

Chapter II Review of Selected Literature

This chapter highlights the conceptualization of independence and the emergence of independence as an essential ingredient of the process of learning to read. The concept of independence and its fostering can be linked to Vygotsky's theory of learning in a social context that includes the zone of proximal development and the roles of scaffolding and intersubjectivity (1978). In this social context the teacher scaffolds learner development. The concept of fostering for independence while teaching reading is clarified. In the synopsis, the justification is presented for Reading Recovery as the study venue.

Independence

Independence can be a difficult concept to understand and to foster while teaching. Although some programs attempt to foster or teach specifically to achieve independence, not all teachers learn to value it (Tharp & Gallimore, 1988). In school settings examples of independence are found in New Zealand's interactive classroom instruction (Watson, 1994) and the international tutorial Reading Recovery program (Clay, 1991a). In Reading Recovery school environments, where students are working on literacy tasks, instruction involves teacher/student interactions and an intention to scaffold student needs as students complete authentic tasks (Clay, 1991a, 1993b; Watson, 1994). For example a student confused by a reading difficulty is helped by a teacher's scaffolding prompts to engage memory for known strategies to solve the problem. Within these New Zealand programs, the style of adult support varies, yet the common goal is student engagement, initiation of solutions, and independent performance (Watson, 1994). Other instructional settings also attempt to solve these issues.

In Italy, the Reggio Emilia preschool classrooms foster independence. The instruction is focused on allowing preschool children to explore their environment, attempt solutions, note their success or partial success, and develop appropriate steps to meet their goals. A main ingredient in the process is instructive, interactive dialogue that includes a supportive adult who does not give the answers, but leads the children to reflect on situations to be resolved. The preschool programs are not print-oriented, although print can emerge as the students mature and consider its use (Municipality of Reggio Emilia, 1990; Katz & Cesarone, 1994). In this country, the preschools that focus on a project approach to learning (Katz & Chard, 1984, 1994) have an intentional focus on fostering independence. Independence is considered a disposition necessary for successful learning (Katz, 1993).

Another instructional example of fostering student engagement and comprehension is called reciprocal teaching. Reciprocal teaching supports upper grade students in independent learning from texts (Palincsar & Brown, 1983, 1986). Students learn how to assume control of the instructional tasks. Other examples exist of efforts to shift classroom instruction to be child-centered (Tharp & Gallimore, 1988). The work at the Kamehameha School developed culturally appropriate instruction for Hawaiian children (Au & Hoa, 1980; Tharp, 1982; Gallimore, Dalton,

& Tharp, 1986). The instructional goal each time is to encourage students to gain control of the academic tasks and become independent learners. Each program is different, but each provides children with instruction they can internalize and apply. Intellectual development and task participation result in learning that helps students later become high school graduates who continue to mature in their applications of what they were taught (Gardner, 1991; Illich, 2002).

To further clarify the concept of independence, consider Watson's definition of independence in primary classrooms in New Zealand. The definition suggests how students function mentally in all subjects:

Knowing how to generate and direct the processes of learning by working on grouping things together and categorizing them, by linking new information to what is already known, and by resolving inconsistencies while constantly altering and reorganizing ideas as experiences increase (Watson, 1994, p.3).

Because the current study is about fostering independence and teaching reading in tutorial situations, a definition of student independence emerged that identifies independent behaviors:

Understanding the task of reading at the current ability level and using strategies to solve the reading problems that occur without the immediate and direct support of the teacher. The independent behaviors observed include monitoring, reading, rereading, searching for cues, and self-correcting miscues.

The current definition applies to independence at any stage of student development. At every stage, teachers should note what the student does independently and never do for the student what the student can do (Clay, 1991c). Clay suggests that independence cannot be taught but needs to be fostered and is an area that warrants study (M. Clay, personal communication 1993).

