

How Leaders Support Teachers to Facilitate Self-Regulated Learning in
Learning Organizations: A Multiple-Case Study

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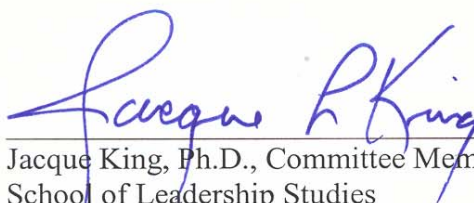
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Abstract

Leaders are rightfully concerned about the role they play in achieving an organization's desired outcomes. For leaders in learning organizations, these outcomes are often demonstrated by academic achievement. Recent research has suggested that the self-regulated learning model is an effective way to achieve desired academic outcomes in various learning environments from kindergarten classrooms to corporate training and development departments. This dissertation addressed the leadership role in facilitating self-regulated learning in learning organizations by employing qualitative research to investigate the following research question: how do administrators in schools that support the self-regulated learning model encourage and equip teachers to facilitate self-regulated learning in the classroom? This research examined two schools with case study methodology using on-site observations, open-ended interviews with leaders and staff, and document reviews to provide a robust evidential base for data analysis. The results explain how leaders support the self-regulated learning model, and the subsequent discussions address the need for change in current pedagogical approaches to better the educational experiences of the learners we serve.

Dedication

I dedicate this effort to my wife, Rose Duby—an ever-present source of encouragement, support, and hope through this long and arduous process. You are not only my closest and most faithful friend, you are the consummate Christian educator: a caring woman of passion, integrity, and patience who lovingly guides others to truth. Thank you, my beloved, for being there for me in so many ways during this endeavor.

I also dedicate this work to the Lord, the Father of lights who above all is faithful and true and by whose grace and mercy I draw each breath. May my Heavenly Father receive glory, and may His Kingdom be furthered from any good that comes from this effort.

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Chapter 1 – Introduction

Studies, research statistics, polls, and anecdotal pronouncements continue to flood the desks of leaders involved with education in the United States today. But, have we ever taken a step back and asked, “Why?” Why is there a continued stream of studies and papers on how learning—or, sadly in some cases, the business of education—needs to improve? Perhaps headlines such as “School Budget Crisis Looms,” “SAT Scores Continue to Decline,” or “Standards-Based Education Leaves Pupils Behind” give some indication of why school leaders have such an intense interest in research relating to America’s educational system. Such leaders; as well as social scientists, educational researchers, and teachers; are searching for ways to meet the pressing needs of America’s schools.

Suppose, however, the headlines read differently. Imagine the nation’s newspapers stating, “SAT Scores at All Time High,” “Fully Funded Schools Lead to Tax Rebates,” or “Balance Between Standards and Student Needs Achieved.” Though such headlines would suggest American schools were succeeding, they would probably not diminish research in the field of education. For leaders in education, the research is not only about how to solve problems facing today’s system of education. More importantly, educational research is about making learning more effective; a responsibility rightfully shouldered by school leadership, which often includes the role of instructional leader.

The Role of the Instructional Leader

Research has suggested that a significant aspect of leadership in learning organizations is in the area of instructional leadership (e.g. Boscardin, 2005; Cosner & Peterson, 2003; Edwin, 2005; Fidler, 1997); that is, encouraging the adoption of the best

teaching and learning practices to help learning organizations attain desired outcomes. Recent research in many fields, from organizational and business training to primary and secondary education, has suggested that these practices include the learner's development of self-regulated learning techniques in order to reach desired educational outcomes (Fuchs et al., 2003; Garrison, 1997; Grow, 2003; Ponton & Carr, 1999; Smith, 2001).

Saunders (1998), for instance, posited that leaders can provide instructional leadership that affects learning outcomes by implementing a thinking, meaning-centered curriculum based upon the learning community's desired outcomes and by providing for a staff's professional development to implement the curriculum. Bailey (1990) went on to note that it is important for leaders to understand the apparent interconnectedness between effective curriculum implementation and teacher development. Interestingly, Burch and Spillane (2003) found that leaders who were less involved in curriculum selection and development rarely saw the need for teacher development beyond providing them with the latest textbooks. Such leaders failed to demonstrate the instructional leadership some researchers have deemed essential for the attainment of desired learning outcomes.

Boscardin (2005) further highlighted the importance of instructional leadership, positing that certain dimensions of leadership have the potential to improve the performance of teachers and increase desired learning outcomes. He stated:

Two ways of creating supportive administrative roles are to shift the role of the secondary administrator from one of manager to one of instructional leader, and to use leadership strategies to establish effective evidence-based instructional practices that improve the educational outcomes for all students. (p. 31)

Ediger (2000) also posited that leadership has the *primary* responsibility for improving curriculum to attain successful outcomes; outcomes which directly relate to enhanced student learning (Spillane, Halverson, & Diamond, 2004).

