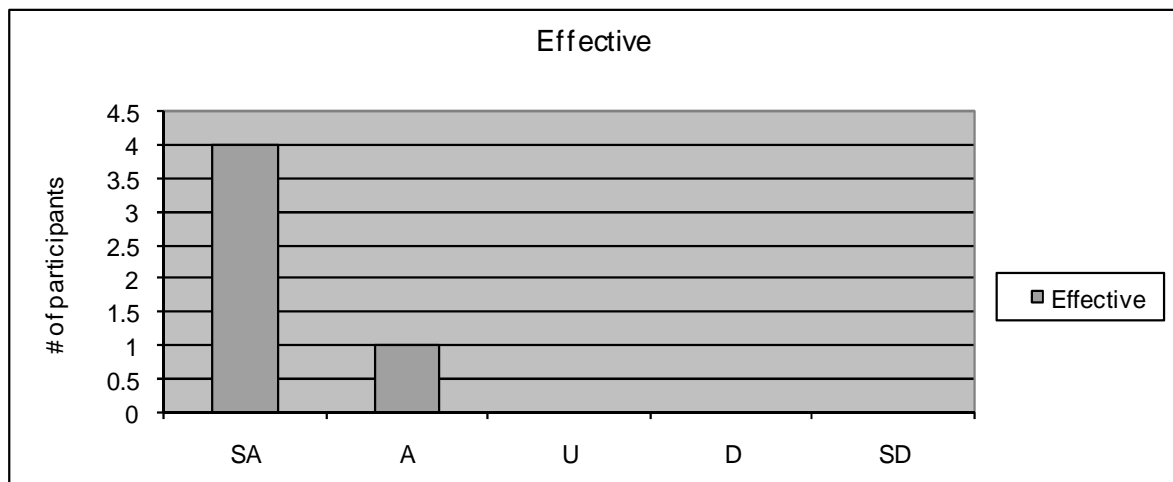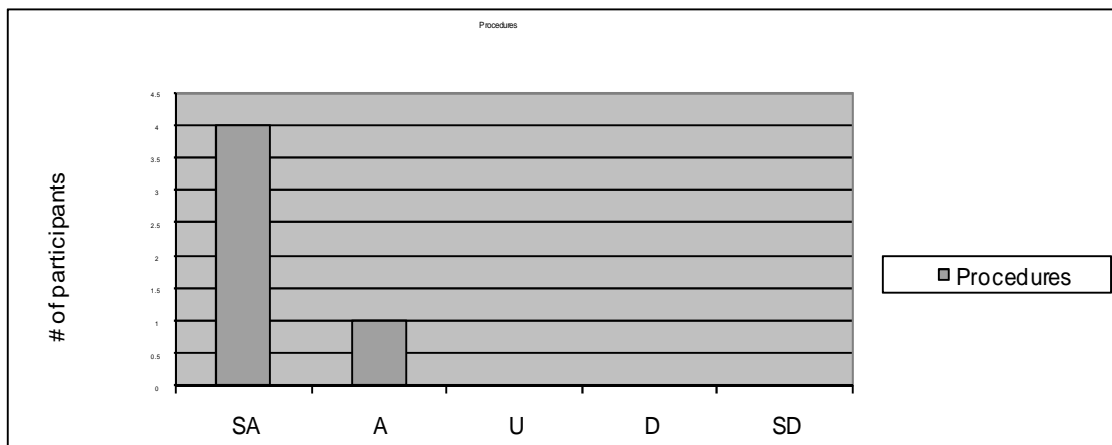
APPENDIX F

Innovation Configuration Map

</div>

Teacher Opinions, October 2008

Context

The Teacher: Part of a learning community

Outcome 1.1 Meets regularly with colleagues during the school day to plan instruction which includes Reading Recovery®
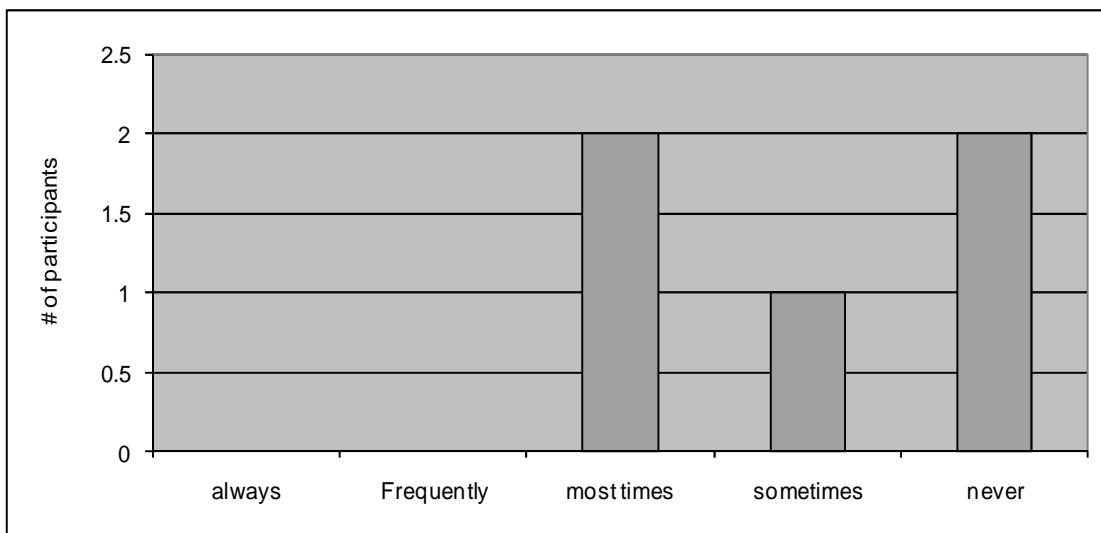
Outcome 1.2 aligns Reading Recovery® work with school improvement goals (Accreditation)
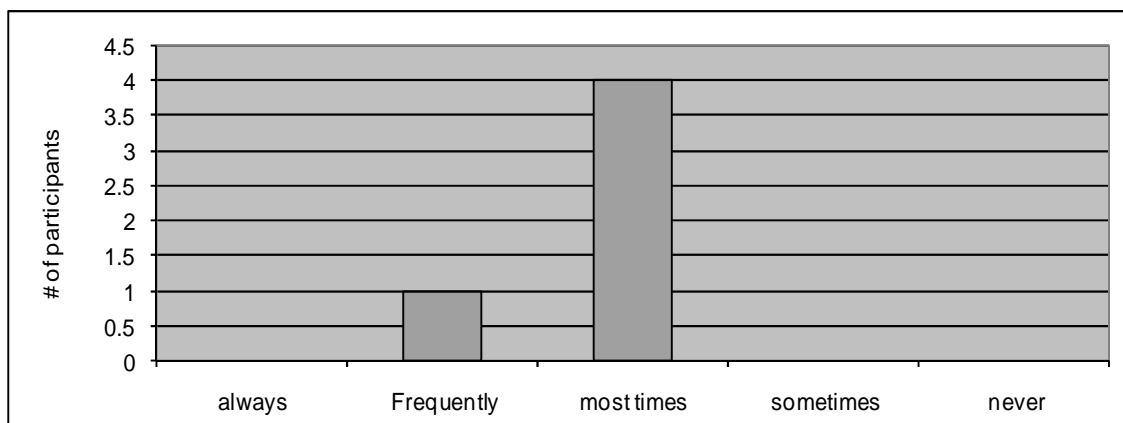
REFLECTIVE PRACTITIONERS

Outcome 1.3 Participates in varied learning teams, some of whose membership extends beyond Reading Recovery®
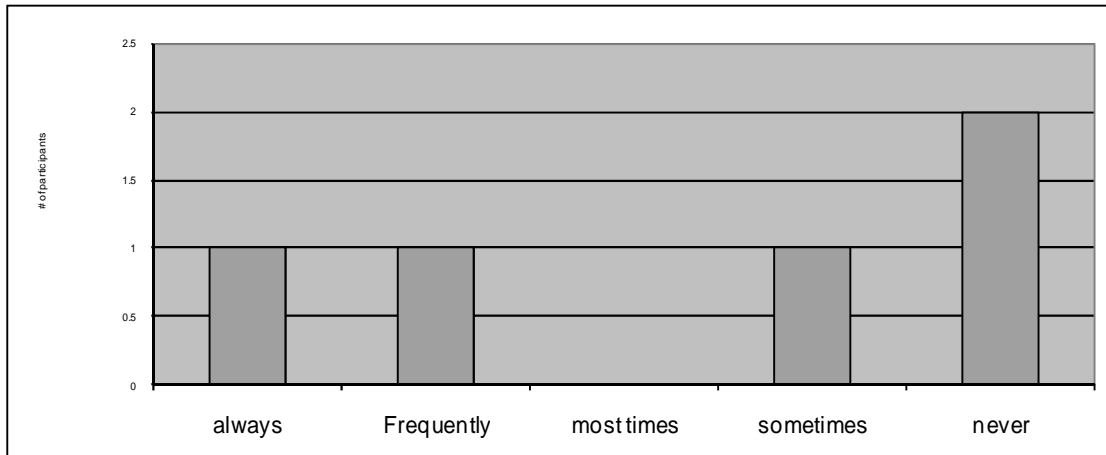
Leadership – The Teacher
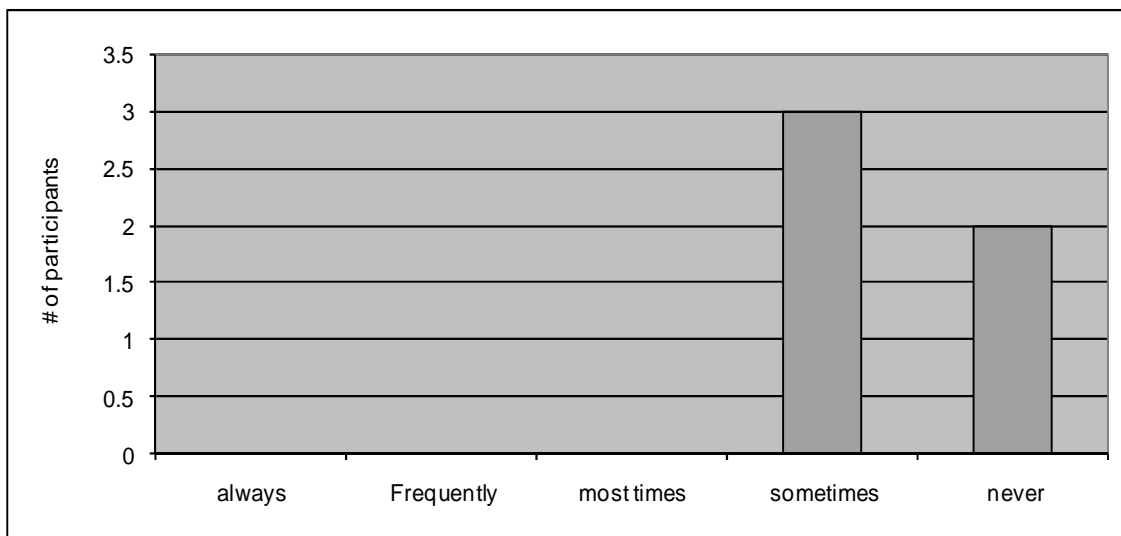
Outcome 2.1 Participates in instructional leadership development experiences.

REFLECTIVE PRACTITIONERS

Outcome 2.2-Serves in a variety of instructional leadership roles.
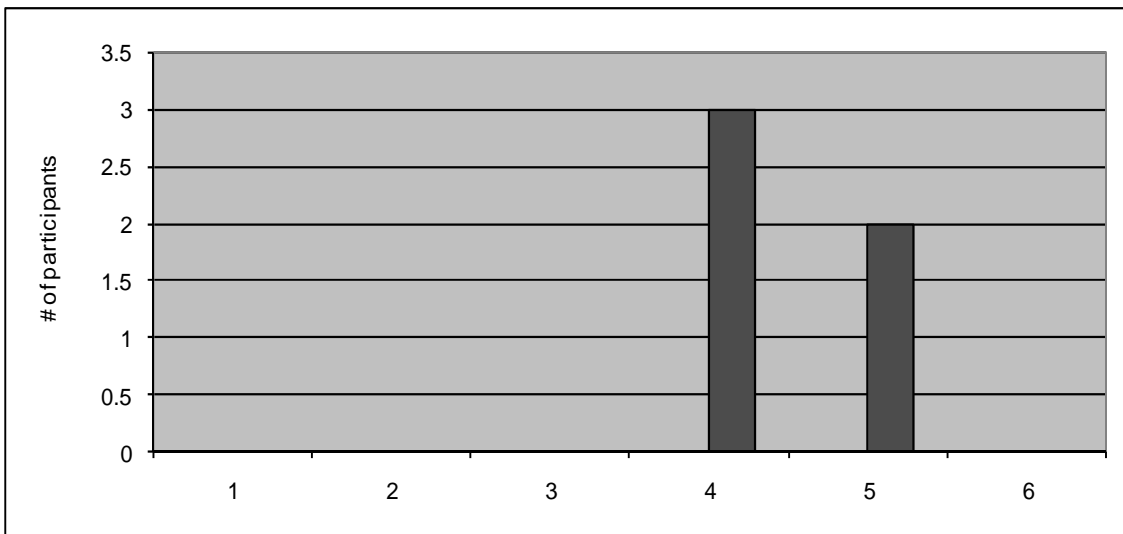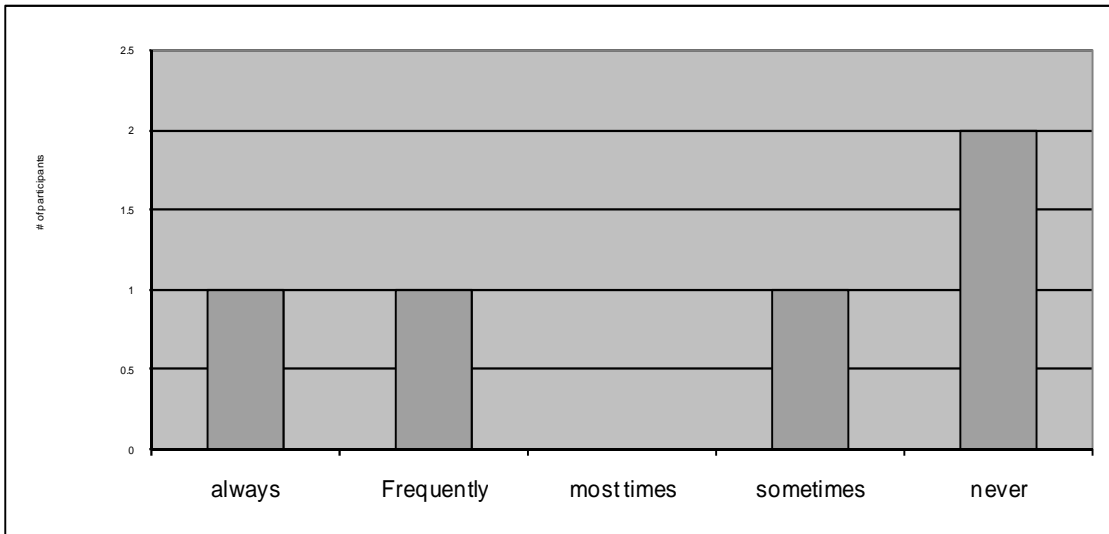
Outcome 2.3 Contributes to the planning of school-based professional learning which includes Reading Recovery®.

REFLECTIVE PRACTITIONERS

Outcome 2.4 Articulates the intended results of Reading Recovery® PD on teacher practice.
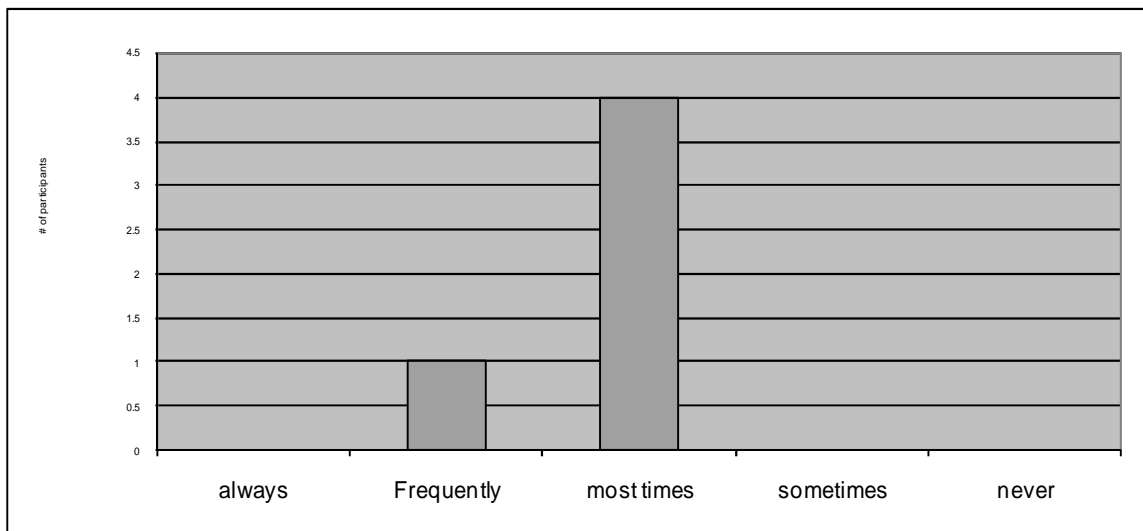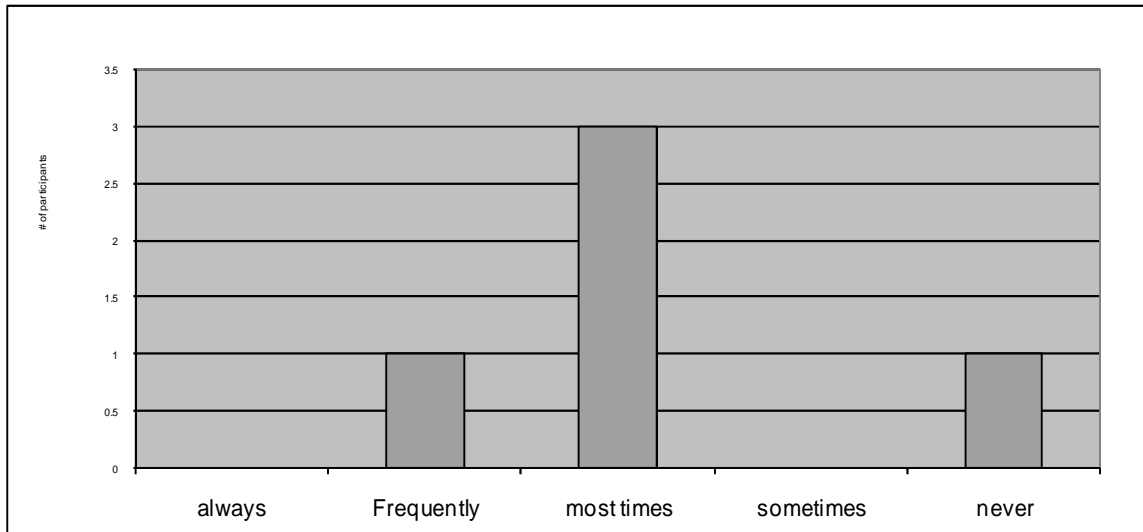
Outcome 2.6- Articulates the benefits of professional learning

REFLECTIVE PRACTITIONERS

CONTEXT

Resources

Outcome 3.1-Participates in Reading Recovery® professional development during the workday.
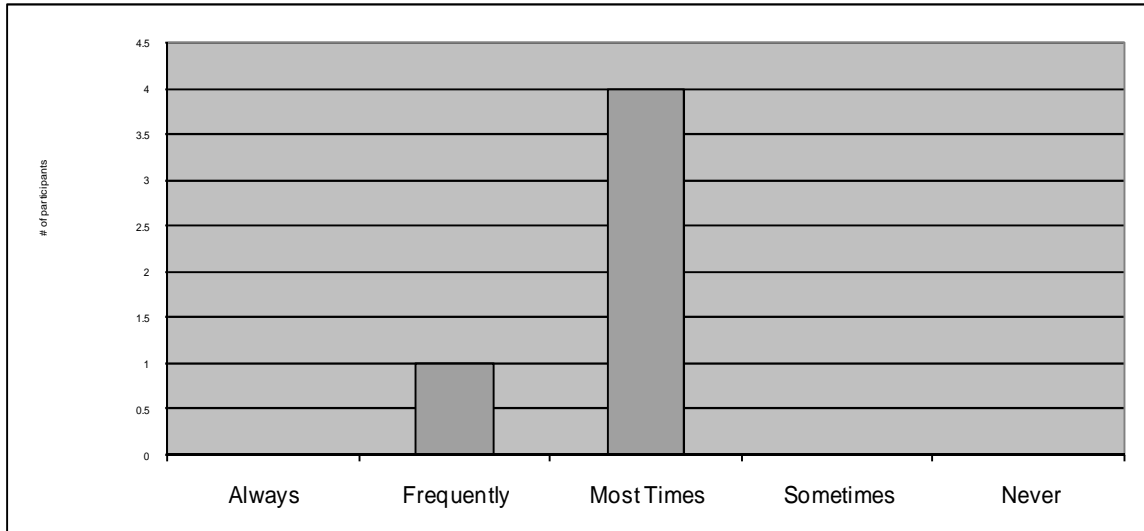
Outcome 3.2-Accesses funds to support Reading Recovery® learning priorities
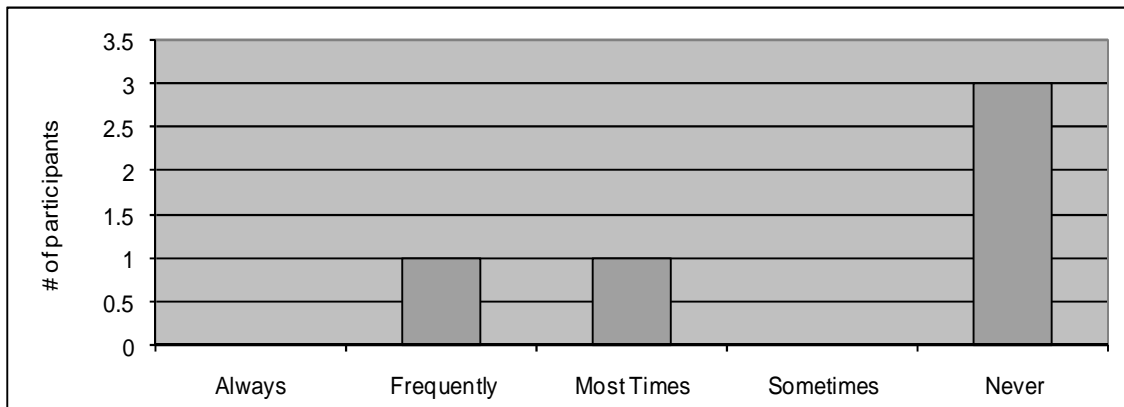
REFLECTIVE PRACTITIONERS

Outcome 3.3-Receives external and internal support related to Reading Recovery® learning priorities.
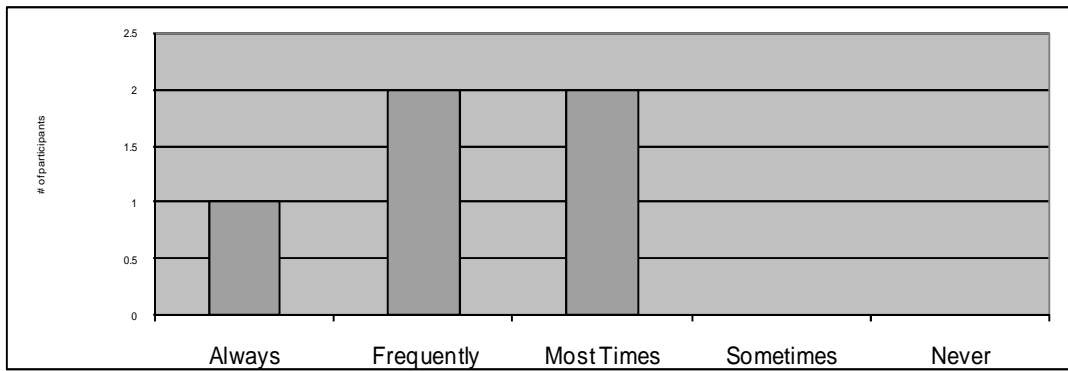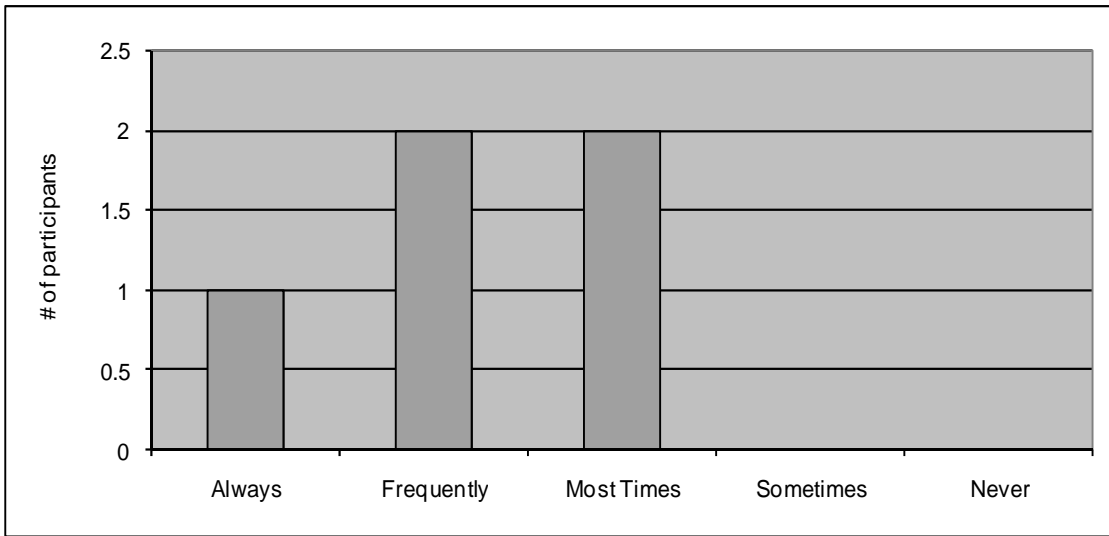
REFLECTIVE PRACTITIONERS