Fostering Independence

It is not possible to teach children to be independent. This is why the term *fostering independence* is critical (Clay, 1991a). To foster independence is to create a teaching environment that allows for student initiation of cognitive activity. The instruction remains in the student's zone of proximal development and partially understood material is used with teacher supportive interactions. Successful learning should be continually confirming what is known, as the student attempts to apply the known to the new texts or settings and explore new applications of learned behaviors on appropriate texts. One way to do this is to teach poor readers to read by reading, using the strategies of good readers on manageable pieces of text in the format of many little books gauged to the student's own reading ability (Clay, 1991a; 1998).

Disposition of Independence

Independence is a disposition or character trait that should develop before the child goes to school (Katz, 1987). Later when in school, if the student is not independent, fostering independence may facilitate smooth acquisition of knowledge. Students teach themselves to read and teachers can support the process by providing scaffolds. The disposition of independence supports the student to initiate strategic options when learning seems difficult (Clay, 1991a; 1998).

Intersubjectivity

Intersubjectivity is a level of mutual understanding that can exist when instruction begins at the student's current knowledge level. Initially a teacher and a student approach instruction with different definitions of the task, its vocabulary, tools, and procedures (Wertsch, 1984). The teacher, through assessment, discussion, and observation of the student's behaviors and understandings, discovers the student's knowledge base and can establish mutual ground for dialogue and demonstration conducive to learning and development.

An example of initial intersubjectivity could occur when a parent determines what an infant wants to do and helps the infant accomplish a task (Bruner, 1974). Another example according to some researchers could occur after pre-assessment and before Reading Recovery lessons begin. This idea is not shared by Clay who insists that the two weeks of observation in the Reading Recovery program, known as Roaming Around in the Known, is for the teacher to stop teaching from preconceived ideas (M. Clay, personal communication, January 13, 1999), observe how the student functions with print, and learn what the student knows (Clay, 1993b). It was suggested that in the Roaming Around in the Known sessions, the foundation for linguistic interaction is established as both the teacher and student adjust to establish a common foundation for communication and instructional interaction (Dorn, 1996). Later, the language of instructional conversations helps the student solve reading problems that occur.

Intersubjectivity seems fundamental for instruction to be effective and powerful. During instruction, the teacher supports or scaffolds the student to maintain or regain intersubjectivity when understanding is not secure. Eventually, the student gains control of the task and is no longer dependent on intersubjectivity and teacher scaffolds (Wertsch, 1998).

Scaffolding

A scaffold is support provided for students who attempt to solve a challenge. The intention is to teach by supporting learning (Bruner, 1990) and thus enable the learner to benefit from the support, experience the process of doing the task, and move beyond the current level of expertise. Wood unites the work of Piaget, Vygotsky, and Bruner by suggesting that together they provide the necessary ingredients for understanding student thinking and learning (Wood, 1988, 1998). Piaget observes children in terms of stages that mark their levels of understanding (Piaget, 1952).

Wood noted that Vygotsky observes children's potential when engaged with a more knowledgeable other, and that Bruner's theories expand Vygotsky's work into an educational application by adding teacher diagnosis and scaffolds in what would be equivalent to Vygotsky's zone of proximal development (Wood, 1988; 1998).

Vygotsky, a psychologist, suggests that speech plays a decisive role in the formation of mental processes (Vygotsky, 1978). He and his colleagues conducted a series of investigations to explore the use of speech to develop memory. He showed that use of speech with the mediation of word becomes active memorization that evolves into other higher mental processes resulting in developmental growth (Vygotsky, 1978). "Vygotsky concludes that human mental development originates in the verbal communication between a child and an adult..." (Luria & Yudovich, 1959, p. 26). This premise leads to Vygotsky's concept of the zone or zones of proximal development, based on what was observed when a child receives scaffolding that results in the development of knowledge (Vygotsky, 1978).