Enhancing Learning: The Role of Self-Regulated Learning

One of the most exciting developments in recent years has been the increased knowledge of and emphasis in self-regulated learning, a process that positively affects desired student learning outcomes (Eom & Reiser, 2000; Hofer & Yu, 2003; Lapan & Turner, 2002; Perry & Drummond, 2002; Perry, Nordby, & VandeKamp, 2003). By the late 1990s, books on self-regulated learning were listed as “hot trend” (Brudnak, 1997, p. 26) books on education and pedagogy. Zimmerman and Schunk (2001) wrote that one of the main reasons self-regulated learning is so popular is that a fundamental objective of education is to train students to use learning strategies effectively, appropriately, and independently; objectives that can be met through self-regulated learning. Muller (1998) suggested that such educational benefits explain why self-regulation has become a widely advocated pedagogic goal for students of all ages, not just adults. Research has suggested now that primary and secondary students can successfully apply self-regulated learning strategies when afforded the opportunity to do so. For instance, Glaubman, Glaubman, and Ofir (1997) examined the role of several self-regulated functions in kindergarten students and found that developing these activities contributed to better story comprehension. Perry, VandeKamp, Mercer, and Nordby (2002) also proposed that even young children can be challenged to become more self-regulatory in their approach to learning. Their research confirmed that “young children can and do engage in SRL [self-regulated learning] in classrooms where they have opportunities to engage in complex

open-ended activities, make choices that have an impact on their learning, control challenge, and evaluate themselves and others” (p. 14).

These self-regulated learning strategies not only impact a student’s academic achievement, they may also increase a student’s capacity to develop lifelong learning skills (Zimmerman, 2002). Bandura (1997) also noted that self-regulated learning plays an important role in lifelong human development. He (1997) posited, “One of the major advances in the study of life-long cognitive development concerns the mechanisms of self-regulated learning” (p. 227). As students develop these self-regulated behaviors over their lifespan, they develop abilities that can help them become causal agents toward learning and other life experiences.

Though the idea of directing one’s own learning is not new, its relatively recent promotion in formal educational settings has prompted many educators and social scientists to look much closer at its many facets; its roots, its processes, and its potential; in order to more clearly define its role in America’s classrooms. This is especially important since self-regulated learning involves processes not typically found in conventional classroom environments. As Wehmeyer, Palmer, Agran, Mithaug, and Martin (2000) stated, “Teaching students to take greater control over and responsibility for their own learning and to become causal agents in their lives is a process that often does not lend itself to traditional models of teaching” (p. 440). This may be due, in part, to the erroneous assumption that teaching self-regulated learning involves giving students full control of their learning. Yet, as Zachlod (1996) noted, promoting self-regulated learning is not about control, it is about choice. Zachlod stated:

Most teachers feel a normal and logical resistance to giving up control. But giving children the opportunity to become autonomous by allowing them to make decisions does not mean losing control; it means providing a framework for learning, having expectations, and then adding plenty of wiggle room for times of self-direction. (p. 51)

Indeed, the self-regulated approach to learning is a learner-centered approach that teaches a student that he or she can affect the learning process (Wehmeyer, Palmer, et al., 2000). Gallagher (1994) also wrote about the growing importance of learner control or agency, positing that “we now have models that involve the sequential interaction of the individual with his/her environment and the successive development of knowledge structures, complex networks of facts, associations, higher order generalizations, etc.” (p. 172). Yet, a learner-centered education can only occur in schools committed to developing a learner-centered culture. According to Daniels and Perry (2003), a learner-centered classroom is one in which teachers do the following:

Teachers are attentive to issues surrounding children’s cognitive and metacognitive development, the affective and motivational dimensions of instruction, the developmental and social aspects of learning, and individual differences in learning strategies that are, in part, associated with children’s cultural and social backgrounds. (p. 102)

If learner-centered cultures are not prevalent in today’s classrooms, how can such environments be cultivated? Brooks and Brooks (1993) wrote:

The teacher’s responsibility is to create educational environments that permit students to assume the responsibility that is rightfully and naturally theirs.

Teachers do this by encouraging self-initiated inquiry, providing the materials and supplies appropriate for the learning tasks, and sensitively mediating teacher/student and student/teacher interactions. (p. 49)

For Wehmeyer, Agran, and Hughes (2000), teachers encourage such environments when they directly teach and observe student-directed learning strategies. They wrote, “One of the primary instructional activities that can promote student self-regulation of learning and, ultimately, promote self-determination is the use of student-directed learning strategies” (p. 59). Schunk and Zimmerman (1998) concurred; suggesting that by challenging students to manage their own learning, educators can facilitate learning environments that contribute to academic success.