PROCESS

Data Driven

Outcome 4.1- analyzes disaggregated student Reading Recovery® data to identify adult learning priorities at the classroom, school, and regional levels.
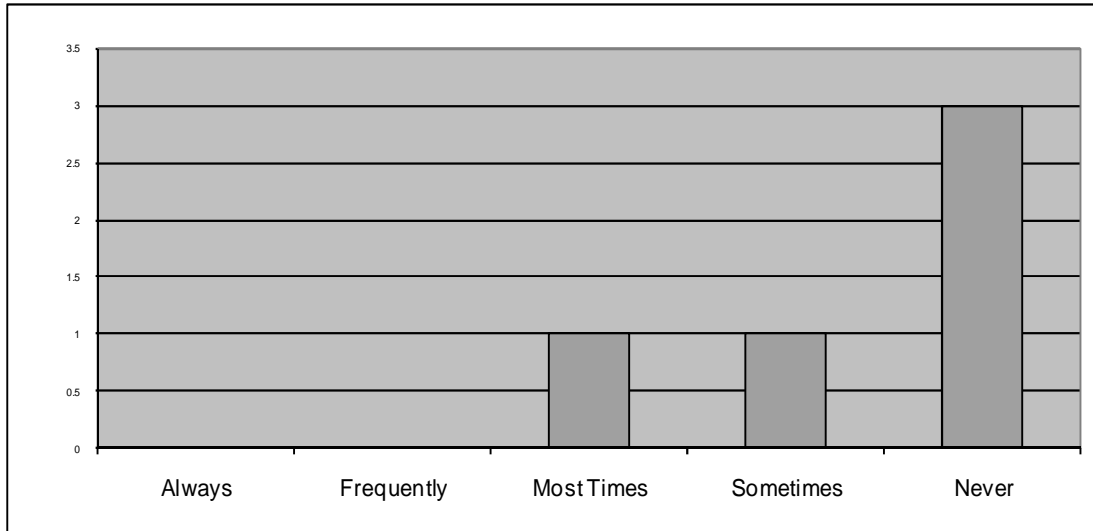
Outcome 4.2 Analyzes a variety of disaggregated data to identify learning needs of Reading Recovery® professionals.
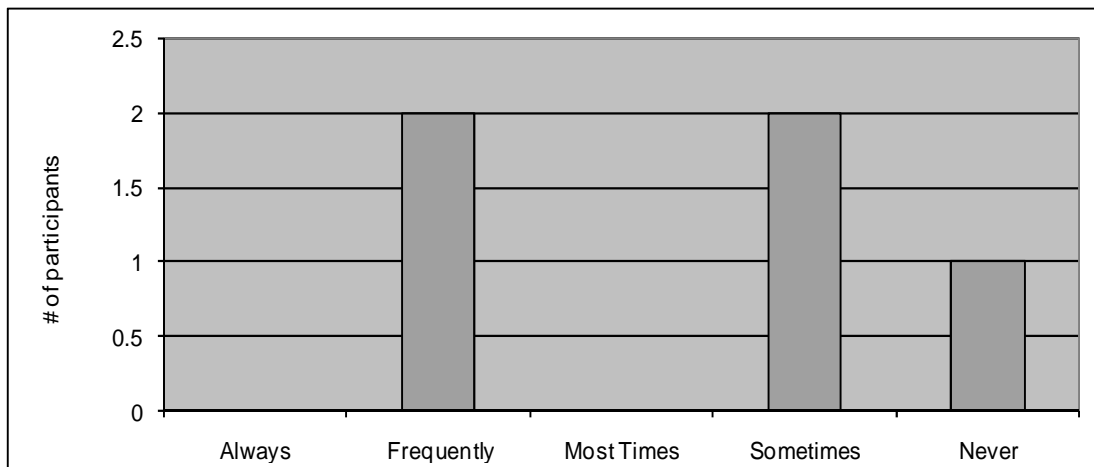
REFLECTIVE PRACTITIONERS

Outcome 4.3 Works with colleagues to use disaggregated data to establish Reading Recovery® professional learning goals.
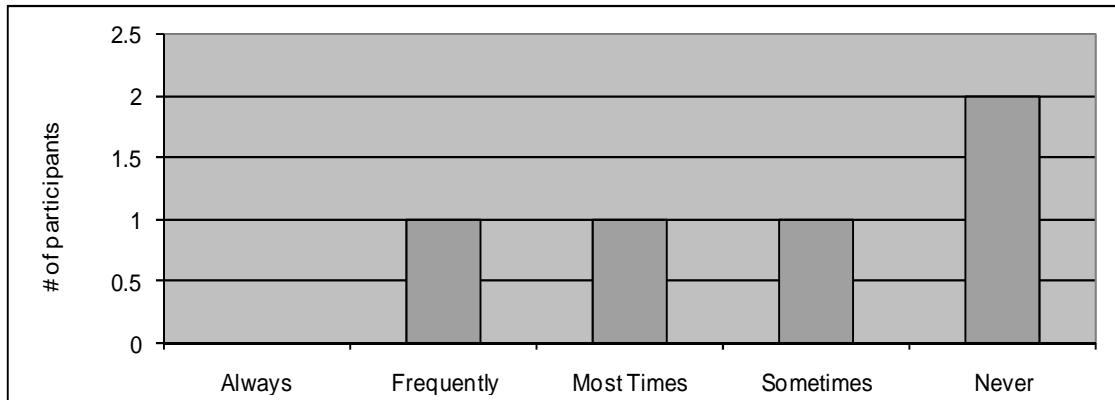
Outcome 4.4 Analyzes relevant student data in order to monitor and revise Reading Recovery® improvement strategies.
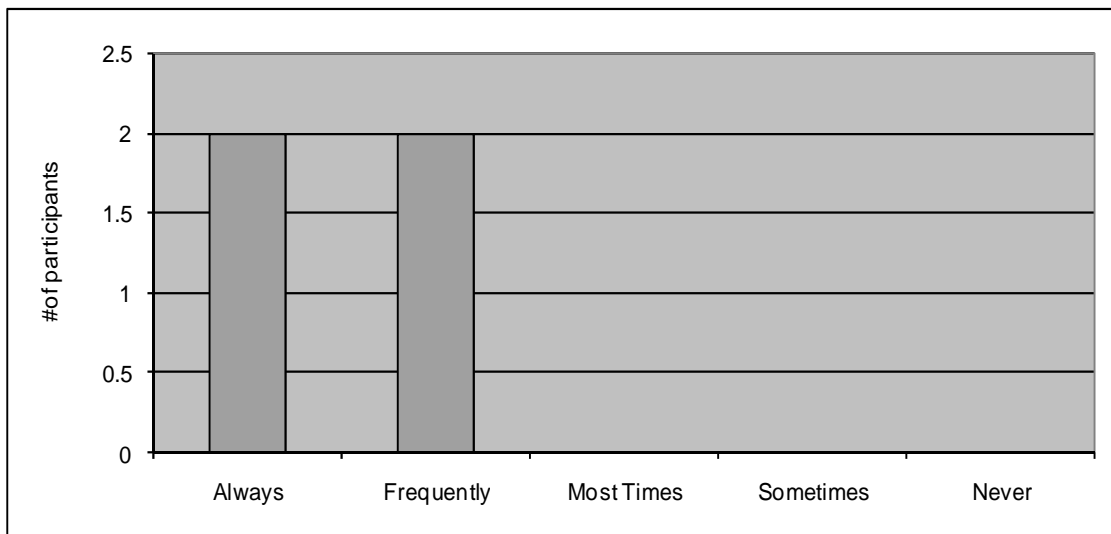
REFLECTIVE PRACTITIONERS

PROCESS

Evaluation

Outcome 5.1-Contributes a variety of data to evaluate the impact of Reading Recovery professional development
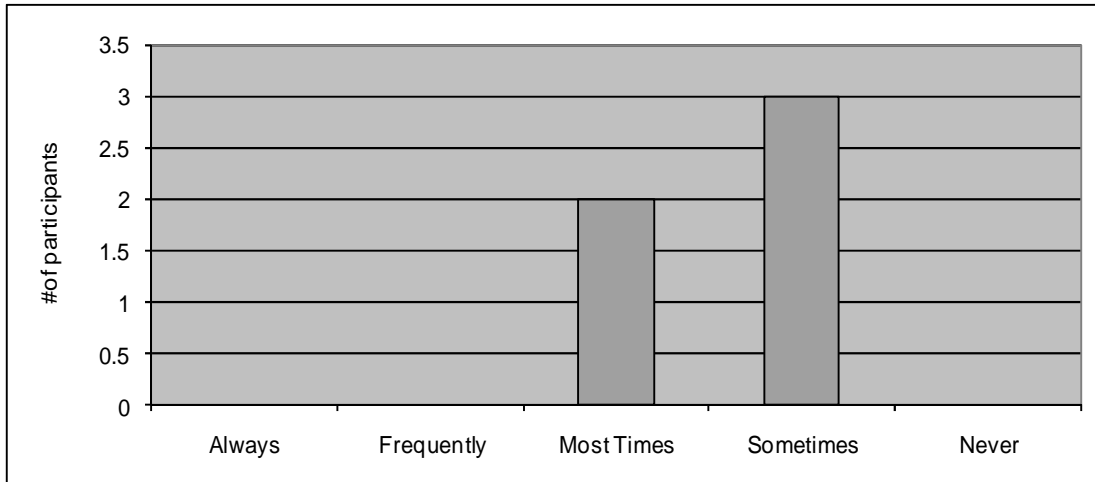
Outcome 5.2-Collects and analyzes data to determine the impact of PD.
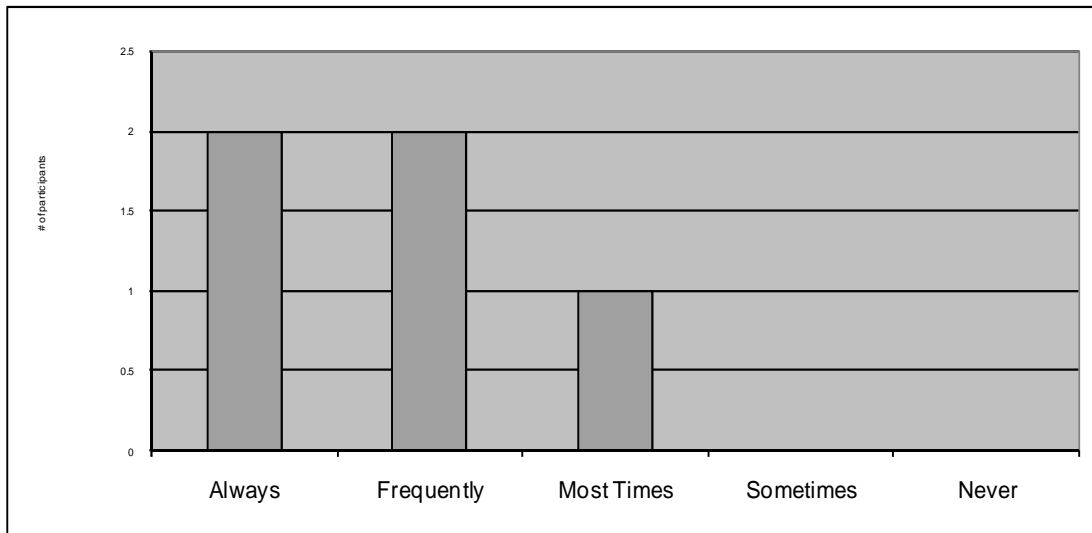
PROCESS

Research-based

Outcome 6.1-Use educational research when making Reading Recovery® Instructional decisions.
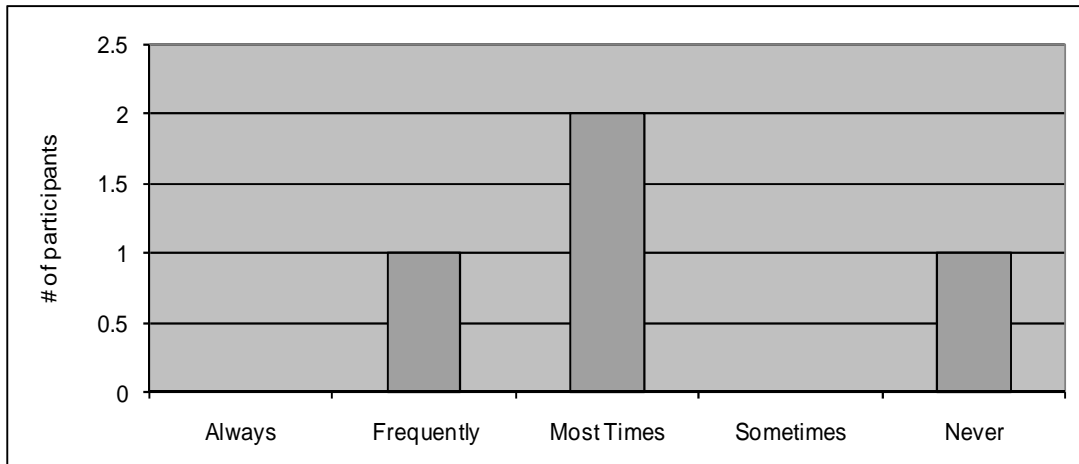
PROCESS

Design

Outcome 7.1 Participates in a variety of appropriate staff development designs aligned with expected improvement outcomes.
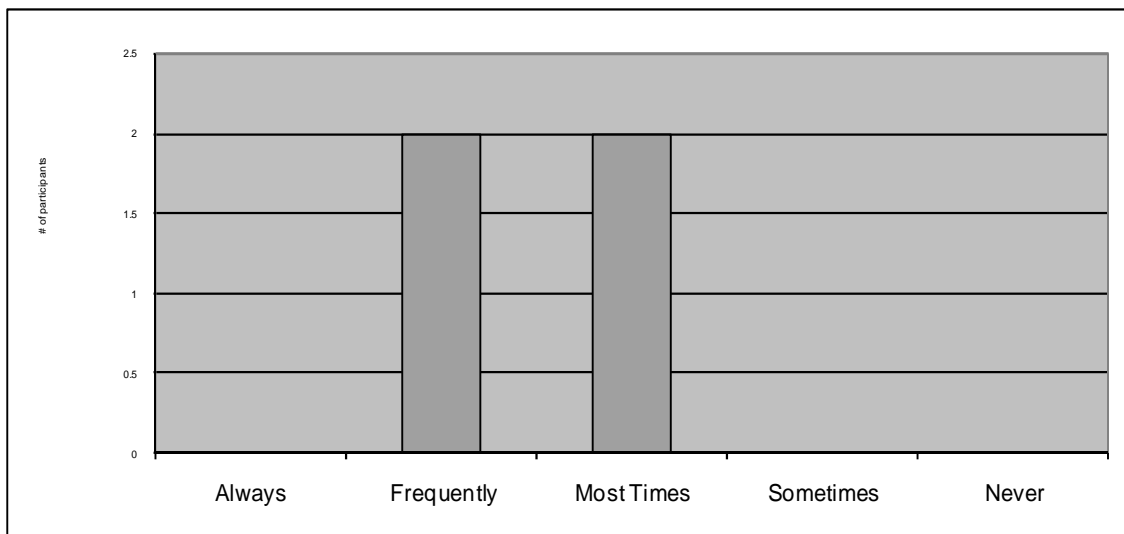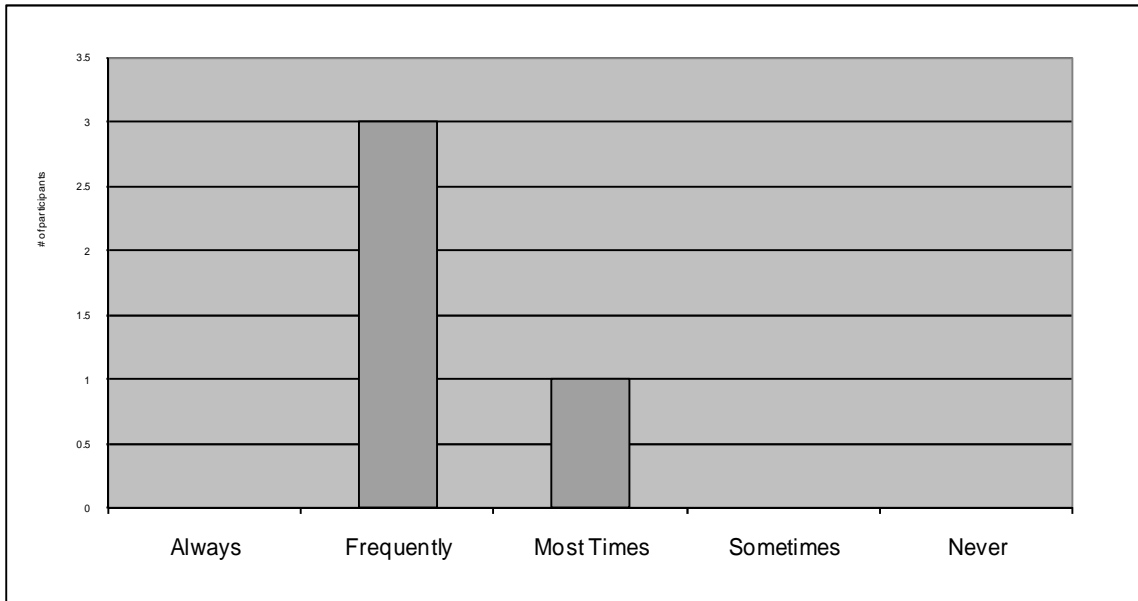
Outcome 7.2 Participates in long-term and in-depth professional learning.
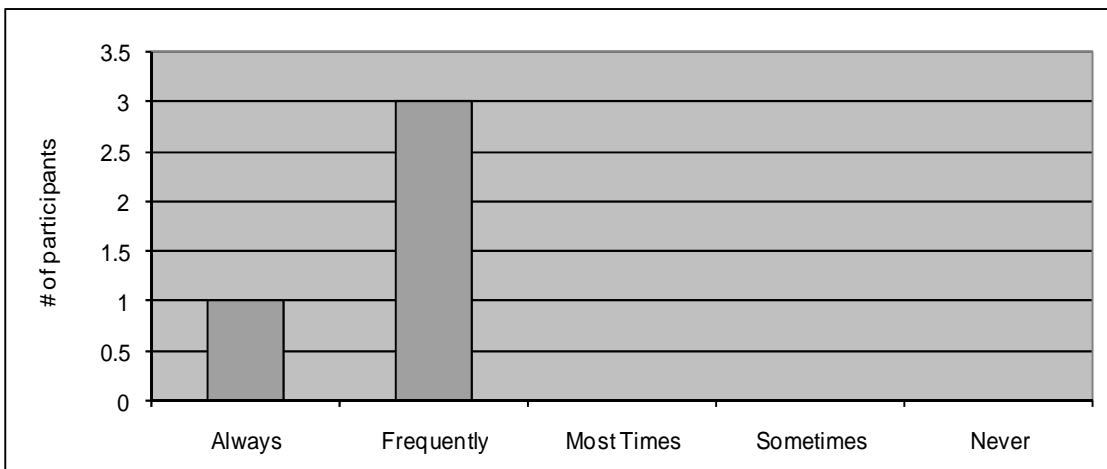
Outcome 7.3 Implements new practices as a result of follow-up sessions.
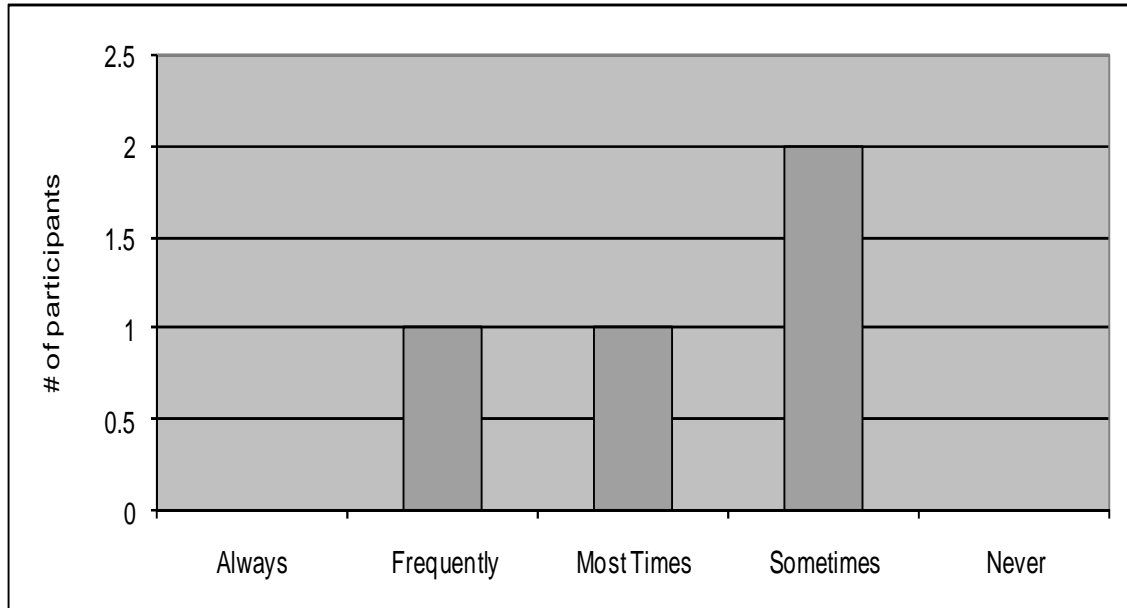
Outcome 7.4 Uses technology as a component of Reading Recovery® professional learning when appropriate.