Zone of Proximal Development

Development and learning should match what a child can do with assistance because this behavior is more indicative of mental development than what the child can do alone. The *zone of proximal development* is considered the distance between the developmental level as determined by static testing of knowledge and the level of potential development as determined through problem solving under adult guidance or with more knowledgeable peers (Vygotsky, 1978). Within the zone of proximal development are those developmental functions that have not yet matured but are in the process of maturation. This concept is clarified by the statement, "what the child can do with assistance today, she will be able to do by herself tomorrow" (Vygotsky, 1978, p. 87). The teacher cannot wait until the student is ready for the next step but helps the maturation occur. To reinforce the point, Vygotsky suggests that, "The only good learning is that which is in advance of development" (Vygotsky, 1978, p. 89).

Bruner's work and the term *scaffolding* have been used to explore supported learning in language acquisition studies (Cazden, 1983). It is critical that the scaffold or support decrease when not needed by the student (Wood, Bruner, & Ross, 1976; Cazden, 1983). A parallel that exists in Vygotsky's work suggests that the zone of proximal development or areas of partial knowledge is served only when instruction leads the learner into new territory (Vygotsky, 1978). These ideas suggest interactive instruction.

Interactive Instruction

Successful instruction is maintained by interactive behaviors. In such cases the teacher is available to interact with the student and assist to support progress when help is needed. These reciprocal activities influence both the student and the teacher behaviors as learning progresses. No event of interaction is isolated as learning continues to evolve (McNaughton, 1987).

Scaffolds support a student's efforts to note and resolve reading mismatches that occur and to indicate the meaningfulness of texts in Reading Recovery (Clay, 1993b). The teacher gives more and more of the control to the child and gently pushes the child toward more and more difficult tasks (Clay & Cazden, 1990, p. 212). The concept of a scaffold is expanded beyond teacher to text by the variable of increasing levels of text difficulty that are critical to progress. Scaffolds suggest interactive teaching when the student and the teacher each provide their part resulting in student learning. The teacher supports the student at the cutting edge of the child's competencies in his or her continually changing zone of proximal development. (Clay & Cazden, 1990, p. 219). This reduction of the zone of proximal development by scaffolds and increased control by the student suggests an educational application of Vygotsky's theory (Wertsch, 1985; Wertsch & Stone, 1985).

Often teachers wait until the child seems ready for instruction, especially in reading. Vygotsky's theory (1978) challenges the concept of readiness originated by Piaget's research (1952) and suggests that, "instruction must be aimed not so much at the ripe as at the ripening functions" (Vygotsky, 1962, p.104). The teacher supports student partial knowledge and encourages competence and independence by teaching in the child's zone of proximal development. Contemporary researchers take this theory and develop interpretive applications in instructional settings and suggest that intersubjectivity be used as a foundation for instruction (Wertsch, 1984; Moll, 1990).

When the teacher encourages students to use their knowledge about the task to help the student feel empowered, intellectual development can evolve while completing tasks. The teacher offers manageable portions of information about the task and, gradually, as the student begins to grasp a new portion of the task, the teacher builds on what the student knows (Clay, 1998). The student develops beyond current perceptions of the task and of the goal. Eventually, the student's understandings of the task become similar to the teacher's. Then the student can do the task without interactive support, and instruction moves to a new zone of proximal development.

A conceptualization of Vygotsky's theory with specific steps of knowledge acquisition is used to explain the process of knowledge acquisition (Saxe, Gearhart, & Guberman, 1984; Tharp & Gallimore, 1988; Lyons, 1994). This interpretation is helpful to teachers who need to be aware of student concept development to get lasting results from instruction. See Table 1.

Table 1. Stages of the Relationship of Assisted to Independent Behavior (Beginning to Developed Capacity)

Capacity Begins (Zone of Proximal Development)		Capacity Developed	
Stage I Assisted	Stage II Assisted Dependent	Stage III Assisted Independent	Stage IV Independent
Assistance provided by more capable others: Adult or child	Assistance provided by the self	Internalization, automatization, “fossilization”	De-automatization; recursiveness through prior stages
<p>Students:</p> <p>Stage I: Gradually learn from a more knowledgeable other (intercognition).</p> <p>Stage II: Incorporate what is learned into their own understandings (information goes from other directed (intercognition) to the ability to use the formula or pattern of information independently (intracognition). This information is limited to a specific task in a new setting and requires support or prompting.</p> <p>Stage III: Expand on the knowledge independently with only occasional support.</p> <p>Stage IV: Control and application of what is known is applied to other related events.</p>			
<p>Note: The information provided in this chart first appeared in Tharp and Gallimore (1988, p.35).</p>			