The Need for Leaders to Encourage Self-Regulated Learning

Though teachers may strive to facilitate environments that encourage self-directed learning, Wehmeyer, Agran, and Hughes (2000) suggested that many obstacles hinder teacher instruction in self-regulation. Their research delineated several barriers teachers may encounter including lack of information, the inability to properly instruct students to self-regulate their learning, and the lack of authority granted them to provide instruction in self-regulated learning. Yet, these barriers can be overcome by increasing our knowledge and understanding of self-regulated learning and by equipping and encouraging teachers to facilitate self-regulated learning in the classroom. A renewed emphasis on self-regulated learning will require a shift in the traditional, entrenched pedagogical structures of America’s schools; a shift that, as Bandura (2002) suggested, must occur if we are to teach students how to learn for themselves. Such a shift can only

be accomplished when school administrators provide instructional leadership and help reform our current system of education.

While Burch and Spillane (2003) posited that the school leader is responsible for overseeing this type of educational reform, they suggested that leadership requires more than the ability to encourage instructional change; it requires knowledge of how to bring it about. As Nelson (2001) posited, there is often a disconnect between what is known about effective teaching and learning and the strategies employed to achieve them. “As a result, many talented and dedicated teachers try hard on their own to make improvements, with little support or encouragement” (Nelson, p. 15). Therefore, it is incumbent upon leadership to ensure that the school’s strategies and procedures, from the learning environment fostered to the curriculum and teaching models available for teachers to employ, encourage the most effective learning practices including practices that facilitate the development of self-regulated learning.

Statement of the Research Question

Though the preceding research posited numerous benefits of self-regulated learning, research by Wehmeyer, Agran, and Hughes (2000) suggested that even those teachers who presently advocate self-regulated learning continue to face important obstacles in its proper implementation, obstacles that may be overcome with appropriate leadership support. This consideration led to an important question regarding a leader’s role in promoting self-regulated learning: how do administrators, in schools that support the self-regulated learning model, encourage and equip teachers to facilitate self-regulated learning in the classroom?

Purpose of the Study

This research set out to describe how leaders equip and encourage teachers to foster self-regulated learning in their classrooms, based upon an investigation guided by the preceding research question. Other pertinent questions or subcategories that will help address the research question include the following:

1. How do leaders view their role in creating an atmosphere conducive to self-regulated learning?
2. What actions do leaders undertake to encourage teachers to promote this type of learning?
3. How do teachers view their leader's responsibility for promoting self-regulated learning?
4. What were obstacles leaders faced when encouraging teachers to promote self-regulated learning?

This research focused on leaders who affirm the use of self-regulated learning in achieving desired learning outcomes and who serve in schools presently employing curriculum supportive of the self-regulated learning model.

Scope of the Study

To address the research question, a comprehensive review of the literature was conducted to examine the leader's role as instructional leader, the value of self-regulated learning, principal components of self-regulated learning, and self-regulated learning's connection to the agentic perspective of social cognitive theory. The role organizational leadership plays in ensuring that teachers not only know about and understand self-regulated learning but also appropriately implement teaching models encouraging self-

regulated learning was also examined. Once these content areas were reviewed, research toward an understanding of how leaders equip and encourage teachers to facilitate self-regulated learning will be conducted. The following section presents a summary of the proposed method of inquiry and highlights the research design (explained more fully in chapter 3) that will be used to conduct the investigation.

Method of Inquiry

Qualitative methodology was employed to address the research question.

Qualitative methods of inquiry allow an investigator to “delve deep into the subjective qualities that govern behavior” (Holliday, 2002, p. 7). This study set out to explain how leaders equip and encourage teachers, subjective qualities relating to their behavior as instructional leaders. Additionally, the processes of instructional leadership occur within the context of the learning organization. Seidman (1998) posited that the primary way to investigate an organization and its processes is by examining the people within the organization. For Patton (1987), these people and processes are best examined with qualitative research.

Qualitative Research and the Case Study

Creswell (1998) maintained that there are five broad traditions of qualitative research upon which an investigator may base his or her study. These traditions include the biographical life history, phenomenological study, grounded theory, ethnography, and case study. Each of these traditions has a unique focus and approach, and each one’s utility for research largely depends on the investigator’s research question. This study’s research question asked how leaders equip and encourage teachers to facilitate self-regulated learning. According to Yin (2003), research that seeks to address *how* questions

tends to be explanatory in nature, and explanatory studies are often examined with case study methodology. More than just addressing the type of research question, Yin posited two additional conditions to consider when determining a study's research method: the extent of control the researcher has over participant behavior and whether or not the events examined are contemporary or historical phenomenon. Since this study did not exert control over participant behavior and sought to examine contemporary phenomenon, case study inquiry presented the most viable method for addressing the research question.