PROCESS

Learning

Outcome 8.1 Participates in Reading Recovery® professional development that mirrors expected instructional methods.
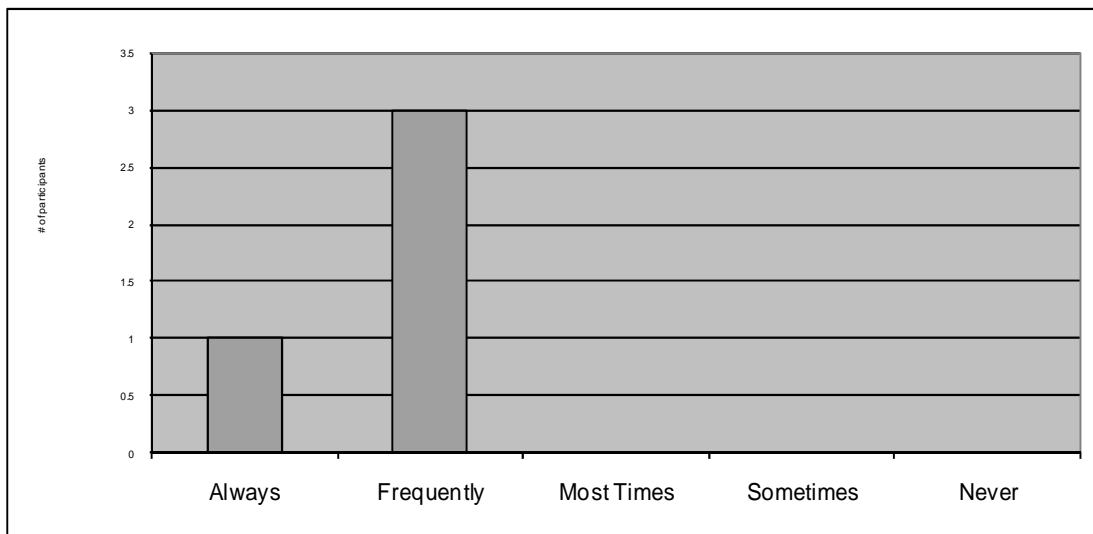
Outcome 8.2- Participates in Reading Recovery® learning that impacts depth of understanding.
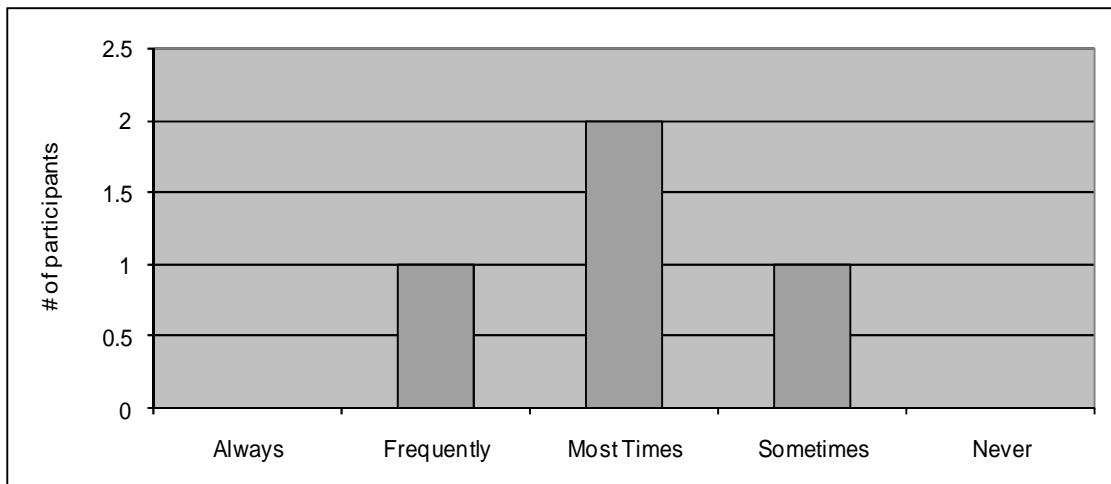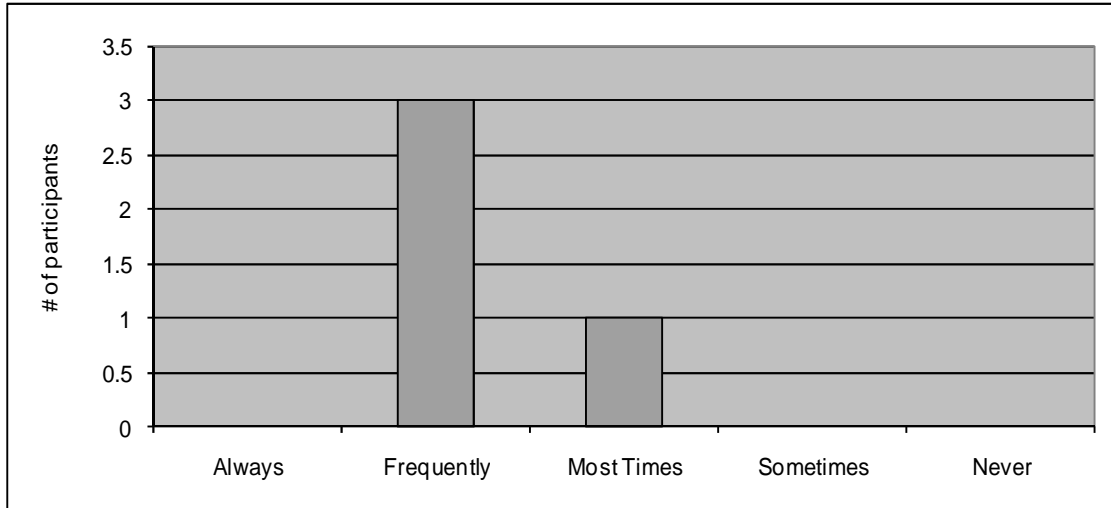
Outcome 8.3 Participates in a variety of professional development experiences appropriate to career stage.
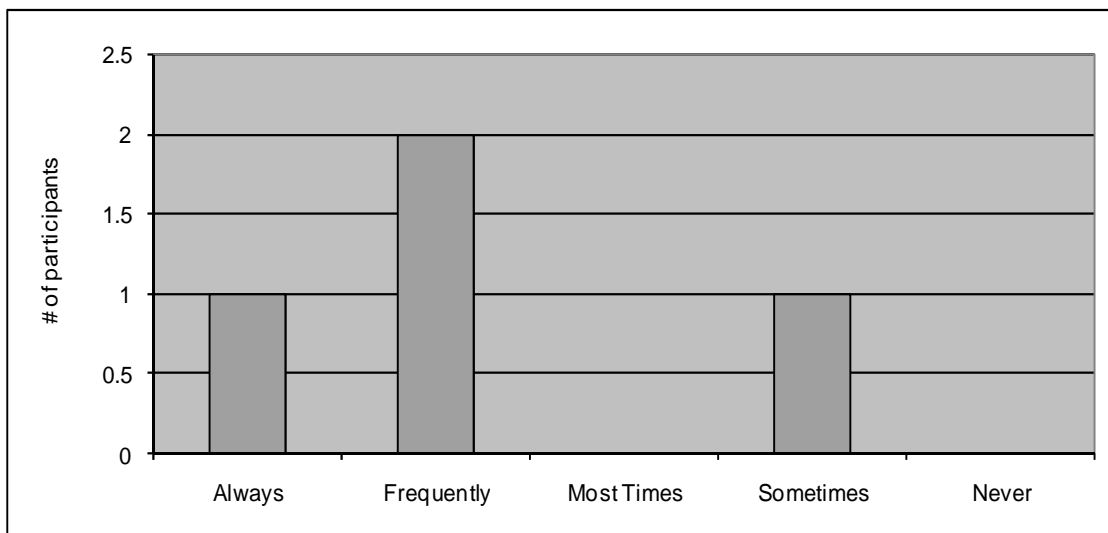
Outcome 8.4- Engages in Reading Recovery® professional development that considers participant concerns about new practices.
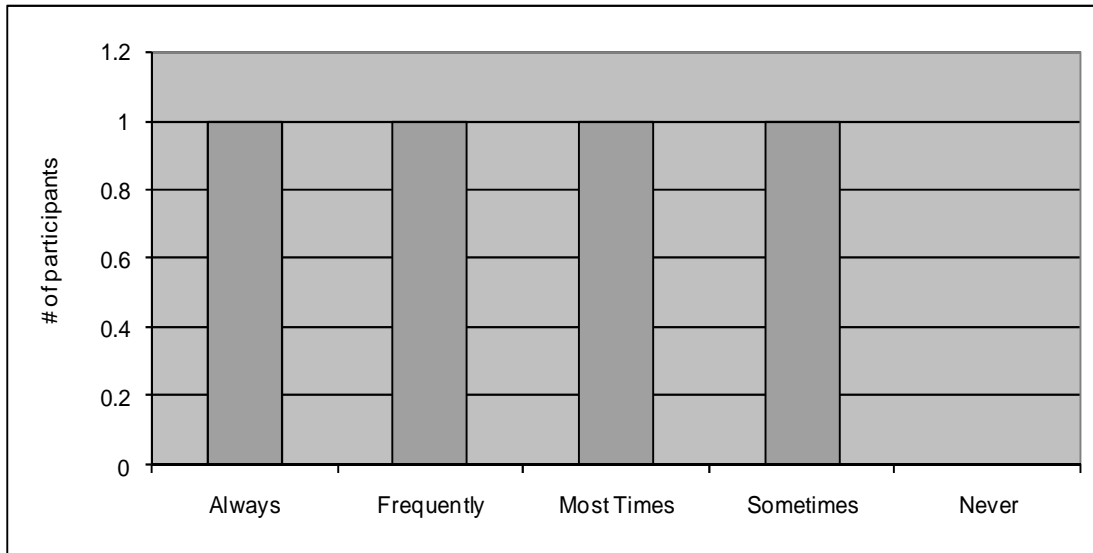
PROCESS

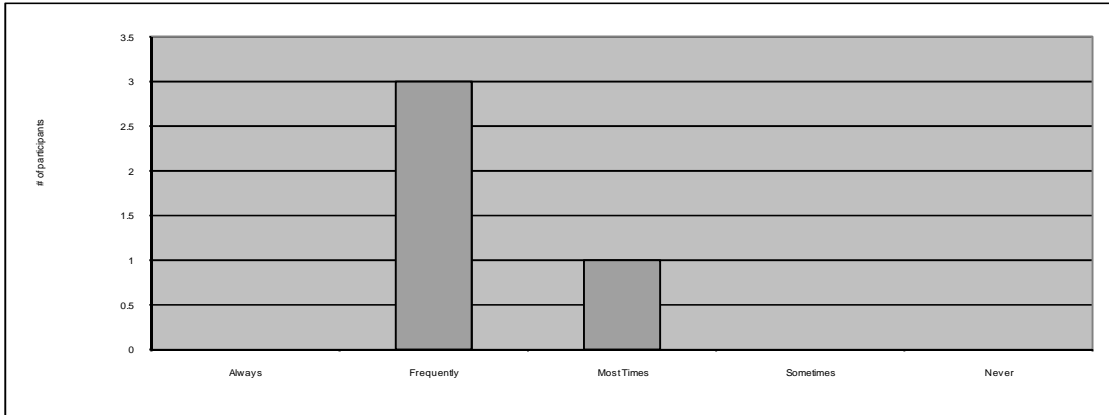**Collaboration**

Outcome 9.1 Participates in a Reading Recovery® culture that is characterized by collegiality and shared responsibility.
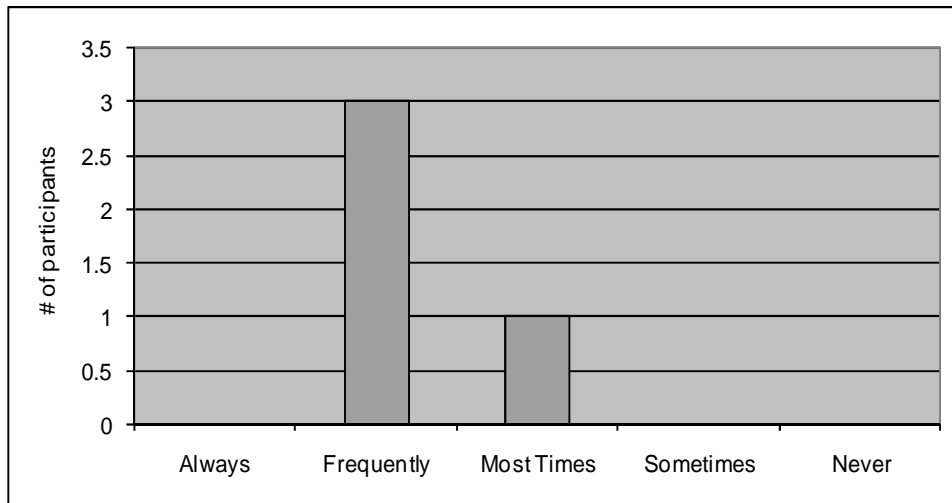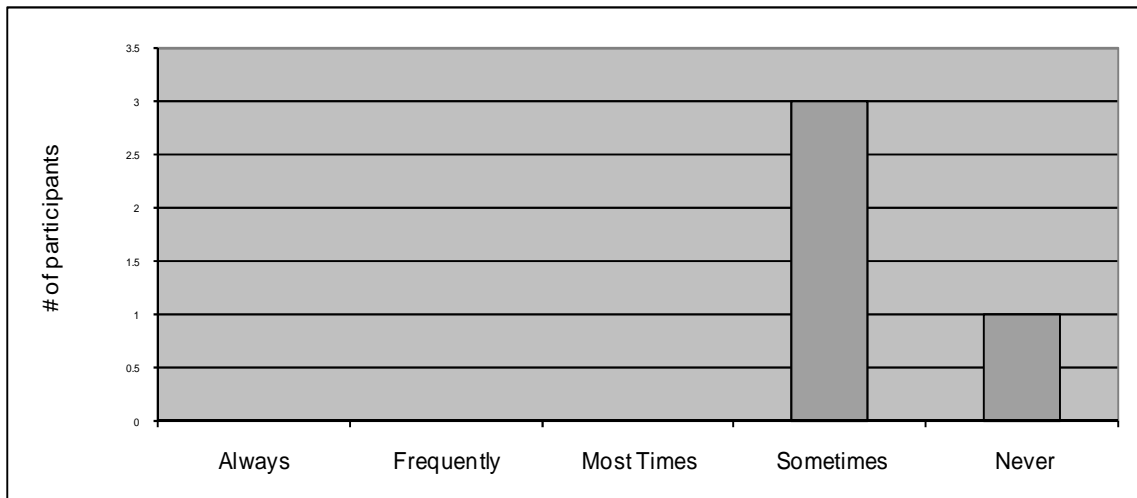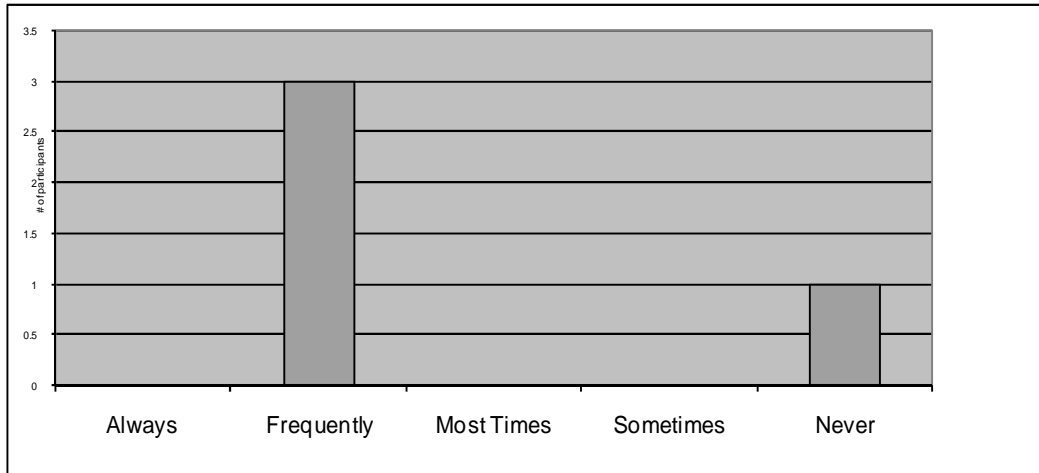
REFLECTIVE PRACTITIONERS

Outcome 9.2 Develops knowledge about effective group process.

Outcome 9.3-Collaborates successfully with colleagues.

REFLECTIVE PRACTITIONERS

Outcome 9.4 – Uses effective conflict management skills with colleagues.
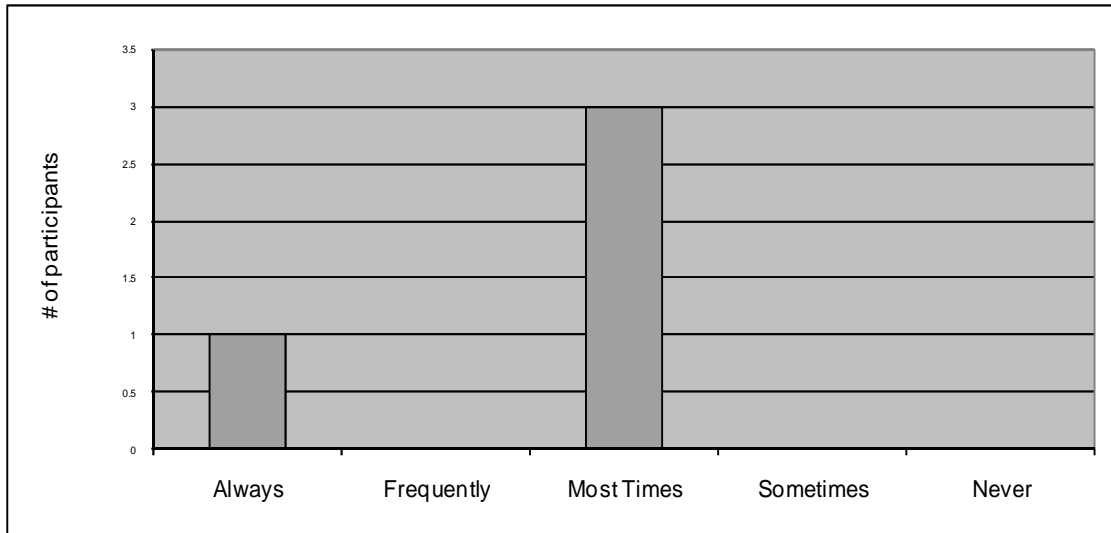

Outcome 9.5- Uses technology to support collegial interactions.

REFLECTIVE PRACTITIONERS

CONTENT

Equity

Outcome 10.1 – analyzes the impact of attitude, background, culture and social class on the teaching process.

Outcome 10.2 Develops skills that communicate high expectations for each student.
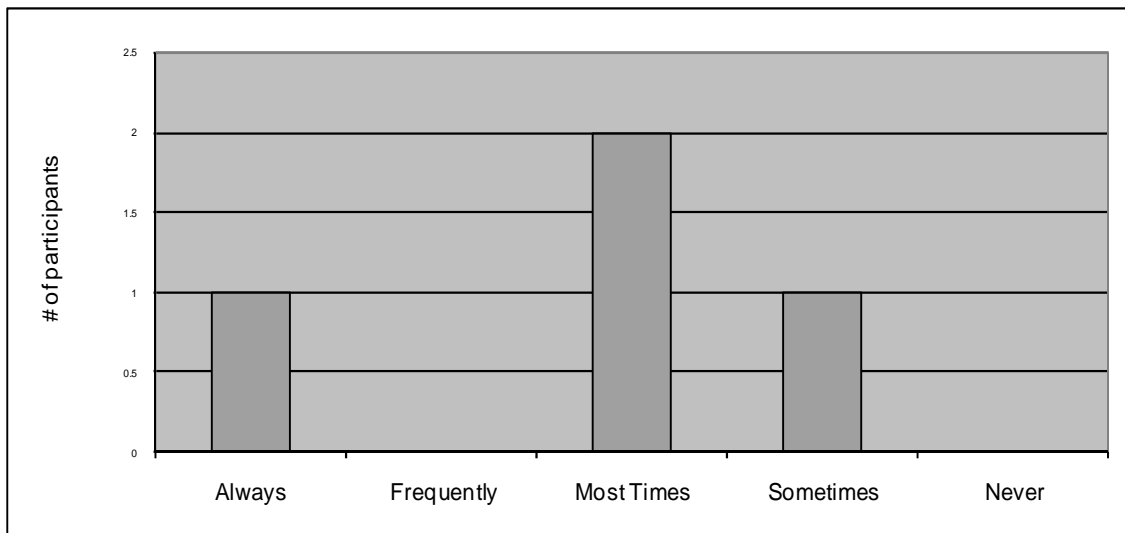
REFLECTIVE PRACTITIONERS

Outcome 10.3-Establishes a learning environment that is emotionally and physically safe.
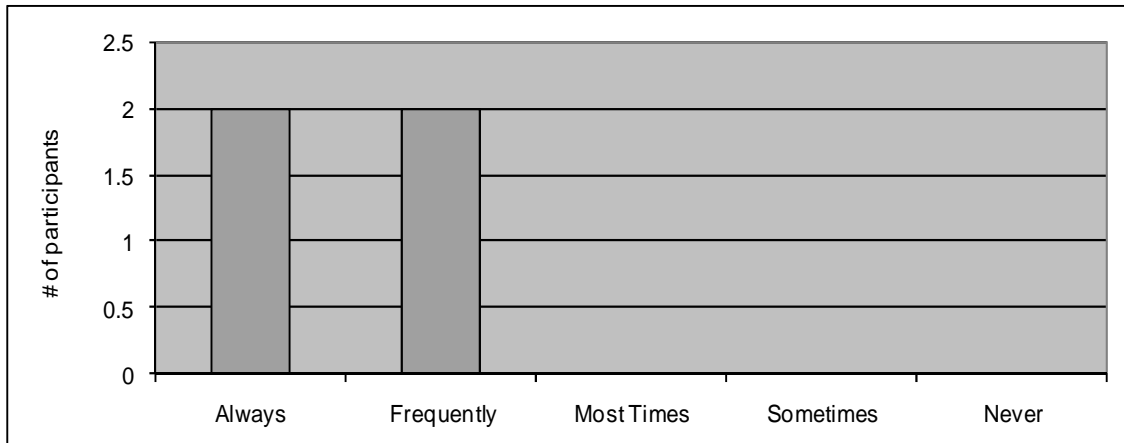
Outcome 10.4 Demonstrates respect and appreciation for students and families and for their cultural backgrounds.
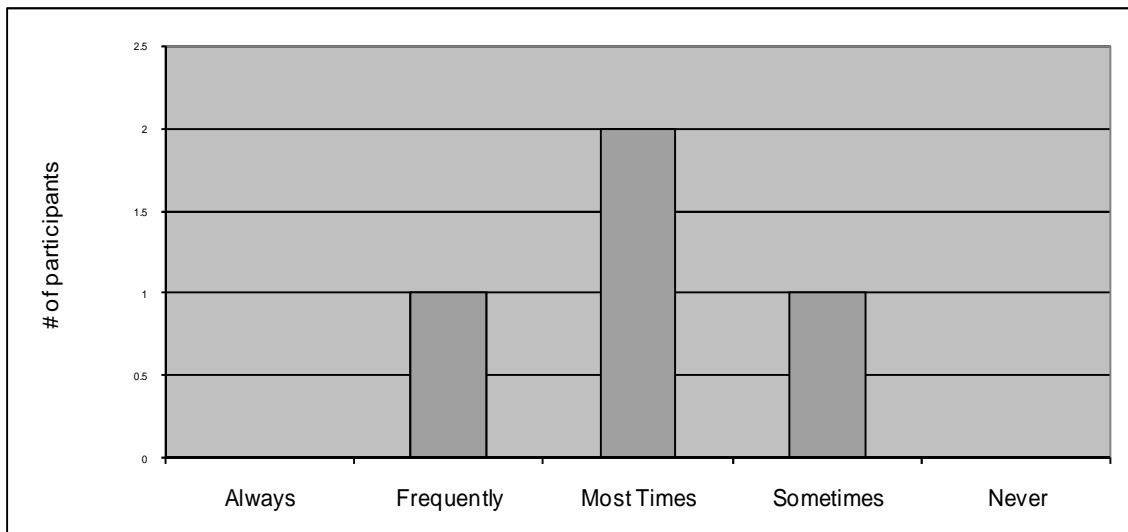
REFLECTIVE PRACTITIONERS

CONTENT

Quality Teaching

Outcome 11.1-Demonstrates a deep understanding of subject matter that helps students to meet rigorous standards.
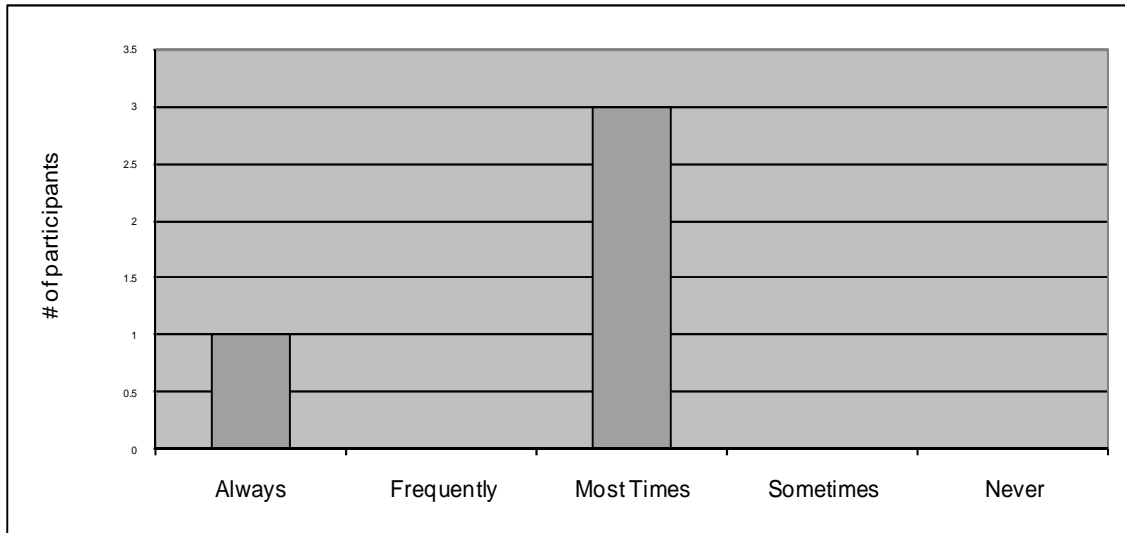
Outcome 11.2-Uses appropriate instructional strategies that help students meet rigorous standards.
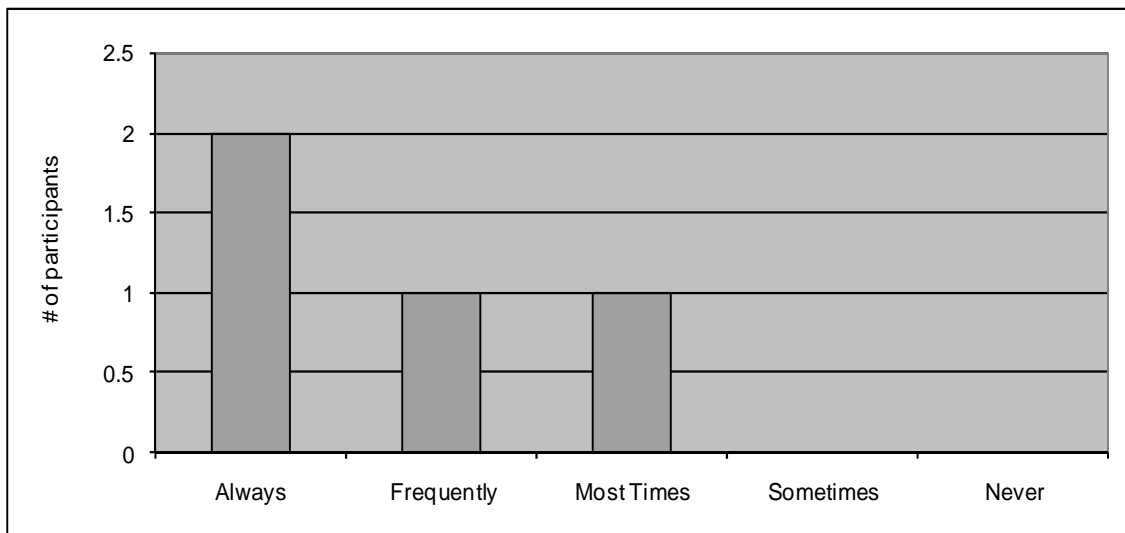
REFLECTIVE PRACTITIONERS

Outcome 11.3- Uses various classroom assessment strategies to monitor student progress
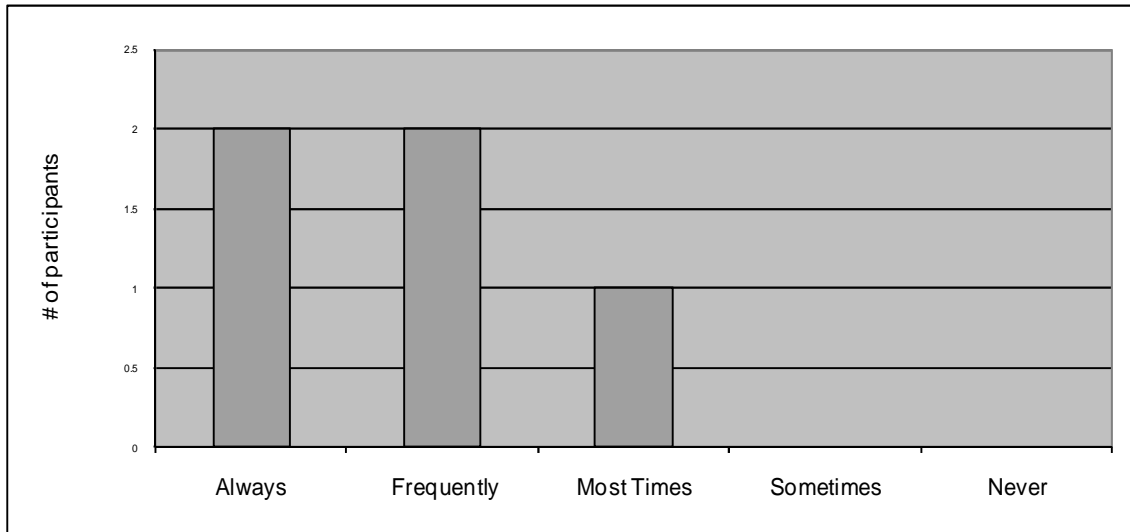
toward meeting standards.