Too often teachers introduce material but do not assess students’ successful internalization or development of understandings (Tharp & Gallimore, 1988; Lyons, 1999). In Reading Recovery, hard-to-teach students who have exposure to ideas may have insufficient practice, causing confusions for the learner (Lyons, 1999). This can indicate poor delivery of information, interfering with understanding and making remembering difficult for the student because intersubjectivity is lost (Clay, 1993b).

Vygotsky considers learning to be the internalization of knowledge resulting from interaction with a more knowledgeable others. The learning process is explained as uneven transformations as the student appropriates new information by a process labeled *periodicity*: unevenness in development of the different functions, metamorphosis or qualitative transformation of one form into another (Vygotsky, 1978). This definition of development and learning is meaningful for understanding what is happening when students struggle with learning. The struggles indicate difficulty in accommodating and appropriating concepts. Interaction and practice is critical for the student to finally grasp the concepts, and more important, to be able to apply them in future lessons (Clay, 1993b; Lyons, 1994). The relationship between exposure and internalization is more easily understood with Vygotsky’s suggestion that:

- An external activity or operation is reconstructed and becomes internal.
- An interpersonal process is transformed into an intrapersonal one.

The transformation of an interpersonal process into an intrapersonal process is the result of a series of developmental events (Vygotsky, 1978). Saxe et al., provides a conceptualization of this process but omits the internal struggles of the student (Saxe, Gearhart, & Guberman, 1984; Tharp & Gallimore, 1988; Lyons, 1994). For this reason, movement through the four stages of behavior from assisted to independent (i.e., from Stage I through Stage IV in Table 1) is recursive, beginning anew as the student progresses.

It has been suggested that Reading Recovery lessons provide an example of Vygotsky's conceptualization when a teacher uses interactive instruction in what could be called the student's zone of proximal development. There is "a system of social interaction organized around the comprehension and production of texts that demonstrably create new forms of cognitive activity in the child" (Clay & Cazden, 1990, p. 206). This consideration (Clay & Cazden, 1990) provides research with an existing instructional format that originated prior to consideration of Vygotsky's theory.

When the intertwining of culture and cognition within Reading Recovery lessons is considered, a picture of Vygotsky's concept emerges. The activity in a social historical setting with a more knowledgeable other is an interpretation of activities of children in many cultures learning to perform tasks when the whole task is presented and the adult expert does the portions of the task the student cannot accomplish (Cole, 1985). In Reading Recovery, an authentic literacy task is presented and the student does manageable parts of the activity. The task is then completed with interaction between the teacher and the student. The whole task is presented with the expectation that although the task is difficult for the student now, the teacher accepts the current ability level and has the implicit expectation that the student will eventually do the whole task. (See Appendixes A.)

Reading Recovery

Reading Recovery is often cited as a tutorial program that works (Wasik & Slavin, 1993). This program brings together the factors of the student/teacher interactive dyad, the intention to foster for student independence, consistent instructional success, a focus on emergent readers, scaffolds for instruction, teaching strategies, and the establishment of intersubjectivity. Therefore, Reading Recovery is a logical setting for this study. In lessons, meaningful applications of instructional strategies help the student learn what occurs at the process level in reading. The lessons offer rich observational opportunities for the researcher. The inclusion of the Reading Recovery techniques in other tutoring programs (DeFord, Lyons, & Pinnell, 1991), including Reading Recovery like literacy groups (Wong, Groth, & O'Flahavan, 1994; Dorn & Allen, 1995) suggest that the teaching concepts and techniques contain instructional behaviors worthy of exploration by educators.