Research Sample

An important element of developing a case study's research design is to determine the number and type of samples that will be included in the study. Though many research endeavors, especially quantitative inquiries, involve numerous samples; qualitative methods require far fewer samples for effective research. In fact, Patton (2002) suggested that qualitative inquiry, including the case study, can employ a single sample that offers an information-rich context in which to conduct a study. Though Yin (2003) agreed that a good case study can be accomplished with just one sample, he suggested that examining more than one case may lead to a stronger study that enhances the prospects for generalizability. Therefore, this research employed a multiple-case study that examined two cases purposefully selected to ensure an information-rich context in which to conduct the research.

For case study sampling, Patton (2002) posited that the researcher should choose cases "from which one can learn a great deal about issues of central importance to the purpose of the inquiry" (p. 230). Therefore, two schools whose leaders and curriculum

presently support self-regulated learning, the issues of central importance, were selected for this study's case study sampling. These purposefully-selected cases provided an information-rich context to begin gathering data, the first step of a multiple-case investigation.

Data Collection

Stake (1995) suggested that a case study should include multiple sources of information from which to gather data. Yin (2003) categorized these sources of data into six broad categories: documentation, archival records, interviews, direct observations, participant observations, and physical artifacts. From these categories, Yin delineated three primary methods for collecting evidence: interviewing, observing, and reviewing documents. This study employed each of these primary data-gathering methods.

Interviewing. In each case of the multiple-case study, the leader of the school was interviewed using in-depth, open-ended questions to explore his or her role in equipping and encouraging teachers to facilitate self-regulated learning. The purpose of an open-ended interview is not to get answers or to test a hypothesis; it is to better understand the experiences of those most affected by the phenomenon being studied (Seidman, 1998). Since this study sought to understand how leaders equip and encourage teachers; not only were the school's leaders interviewed, but the school's teachers were interviewed also to ascertain their perceptions of the administrative support of self-regulated learning. These interviews were conducted on-site, allowing each interview participant to be observed in a context-rich environment.

Observing. Though interviewing served as the major source of qualitative data, direct observations of the phenomenon of interest provided another important source of

data, one which Patton (2002) proposed can enhance one's understanding of the complex situations each case presents. Patton (2002) also suggested the need to conduct on-site observations to better understand the relationship between the phenomenon studied and the organization as a whole. Patton (2002) wrote that this "is essential for overall understanding of what has been observed during fieldwork or said in an interview" (p. 59).

In both of the schools investigated, direct on-site observations were conducted. Observations included behaviors such as leader/teacher interaction, leader presence in the classroom and meetings, student use of self-instructional curriculum, overt and embedded teacher instruction (including self-regulated learning facilitation), and each school's relevant physical environment.

Reviewing documents. Finally, various school documents including leader-initiated training materials and curriculum supports were reviewed as part of the data collection process. As Yin (2003) posited, the most important use of documents in case study research is to corroborate evidence gleaned from other sources which, for this study, was the evidence gathered from interviews and observations. The variety of data gathered from document reviews and from the interviews and observations provided a rich evidential base from which a robust data analysis was conducted.

Data Analysis

Yin (2003) emphasized the importance of selecting a data analysis technique prior to beginning the research. Yin defined data analysis as the act of "examining, categorizing, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of the study" (p. 109). Once the

analytic technique is chosen, care must be exercised to ensure high-quality analysis will “attend to all the evidence, display and present the evidence separate from any interpretation, and show adequate concern for exploring alternative explanations” (Yin, p. 109). Yin contended that there are several analytic techniques that can be applied to case study data: pattern matching, explanation building, time-series analysis, logic models, and cross-cases synthesis. Since Yin suggested that an important goal of a multiple-case study is to build a general explanation to address the research question, this research employed processes that lend themselves to the explanation-building technique.

An analytic technique conducive to explanation-building is coding through the constant comparative method, a process developed during Glaser and Strauss’ (1999) work in grounded theory research. This process gathers data through interviews, on-site observations, and document reviews; the same three sources identified by Yin (2003) for case study research. In many traditional research designs, the process of analyzing the data from these sources would begin once the data had been gathered. With the constant comparative method, however, evidence is coded and categorized during the process of data collection; allowing the researcher to conduct the gathering and analysis processes simultaneously. The evidential base built through the constant comparative method is interpreted and presented in a descriptive narrative form, a story that the researcher writes to integrate and present the findings suggested from the data (Creswell, 1998).

Validity and Reliability

Yin (2003) posited four conditions that, when properly addressed, can maximize the quality of case study research. These conditions include construct validity, internal validity, external validity, and reliability. There are numerous ways to address each of

these conditions to help ensure the quality of the investigation. Specifically, to address construct validity issues, this study examined multiple sources of evidence from two separate locations, employed triangulation techniques, and maintained what Yin described as a “chain of evidence” (p. 105). Internal validity issues were mediated through pattern-matching analysis, explanation building, and exploring rival explanations. External validity was addressed by employing a multiple-case study based on replication logic. Finally, reliability conditions were addressed by following a designated protocol (the research design) and maintaining organized, accessible electronic and physical databases.