CONTENT

Family Involvement
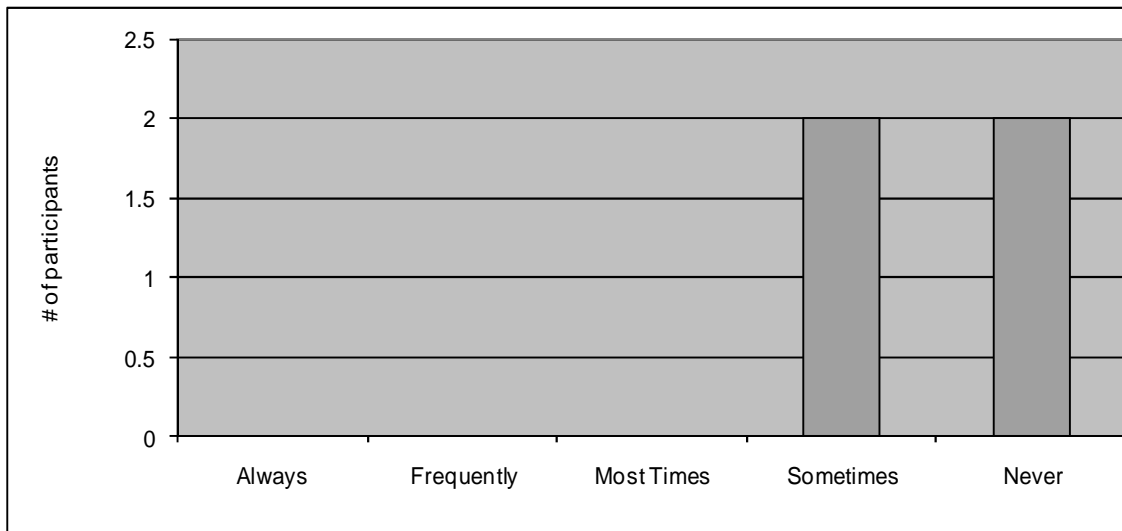
Outcome 12.1 Develops partnerships with families and other community stakeholders.
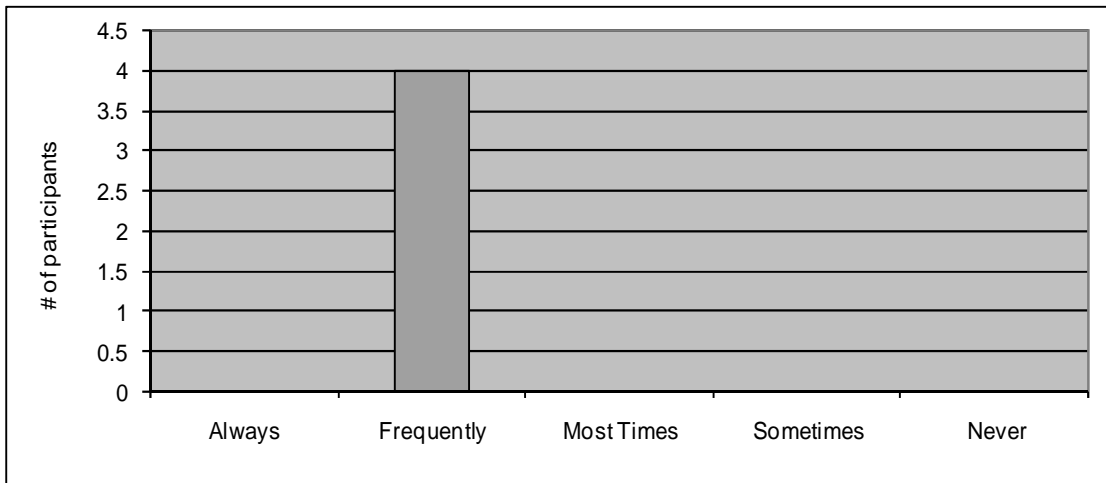
Outcome 12.2 Implements strategies to increase family and caregiver involvement.

Outcome 12.3 Uses technology to increase communication between school and home about student learning. (Reading Recovery®)

REFLECTIVE PRACTITIONERS
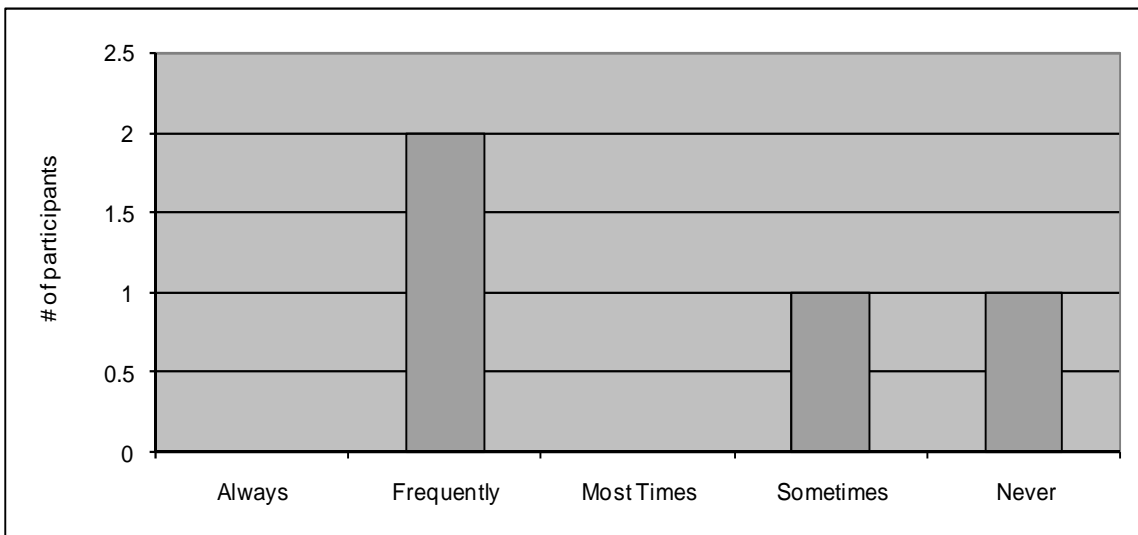
APPENDIX G

ANALYSIS OF CASE STUDY

Erica May 9, 2009

Reading
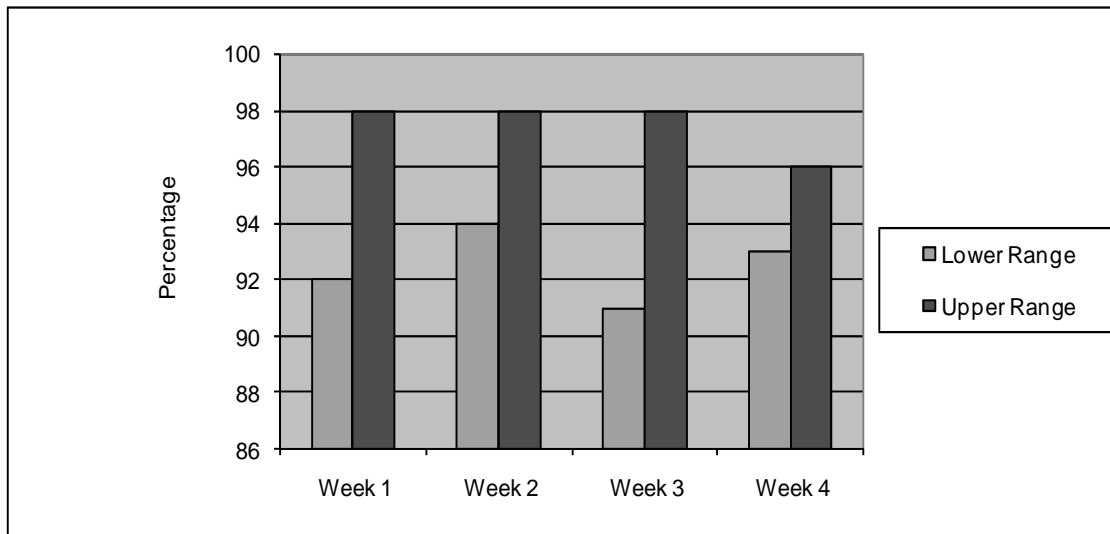
Self-Corrections
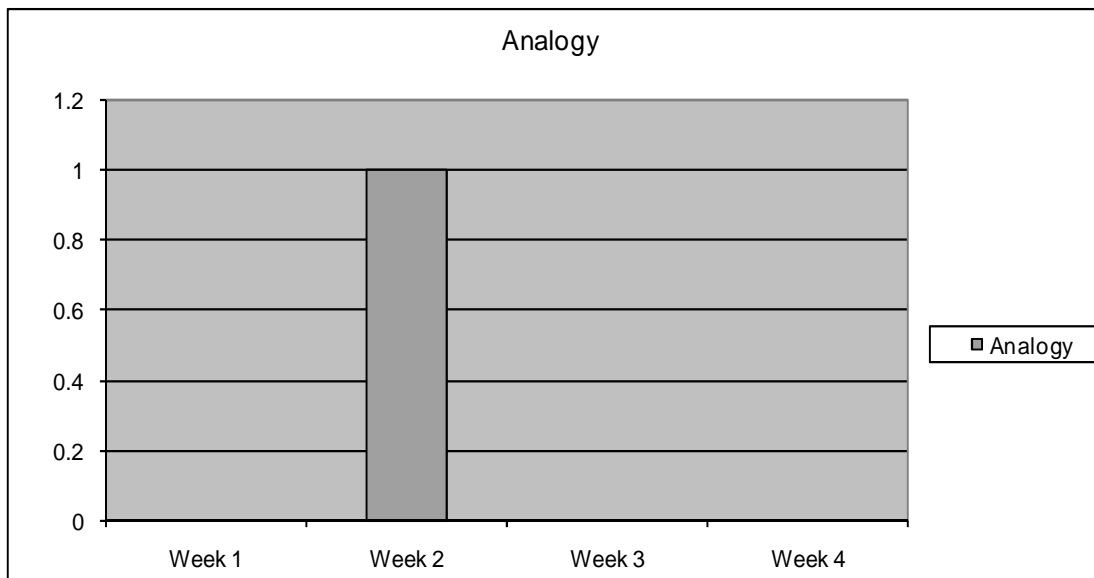
Analogy

REFLECTIVE PRACTITIONERS

Breaking
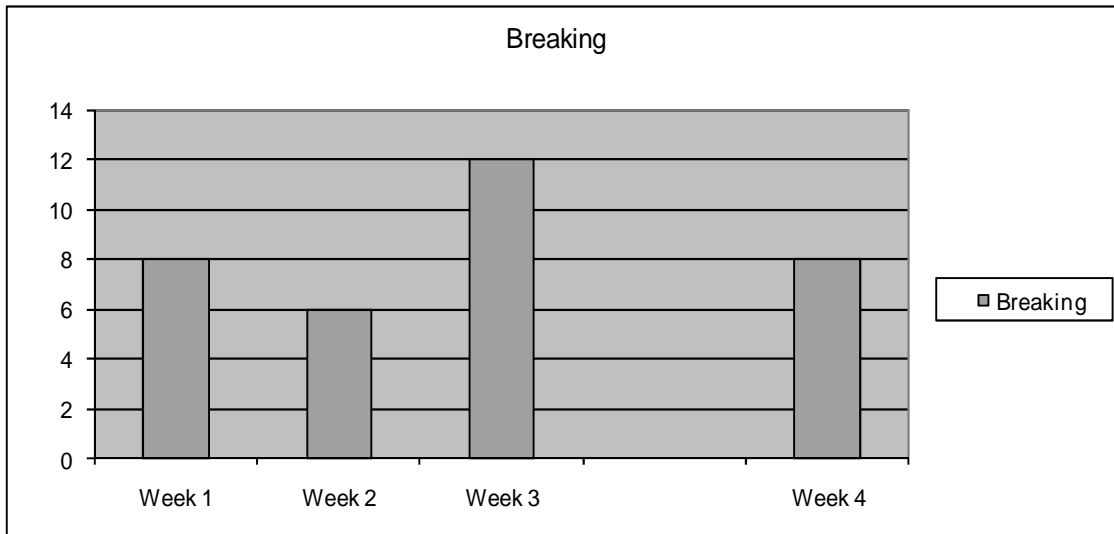
Writing
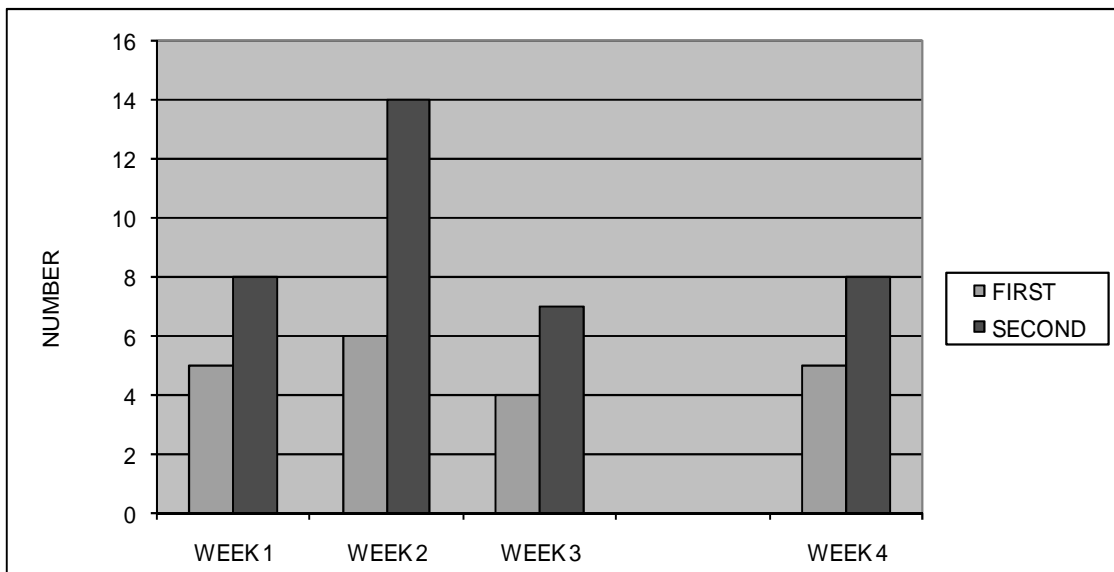
Words worked on in writing

REFLECTIVE PRACTITIONERS

Hearing and Recording Sounds

HR/Sounds

A bar chart titled "HR/Sounds" with y-axis labeled "Number" (0 to 6). Values: Week 1 = 4, Week 2 = 4, Week 3 = 5, Week 4 = 5. Legend: HR/Sounds.

H/R Sounds

A bar chart titled "H/R Sounds" with y-axis labeled "Number" (0 to 14). Values: Week 1 = 8, Week 2 = 11, Week 3 = 12, Week 4 = 11. Legend: H/R Sounds.
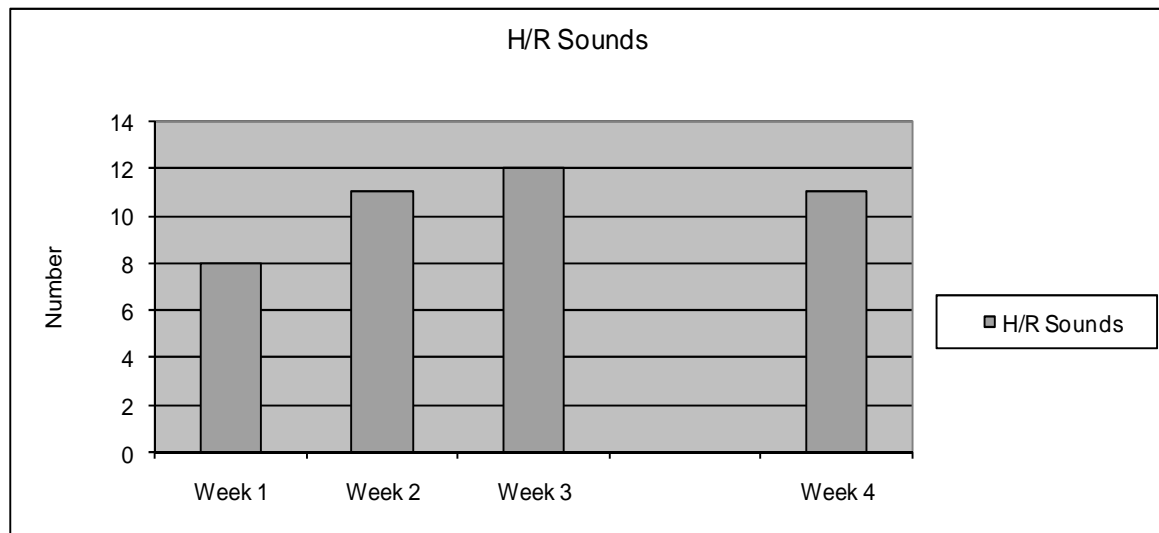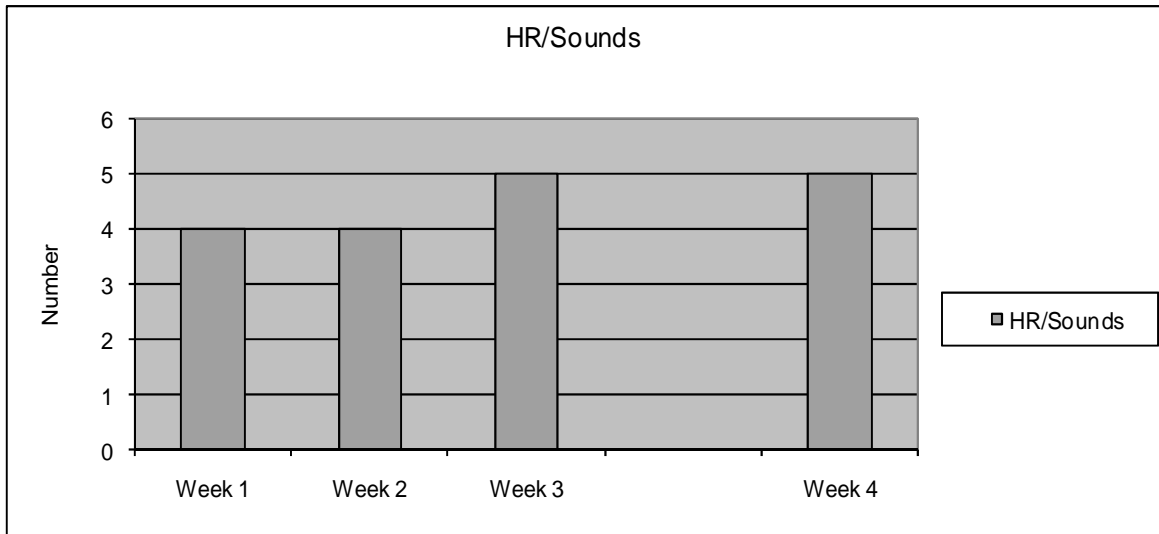
Words to Fluency

REFLECTIVE PRACTITIONERS

Analogy

Analogy

Number	

(Bar chart titled "Analogy" with y-axis labeled "Number" ranging from 0 to 4.5 in increments of 0.5. Bars: Week 1 = 0, Week 2 = 1, Week 3 = 1, Week 4 = 4. Legend: Analogy)
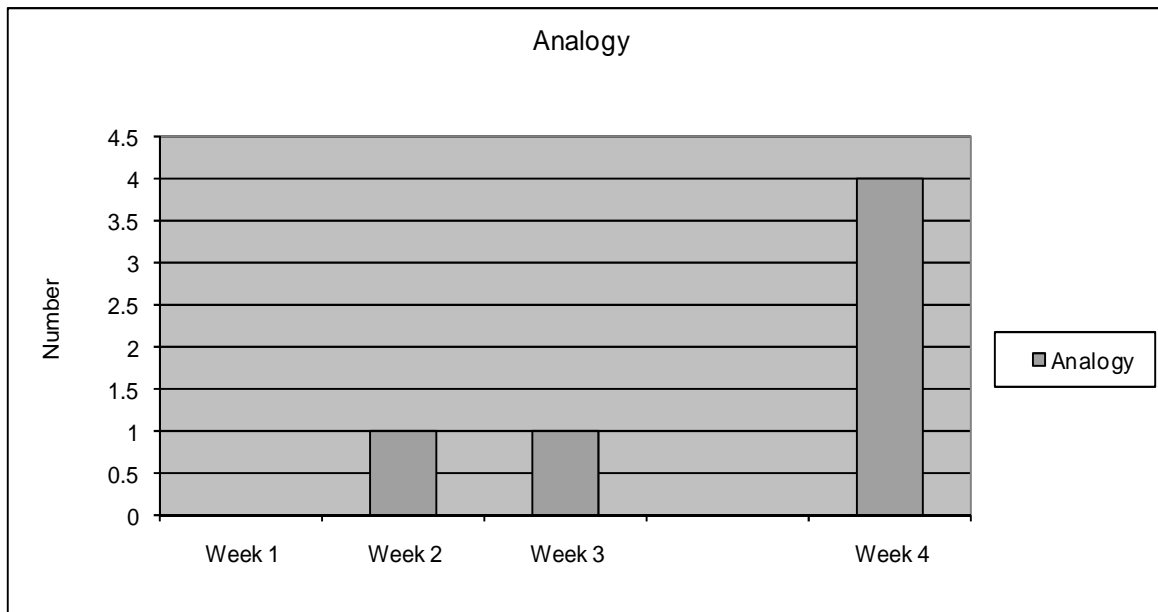
Analysis

- Wants to teach reading by using more visual information

- She learned that she couldn't forget about meaning structure – orchestration

- Important that he says and listens to himself say words slowly

- Needs to teach the child to use analogy. Not to only focus on knowing a word. Not practical for problem solving.

- Learning to search effectively to S/C

- Needs more practice saying words slowly from left to right. Independence

- "He hears me then he has to say them slowly"

- S/M in reading and writing. Repeats for fluency and comprehension.

- Has to know much more about how wds work. Using known words to get to unknown. More evidence of orchestration of m/st/v information on the run.

- Her issue is that student effectively uses visual information.

REFLECTIVE PRACTITIONERS

- In reading she words on breaking – how words work – but she could carry it further by using more analogy. Using what child knows to get to unknown. (TWA in reading)

- Wants him to say words slowly to be able to problem solve. This is a hard task that must be turned over to the child. She comments:" He hears me then he has to say them (wds) slowly." He is depending on her. He should say it slowly alone (independence)

- She is using the task but I feel that she hasn't given the means to the child for independence. She says – "needs more practice saying words slowly from left to right." Independence

- "Knows much more about how words work". In reading works on Breaking in writing words on H/R/W, Fluency, Analogy. (Reciprocal)

- But she adds that "not forget" about meaning and structure so child can orchestrate information and retain meaning/comp.

- Independence problem solving on the run on new words where the meaning is retained.