The design of the Reading Recovery program includes several components that are critical to its success:

- (a) An instructional component based on Clay's theory of how students learn to read and write;
- (b) Three-tiered staff development for adults;
- (c) Monitoring, research, and evaluation of the program to maintain its consistency across sites,
- (d) Statistical evaluation of the instruction students receive, and
- (e) An implementation component to provide checks and balances for the program (Smith-Burke, 2001).

Local assessments evaluate student progress and later are collected for across site consistency. The data from the June *Observation Survey* assessments indicate the ongoing success of the students as readers and their independence as learners (Clay, 1993a). These data indicate whether students will continue to make reading progress in the classroom without special support and suggest continued student independence in reading. Others (Wood, 1988; Clay & Cazden, 1990; Wood, 1998) indicate that Reading Recovery is a good instructional setting for a study about fostering student independence. (See Appendix B.)

The developer of Reading Recovery, Marie Clay, is a clinical psychologist whose 1966 dissertation described good readers learning to read (Clay, 1966). Clay (1991a) accepts Bruner's belief that the challenge to education was deciding how to manage to time the steps of pedagogy to match unfolding capacities, how one managed to instruct without making the learner dependent, and how one managed to do both of these while keeping alive zest for further learning (Bruner, 1974) as a guide for her goals. Clay's intention is to teach unsuccessful, emergent readers in an accelerated way so they catch up with their peers and become readers within the average band of their classrooms.

Clay developed a reading/writing program to teach students to develop strategic processing and monitoring as they learned to incorporate the aspects of reading and writing into a smooth integration of language, literacy, and the visual aspects of print (orthographic and the letter/sound system). This manageable integration of the language aspects is required to develop skill in reading. This reading/writing program takes advantage of the reciprocity of reading and writing by teaching them both in only 30 minutes daily.

To develop an effective way to maintain the consistency of this program, Clay envisioned and then developed a four-tiered program that guaranteed the integrity of the program, thereby, enabling the program to transfer to other cultures and incorporate necessary cultural aspects. This program included teachers trained weekly (or biweekly) for one school year who began working with students immediately. The teachers were trained by teacher leaders who spent one school year at a university site learning how to deliver the Reading Recovery program to teachers including a clinical training for implementation of the program with students. The teacher leaders are trained by university professors who were trained by Reading Recovery trainers who are professors at a university having received the same training as teacher leaders plus in-depth

Reading Recovery theory. All Reading Recovery personnel work daily with individual students. At all levels there are in-service sessions to enhance teacher reflection, and craft, as well as to develop theory and practice to the next level. This system of implementation is designed to guarantee the consistency and quality of the program (Clay, 1992).

Clay's Original Research

Clay observed that emergent high readers read the most text, work on the most word errors, maintain a low ratio of errors to accurate text, and have the most successful ratio of self-corrections to miscues or word errors. Clay also observed that high readers learn from their self-corrections. In contrast, the poorest (i.e., low) readers read the least text, work on the fewest word errors, have the highest error ratio, and have the fewest successful self-corrections. Low word volume negatively influences opportunities for low readers to be successful readers who read continuous text. Practicing reading behaviors is critical to learning because it teaches the reading process (Clay, 1991a). The low readers with limited opportunities to read and be independent also require extensive teacher support to continue reading text. This extensive support encourages dependence on the teacher.

Therefore, Clay determined that good readers learn from their self-corrections, but poor readers do not. After this discovery Clay developed the Reading Recovery program with its many minimal gradients of difficulty in leveled texts and strong emphasis on fostering independent performance. She feels poor readers can learn if they are taught the way good readers are taught and if they have dispositions for independence. She wants poor readers to have the opportunities of good readers to enable them to become successful (Clay, 1991a).