Limitations of the Study

Though the multiple-case study method of inquiry can lead to generalizability, sampling was limited to administrators from two private schools who volunteered to participate in the study. This purposeful sampling of a homogenous group presented the need to expand the study in the future to examine administrators from larger secondary schools and from publicly-funded schools. Additionally, the research interviews were conducted with administrators already knowledgeable of and presently supportive of self-regulated learning. Administrators who were unfamiliar with self-regulated learning were not included in this study though they may oversee teachers who support its use. It should be remembered, however, that the purpose of this study was to seek an understanding of how leadership encourages teachers to foster this model of learning. Therefore, for this study, it was necessary to investigate only those administrators who are supportive of self-regulated learning.

Chapter Summary

This introduction highlighted the need for leaders in learning organizations to provide instructional leadership that supports atmospheres conducive to self-regulated learning. To examine how leaders presently support such atmospheres; this chapter proposed a qualitative research study, utilizing multiple-case study methodology, to address the following research question: how do administrators in schools that support the self-regulated learning model encourage and equip teachers to facilitate self-regulated learning in the classroom? Before presenting a detailed examination of the research methodology used in this study, it is important to more thoroughly review what the literature has suggested about the role of leaders as instructional leaders, the advantages of self-regulated learning, and the need for leaders to support its implementation in their learning organizations. The results of this literature review are presented in the next chapter.

Chapter 2 – Literature Review

The following literature review examined a variety of resources including electronic and print resources to investigate the role of leaders as instructional leaders in learning organizations and the importance of encouraging self-regulated learning to achieve desired outcomes. The review focused on leadership in an educational context and on studies that examined various types of schools including those for exceptional, at-risk, and gifted learners that provide self-regulated learning opportunities. Though much research on self-regulated learning has been done in exceptional-student settings, many of these studies have been excluded since they focused on the relationship between specific learning disabilities and self-regulated learning. Resources were included if they added to our broader understanding of the relationship between leadership and self-regulated learning or if the findings suggested implications for learners in general. Also excluded were most studies relating to research in andragogy. After reviewing the literature on instructional leadership and the many tenets of self-regulated learning (its processes, its theoretical basis, and its need to be taught), literature asserting the leader's responsibility for encouraging self-regulated learning was also examined.

Organizational Outcomes: A Leadership Responsibility

It is the responsibility of leadership to ensure that organizations achieve their desired outcomes. Ruebling et al. (2004) posited that when any organization “is not successfully achieving its primary goals, the leadership behavior in that organization must be called into question” (p. 245). This principle is also true in an educational organization where the desired outcomes are often focused on student learning. Ruebling et al. stated it simply: “The purpose of a school organization is to achieve learning results

with its students” (p. 244). They went on to state that when the quality of student learning is questionable, the problem is leadership. “Most educators,” the authors contended, “do not seem to recognize the relationship of leadership to learning results” (p. 245).

Ruebling et al. (2004) suggested that leaders can demonstrate commitment to learning outcomes in a number of ways, including actively participating in the development of curriculum and organizing the school’s resources to promote its proper implementation. Dimmock and Lee (2000) also believe that leaders should provide students with curriculum that will maximize their learning, a fundamental purpose of the school. In order to provide the most appropriate curriculum and encourage its implementation, an administrator must become the instructional leader in her or his school.

School Leaders and Learning Outcomes: Providing Instructional Leadership

Boscardin (2005) suggested that the administrator must assume the role of instructional leader to help the school achieve its educational outcomes since, as Ruebling et al. (2004) wrote, “Research increasingly affirms that the key to school improvement and student achievement is for school leaders to focus on the academic program” (p. 244). Spillane, Halverson, and Diamond (2004) also posited that school leadership is responsible for ensuring that the best curriculum is implemented to increase student learning. Conversely, Burch and Spillane (2003) suggested that when school leaders fail to provide instructional leadership, the attainment of desired learning outcomes is jeopardized. Thus, instructional leadership is an important function of a school’s leadership (Boscardin; Cosner & Peterson, 2003; Fidler, 1997).

As noted in chapter 1, leaders who provide instructional leadership adopt the best teaching and learning practices to help their organization achieve desired outcomes. Research by Garrison (1997), Ponton and Carr (1999), Smith (2001), and Grow (2003) has suggested that these best practices include facilitating self-regulated learning, a learning model not widely used by educators today. Yet, many see the need to adopt such teaching practices in various learning organizations including the primary and secondary classroom. Craft and Bland (2004), for example, noted that these schools and their leaders are held more accountable now than ever before for ensuring student learning and achievement. This means they must choose curriculum and instruction techniques that are focused and deliberate and help achieve desired outcomes.