REFLECTIVE PRACTITIONERS

Nora May 9th , 2009

Reading
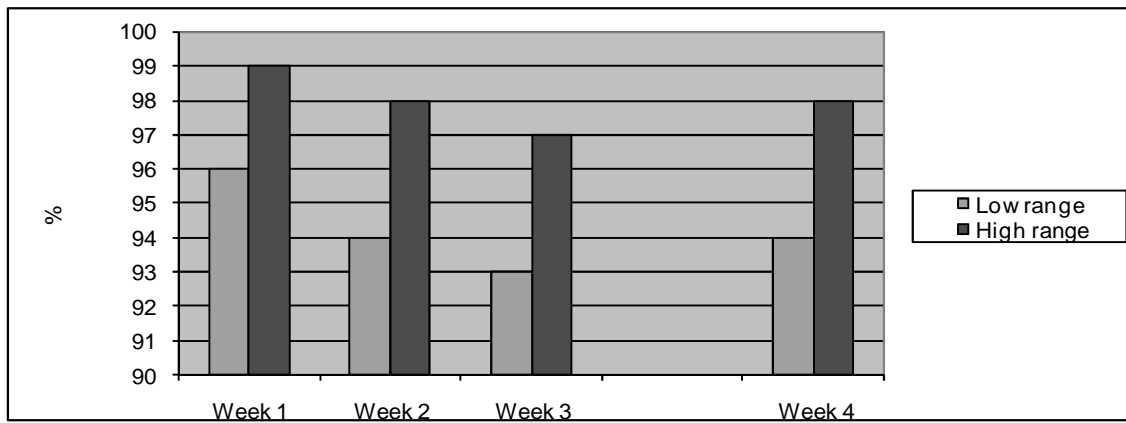
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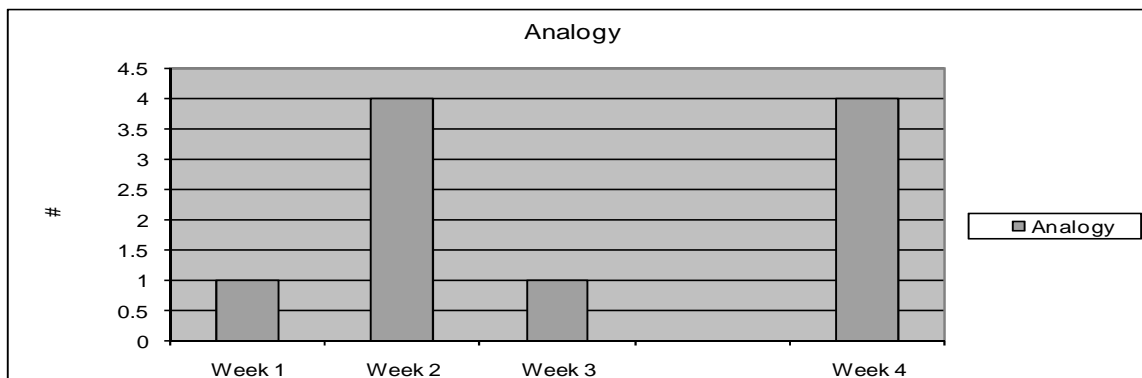
REFLECTIVE PRACTITIONERS
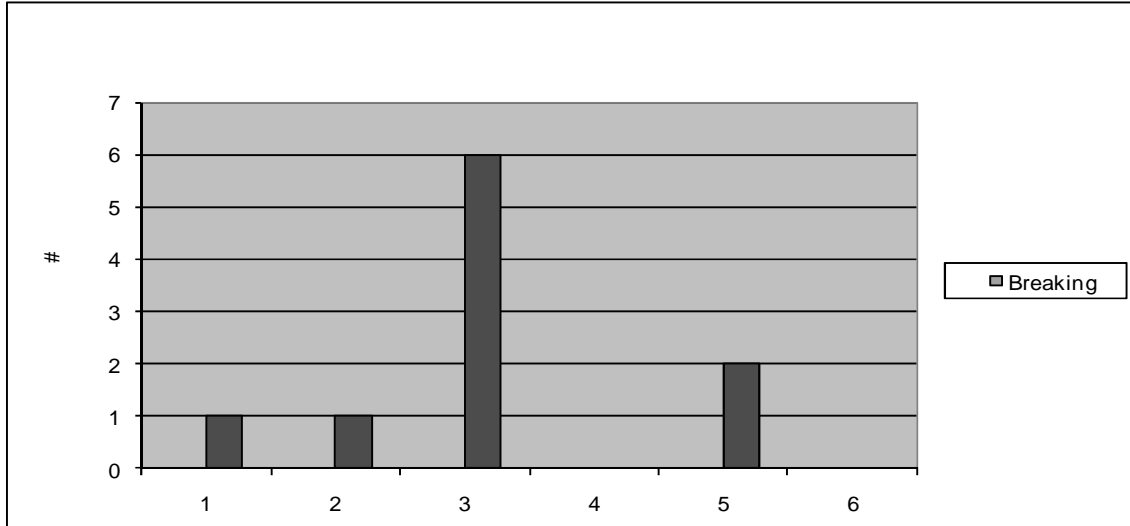
Breaking
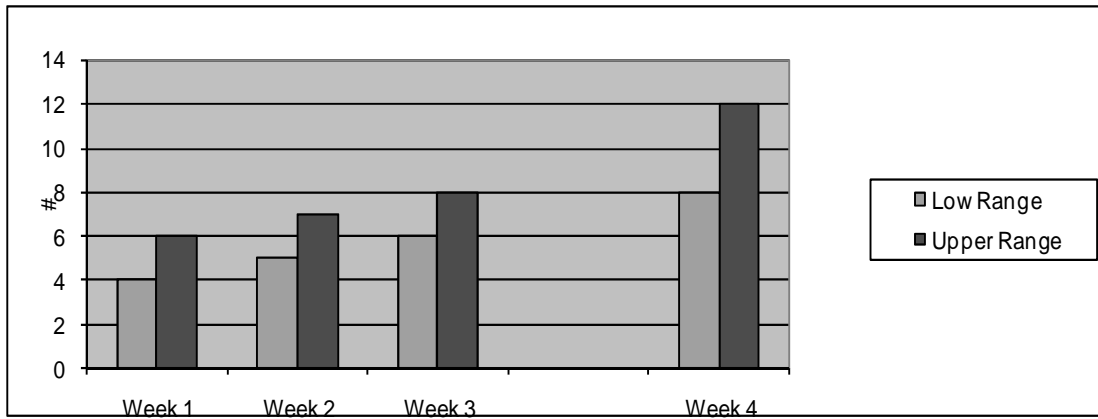
Reading

REFLECTIVE PRACTITIONERS
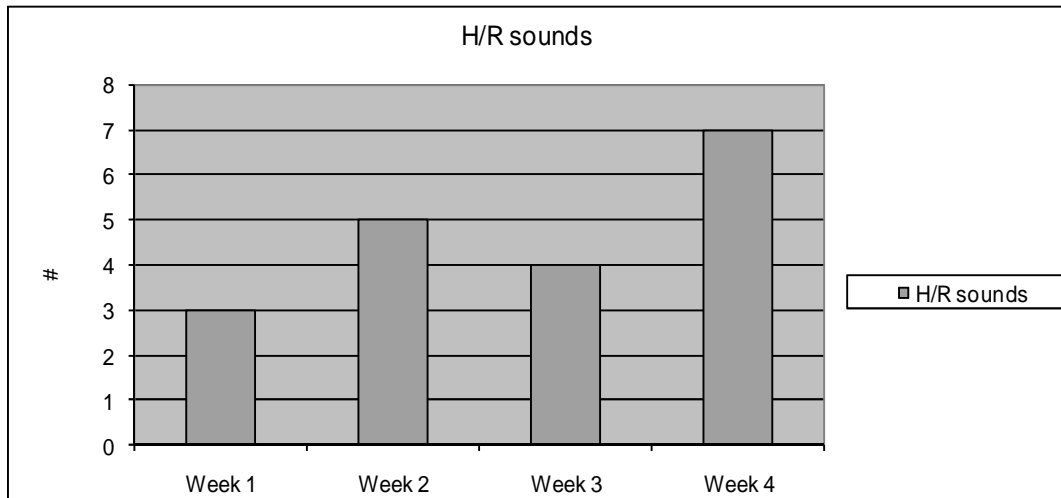
HR Sounds in Words

Analysis

- Needs to work on reading fluency – the child is not orchestrating m, st, and v information.

- Need to work on getting to new words from the known (analogy)

- Need to get child to focus on entire word – B, M, End.

- Need to ask: Are you listening to yourself? Did it sound good? Problem of orchestration

- Endings – composition – starting to take risks in writing.

- He is not appealing to me (verbal) for unknown words, he looks to me and I say "Would
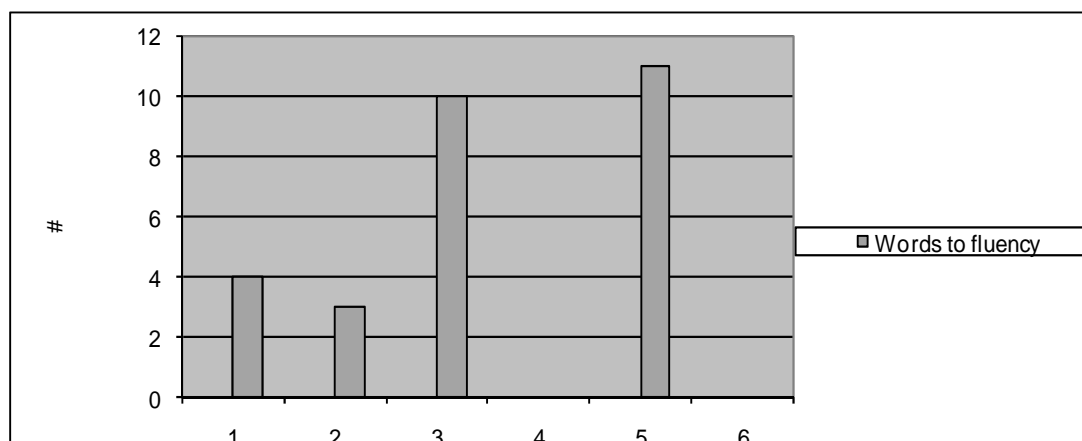
you like for me to tell you? (He just changed tactics and now is appealing through a look)

- letter boxes – B, M, and End – confidence

- Needs to learn to bring his finger back in only when he needs to find his place.

- His weakness appears in reading when he is asked to solve unknown words.

- Writing – He continues to randomly guess letters.

- Needs to work on fluency. If he is not fluent, what does that mean? Slow processing of visual information, not problem solving effectively (because of word work)

- Needs to work on getting to unknown words from known. Where does she have to work on this during lesson? Need to get child to work on whole word. This would be helped with HR Sounds and Breaking. Doing a slow check.

- He is not appealing to me"… but he is appealing because he sits and waits. Independence and it all comes to word work, m and st won't carry him.

- She is working on all aspects of word work but she is not helping the child make the connection between R + W. Has to spend more time on analogy in Writing and linking it to the work in Reading.

REFLECTIVE PRACTITIONERS

Kelton, May 2009

Reading %
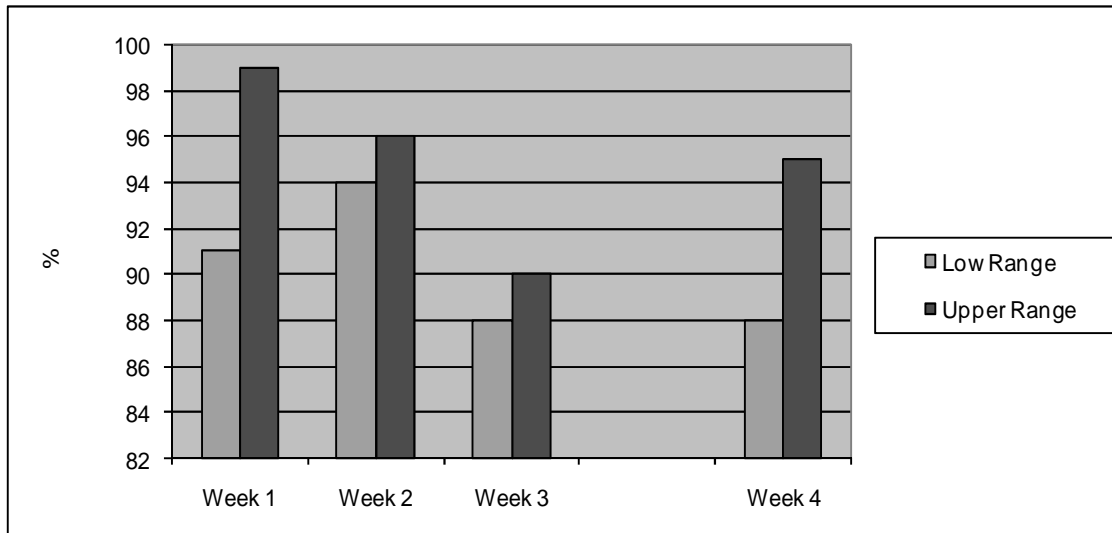
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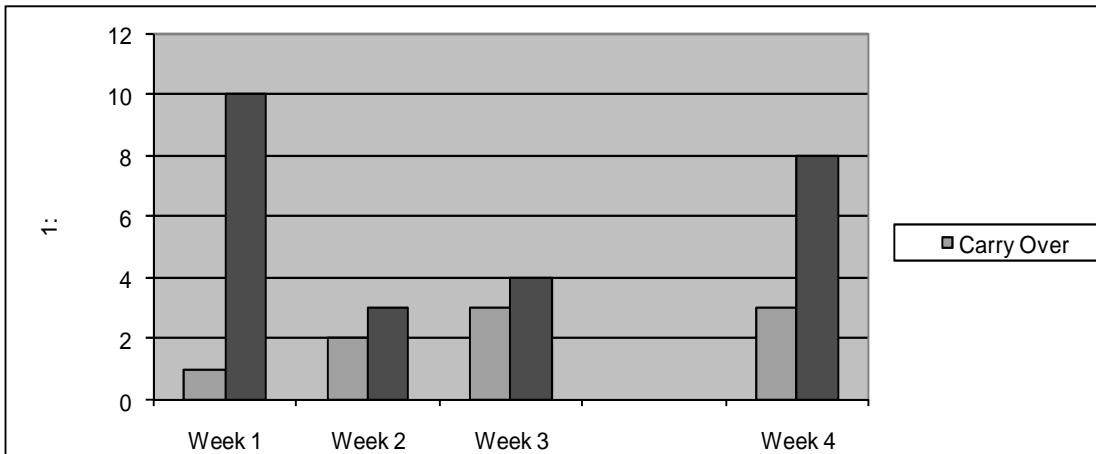
REFLECTIVE PRACTITIONERS

Analogy in Reading
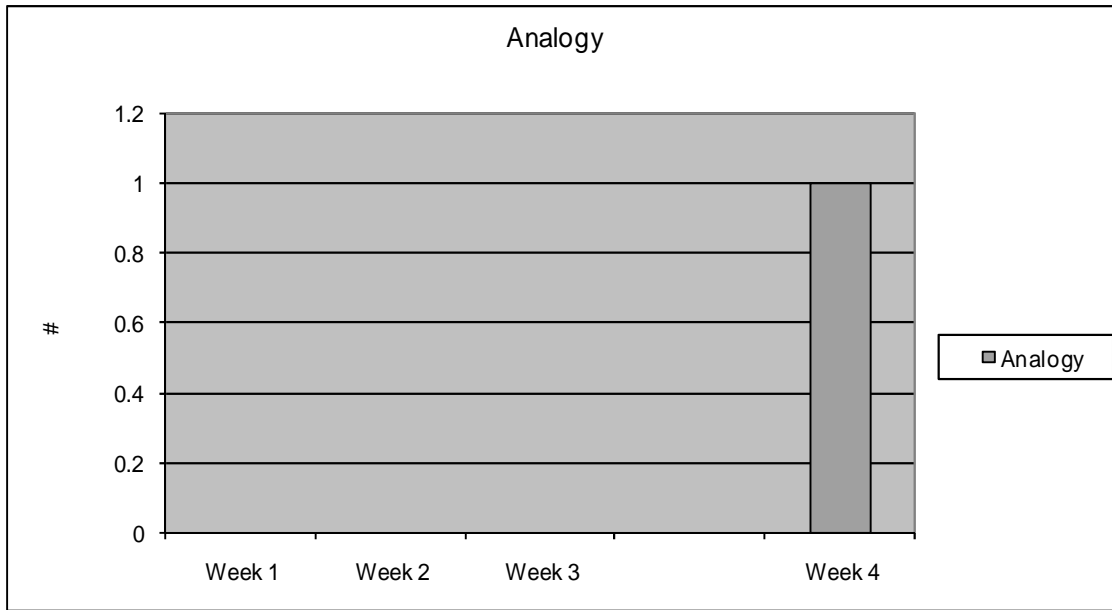
Breaking in Reading
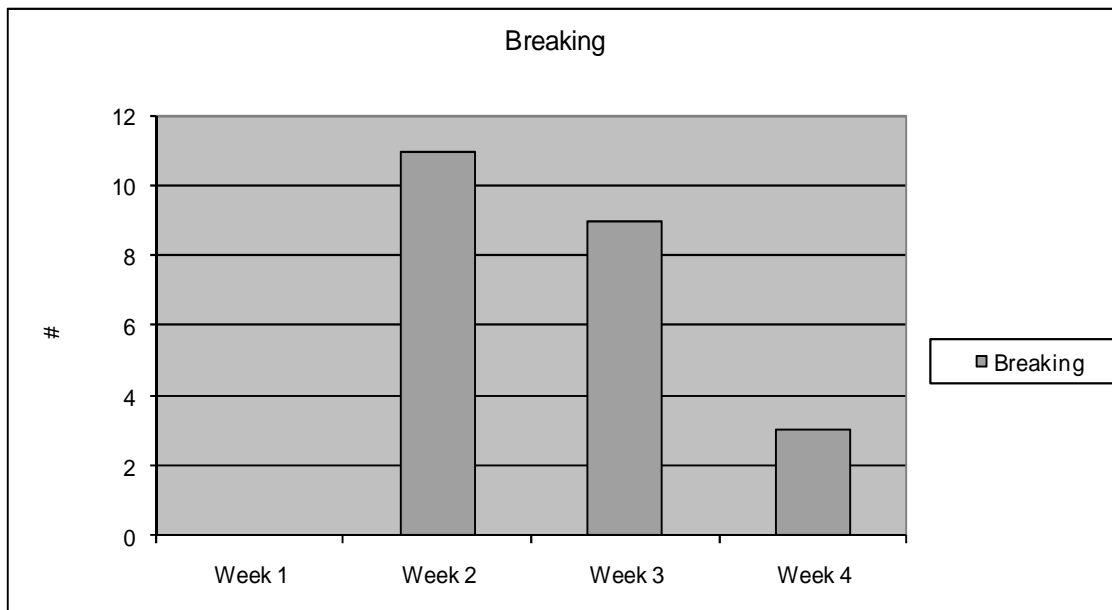
REFLECTIVE PRACTITIONERS

Writing

Worked on Words in Writing
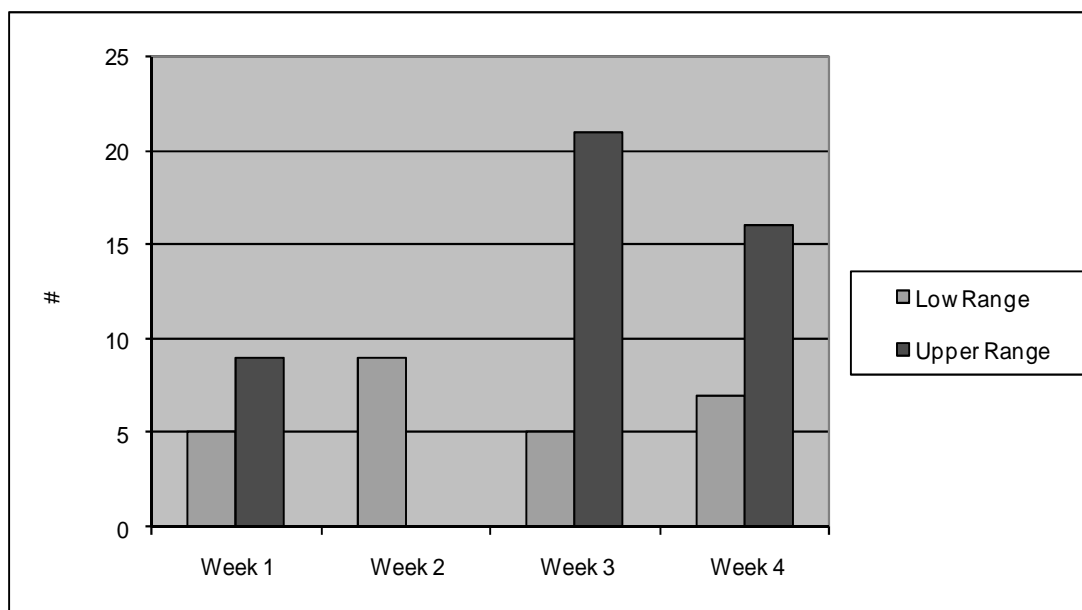
Hearing and Recording Sounds in Words
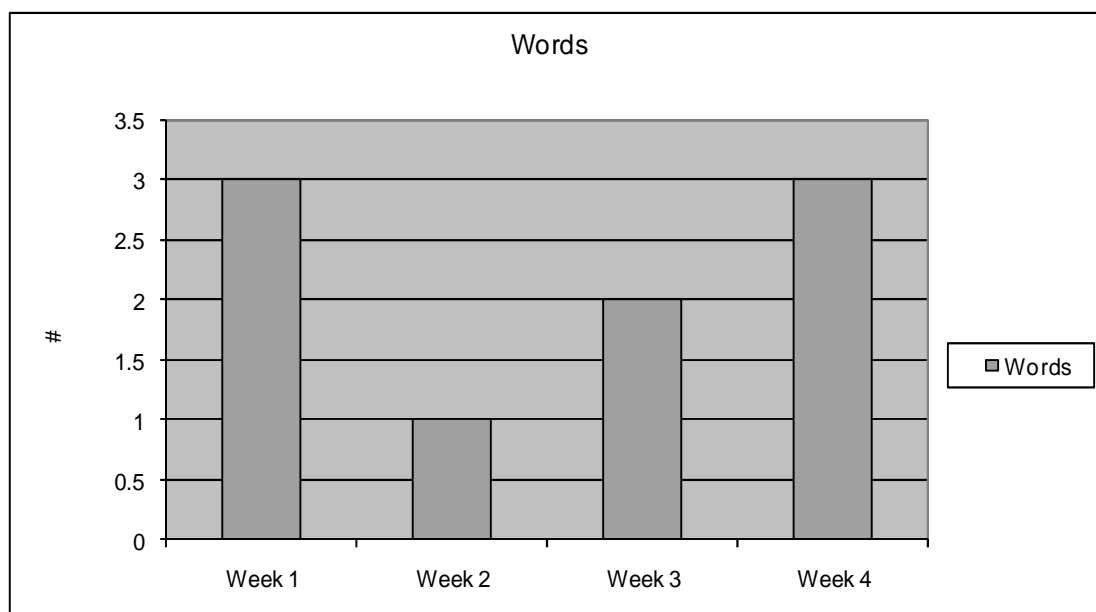
REFLECTIVE PRACTITIONERS

Words to Fluency
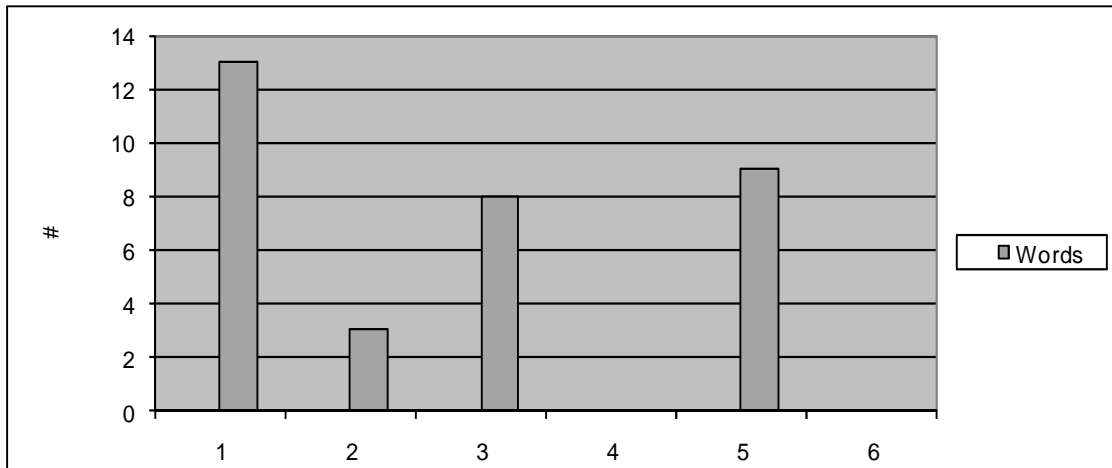
Analogy
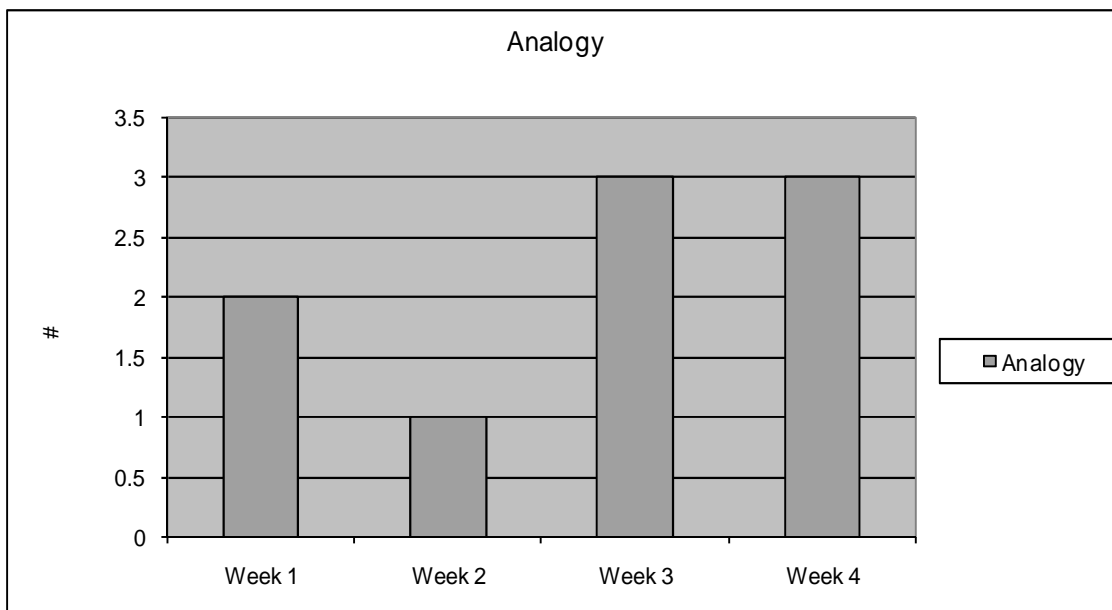
Analysis

- # of lessons a problem

- needs to go from known to unknown words

- HR Sounds needs more work

- Paying more attention to print. Starting to listen to himself.

REFLECTIVE PRACTITIONERS

- RR is a snap shot in time. "To make only one error on Monday and then make 7 the next day, shows this."

- Noticing endings. "He has also noticed that some larger words contain smaller words that he knows". He may not realize it yet, but if he sees the same word often enough and its impt to him, he will have a good visual image in his head. (Practice-reciprocal)

- Missed 2 opportunities to write…children can get "too comfortable" with you and try to take some liberties. (Management) I got him back on his game within the week using my experience from 1st round.

- He can do it (more confidence) Nora is learning to use sound boxes to attempt words. "He's hearing sounds in order with more consistency. He would often hear the last letter and write it down first. He is also expanding his knowledge of suffixes …noticed more frequency.