Self-Corrections

A very powerful aspect of Clay's studies is the meaningfulness of self-correction feedback that tells readers if they are correct and supports their independence and progress in future lessons. Self-corrections may occur as an isolated behavior but generally occur along with rereading, monitoring and searching for cues (Clay, 1979a; Clay, 1979b). Some self-corrections can be assumed to be mis-speaks (Thompson, 1984). Children fostered to be independent do learn to work on errors and apply strategies as they arrive at their self-corrections over time. This reflects efficient reading (Clay, 1991a). Telling students what they did that helped them arrive at a self-correction is very important learning in early lessons (Schwartz, 1997). Making self-corrections also enhances the opportunities to foster a disposition for independence in the learner.

Related Research

Fostering student independence is a subject of concern to Reading Recovery teachers. Two Reading Recovery studies about writing focus on independence and note a relationship between teacher scaffolding and emerging independence as it occurs in the writing portion of Reading Recovery lessons (Hobsbaum, Peters, & Sylva, 1996; DeFord, 1994). A third study looks at the

match between strategy prompts and children's verbalizations when processing becomes automatic. Evidence of regulatory activities emerges as students develop independence during Reading Recovery lessons (Schmitt, Younts, & Hopkins, 1994). A follow up study relates oral tales to text literate register and suggests developing independence of the students (Cox, Fang, & Schmitt, 1998). These studies do show how children apply new knowledge to other settings as they become independent but they do not relate independence to reading development, which is critical to reading success. Therefore this researcher sought to extend the body of research to relate fostering independence to reading success.

Earlier, this researcher conducted a pilot study to observe (a) students as they learned to read and (b) student independence as a result of teacher scaffolds used during Reading Recovery lessons. By focusing on teacher prompts and the student's use of prompted behaviors, examples of student regulation and implementation of strategies on authentic reading tasks were observed. In one videotape, a teacher limited instructional support to increase the demand for student independent behaviors. The result was poor student performance. The teacher resumed using her earlier strong scaffolds and easier texts. The student was again successful. It was suggested that the subtle interactions that occur during in the teacher/student dyads foster independence and can affect a student's learning to read. That pilot study led to the study reported here. (See Appendix C.)

Among the studies exploring Vygotsky's theory is one that looked at preschoolers who received assistance or scaffolds with puzzle tasks. That study contained single event activities without academic learning over time or the use of prior learning on subsequent occasions, as education requires. These steps to assist in a practical puzzle test suggested learning in a social context (McLane & Wertsch, 1986). The ideas of learning in a social context and scaffolding suggest ideas that were later incorporated into this study.

Within the Reading Recovery lessons are found all the ingredients of instruction and the fostering necessary for learner independence. The Reading Recovery lessons are examples of learning in a social context, including scaffolds, intersubjectivity, interactive instruction, and zones of proximal development. The instruction focuses on the student's developmental level and student zones of proximal development. The teacher scaffolds provide examples of supporting continual growth for the students.

Synopsis

As indicated throughout the literature, fostering for independence is key for teaching students; however not enough is yet known about fostering. The work of others point to the need for this study in order to focus on fostering student independence during the reading portion of lessons (McLane & Wertsch, 1986; Clay & Cazden, 1990; Clay, 1982, 1985, 1991a, 1993a, 1993b; DeFord, Lyons, & Pinnell, 1991; Lyons, 1999; Lyons, Pinnell, & DeFord, 1993; Cox, Fang, & Schmitt, 1998; and Hobsbaum, Peters, & Sylva, 1996).

The method of studying the fostering of independence is critical to the possibilities of discovery. Quantitative research will not provide the rich data necessary for the analysis of lesson behaviors within dyads in a social context. Therefore this qualitative study was proposed.

Learning to read is a complex task which some find impossible to master. Vygotsky's theory of learning in a social context suggests a frame for observing teaching and learning, and some see it as a format for fostering independent behaviors with at-risk students. Students who have difficulty need interactive instruction including teacher efforts to gain intersubjectivity and apply appropriate scaffolds, as is possible with the Reading Recovery program, which fosters student independence on a daily basis.

Other studies offer ways to discover more about learning in a social context, but do not consider reading instruction and fostering independence together. This study provides an exploration of the activities that may lead to greater understanding of fostering independence as a part of reading instruction.