Others not only echo the call for appropriate curriculum, they have suggested ways leadership can approach curriculum change. Dimmock and Lee (2000) wrote:

Moving from a teaching syllabus approach to a student outcomes approach to the curriculum shifts the spotlight from teaching to learning. The focus is no longer on the teacher to cover the syllabus; rather, it is on the teacher to assist the student to achieve the expected learning outcomes. (p. 334)

This change in approach has suggested the fundamental shift that occurs in self-regulated learning: a shift from a teacher-focused to a student-focused classroom. For Kohn (2003), such a change in classroom management is especially important since it is connected to the theory of learning that informs curriculum content and instruction. This again reflects the need for the school leader to provide instructional leadership when adopting new approaches to teaching and learning (Ediger, 2000).

New curriculum and methodology will help achieve learning outcomes; however, any new curriculum or method must be properly implemented. Saunders (1998) has maintained that leaders can positively affect learning outcomes by ensuring the faculty's professional development to properly implement the curriculum. Bailey (1990) added that there is an important connection between proper curriculum implementation and teacher development that leaders need to understand. This is especially important in schools that employ unfamiliar teaching methods or adopt new curriculum.

For example, Ruebling et al. (2004) conducted a study of 143 public school classrooms that implemented new curriculum designed to better meet student educational needs. The data collected suggested that only a few teachers focused on the new curriculum, and even fewer did so in what the investigators deemed a satisfactory manner. Problems with teacher implementation of curriculum included ineffective alignment of teaching with stated goals, failing to provide an appropriate atmosphere for students, and demonstrating a lack of knowledge of the curriculum's subject matter. They posited, "Widely differing perceptions by teachers suggest inconsistent attention to these issues by leaders and confusion about the issues among teachers" (p. 248). For these investigators, there was an overarching need for leadership to develop and train faculty in the proper use of curriculum. One way leaders can help faculty implement new curriculum, suggested Craft and Bland (2004), is to help teachers to focus their instruction and identify misalignments in methods; especially when they attempt to apply old methodology to the new curriculum. Ebmeier (2003) also posited that leaders support teachers through meaningful feedback, reinforcement, and encouragement.

Since leaders of educational institutions are responsible for achieving their school's learning outcomes, it is incumbent upon such leaders to provide instructional leadership and faculty support to properly implement the curriculum. Chapter 1 presented, in summary, the need to adopt instructional methods that help develop a student's self-regulated learning abilities. This need is not only based on the long-term benefits research has suggested that self-regulated learning provides but by the pressing need for schools and, therefore, school leaders to select and implement curriculum that will help achieve their organization's learning outcomes. The following review of literature more thoroughly examines self-regulated learning; a learning model that, for many teachers, presents a strikingly different approach to teaching and learning; and investigates the importance of leadership in encouraging teachers to facilitate self-regulated learning.

Defining Learning

In order to truly understand self-regulated learning, it is important to first understand learning itself. Learning is a term with many definitions as varied as the learners themselves. Perhaps, that is because learning is not a new development and is therefore replete with long-held beliefs and presuppositions (Gallagher, 1994). As Candy (1991) suggested, the practice of learning is very old, predating teachers and schools. Yet, at least in a rudimentary form, learning can be defined. Merriam-Webster ("Learning," 2004) defined learning as gaining knowledge or skills by instruction or study. The Random House Webster's College Dictionary ("Learning," 1999) presented a similar definition, expanding it to include the *experience* of gaining knowledge or skills. Researchers like Candy, Zimmerman (1989), and Gallagher have provided similar

definitions; stressing that learning is done and experienced by the individual. Zimmerman (1989) stated that “learning is not something that happens to students, it is something that happens by students” (p. 22). Therefore, at its heart, all learning is deliberately accomplished by the individual often within the context of formal education (Candy).

In the past, formal education was viewed as “preparation for life” (Levin, 1998, p. 202). It was intended to prepare an individual to be a responsible citizen and to live a productive life. But, many educators today believe education to be much more than preparation for living. These educators see education as preparation for a lifetime of learning. Zimmerman (2002) posited that a major function of education is the development of lifelong learning skills. According to Martinez-Pons (2003) and Lapan and Turner (2002), people must be prepared for lifelong learning. As Bandura (2002) posited, “Educational systems must change their emphasis from mainly imparting knowledge to teaching students how to educate themselves throughout their lifetime” (p. 4).

The European Union’s (Anonymous, 2001) task force on learning defined lifelong learning as “all purposeful learning activity, formal and informal, undertaken on an ongoing basis, aiming to improve knowledge, skills, and competence” (p. 421). This definition is similar to Levin’s (1998) which reads:

Lifelong learning is a system of learning opportunities of both a formal and informal nature which participants can choose among to meet societal and personal needs and the individual circumstances of the learner over the entire life cycle. It contrasts markedly with the present situation in which most education and training takes place in the early part of the life cycle with relatively scattered

learning opportunities beyond the initial period of schooling and job training. (p. 201)

As Dembo (2000) stated, “One of the most important purposes of education is to increase students’ potential for learning both in and out of school. Learning how to learn can provide students with the critical tools for life-long learning” (p. 478). Therefore, learning how to learn becomes the root of developing lifelong learning skills, and it is the responsibility of our formal educational systems to provide an environment conducive to developing these skills (Lapan & Turner, 2002).