- Use of elconan boxes. Forces the child to listen for independent sound. Helps to reinforce L-R directionality.

- Greater understanding of how words work – leaving spaces. Starting to go from known to unknown (end-friend)

- Keep in mind that meaning and structure must be maintained. "I didn't realize completely how new readers don't just compensate for these (dropped suffixes) in the flow of the sentence.

- "RR is a snapshot in time…" Tells me that child is using memory and not problem solving.

- "he may not realize it yet…" This is the reason why we practice words (Fluency). Can't only depend on this – has to problem solve.

- Kelton is weaker in R voc. Than in writing. Hasn't gone from K to UK in R. Means that not enough reciprocal in R+W

- Management

REFLECTIVE PRACTITIONERS

- Hearing sounds in order with more consistency. Has to problem solve from L to R. "Forces the child to listen…".

- "Starting to go from known to unknown…"

- "I didn't realize how new readers don't just compensate for these…"

- Has to make more of an effort to reinforce reciprocal nature of problem solving words.

APPENDIX H

Conversations after sessions

Conversations: June 2nd, 2009

Process

Term 3

Organization

Organization

- It takes a tremendous amount of time to reflect and form your practice. Use this as evidence of why we should have more time added on to our assignment.

Theory

- Good base

- I thought it would come naturally and it doesn't necessarily come naturally.

- RR assessment is a snapshot in time

Observation

- I had to think of what I had learned

- I need to learn this to be able to do that

- He has accelerated so much in R, now I have to go back and focus on words

- Need more time

- Working hard

- Learn by making Bo, Boe's

- I got a deeper realization on the sound boxes and they really work quite nicely.

- The need for instant gratification made my students resist longer texts

- When writing she is using familiar words

- At times things taught are forgotten.

Practice

- Assessment

- Formative and summative

- Hard

- Process

- Looking at me and waits

- Be own audience

- Time-miss opp. To get some writing in

REFLECTIVE PRACTITIONERS

- Try it – evaluate results – make a decisions

Content

- What beh. Should we be seeing at the end of a series of lessons?
- Think
- Learned
- What can child do in R + W
- Evidence
- Solve using strategies
- Problem Solving, Self-Correcting, Monitor
- M, st, v infor
- Sound of Reading
- Verify what I know
- Construct
- Conversation-compose
- Break apart words in writing analogy
- We have to do more on studying vocabulary
- How do you get child to study a word – to know a word?
- Risk taker
- Scaffolding
- Change over time
- Capitalize and punctuate
- Put up an editing reminder on wall
- Up in reading has issues in Writing
- Knowing the word –How to learn it – Practiced H/R/S – Has worked on word

- Independence – internalize
- What have I taught today
- Look
- Focus of lesson
- Modeled
- Articulate slowly
- Benefit her
- See progression
- Writing vocabulary
- He has learned
- You could see it build

REFLECTIVE PRACTITIONERS

- Focus on building unknown vocabulary
- Bits and pieces of what I have learned.
- Fluency
- Structure – not structure but monitoring
- What are R + W?
- Did the vocabulary increase?
- No transference
- Connection
- Read out loud-Maybe they have to – to hear themselves
- Starting using sound boxes (Elkonin boxes)
- Forces child to listen to ind. Sounds in wds. Instead of trying to remember the letters.
- Comprehension
- I assumed
- Prompting
- Independence
- Strategies
- Transfer it to class
- Strategies
- Push him to go faster
- Without a lot of dialogue
- Finish the book-the story is important
- Make connections to her writing
- Check all sources of information
- predict
- breaking
- Taking Words Apart – looking – reread – S/C
- Doesn't make sense
- Analogy – endings – make links

Context

- I don't know what I learned. That is the hard part!
- Meant to make you think
- The hard part came when I had to analyze
- As a teacher you have to be able to do this – articulate evidence
- What has you child learned?
- What are you going to teach tomorrow?

REFLECTIVE PRACTITIONERS

- What have you learned?
- What do you now need to learn?
- Life-long learning
- Reflect on
- Evidence
- Where do I need to go?
- More of what I need to teach him
- I should take more chances on how I go about teaching. I will never know what could have been possible.

REFLECTIVE PRACTITIONERS

Conversations: May 19th
Process

Organization

Theory

- Learn the sound boxes
- practicing

Observation

- think about the progress
- self-analysis
- You teach to the learner

Practice

- purpose
- description
- summarize
- Need to have the experience of discontinuing
- We don't penalize
- Go back
- Pick up on little cues
- Take control
- Model
- Hesitant – loosing meaning

Content

- change over time
- self-evaluation
- hard to accelerate plan
- recommendation to discontinue
- Writing vocabulary – independence
- Monitors for meaning/structure and visual information to problem solve
- At times will neglect meaning and has to be prompted quite a bit for him to gather that meaning
- Teaching points
- Independence in writing

REFLECTIVE PRACTITIONERS

- I felt like I was stopping him from writing
- Work hard
- Breaking words where needed – relevant
- Reading so word for word
- Not anticipating
- Idea that every word is known
- Emotion – panic
- Focused on item knowledge
- Still focused on knowing all words
- Needs to bring in structure and visual
- Needs to visually process
- Cut up sentence
- Phrasing and fluency
- Builds fluency
- Writing – model – progress
- Scaffold
- Assessment
- Self extending system – what is it?

Context

- Not learning how to teach children at higher levels
- Self-assessment
- Journal – What have I taught today? What do I need to teach today? What do I need to learn? What have I learned? Like the prompts…you need to get this in your head.
- Concentrate on positive strengths. Something I learned this year is to go from positive
- Knowing her student. Someone doing RR and child come back to classroom. I wouldn't have a clue. The benefits are there of knowing the child.
- Have to be given time.
- Administrative time
- Play duties off one another. You don't have enough time to do everything.
- I wondered what else I could have done.
- This means that in Grade 2 that teacher should be reinforcing the same strategies.
- Need for early years PD

REFLECTIVE PRACTITIONERS

Conversations: April 5th
Process

Organization

Theory

- Observation survey

- Different variables

- At risk

- Summative vs Formative

Observation

- Observe change

Practice

- If they would go back and reread it is all there – time the issue

-

Content

- Theoretical background

- Practice

- Orchestrate

- Theoretical rationales of observation survey – classroom teachers

- Some part of the survey I am still not comfortable with

- Time an issue

- Differentiation

- We need to speak the same language

- Knowledge and thinking = change

- Practice

- Standardized tests – what are there functions?

- Re-reading + practice + rereading = understanding

- Make sense now

- Thought that R+W were two separate things

- General knowledge (background) is important constructs our meaning

- Seeing print from two vantage points about R+W.

- Learners should improve whenever they R and W

- Early behaviours- what is a story? Make sense?

REFLECTIVE PRACTITIONERS

Context

- Discontinued at Level 16 but hadn't made any more progress since then

- Very little R and W going on in their lives

- Bridge that gap from RR to Grade 2

- Obs. Survey – would take about an hour to admin.

- For classroom – target the children who you don't know – at risk

- Evidence – What do you know? What do I have to teach

- Who can help?

- Need help – teachers

- Have to take teaching further

- Value what is known, but then teach

- Learn

- Look at different ways

- Lots of teachers who don't understand how to teach reading and writing.

- Co-teaching/build relationships in school/little at a time/feedback

- Learning is social

- Constructivism

- Professional Learning communities – book studies – social network – working together for the betterment of student progress

- It is the best PD you can have

- Book study on RR?

- The whole notion of PD for teachers depends a lot on background knowledge but also our way of teaching is determined by how we were taught. We can be taught theory when we come back to classroom we revert to how we were taught.

- If you don't know any better you will revert to the known

- I think we have to focus on early years

- What is reading? Ask your RR kids, why do you read? …It's never I like to read

REFLECTIVE PRACTITIONERS

Conversations: June 2nd, 2009
Process

Organization

Theory

Observation

- Look at where you were at ..at the beginning and at the end of your RR PD sessions.

- Didn't know at first at end ran out of ink.

Practice

- Alternative assessments-finding as many diff. ways to assess as possible. Formative and Summative – day to day and end of year

- Action research

Content

- The ability to think on own and problem solve

- Concentrate on all the positive

- Meaning is the overlying thing

(I was disappointed that the group did not mention that: the use of m, st and visual info to monitor, search, S/C and problem solve and continue to read.)

Context

- Theory of how to teach R+W

- Never really stopped to think about how they learned to read.

- Just thought that they should know how to read

- Not something that was directly taught to us

- Assumed

- Never really thought about why.

- Teaching letters in isolation. I don't do that now.

- Taught daily

- Progression of understandings

- Continue to grow in understandings

- Purpose

- Writing – different genres – diff aspects of writing

- I didn't know how they learned to R+W. They just did.

- Initial brief, now elaborate

- Could defend what I wanted to say

REFLECTIVE PRACTITIONERS

Conversations: April 3rd, 2009
Process

Organization

- Code it

Theory

- Prompting – A call to action –
- Assessment – summative and formative
- Formative assessment in RR
- Observation survey – summative
- RR – assessment to know where you are going in your teaching
- Drives your teaching
- Formative – RR, lesson record
- Looking
- Reading fast fluent – pace
- What I have to do for you to increase your learning? Reflect on your learning. Reflect of your students learning.

Observation

- This work is challenging
- Student relying on me
- Pressed for time
- Hurry
- Take away your voice

REFLECTIVE PRACTITIONERS

Practice

- Her way of teaching is reflected on this little guy

- Always pressed for time…when you rush you take control

- Communicate

- Fully engaged

- Change

Content

- Watch yourself on a video of your lesson.

- He is getting the reading up but the writing "not at all"

- Asking "how is he doing"? Gather information from teacher

- Inform your teaching

- Observation and recording

- Modification

- It drives our daily instruction

- Communicator – Interrogator – Directed-Misdirected

- Predisposed/habit

- Ask myself a lot of "W" questions

- Attack a problem/the logical assumption

- If it's right for me that it is right for others. Try to impart that same line of reasoning on others

- Go where I want you to go (influence your decision)

- I try not to start conversations – participate

- I think that I am all of them

- A continuum?

- Direct

- Students – misdirected? Modulate that back into..try to derail

- Coping mechanism?

- Independence – problem solved/self-directed – risk taker

- Punctuation

- Prompting

- Telling him

- Tactile

- Breaking

- Composition – a lot of time on writing

REFLECTIVE PRACTITIONERS

- Working on words – say the wd slowly to hear himself ..say it …listening to themselves…saying it slowly because they can hear themselves…translate into letter and be able to put it down.
- You say it! It wants you to hear yourself say it and he didn't want to do it.
- Start from beginning – depended on me – got into habit
- Prompts – internalize
- Writing seems to be an issue
- Work has to be meaningful
- Interdependence?
- Remember/practice/show him/orchestrate
- The words
- Talking a great deal
- Verbalize
- Control over to him

Context

- How does this translate to classroom?
- Discuss with teacher – conversation daily – specific in your communications
- Sharpens my teaching of students outside of RR.
- Think about doing some mental notes on some children – what worked/what didn't
- I am going to have to change my approach. I get to the middle of unit and it falls apart.
- In the classroom it is continuous and on going
- I just have a piece of paper-it is blocked off with names – it can be done quickly
- What have you learned about yourself as a communicator?

REFLECTIVE PRACTITIONERS

Conversations: April 1ˢᵗ, 2009
Process

Organization

Theory

- I said no to him, but I should have said: You said.. Round makes sense …What would you expect to see?

- Memorizing it?

- Know the concept – reason?

- Learning is a social activity. Need to socially spend time with them – reading and writing with them. Constructivism

Observation

- Parents involvement

- Guessing?

- Processing so slow

- Not typical of him

- Trying to memorize everything

- If you could see his eyes – if we could map where their eyes go it would be fantastic

- We teach from our assumptions about how children learn.

Practice

- Missed lessons

- Regret

- What is slowing him down?

- He needs more practice. I just had 2 lessons.

- I love that we are critiquing so much from a lesson.

- Teacher journal – self analysis

- Focus on the writing part of the lesson

- Disconnect – not processing

Content

- My understandings increase every time I see someone teach

- Share what I have learned

- The reciprocal nature of H./R sounds in words in writing and TWA in reading

- Transfer

- Hear, process and record on their own

- A slow check of the word

REFLECTIVE PRACTITIONERS

- Processing – listen , process and write
- Bring that together
- He went back and did a slow check
- Transference
- He does it in R and W
- Prompts to confirm
- What does it mean to problem solve in reading? What do you see? What is your evidence? What does it mean to problem solve in W?
- What did you teach today?
- What are you going to teach today?
- Go back-look-problem solve
- Analyze – will refocus your teaching
- Process
- Strategic Activity – orchestrate/TWA?HRS?Taking words to fluency/Analogy/bring all of this into the equation
- I keep saying "you know" because I am trying to relate it to what he knows
- Prompted for fluency
- Good book intro
- Independence
- Say the letters over and over again . Visualize it – over and over
- Confusions
- You could really see him try to process
- If you say it to them they will eventually say it to themselves
- Bring that together
- Linking sound sequence to letter sequence – H/R sounds in words – Breaking – TWA
- Successful problem solving – take the child back to something he has worked on successfully – known to unknown
- Always work from known
- In this chapter it tells you how to work with words. You can work with words anywhere
- Learning how words work
- We have to break it down to understand – anytime – reciprocal
- Differentiate

Context

- The things that we had to read for this session were perfect. You are trying to get him to process it in his head. He should know it quickly. So slow
- When I watched him in class he couldn't find the compound word. Just to re-enforce for him.

REFLECTIVE PRACTITIONERS

- Connection to class

- Sometimes the teachers are not doing the best practice. Right?

- Can I tell you what would make an awesome primary lesson? You do rhyming and they are trying to change the middle. They don't understand this concept. Phonological awareness.

- Work more on how words work with my class . Can use the H/R sounds task with students in classroom. Modify it.

- All of my Grade 3's would benefit so much from this task. (How to hear and record sounds slowly)

Conversations: April 9th, 2009

Process

Organization

- Anger management – you can't focus on anything else – trigger – brain

- Organization of lesson to make it easy

- Problems with technology – to do video analysis – computers down.

- I wanted you to take the time because you are not given the time to do this important part.

- Letter perception – When she goes to the board she tells her what to do.

Theory

- Studying letters /sounds in the writing sections

- Make that connection for him

- Too much to figure out

Observations

- I started out in RR thinking that it was right or wrong, now I give the benefit of doubt, why we start early try to unteach the things that they have learned

- If you think in the negative that is what they will give you..reaffirm that maybe in thinking that he is not doing work at home

- It opened my eyes to the fact that I might have to teach more

- He had so many difficulties..not just one ..phone awareness, home life, etc.

- Learned certain things – hard to unlearn

- Recognizing learned behaviors that are detrimental to progress.

- I would like to know your comments on what you saw.

- Rethink my known because I didn't realize how many sounds and letters he didn't know.

- Do you ever see in your experience that children on behavior plans act up because they are acad. Frustrated…then because they act up missing a lot? So they come in with fewer skills?

REFLECTIVE PRACTITIONERS

- You have to know what independence looks like.

- It takes so much time

- Learn about my own biases.

- Last section of training is putting it all together and being able to analyze your own teaching and knowing where you are going and what you have to learn.

- What have you learned?

- What do you now have to learn?

Practice

- How do you teach? Particular problems…How do you teach a child with particular problems or issues?..

- How to deal with anger?

- There is a whole host of things and I was only focusing on one

- Resistant to attempt whenever he is pushed beyond his comfort level – shut down

- Parents understanding of what we do.

- Educational practices have changed so much since we went to school.

- Children are expected to know much more than we did.

- Strong skills that block learning.

- After first two weeks and child is not making progress, check up on teaching./videotaping

- What could I be doing differently? What have I learned? What am I going to do now? Where do I go now? Guidebook

- Is there a right way? Teaching decisions – focus.

- Writing – composition from reading book – transference

- Allow flexible formation of story.

- Time spent on writing

- I wouldn't have time to do all that.

- What have you learned?

- How do I know that?

- Constantly ask yourself:
  What am I teaching today? Have I taught it? Do they know it?

- Parental support is important.

- Is it not a preconceived idea…about progress? Then they need it even more and we have to figure out a way that they can get this.

- Practice the word

- Knowing your students

- I am running out of time.

- What did you learn today?

Content

REFLECTIVE PRACTITIONERS

- Nice to see that the children only needed initial book intro.
- I tried everything I could with him.
- Closing the gap
- Not discovered a way to help them learn
- The brain is complex. Doesn't go beyond the part of the brain for learning. It stops before it even reaches there.
- Focus on learned bad habits
- Understand concept of letter sound associations. That you transfer sound to letter and letter to sound that it is time to start switching them so that they realize that they can't go up to grade 6 using invented spelling.
- Being accountable
- Invented spelling comes back to his meaning and understanding of what is writing.
- Transference of writing skills
- Get you to look at your own teaching – analysis through video.
- Can you give some idea of how to get to sounds if they don't know them.
- Focus on writing section to get to letter sound associations.
- Have a lot of strategies for avoiding – works well for them – smart kids – use his powers for forces of good and not evil.
- They have come so far in understandings and concepts.
- When you do letter recog. Should you do sounds with it?
- Roaming around the known
- Do a lot of writing. You would notice in writing if he didn't know the sounds. Make letter to sound associations
- Phonological awareness and letters. I feel that I have a really big obstacle to overcome
- Teaching concept in isolation versus in context.
- Promote a lot of independence.
- Prompts – Get comfortable in using a few, then vary them.
- What is independence in Grade 1?
- Never assume
- Independence in writing
- When I was doing boxes he had already made the connection that each box is a letter.
- We don't know how much writing is going on in the classroom.
- They are not learning from copying
- How do you build fluency?
- Processing taking place. Put it together – orchestrate
- How do you think it sounded? Carry it further.
- I am so bad at getting to new words.

REFLECTIVE PRACTITIONERS

- I don't know

- Practice some of the structures

- Meaning is the key

- Asking them to access info- meaning, structure and visual information

- Reread sentence from day before – trigger comp., wd. Recog., own voc., familiar reading,

- How to get more vocabulary?

- Low level processing

- Sound boxes – awesome

Context

- I don't consult this section enough in guidebook

- Find a balance in your teaching. This is where you have to be able to analyze your teaching.

- What you said there makes me think of in the classroom kids that are just copying down are not making any connections. That is a big, big learning thing that you just mentioned. Isolated – no meaning.

- I think it would make more sense if the teacher in the classroom put the word and relate it to something.

- Never assume the student has learned something – evidence

- Do your students take their books to the classroom to read?

- In the classroom if my kids are stuck they have resources to back them up – word wall,

- In classroom the teacher says that they are reading way above what he is reading with me.

- How much do kids in Grade 1 do writing on their own? Help them compose and but they have to write alone or in groups. There are many diff. ways of doing it and there are diff. Types of writing. Some in Grade 3 are doing same thing as children in Grade 1

- I have mine write for at least 20 minutes on own.\

- In primary we are supposed to start writing right away

- It is a process.

- Transference to class – Knowledge to practice

- In older grades you so pick up much more easily what they are missing.

- My whole class is at a Grade 1 level – I use it all the time.

- We talked about this before about how all teachers at lower grades should go through Reading Recovery training.

- So many teachers that don't know that they are doing all little pieces but I bet if they would come and train they would get the whole picture.

- I had a teacher come up to me – you know he knows the word, but when I let him see the pictures…she was hiding the picture.

APPENDIX I

JOURNAL DOCUMENT

Development of Teacher Knowledge During Year

Kelton'S JOURNAL

PROCESS

Term 1	**Term 2**	**Term 3**
ORGANIZATION	ORGANIZATION	ORGANIZATION
1. space	1. look at notes	
2. letters	2. how did you know?	
3. keeping notes	3. oppor. To discuss	
4. record keeping	4. frustration	
	5. evidence	
THEORY	THEORY	THEORY
1. wd vs text	1. attend to meaning and st.	1. twa
2. early reading beh.	2. access to m and st.	2. problem solving
3. wd vs whole	3. cross-check	3. item vs whole
4. questions	4. problem solve	4. continuous text
5. lingo	5. R+W voc.	5. p/s in R/W
6. und. of learning	6. S/C	6. H/R sounds
7. spelling		7. prompts
8. ways of solving		8. Why F/R?
9. searching for meaning		9. What words to ;use in HRS
10. acc. Learning		10. punctuation
11. S/E system		11. using m, st and v to P/S….
		12. meaning of story
		13. visual prompts
		14. ways of problem solving in W
		15. fluency-cut up story

REFLECTIVE PRACTITIONERS

Term 1	**Term 2**	**Term 3**
OBSERVATION	OBSERVATION	OBSERVATION
1. What is known? 2. strengths 3. learning 4. record keeping	1. look at notes for FR 2. clarify shifts 3. how did you know? 4. opp. To discuss 5. frustration of student 6. all about getting evidence	1. how R sounds 2. questions
PRACTICE	PRACTICE	PRACTICE
1. question of assessment 2. flex according to needs 3. needs vs strengths 4. observation 5. R levels 6. W voc. 7. reader vs remembering 8. child noticing 9. anticipation 10. time	1. teacher isolation 2. working 1-1 great 3. cut up sentence-phrasing 4. teacher set prior 5. letter/wd work from text 6. put it together 7. how words work 8. focused on looking at wds instead of pic. 9. What have I taught today? 10. What will I teach tomorrow?	1. Intro to the book 2. be positive 3. don't assume

REFLECTIVE PRACTITIONERS

CONTENT

Term 1	**Term 2**	**Term 3**
1. item knowledge	1. S/E system	1. His def. Of strategic act.
2. remember	2. wd attack skills	2.Experince nec.
3. guessing with picture	3. letter/wd detail	3.Questions
4. looking-visual – wd.	4. learn to hear sounds	4.Time an issue
5. questions	5. use the known …	5. Boys vs girls
6. Strategic Act.	6. childs control	6.S/E system
– Print/meaning	7. uses strategies	7.Prior knowledge
– Prompting	8. ind. Responding	8.Interpretation
– Intro	9. risk takers	9.Wds/sentences
– Hearing and seeing	10.construct eff. Networks	10.Punctuation
– Independence	11.strategic act.	11. Meaning
– Fr from known	12.child initiates	
– Brain at.	13.prompts	
– Background-structure	14.item vs whole	
– Orchestration of m, sty & v	15.links between R+W	
– Accelerated	16.demonstrate	
– S/E system	17.scaffold	
	18.shifts over time	

CONTEXT

Term 1	Term 2	Term 3
1. the link between R+W	-better observer	-Feeling of being overwhelmed
2. I assumed they could already read	-still on item knowledge	
3. most of my assumptions came from how I was taught	-what to look for?	-Experiences – review- with new light-deeper understanding, but raise unconsidered questions
4. just assumed that reading was learned 1st, writing came later	-Knowledge of theory increasing	-Further questions to grow.
5. I assumed that the teacher acc. the pupils	-noticing behaviors	
6. the teacher supports activities that allow the pupils to accelerate themselves.	directionality issues	
	-comment on visual aspect of wds.	
7. Resource – more attentive to the strategies students use	-I've tried to bring the training into my math class where issues of processing language, decoding symbols, and directionality are impt.	
8. use questions "How did you know?"		
9. more aware of how word problem attack are just reading strategies.	-as a learner, I've further established for myself that I learn by being actively engaged.	
	-Record keeping crucial	
	-in dialogue by observing skills and by doing. Text alone doesn't do it.	
	-Gaining knowledge of R+W theory	
	-Increase understanding of how we learn	
	-Discuss what success does for children.	
	-Social networking of PD	

REFLECTIVE PRACTITIONERS

Term 1	Term 2	Term 3
	impt.	
	-sharing	
	-problem solving	
	-support	
	-whole staff buy in.	
	-teaching children to be strategic problem solvers.	
	-Assessing –dev. Program – planning	
	-Reading Recovery	

	– aware of own teaching
	   – noticing things
	   – processing skills
	   – prompting
	   – asking questions
	   – problem solving
	-Now an awareness of own teaching	

REFLECTIVE PRACTITIONERS

Erica's JOURNAL

PROCESS

Term 1	**Term 2**	**Term 3**
ORGANIZATION	ORGANIZATION	ORGANIZATION
1. lessons 2. pace 3. expectation 4. support		1. be prepared for writing – purpose and records 2. lesson records – keep track
THEORY	THEORY	THEORY
1. sight words 2. self-corrections 3. prompted 4. strategic activity – initial letter (learning to look at print) 5. understanding meaning, st, and v 6. memory 7. look at strengths 8. phrasing 9. brain function 10. H/R sounds – function 11. encouragement of R strategies	1. CONSTRUCT 2. sound out 3. write sounds 4. hear sounds 5. spaces 6. punctuation 7. S/C 8. s/M 9. not consistent in use 10. sounding out 11. search for and use words 12. Picture to solve words 13. independence 14. problem solving on v info 15. chunks 16. 1-1 matching 17. early lit beh 18. connections in brain 19. diff between letter/wd 20. complex	1. fluency 2. see things diff 3. more skills 4. problem solving in writing 5. visual, meaning and st 6. CAP 7. independence

REFLECTIVE PRACTITIONERS

OBSERVATION

1. pre-school readiness
2. student not familiar with books
3. question of parental know.
4. questions – teacher prep, pre-service
5. knowledge of what and how
6. S/C seems normal
7. lessons, pace, expectation, support
8. I am not as harsh as I thought
9. need to support students more
10. all teaching should be on con. Texts
11. obs survey a reflection of what she taught

OBSERVATION

1. the known
2. ROK-engaged
3. diss in myself
4. teacher overwhelmed
5. speech impediment
6. look at strengths and weak
7. children need direct inst.
8. didn't know how to teach
9. pre-service lacking
10. process of learning difficult

OBSERVATION

1. teaching doesn't mean knowing
2. better choice of books
3. keeps track

REFLECTIVE PRACTITIONERS

PRACTICE

1. needed – specialty in early ed.
2. ass. Only a beginning
3. normal practice?
4. efficiency of own practice
5. word study
6. examine of own teaching
7. What is really known?
8. question myself
9. really tense
10. don't know where to take him
11. go from known
12. positive
13. alphabet book
14. time concerns
15. right vs wrong
16. the imp. Of writing
17. encouraging H/R sounds
18. read smoothly
19. steady pace
20. better intro
21. efficient use of practice
22. confidence
23. encourage
24. different
25. make it easy
26. H/R sounds – not teaching him to do
27. solve words
28. wds he chose
29. similar sounds bet. Two wds
30. look at words
31. questions of competence
32. effective decisions
33. mistakes

PRACTICE

1. Transference
2. pushing
3. early behaviours
4. early strategic act.
5. no teaching
6. time an issue
7. making progress
8. new kind of teaching
9. expectation – teacher and stud.
10. the R and W process difficult
11. brain involvement
12. a lot of steps
13. patience
14. evidence of learning
15. support
16. struggled
17. initial and final sounds
18. remember
19. taught H/F wds and sight wds.
20. scan from left to right
21. confused
22. at a loss
23. try
24. cognitive and emotional learn
25. behavior management

PRACTICE

1. formal assessment
2. records
3. reflection

REFLECTIVE PRACTITIONERS

CONTENT

Term 1	Term 2	Term 3
1. mind shift about R	1. Begin to S/C	-writing a challenge – HR sounds
2. pictures-conversation		
3. the whole vs the ind. Letters	2. actually looking at wds	-strengths vs weaknesses
4. memory	4. actually looking at wds	
5. structure is impt	5. monitors, SC, uses V info and meaning	-records important – daily, words, chunks, prompts
6. question of strategic act – one strategy at a time – in sequence? – right or wrong?	6. specific teaching – letter/sound association	
	7. say/listen	-make connection
7. is it OK to consciously think about what strategies using?	8. skills vital	
	9. taken for granted	-assessment
	10. will not catch up	
8. read resources	11. differences	-RR vs classroom
9. how to teach without direct instruction does learning happen?	12. identify	
	13. look	child can vocalize strategy
	14. composition	
10. neural networks	15. practice impt	-act on it
11. background know.	16. master concepts	
12. experience, needs in Gr. 1 crucial year for R.	17. time	-1st students not enough word work
	18. move at own pace	
13. how do I teach reading?	19. demonstrate control	-Ways of solving in writing and R – break, chunks
14. multiple strategy inst.	20. fluency	
15. change	21. transference to classroom	
16. frustrated to see no progress	22. repeats	-upsetting – level of support for ex. RR children
	23. explains	
17. what to do?	24. Prompts – focus on a particular strategy-not yet under conscious control-connections-help re-enforce network in brain	
18. easier to harder		-regression
19. using v and m to solve		-strategic activity
20. children have so much to learn in R and W they need direct inst.	25. after RR teach unknown words or parts	practice necessary for ind.
	26. go from known to unknown	
21. HR sound-und. have to teach in context	27. the noticing reader vs the unnoticing reader	-independence in class
22. unsure of HRW	28. connections between R and W	
23. directionality	29. check	-ability to summarize strengths
24. handle elkonen boxes – have to teach this	30. teach for searching	
	31. concrete vs abstract	-
25. solve wds more effect.	32. accommodate learning needs	
26. adding difficult words will make him think poorly about R	33. success	
	34. multiple intelligences	
27. Fluency	35. positive outlook	
28. survive in classroom		
29. slip through cracks		

REFLECTIVE PRACTITIONERS

Term 1	**Term 2**	**Term 3**
30. difficult to und.	36. not yet discovered the way to help him learn	
31. build on it daily	37. don't jump to conclusions	
32. need strategies to solve wds-as a check list in sequence	38. strong skills that block learning	
33. still confused about how to teach R and W	39. writing needs attention	
	40. R and W connected	
	41. R and W not a passive process	
	42. role of teacher – role of student	
	43. am I effective?	
	44. can I make this better?	

CONTEXT

Term 1	Term 2	Term 3
1. amazed at Reading and W growth – S/C, picture clues to solve wds, wds are right, sounds and letters, write harder wds.	1. transferring learning from Rr to classroom	1. articulates
2. classroom obs – student using knowledge in classroom	2. wonderful	2. indicators of growth – oral language utterances
3. frustrated – how to teach R in classroom – with book resources on R., how to get a solid foundation?, is there a correct way?, W seem easier to teach	3. grow as a R + W	3. describing events
	4. wonderful	4. need to observe more
	5. grow as a Reader and W	5. to look at where I was back in Sept and where I am now, I know I have grown as a teacher and that I have become better because of this course
	6. biggest mind shift –teaching in isolation vs whole	
	7. understanding of SA	
	8. Und. of learning diff.	
	9. need a diff. Type of instruction	
	10. time an issue	
	11. RR theory transfers to classroom – Theory – HRS, direct, prompts to use m, st and v info.	
4. Brain networking in Gr. 1	12. Abandoned reading strategies and practices that are counter productive	6. Positive benefit
5. Am I teaching the Gr. 1's to R and W	13. the need to encourage teachers to continue to grow and develop as learners	7. R and W complex
6. If the alphabet needs to be taught first – how do I get to effective R/W abilities.	14. It would be diff. For Admin to guide early educ teachers if they are unaware of how children need to be taught	8. changed maladaptive practices
	15. constructive critics	9. critical look at beliefs
	16. student centered	10. What is the right answer?
	17. we as teachers must have that same expectation for ourselves	11. Research

REFLECTIVE PRACTITIONERS

Term 1	Term 2	Term 3

7. teaching rules – confusing – How?
8. children and reading – getting wds right – skip and keep going – no meaning
9. Dev. Knowledge of how R + W
10. use to teach in sequence –letter, sound, wds,…not a good idea
11. teach directionality
12. now letter and sound together
13. question so many things
14. thinking and questioning teaching practice

18. Inst. Practices that teachers use should be research based
19. challenges of classroom
20. focus on strengths
21. environment impt.
22. Trying to set up a more routine environment in my classroom as well
23. I try to focus on a diff chunk each week and have them book for those chunks in their poems, books and the morning
24. isolation vs whole text
25. watching and observing
26. applying to practice better
27. able to observe all
28. It is amazing how their mind works
29. I know I would not be teaching reading the way I do, nor would I know to observe children in the way I do . I am so grateful that I have had this opportunity.
30. life-long learning
31. reading books
32. attending sessions
33. visits
34. access to many sources of learning
35. funds
36. they need standards for themselves to help them feel successful
RR – 2 reasons to use

demonstrated practice
12. more analysis necessary
13. difficulty of instruction
14. R and W is hard work
15. practice everyday
16. encourage strategic thinking

REFLECTIVE PRACTITIONERS

Nora'S JOURNAL

Term 1	Term 2	Term 3
ORGANIZATION	ORGANIZATION	ORGANIZATION
Organization of lesson diff.	Mentor to have him read his books	
Steps firm		
Analysis of RR		
THEORY	THEORY	THEORY
Purpose of Familiar Reading	Address his learning?	Using all strategies
Letter/sound association	Individual vs whole	Structure to S/C
Words		Writing –short simple sentences
S/C and reads for meaning		Word attack
In context knows wds but cannot recall isolated		At point of error what could we prompt for?
Hears first last sound		HRSW
		TWAR
		Visual Perception
		Detect errors for themselves
		Search for more information
		Monitor for errors
		Correct those errors
		Check a decisions
OBSERVATION	OBSERVATION	OBSERVATION
Literacy Degree	Easy vs difficult	
Student progress	Not reading at home	
Lesson analysis	Difficult to predict	

REFLECTIVE PRACTITIONERS

Term 1	Term 2	Term 3
PRACTICE	PRACTICE	PRACTICE
Headed in right direction	Teaching a R and W voc	How much support is needed?
Basics?	Composition	Don't have him spell
ROA	H/R sounds	Recommendation to discontinue
Discuss progress	Modeling	Monitor students
Recording differences	Ind vs whole	Pick up on his cues
Lessons		
Nervous		
Early behaviors		

REFLECTIVE PRACTITIONERS

APPENDIX J

ANALYSIS OF STUDENT DATA

____ First ____ Second

Date _____ School _____

Criterion	Strengths	Predictions	Inservice sessions
Behavior of good readers	Evidence from observation surveys	Teaching needed	Date-
What do they need to know?	*What do they now know?*	*What must be taught?*	Session-
Page 22 – Obs. Survey	Port Matiland	Access to visual information	Term 1
	Could read at Level 1		September 10-11
Teachers aim to produce independent learners whose reading and writing improve whenever they read and write. Children become independent:	Has most early CAP	Prompting for monitoring, searching , C/C in R+W	PD – Admin of Obs Survey.
	He could read a small band of H/F words	Word solving skills in R+W	September 15th – analysis of obs survey results.
	16 Burt	Be aware of speech issues when HR sounds and twa in reading. Support him.	
-if the early behaviors are appropriate, secure and habituated	could write 20 words(prompted) H/F		September 30- Moving into instruction.
	could hear and record initial sounds-some endings		
	Early stage of reading-using m and st	A firm bank of H/F words	October 7th- Observing Active problem solving
-if children learn to monitor their own reading and writing.	Knows most upper lower case letters	Ways of solving words in R+W(H/R sounds)	
	Know basic and some mid based CAP	R use the visual infor	October 21st – Exploring processing changes in Reading and Writing.
	Could read 8 H/F words	Clear up letter confusions	
-if they search for several kinds of information, in word sequences, in longer stretches of meaning, and in letter sequences.	Could read 15 BURT/H/F	C/C info when reading	November 4th – Teaching for Effective processing.
	Could write 30 wds in 10 min	Phrasing in fluency	
		Punctuation	
	Could HR 31 initial/final &some	Spacing-visual perception	November 18th-

	medial sounds	monitor for m while using st and v information	Teaching for the constructive use of information – strategic activity in R+W.
-if they discover new things for themselves.	Likes to compose and write stories		
	Reading at L-4-using m and st and some visual info.	develop bank of H/F words	
-if they check that one kind of information fits with other available information.	CAP-basic and medial	problem solving skills on wds.	December 16th – Fostering accelerated learning
	WR-small taught wds-at problem solving "no" same with BURT	Search for visual information	
		Self/monitor	December
-if they repeat themselves as if to confirm with what they have read or written.	H/R-knows most initial/finals/vowels	_____ —	Discontinuing
			January 21 – Reviewing progress – knowledge and teaching
		South	
	Drumlin	HR sounds	
if they correct themselves, taking the initiative for making any sources of information they have found fit neatly together(that is getting the words right)	Fluent-using finger to monitor	Visual info- his attempts have to match the word	February 10 Reviewing progress-knowledge and teaching (con't)
	Follow directions	Has to monitor-don't make up long phrases for a 3 wd line	
	Know most letters of alphabet		
	CAP-basics		
	WR 3 known words – no attempts	No predictions	
	BURT 6 known no attempts	_____ —	Feb 25th – what is known?
-and if they solve new words by these means.	Writing – 2	that print contains a message	
	HR 14 last sounds	access HF wds for writing	March 10th – Teaching for problem solving (Evidence)
	Controls directional movement		
Each statement could be applied to either reading or writing.	Using m and st – let by	1:1 match	
	Tries to S/C when meaning lost	behavioral control	March 31 – Teaching with progress in mind.
	_____ ___	_____ ___	
Medial	no info	Firmly control early strategies	April - Teaching through effective communication : verbal and non verbal.
Late		S/M own reading in order to notice errors	
		Search for info	

	South	within wds	
	Could repeat 2 lines of text	Solve new wds through m, st and v information	April 21ˢᵗ : Problem solving on continuous text- Taking words apart in reading
	Knew some basic concepts of print	Confirm by re-reading	
	Could follow a pattern	C/C one source of info with another	
	Using m and st	S/C using multiple sources of info	May : The Observation Survey: An assessment to guide our teaching
	Knew most capital letters	Read fluently	
	Could write his name	HR sounds	
	Knew that letters meant something	Look beyond initial letter	May 19ᵗʰ – Knowing what to teach
	R-used m and st and initial visual		
	Phrased most places	Problem solving using m st and v infor.	June 10ᵗʰ - – Reflecting on Teaching and Learning
	Knows upper case and some lower	Monitor	
	CAP- early	Search	
	Know 3 H/F words	S/C using m, st and v at point of error.	
	In W relies on initial sound and 4 known words	Transfer to classroom	
	_____ ___	Let/sound relationship	
	using m, st	HF word	
	knows most letters of alp.	Fluency	
	Has vey early CAP slo;;s	Orchestration of m, st and v info.	
	Knows I and to . Burt "7" known	Monitor	
	Could write 13 wds mostly family members	Search	
		S/C at difficulty	
	Can hear and record initial sounds	Build bank of HF wds	
		Monitor for visual info	
	Some wds in sequence	Compose	

	At error he used m st and initial v	HR sounds
		1:1 matching
	Will C/C and use more visual info	_____
		2nd round
	He has a bank of H/F known wds	recognize all upper and lower case letter
	With prompting can write 10 wds in 10 min.	learn to 1:1 monitor
		good problem solver
	Will hear and record some sounds if accesor helps by saying wd.	use m, st and visual to
		monitor
		S/C
	Plymouth	Search
	Using memory- m and st	Transfer learning to class
	Can remember pattern	Punctuation
	Can rec. some upper and lower case letters	Larger bank of sight wds to write fluently
	Earliest CAP	
	Could write his name and I	Consistently use structure (ELL)
	Can name a few letter/sound ass.	Good problem solver – use m, st and v to..
	Und. Diff between wd and letter	Monitor
		S/C
	Relies on memory using m and st	Search at pt of error
	Knows most letters	Transfer to class
	Early concept of print	Independence in R+W
	3 known R words	Math 1-1
	wrote 5 words with prompts	Monitor R+W
		C/C with m, st and v info
	could record initial consonants	Solve unknown wds in R+W
	at times says wds	

	slowly	Build H/F word bank	
		Access visual info	
	2nd		
	Good L-R movement on text	Monitor	
	R choppy-many T's, not using m (picture)	C/C with m, st and v info	
	Not yet 1-1	Solving unknown words	
	Know all upper case letters/confused 2 lower case	H/F words	
	Know all basic concepts of print	Become proficient in using v info.	
	Know 6 H/F words. BURT 11 first little known words.	w- focus and remain on task	
	Could write 9 words with prompting in 10 min.	monitor his R for fluency	
	Most initial sounds heard and final	use m, st and v info.	
	Trying to use v info. To read alone	C/C one source with another	
	Good left to r on text(1-1 firm)	S/C using m, st and v info	
	R phrased at times	Learn R+W voc	
	Knows upper case letters most lower case	Spacing – spatial- to do with visual	
	CAP she know all early concepts	HR – slow articulation	
	She had basic H/F words in order	Solving in R+W – prompting	
	She could write 16 words in 10 min (H/F)	_____ ___	
	Knew most letter/sound assoc.	Firmly control early strategies	
		S/M own reading in order to notice errors	
		Search for info within wds	
		Solve new wds through m< st and v	

	2nd	info.	
	Relying of m and st	Confirm by re-reading	
	Predicting at wds when not known	C/C one source of info with another	
	Using finger to monitor 1-1	S/C using multiple source of info	
	Small bank of known reading voc	HR	
	Starting to look at initial v	Look beyond initial letters	
	Letter/sound assoc quite strong		
	r-sometimes using expression on known	_____ ___	
	South	Compose a written message that makes sense	
	At error he used m st and initial v	S/M in order to detect errors	
	Will C/C and use more visual info	Read fluently to maintain m and check st and v info.	
	He has a bank of H/F known wds	Check st and v info.	
	With prompting can write 10 wds in 10 min.	Build HF wds	
	Will hear and record some sounds if accesor helps by saying wd.	H/R sounds in wds	
		SM in order to detect errors	
	Central	Ind. Compose a message	
	Used meaning and st. to "read and initial letters	Consist. Record sounds in wds.	
	Could read wd by wd	Look beyond initial letter to problem solve	
	Early CAP concepts	w- HR sound in order	
	Knew initial sounds and key HF wds	articulate wd slowly	
	Often ignores visual		

	picture cues		
	At error using all sources of info		
	Some phrasing		
	Early and medium CAP		
	Strong bank of "known" HF wds		
	Strong HR		
	_____		
	Plymouth		
	Reading from memory		
	Knows alphabet		
	Early and medial CAP		
	RV – 3 – Easy "known"		
	WV – known HF wds		
	Articulates wd slowly – initial and final sounds articulated		
	_____		
	led by m, st and starting to use initial v		
	S/C using a combination of m, st and v infor.		
	Some phrasing – at times slow /deliberate		
	Knew most letters – letter sound ass.		
	CAP – early/medial		

	concepts		
	Small bank of W& R "known" wds.		
	Has 1:1 matching		

REFLECTIVE PRACTITIONERS

Analysis of Student Data

Knowledge about prof. self, Determine teacher & student needs

Process: Knowledge about professional self, Where do i go now? Determine own needs and students needs

____ First   ____ Second

Date _____

TEACHER NEEDS
KNOWLEDGE DEMONSTRATED FROM WRITTEN EVIDENCE

REFLECTIVE PRACTITIONERS

Analysis of Student Data
Knowledge about prof. Self, Determine teacher & student needs
Process: knowledge about literacy theory
_____ **First** _____ **Second**

Date _____

TEACHER NEEDS
KNOWLEDGE DEMONSTRATED FROM WRITTEN EVIDENCE THE UNDERSTANDING OF LITERACY THEORY (HOW DO CHILDREN LEARN HOW TO READ?

Analysis of Student Data
Knowledge about prof. Self, Determine teacher & student needs
Process: knowledge about literacy theory

REFLECTIVE PRACTITIONERS

Overall improved practice/deep understanding of literacy beh. & lit. Skills
Content: knowledge about practice

TEACHER NEEDS

KNOWLEDGE ABOUT PRACTICE

(What does the teacher need to learn?)

REFLECTIVE PRACTITIONERS

Analysis of Student Data
End Data
Content – Demonstrates a Deep Understanding of Literacy Behavior

1ST	Based on Criterion
Using m and st. some v info.	Independent learners
Fluent on known texts.	Early behaviors
Knew most all upper and lower case letters.	Monitor
Knew the basics (CAP) 14	Search for info-
Could read 11 HF wds – easy ones	Discover
Wrote 17 wds with prompting – HF small wds (known)	Check
Records most initial consonant sounds.	Repeat /confirm-
Reading at Level 5	Correct
**	Solve
1ST	
likes to compose and write	
R-fluent but not always monitoring v – skipped wds	
CAP – knew most concepts (Basic and Middle)	
Burt – read wds by initial consonant.	
Wrote ind. For 4 minutes then prompted	
Knew basic HF wds	
Knew most initial/end sounds.	
Read at Level 6	
**	
1ST	
had built up a small bank of known wds	
could hear and record most initial and final consonants	
had early/mid CAP	

monitoring – with initial visual	
at errors led by m and stu	
attempts are made at unknown wds.	
**	
reading at level 16	
Built his R+W voc	
Able to have some independence in R+W . Using m and st and v information.	
Has the basic and medial CAP	
Burt 27- starting to problem solve on own.	
Can use analogy to solve wds.	
Phrasing/fluent when known text	
**	
Becoming more ind in R+W	
CAP knows more than basics now medial skills	
Has increased banks on W and R voc.	
Can now hear most initial/medial and ending sounds	
Reading has increased in level but S/C rate is 1:14. Not monitoring for v information and not problem solving	
**	
Using m and st but initial letter to problem solve	
Engaged for short periods of time	
Familiar reading is a pleasure for him	
Has learned some letter/sound association	
Need in and ability to say wd for himself (he's better when he hears teacher say it)	
Moved from non-reader to level 6/7	
Can verbally compose complex sentences	

REFLECTIVE PRACTITIONERS

****

Is reading at an appropriate level for disc., but his writing voc. Is below norm

Built a bank of HF wds

Uses m and st and initial v to problem solve visual

Some phrasing

Good S/C rate 1:5

****

Has learned to write 30-40 wds

Is led by v info then searches for structure and meaning

She S/C using v info.

Will read fluently on task

****

Has increased his knowledge abut letter sound ass.

Knowledge abut letters has increased

Using m and st

S/C using some v (initial)

Phrasing and good intonation on familiar R.

CAP-Initial and medial

Now 1:1 matching

C/C checking sounds with the printed text

Developed a small bank of HF "known" wds

****

Tries to orchestrate m, st and v information

Uses intonation and expression (Fluency)

Built bank of HF wds

He monitors

He S/C – gives/shows evidence HR sounds consistent – most now When S/C consistently uses a combination of m, st and v Can easily compose	
2nd Fluent at level 16 Using m, st and predom. S/m and c/c's using v info to S/C In CAP sees all but high level Could read 14-15 HF wds Wrote 55 wds in 10 minutes – Independence Using analogy, endings to problem solve Can hear and record all sounds ** Is reading phrased and fluent at every level Burt could read 27 wds which puts her at_____age. In 10 minutes could write 52 words. Fluent known most sound letter ass. Uses analogy to solve words. Directionality not an issue ** S/C with m and st. Goes back and makes sure sentence "sounds right" Using m and st more than v 3-5 wd phrasing has a bank of known wds "28" He enjoys story writing. **	Based on Criterion Independent learners Early behaviors Monitor Search for info- Discover Check Repeat/confirm- Correct Solve

Now sounding phrased Mostly using initial v info Building a bank of "known" wds Can hear and record sounds on his own. *** now using m and st and v info at pt of error when error v R is phrased Has all but higher order CAP Has built a good bank of HF words HR sounds strong Needs more work with writing *** Some phrasing – using expression Using m, st and v info to problem solve S/C with more visual info CAP – Early medial Building a ban of HF "Known" wds HR sounds slowly initial/final some vowels At pt of diff makes multiple attempts searching for known chunks. C/C – m and st with v info Orchestrates using m and v and structural info	

APPENDIX K

FOLLOW UP INTERVIEW

INITIAL RR PD – DECEMBER 2009

7. What did you learn about how to teach Reading?

8. What did you learn about how to teach Writing?

– What do you now need to learn?

– Good readers and writers in Grade 1 use many strategies. To be an effective reader, what does Marie Clay tell us that all students should be doing when reading?/writing?

9. Reading Recovery® is an early intervention focused on struggling readers and writers. How has you initial year of Reading Recovery® Professional Development helped your classroom literacy practice?

– You might want to comment on observations (what to look for), assessment (for learning), evidence, (what are you able to see about the development of skills), strategic activity, (orchestration, self-extending system, acceleration, etc.)

10. What did you like about the professional development?

11. What didn't you like about the professional development?

REFLECTIVE PRACTITIONERS

APPENDIX L

LESSON ANALYSIS CONVERSATIONS

Process

Organization

1	2	3	4	5
Process that the child must follow	Work on behavior Reread in Literacy Lessons #1 page 40 Guidebook #2 p. 72 Evidence	Discuss a plan to alter behavior Reread the section – Taking words apart Go to guidebook #2-p. 136 - Cautions	Go to Literacy Lessons #2 and read that section Learn to look at print.	

Theory

1	2	3	4	5
Meaning and structure that could be diff. And visual information What would you expect to see at beginning…end …middle See if he is monitoring and will S/C	Prompting is necessary Building the Foundations for a Self-Extending System. Reciprocal nature of R+W Alphabet task- this is a discrimination task Learn to check using m, st and visual information Is she searching using m, st and v information Monitoring for v information	Use the prompts as a call to action on the part of the child Why the letter sort? About how words work. Problem solving in R and W.	Reading has as much or more to do with meaning and structure as it has to do with visual information Tap into the sources of information and teach the children to use them constructively to search, monitor, check and in the end problem solve Get that lower processing of words to a higher level. Fast visual processing Oral language is part of the reading process Children have to access all three sources of information quickly to be efficient strategic readers and writers	Why is the H/R sounds task important? Independence Strategic way to problem solve using meaning, structure and visual information to monitor, search, and ultimately problem solve. Is she searching using meaning, structure and visual information?

REFLECTIVE PRACTITIONERS

			R+W is reciprocal Constructing meaning Orchestration of all sources of information Reciprocal nature of R+W	

REFLECTIVE PRACTITIONERS

Observation

1	2	3	4	5
What did he learn today? What will you teach tomorrow? What have you learned?	Teach her what to do Then ask her to do it (prompt) Hopefully she will do it herself	What is the child doing? What have I taught today? What am I going to teach tomorrow? These questions will help you to plan and to know where you are going.	His processing in Familiar Reading is slowed down by his consistent analysis of high frequency words Reading and Writing voc. Reflect on how you have taught your student or students to "know" the words Confusions – Be careful with the words you are breaking.	What do you have to teach him? What do you have to learn to do this? What did I teach today? What did she learn from the writing task? How could you teach a reading vocabulary?

Practice

1	2	3	4	5
Writing vocabulary-words to fluency

Not using H and R sounds – child says word slowly

The intro. Of the book

Locate the word

Independence in problem solving in writing

Doing a slow check in R+W | Concerned about writing

She was monitoring for herself

Work on punctuation

Monitor for herself in R+W

H/R sounds – she must be able to say and hear before she can record the sounds in words

Written vocabulary – build a band of H/F words

Directionality could be an issue

Introduce the H/R sounds in words task early

Independence

Written vocabulary | Demonstration

An economy of discussion

Practice the prompts

Teach for a R+W vocabulary throughout the lesson

Reciprocal nature of R+W

Gather the evidence of strategic activity on the par of the child.

Teacher is monitoring for him

Hearing and Recording sounds

Teaching a R+V vocabulary

A slow check of a word as she says it slowly

Good job of moving the lesson along

Pace of lesson | How to get the child processing visual information at a higher level

He can hear and record sounds in order

Phrasing in fluent reading is not as good as it should be

Study words within the lesson

Teacher visual information

Learn to quickly write high utility words

Learning is all about change

Practice fluency

Running Record is a sample of reading behaviors

H/R sounds – get him to say the word slowly.