Learning How to Learn: Self-Regulated Learning

The task is to identify the learning environment most conducive to developing these lifelong learning skills. For many researchers in education, the environments that encourage lifelong learning skills are environments that promote self-regulated learning (Bandura, 1997, 2002; Chen, 2002; Lapan & Turner, 2002; Martinez-Pons, 2003; Zimmerman, 2002). Bandura (1997) posited that self-regulated learning strategies are only now being recognized as essential to lifelong cognitive development. Brown (1999) elaborated on this, noting that self-regulation is particularly important because it allows the gradual substitution of external controls for internal controls of behavior; a process necessary for students who move out of traditionally structured, formal learning environments to more student-directed learning environments that foster lifelong learning skills.

Self-regulation is a field of study that has grown tremendously in recent decades (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Candy, 1991), and there is now a proliferation of research on the subject (Perry et al., 2002). Knowles (1975) wrote of its

impending escalation at a time when the subject was largely confined to adult learning, especially adult learning in the workplace. But, now the voluminous amount of research has suggested great interest in self-regulation as a pedagogical model for all types of learners. Zimmerman and Schunk (2001) believe the rising popularity of self-regulated learning is directly related to the primary goal of education: teaching students to effectively use learning strategies in an appropriate, independent fashion. To better understand and navigate through the profusion of research on the topic, it is important to first define what is meant by self-regulated learning.

Self-Regulated Learning Defined

In recent years, numerous researchers and theorists of self-regulated learning, though varied in their pedagogical and psychological approaches and backgrounds, have identified several common elements that help define self-regulated learning. Schunk (2000) wrote, “Researchers of different traditions postulate that self-regulation involves having a purpose or goal, employing goal-directed actions, monitoring strategies and actions, and adjusting them to ensure success” (p. 355). Martin et al. (2003) summarized these self-regulated actions, and stated:

Self-regulated learning is nothing more than gaining control of correspondence between plan, do, evaluate, and adjust. It is the control of regulatory correspondence in pursuit of an end. Once a learner can control these correspondences, he or she can control what is being learned. (p. 444)

Many researchers of self-regulated learning have agreed that it is a self-initiated action (Knowles, 1975; Ponton & Carr, 2000; Zimmerman, 2002; Zimmerman & Risemberg, 1997) that involves setting goals (Bandura, 1997; Butler & Winne, 1995;

Chen, 2002; Garavalia & Gredler, 2002b; Grow, 2003; Kitsantas, 2002; Linnenbrook & Pintrich, 2002; Margolis & McCabe, 2003; Pintrich & De Groot, 1990) and regulating behaviors to reach those goals (Bandura, 1997, 2001; Butler, 2002a; Perry et al., 2003; Ruban, McCoach, McGuire, & Reis, 2003; Schunk & Zimmerman, 1994; Wehmeyer & Shogren, n.d.). These cognitions and behaviors are regulated through metacognition (Bandura, 1997; Garrison, 1997; Hacker, Dunlosky, & Graesser, 1998; Perry & Drummond, 2002; Pintrich, 2002; Wolters, 2003a; Zimmerman, 1989; Zimmerman & Martinez-Pons, 1988), sustained by intrinsic and extrinsic motivation (Hofer & Pintrich, 1997; Lapan & Turner, 2002; Martinez-Pons, 2003; Pintrich, 2000), and continually measured through a process of self-monitoring and assessment (Bandura & Locke, 2003; Butler & Winne, 1995; Candy, 1991; Chen; Horner & Shwery, 2002; Schunk, 2000; Wehmeyer & Shogren). It is important to note that self-regulated learning sometimes has been referred to in the literature as self-directed, self-determined, or autonomous learning; but, for the purposes of this research, we will use the term self-regulated learning.

Therefore, for this study, self-regulated learning is operationally defined as a self-initiated, self-regulated process of employing goal-setting, metacognitive behaviors and self-monitoring, sustained by motivation, to help a student reach his or her academic goals. In order to more fully understand these components of self-regulated learning, one must first understand the theoretical underpinnings of self-regulated learning. For many researchers, self-regulated learning originates from the agentic perspective of Bandura's (1986) social cognitive theory.