He has to understand that | Let him monitor

Confusions – Be careful with the words you are breaking.

H/R sounds in words – say – hear- and record

Work on words throughout lesson – reciprocal

What should the child be able to do independently?

Teach a writing voc.

Slow the child down to record letters

Reading Vocabulary |

		H/R sounds in words – say word slowly.	reading is not knowing all the words in the text, but having way to get to these words. Prompts – use them as a call to action H/R sounds in words – say – hear-then record	

APPENDIX M

MARZANO'S NEW TAXONOMY

Thinking Skills Frameworks: Marzano's New Taxonomy

Robert Marzano, respected educational researcher, has proposed what he calls A New Taxonomy of Educational Objectives (2000). Developed to respond to the shortcomings of the widely used Bloom's Taxonomy and the current environment of syllabus guidelines-based instruction, Marzano's model of thinking skills incorporates a wider range of factors that affect how students think and provides a more research-based theory to help teachers improve their students' thinking.

Marzano's New Taxonomy is made up of three systems and the Knowledge Domain, all of which are important for thinking and learning. The three systems are the Self-System, the Metacognitive System, and the Cognitive System. When faced with the option of starting a new task, the Self-System decides whether to continue the current behavior or engage in the new activity; the Metacognitive System sets goals and keeps track of how well they are being achieved; the Cognitive System processes all the necessary information, and the Knowledge Domain provides the content.

The Three Systems and Knowledge Self-System:

- Beliefs About the Importance of Knowledge

- Beliefs about Efficacy

- Emotions Associated with Knowledge

Metacognitive System:

- Specifying Learning Goals

- Monitoring the Execution of Knowledge

- Monitoring Clarity

- Monitoring Accuracy

Cognitive System

Knowledge Retrieval	Comprehension	Analysis	Knowledge Utilization
Recall Execution	Synthesis Representation	Matching Classifying Error Analysis Generalizing Specifying	Decision Making Problem Solving Experimental Inquiry Investigation

Knowledge Domain

- Information

- Mental Procedures

- Physical Procedures

Classroom Example

     Anushka, a class three student is thinking about a birthday party she is going to attend this weekend when her teacher begins a math lesson. Anushka's Self-System decides to stop thinking about the party and engage in the lesson. Her Metacognitive System tells her to pay attention and ask questions so she can do the assignment. Her Cognitive System provides her with the thinking strategies she needs to make sense of the teacher's instructions. The mathematical knowledge about concepts and procedures makes it possible for her to complete the problems successfully. Each component of the New Taxonomy contributes to Anushka's success at learning the math concept and skills of the lesson.

Knowledge Domain

     Traditionally, the focus of most instruction has been in the component of knowledge. Students were assumed to need a significant amount of knowledge before they could think seriously about a subject. Unfortunately, in traditional classrooms, instruction rarely moved

beyond the accumulation of knowledge, leaving students with a mental file cabinet full of facts, most of which were quickly-forgotten after the final test. Knowledge is a critical factor in thinking. Without sufficient information about the subject being learned, the other systems have very little to work with and are unable to engineer the learning process successfully. A high-powered automobile with all the latest technological features still needs some kind of fuel to make it fill its purpose. Knowledge is the fuel that powers the thinking process. Marzano identifies three categories of knowledge: *information*, *mental procedures,* and *physicalprocedures*. Simply put, information is the "what" of knowledge and procedures are the "how-to."

Information

Informationconsists of organizing ideas, such as principles, generalizations, and details, such as vocabulary terms and facts. Principles and generalizations are important because they allow us to store more information with less effort by placing concepts into categories. For example, a person may never have heard of an *akbash*, but once someone knows that the animal is a dog, he knows quite a bit about it.

Mental Procedures

Mental procedures can range from complex processes, such as writing a term paper to simpler tasks such as tactics, algorithms, and single rules. Tactics, like reading a map, consist of a set of activities which do not need to be performed in any particular order. Algorithms, like computing long division, follow a strict order which does not vary by situation. Single rules, such as those covering capitalization, are applied individually to specific instances.

Physical Procedures

The degree to which physical procedures figure into learning varies greatly by subject area. The physical requirements necessary for reading may consist of no more than left-to-right eye movement and the minimal coordination needed to turn a page. On the other hand, physical and vocational education requires extensive and sophisticated physical processes,

such as playing tennis or building a piece of furniture. Contributing factors to effective physical processing include strength, balance, manual dexterity, and overall speed of movement. Many of the activities which students enjoy in their leisure time such as sports or electronic game-playing require refined physical procedures.

Cognitive System

The mental processes in the Cognitive System take action from the knowledge domain. These processes give people access to the information and procedures in their memory and help them manipulate and use this knowledge. Marzano breaks the Cognitive System down into four components: *knowledge retrieval, comprehension, analysis,* and *knowledge utilization.* Each process is composed of all the previous processes. Comprehension, for example, requires knowledge retrieval; analysis requires comprehension, and so on.

Knowledge Retrieval

Like the knowledge component of Bloom's Taxonomy, Knowledge Retrieval involves recalling information from permanent memory. At this level of understanding, students are merely calling up facts, sequences, or processes exactly as they have been stored.

Comprehension

At a higher level, Comprehension requires identifying what is important to remember and placing that information into appropriate categories. Therefore, the first skill of comprehension, synthesis, requires the identification of the most important components of the concept and the deletion of any that are insignificant or extraneous. For example, a student learning about Alexander in India should bother to remember the route that Alexander took to enter India and the battle with King Porus but not how many weapons his army carried with them. Of course, what is considered important about a concept depends on the context in which it is learned, so the information that is stored about a topic would vary by situation and student.

Through *representation*, information is organized in categories that make it more efficient to find.

Analysis

More complex than simple comprehension, the five cognitive processes in Analysis are *matching, classifying, error analysis, generalizing,* and *specifying*. By engaging in these processes, learners can use what they are learning to create new insights and invent ways of using what they have learned in new situations.

Knowledge Utilization

The final level of cognitive processes addresses the use of knowledge. Marzano calls these processes Knowledge Utilization, or Using Knowledge. The processes of using knowledge are especially important components of thinking for project-based learning since they include processes used by people when they want to accomplish a specific task. Decision-making, a cognitive process involves the weighing of options to determine the most appropriate course of action. Problem-solving occurs when an obstacle is encountered on the way to achieving a goal. Sub-skills for this process include identification of and analysis of the problem.

Metacognitive System

The metacognitive system is the "mission control" of the thinking process and regulates all the other systems. This system sets goals and makes decisions about which information is necessary and which cognitive processes best suit the goal. It then monitors the processes and makes changes as necessary. For example, a middle-school student who is contributing to a virtual museum about different rocks first establishes the goals of what his Web page will have on it and what it will look like. Then he chooses what strategies he will use to find out what he needs to know in order to create the page. As he implements the strategies, he monitors how well they are working, changing or modifying how he is working in order to complete the task successfully. Research on metacognition, particularly in literacy

and mathematics, makes a convincing case that instruction and support in the control and regulation of thinking processes can have a strong impact on achievement (Paris, Wasik, Turner, 1991; Schoenfeld, 1992).

Self-System

     As any teacher knows, providing students with instruction in cognitive strategies even with metacognitive skills, is not always enough to ensure that they will learn. Teachers also are often pleasantly surprised to discover that a student has accomplished a task that they considered to be far too difficult. These situations occur because at the root of all learning is the Self-System. This system is comprised of the attitudes, beliefs and feelings that determine an individual's motivation to complete a task. The factors that contribute to motivation are: *importance, efficacy*, and *emotions*.

Importance

     When a student is confronted with a learning task, one of her first responses is to determine how important the task is to her. Is it something she wants to learn or believes she needs to learn? Will the learning help her accomplish a pre-determined goal?

Efficacy

     Efficacy, as defined by a developer of social learning theory, Albert Bandura (1994), refers to of self-efficacy face challenging tasks head-on, with the belief that they have the resources to be successful. These students become deeply engaged in these tasks, persist at working on the task, and overcome the challenges. Bandura describes some ways in which students can develop feelings of self-efficacy. The most powerful way is through successful experiences. The experiences must be neither too difficult nor too easy. Repeated failure undermines self-efficacy, but success at overly simple tasks fails to develop a sense of resilience necessary for persisting at difficult tasks.

Emotions

Although students cannot control their emotions related to a learning experience, these feelings have a huge impact on motivation. Effective learners use their metacognitive skills to help them deal with negative emotional responses and take advantage of positive responses. For example, a student with a negative emotional feeling about reading technical materials could decide to read his chemistry textbook when he is exceptionally alert, rather than just before he goes to sleep at night.

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REFLECTIVE PRACTITIONERS

APPENDIX N

BLOOM'S TAXONOMY OF LEARNING DOMAINS

The Three Types of Learning

Revised edition by Lorin Anderson (a student of Bloom)

Bloom's Taxonomy

Creating

Evaluating

Analyzing

Applying

Understanding

Remembering

Cognitive Domain

Category	*Example and Key Words (verbs)*
Knowledge: Recall data or information.	**Examples**: Recite a policy. Quote prices from memory to a customer. Knows the safety rules. **Key Words**: defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.
Comprehension: Understand the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.	**Examples**: Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet. **Key Words**: Comprehends converts, defends, distinguishes estimates, explains, extends, generalizes, gives an example, infers, interprets paraphrases, predicts rewrites, summarizes, and translates.

Application: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the work place.

Examples: Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test.

Key Words: applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.

Analysis: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.

Examples: Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training.

Key Words: analyzes, breaks down, compares, contrasts, and diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers outlines, relates, selects, and separates.

Synthesis: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.

Examples: Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome.

Key Words: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites,

summarizes, tells, writes.

| **Evaluation**: Make judgments about the value of ideas or materials. | **Examples**: Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget.

Key Words: Appraises compares, concludes contrasts, criticizes critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, and summarizes, supports. |

Affective Domain

Category	*Example and Key Words (verbs)*
Receiving Phenomena: Awareness, willingness to hear, selected attention.	**Examples**: Listen to others with respect. Listen for and remember the name of newly introduced people. **Key Words**: asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.
Responding to Phenomena: Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond,	**Examples**: Participates in class discussions. Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practices them. **Key Words**: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs,

or satisfaction in responding (motivation).

practices, presents, reads, recites, reports, selects, tells, writes.

Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's overt behavior and are often identifiable.

Examples: Demonstrates belief in the democratic process. Is sensitive towards individual and cultural differences (value diversity). Shows the ability to solve problems. Proposes a plan to social improvement and follows through with commitment. Informs management on matters that one feels strongly about.

Key Words: completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.

Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system.   The emphasis is on comparing, relating, and synthesizing values.

Examples: Recognizes the need for balance between freedom and responsible behavior. Accepts responsibility for one's behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self.

Key Words: adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.

Internalizing values (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).	**Examples**: Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look. **Key Words**: acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.

REFLECTIVE PRACTITIONERS

Psychomotor Domain

Category	Example and Key Words (verbs)
Perception: The ability to use sensory cues to guide motor activity. This ranges from sensory stimulation, through cue selection, to translation.	**Examples**: Detects non-verbal communication cues. Estimate where a ball will land after it is thrown and then moving to the correct location to catch the ball. Adjusts heat of stove to correct temperature by smell and taste of food. Adjusts the height of the forks on a forklift by comparing where the forks are in relation to the pallet. **Key Words**: chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects.
Set: Readiness to act. It includes mental, physical, and emotional sets. These three sets are dispositions that predetermine a person's response to different situations (sometimes called mindsets).	**Examples**: Knows and acts upon a sequence of steps in a manufacturing process. Recognize one's abilities and limitations. Shows desire to learn a new process (motivation). NOTE: This subdivision of Psychomotor is closely related with the "Responding to phenomena" subdivision of the Affective domain. **Key Words**: Begins displays, explains, moves, proceeds, and reacts, shows, states, volunteers.

Guided Response: The early stages in learning a complex skill that includes imitation and trial and error. Adequacy of performance is achieved by practicing.

Examples: Performs a mathematical equation as demonstrated. Follows instructions to build a model. Responds hand-signals of instructor while learning to operate a forklift.

Key Words: copies, traces, follows, react, reproduce, responds

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Mechanism: This is the intermediate stage in learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency.

Examples: Use a personal computer. Repair a leaking faucet. Drive a car.

Key Words: assembles, calibrates constructs, dismantles displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, and organizes sketches.

Complex Overt Response: The skillful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, accurate, and highly coordinated performance, requiring a minimum of energy. This category includes performing without hesitation, and automatic performance. For example, players often utter sounds of satisfaction or expletives as soon as they hit a tennis ball or throw a

Examples: Maneuvers a car into a tight parallel parking spot. Operates a computer quickly and accurately. Displays competence while playing the piano.

Key Words: assembles, builds, calibrates constructs, dismantles displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, and organizes sketches.

NOTE: The Key Words are the same as Mechanism, but will have adverbs or adjectives

football, because they can tell by the feel of the act what the result will produce.

that indicate that the performance is quicker, better, more accurate, etc.

Adaptation: Skills are well developed and the individual can modify movement patterns to fit special requirements.

Examples: Responds effectively to unexpected experiences. Modifies instruction to meet the needs of the learners. Perform a task with a machine that it was not originally intended to do (machine is not damaged and there is no danger in performing the new task).

Key Words: adapts, alters changes, rearranges, reorganizes, revises, and varies.

Origination: Creating new movement patterns to fit a particular situation or specific problem. Learning outcomes emphasize creativity based upon highly developed skills.

Examples: Constructs a new theory. Develops a new and comprehensive training programming. Creates a new gymnastic routine.

Key Words: arranges, builds, combines, composes, constructs, creates, designs, initiate, makes, originates.

APPENDIX O

NSDC'S STANDARDS & READING RECOVERY

CONTEXT

Standard: Learning Community

Definition: Staff development that improves the learning of all students' organizes adults into learning communities whose goals are aligned with those of the school and district.

Roles

Learning community, communities of practice-commitment to the norms of continuous improvement and experimentation and engage their members in improving their daily work to advance the achievement of school district and school goals for student learning.

Learning teams may be of various sizes and serve different purposes. May meet once or twice a month to reflect on its work, engage in appropriate learning, and assess its progress. Improve teaching and learning. Consist of four to eight members, assist one another in examining the standards students are required to master, planning more effective lessons, critiquing student work, and solving the common problems of teaching. Determine areas in which additional learning would be helpful, read articles, attend workshops or courses, and invite consultants to assist them in acquiring necessary knowledge or skills. Participants observe one another and conduct other job-related responsibilities.

Reading Recovery

Different Learning teams- size, serve different purpose, monitor student growth daily, monthly, yearly, monitor teaching daily

Continuing Contact Group, meet about once a month, can contact each other by e-mail, contact with tutor as necessary. Teach a minimum of 2 students to refine practice of teaching children at risk.

Training group that meets 18 times during the year. Teach 4 students to put into practice what they have learned.

Teacher visits – At least 5 times during the year.

REFLECTIVE PRACTITIONERS

CONTEXT (continued)

Standard: Leadership

Definition: Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement.

Roles

Skillful leaders establish policies and organizational structures that support ongoing professional learning and continuous improvement. They ensure and equitable distribution of resources to accomplish district goals and continuously improve the school or district's work through the ongoing evaluation of staff development effectiveness in achieving student learning goals.

Reading Recovery

Superintendent

Director

Coordinator

Principal

School Team

Teacher Leader

My role in leadership from Standards and Guidelines –Accreditation process

REFLECTIVE PRACTITIONERS

PROCESS

Standard: Data-Driven

Definition: Staff development that improves the learning of all students'; uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

Roles

      1. Data on individual tests can be analyzed to learn how much students advanced in one year as well as particular strengths and weaknesses associated with the focus of the test.

      2. The design and evaluation of staff development efforts, both for formative and summative purposes.

      3. At the classroom level, as teachers gather evidence of improvement in student learning to determine the effects of their professional learning on their own students.

Reading Recovery

Student Data

Teacher Data

Follow-up and monitoring of students and teachers progress.

REFLECTIVE PRACTITIONERS

PROCESS (continued)

Standard: Evaluation

Definition: Staff development that improves the learning of all students; uses multiple sources of information to guide improvement and demonstrate its impact.

Roles

Well-designed staff development evaluation can address the scepticism by serving two broad purposes.

Improving the quality of current staff development efforts, and (2) determining the effects of staff development in terms of its intended outcomes.

It should also focus on teacher's acquisition of new knowledge and skills, how that learning affects teaching and in turn how those changes in practice affect student learning.

Reading Recovery

Yearly report

School Reports

Teacher Reports

Provincial Reports

Canadian Reports

REFLECTIVE PRACTITIONERS

PROCESS (continued)

Standard: Researched Based

Definition: Staff development that improves the learning of all students; prepares educators to apply research to decision making.

Roles

It is critical that teams of teachers and administrators take the time to study methodically the research that supports the claims made by advocates of a particular approach to instructional improvement.

Reading Recovery

Marie Clay's research and works.

Journal of Reading Recovery

Literacy Journal

Action Research – analysis of work

CIRR

Standard: Design

Definition: Staff development that improves the learning of all students; uses learning strategies appropriate to the intended goal.

Roles

That means that staff development leaders and providers must be aware of and skilful in the application of various adult- learning strategies.

Collaborative lesson design, examination of student work, immersion in work, case studies, action research, study groups, professional networks, live or video models of new instruction strategies, demonstration, coaching, large group, follow-up sessions.

Study of the subject with a content expert.

Reading Recovery

Reading Recovery Design

REFLECTIVE PRACTITIONERS

PROCESS (continued)

Standard: Learning

Definition: Staff development that improves the learning of all students; applies knowledge about human learning and change.

Roles

The means by which the learning occurs

PD mirrors as closely as possible the methods teachers are expected to use with their students.

PD should assist educators in moving beyond comprehension of the surface features of a new idea or innovation to a fuller and more complete understanding of its purposes, critical attributes, meaning, and connection to other approaches.

PD inst includes opportunities to see, hear, and do various actions in relation to the content. It is also important that educators are able to learn alone and with others.

Recognition of life stage differences may also help staff development leaders in tapping educators' strengths and talents, such as asking skillful veteran teachers to serve as mentors or coaches for their peers.

Reading Recovery

Group sessions: teaching, discussions, investigation, study, reflections, building on understandings

Individual sessions: teaching, discussions, investigation of teaching

Video analysis of lessons – metacognition

REFLECTIVE PRACTITIONERS

CONTENT

Standard: Equity

Definition: Staff development that improves the learning of all students; prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement.

Roles

Effective educators know and demonstrate appreciation for all their students, Through their attitudes and behaviors, they establish learning environments that are emotionally and physically safe, communicate high expectations and build quality interpersonal relationships.

Reading Recovery

Student Selection, Three positive outcomes of Reading Recovery, Teaching environment

REFLECTIVE PRACTITIONERS

CONTENT (continued)

Standard: Quality Teaching

Definition: Staff development that improves the learning of all students; deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of assessments appropriately.

Roles

Have a deep understanding of the subjects they teach.

Use appropriate instructional methods.

Apply various assessment strategies.

Extended institutes with follow-up activities, participate in face-to-face networks, experience firsthand as learners the instructional approaches they in turn will be using, participate in study groups, visit or watch lessons, observe demonstration lessons, coaching.

Reading Recovery

Study of Reading and Writing Theory – sessions. What is the theory?

Study of appropriate instructional methods.Design of lesson.Why designed that way?

Assessment methods: observation survey, running records, analysis of RR, analysis of writing.

Study of good reader behaviors.

Standard: Family Involvement

Definition: Staff development that improves the learning of all students; provides educators with knowledge and skills to involve families and other stakeholders appropriately.

Roles

Create a partnership between the school, the home, and the community.

Reading Recovery

Letter to home, Meeting with parents, Invite to sessions/lessons.
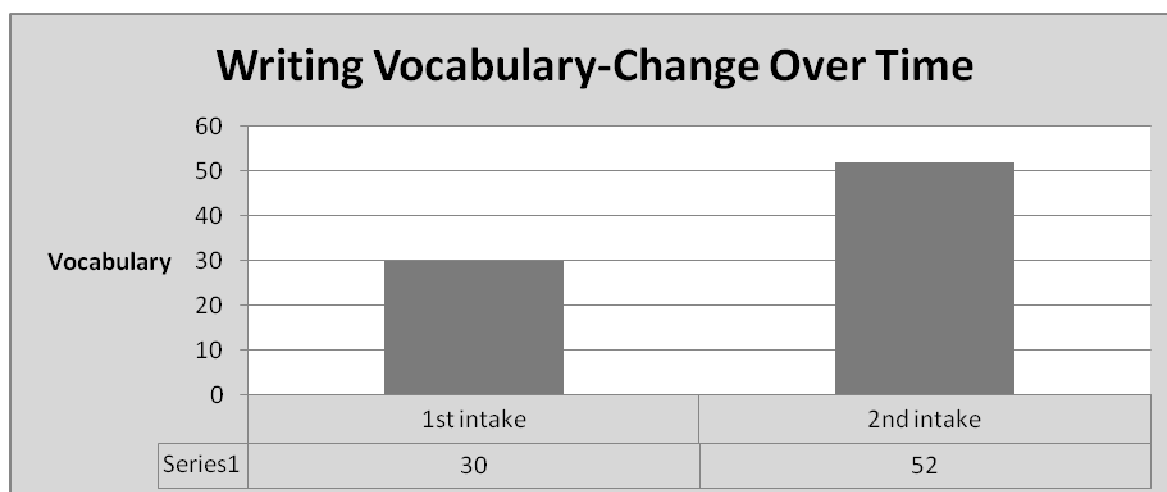
Notes home, Reading and Writing.

APPENDIX P

TEACHER LESSON RECORDS

Reading and Writing

Writing vocabulary – Change Over Time

	D	C	P	S	PM	Total	
1st intake	20 2-24 range	25 3-30 range	21 2-26 range	19 5-23 range	20 15-23 range	21 2-30 range	On average 1st intake had 21 words. Some students began with 2 words, while some students ended with 30 words. The mean was 21 words.
2nd intake	31 6-41 range	34 22-46 range	29 8-34 range	28 4-34 range	41 9-52 range	33 4-52	On average 2nd intake had 33 words. Students entered with 4 words and some exited with 52 words. The mean was 33.

Writing Vocabulary-Change Over Time

	Vocabulary
1st intake	30
2nd intake	52

	1st intake	2nd intake
Series1	30	52

A range of 30 to 52 words exists between the two periods of time.

The second intake has improved by 22 words over the first intake. The first intake had a range of 2-30 words while the 2nd intake had a range of 4 to 52 words. The beginning vocabulary range was similar in nature and would not explain the gain between the two groups.

Summary – Average growth in Reading Levels

Term 1, term 2, term 3

	S	P-M	Ply.	Dru.	Cent.	Total	Range	Average	%
1	4.5	4	5	4.5	4	22/84	4 - 5	4.4	26%
2	5	6	5	5	6	27/84	5 - 6	5.4	32%
3	6.6	8	9.5	3	8	35/84	3 – 9.5	7	42%
						84			100%

Appendix Q

The following links provide needed detail to respond to Reading Recovery critics.

Reading Recovery Council of North American (February 1, 2011)
Dispelling Misrepresentations and Misconceptions About Reading Recovery
(Full Response)(One-Page Abstract Only)

Response to:

International Dyslexia Association.(2011) *Perspectives on Language and Literacy. 37*(4) 7-38.

Allington, Richard (February 14, 2007).*Think Tank Review of Whole Language High Jinks*
Education Policy Studies Laboratory. Published online.

Response to:

Moats, Louisa (2007). Whole-Language High Jinks: How to Tell When Scientifically-Based Reading Instruction" Isn't. Thomas B. Fordham
Institute.

A Review of What Research Really Says About Reading Recovery (2006).Reading Recovery Council of North America.

Response to:

Farrall, M. (2006, February 7). Reading Recovery: What do school districts get for their money? A review of the research.Wrightslaw Website newsletter posting.

Jones, N. (2006)
One to One vs. Two-to-One Instruction: A Response to Iversen, Tunmer, and Chapman.

Response to:

Iversen, S., Tunmer, W., & Chapman, J. (2005).The effects of varyinggroup size on the Reading Recovery approach to preventive early intervention.*Journal of Learning Disabilities,38*(5), 256–272.

Schwartz, R. M. (2005)
Research Findings and Recommendations: A Response to Elbaum et al. (2000) Meta-Analysis of One-to-One Interventions

Response to:

Elbaum, B., Vaughn, S. M. T., & Moody, S. W. (2000).How effective are one-to-one tutoring programs in reading for elementary students at risk for reading failure?A meta-analysis of the intervention research.*Journal of Educational Psychology,92*(4) 605–619.

REFLECTIVE PRACTITIONERS

Schwartz, R. M. (2005)*The Effectiveness of Early-Intervention Tutoring Programs—When is a Research Brief Too Brief?*

Response to:

The effectiveness of early-intervention tutoring programs on student reading achievement. (2005, April 26). ASCD Research Brief.

What Evidence Says About Reading Recovery (2002).Reading Recovery Council of North America.

Response to:
Internet letter distributed to members of Congress in Spring 2002.

Letter Says Evidence Distorts Research (2002)
Signed by 200 academics and literacy scholars

Response to:
Internet letter distributed to members of Congress in Spring 2002.Signedby 31 academics.

Pinnell, G. S. (1999)
Comments in Response to Critics

Response to:

Grossen, B., & Coulter, G. "Reading Recovery:An evaluation of benefits and costs:The claims versus the facts".Published online.

Pinnell, G. S., & Moriarty, D. J. (1999).Open letters to the editor of *Investors Business Daily*

Response to:

When education theories go bad.(1999, April 1).*Investors Business Daily*.

Visit the International Data Evaluation Center (IDEC) website for evaluation information at

www.idecweb.us