Theoretical Basis for Self-Regulated Learning: Social Cognitive Theory

Bandura (1986) succinctly defined the beliefs of social cognitive theory:

In the social cognitive view people are neither driven by inner forces nor automatically shaped and controlled by external stimuli. Rather, human functioning is explained in terms of a model of triadic reciprocity in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other. (p. 18)

Therefore, social cognitive theorists see the importance of a learner's actions and cognitions in the learning process. Another principal component of social cognitive theory is the assumption of human agency (Goddard, 2001). According to Bandura (2001), social cognitive theory adheres to a model of emergent interactive agency. "To be an agent is to intentionally make things happen by one's actions" (Bandura, 2001, p. 2). He (2001) added, "People are sentient, purposeful beings. Faced with prescribed task demands, they act mindfully to make desired things happen rather than simply undergo happenings in which situational forces activate their subpersonal structures that generate solutions" (p. 5). The idea of human agency is critical to the self-regulated learning model since self-regulation is dependent upon a learner's agentic functions as he or she adjusts the learning approach to meet the demands of a given situation.

Brown (1999) posited that the early foundations of social cognitive theory were laid by social learning theory, a theory based in the behavioral and social sciences. Brown suggested that social learning theory originated in 1941 when Miller and Dollard published *Social Learning and Imitation*. According to Brown, their work defined human behavior as a dynamic and reciprocal interaction of personal factors, behavior, and the

environment. This development in learning theory coincided with the broad interest in mental ability conceptions that grew after World War II (Zimmerman & Schunk, 2001). Zimmerman (2002) also noted that as psychology emerged as a science, the subject of individual differences in the way students learn began to attract widespread interest. Hofer and Pintrich (1997) stated that this interest in the psychological effect on epistemological development burgeoned in the mid 1950s.

Recent social scientists and educational researchers have continued the study of the psychological belief systems of individuals and the effects that such systems have on learning. Alevan et al. (2003) noted the increasing evidence that learning processes and results are strongly influenced by the epistemological beliefs of students and their teachers. Gallagher (1994) agreed, adding that values about learning itself strongly determine a particular student's attitude toward learning. Patrick and Middleton (2002) stressed that it is important to know the learner's epistemological beliefs in order to increase our knowledge of the learner's self-regulatory attitudes. This knowledge may help us understand why students resist altering their concept of learning to a more self-regulated model (Dembo & Seli, 2004).

The self-regulated learning model has a rich tradition in the causal-agentic perspective of social cognitive theory. Bandura (1986) suggested an important connection between social cognitive theory and learning, believing a distinctive feature of social cognitive theory is the central role it assigns to self-regulatory functions. Bandura (2001) wrote, "Self-directedness is exercised by wielding influence over the external environment as well as enlisting self-regulatory functions" (p. 20). Learning theorists Wehmeyer and Shogren (n.d.) also believe the concept of causal agency is central to the

theoretical perspective of self-regulation since causal agency proposes that it is the individual who causes things to happen in his or her life, including learning. Zimmerman (2002) identified self-regulation as the final level of the social cognitive construct since students learn to adapt their behavior and, therefore, performance to changes in internal and external conditions. This connection between social cognitive theory and self-regulated learning presents challenging opportunities for researchers in the social sciences. Schunk (2000) stated, “Research continues in the social cognitive tradition and offers exciting possibilities for applications to the areas of learning, motivation, and self-regulation” (p. 118).

Not only is the social cognitive construct important to the development of self-regulatory skills, self-regulation is important to the development of causal agency, a central theme of social cognitive theory. Brown (1999) believes self-regulation is extremely important because it allows for the eventual substitution of external controls for internal controls of behavior, allowing an individual to develop his or her agentic abilities. Thus, for Bandura (2002), education that promotes self-regulation is vital for the development of lifelong learning. Bandura (1997) wrote, “Teaching that instills a liking for what is taught fosters self-initiated learning long after the instruction has ceased” (p. 219). He went on to say, “Effective self-regulation is not achieved through an act of will. It requires the development of self-regulatory skills. To build a sense of controlling efficacy, people must develop skills for regulating their own motivation and behavior.” (p. 286). Wehmeyer and Shogren (n.d.) added that students’ self-regulation development emerges across the life span as children learn skills and develop attitudes that empower

them to be causal agents in their lives. For social cognitive theorists, developing attitudes of strong self-efficacy is essential for the development of self-regulatory skills.

Self-Efficacy and Self-Regulated Learning

As Tileston (2004) suggested, “All learning begins not in the cognitive system, but in the self-system” (p. 2). According to social cognitive theory, the use of self-regulated skills is influenced by a student’s self-belief systems, including his or her self-efficacy beliefs (Schunk, 2000). Perry et al. (2002) posited that the recent interest in social cognitive models of learning has prompted new investigations into self-regulated learning. The researchers have proposed that these approaches have tremendous potential to enrich understandings about how students perceive particular teaching-learning contexts and to explain how these perceptions influence student beliefs about themselves as learners (self-efficacy) and how they regulate their behavior in school. Zimmerman’s (2002) research revealed that a self-regulated learner’s motivation to learn depends on several essential beliefs, including his or her perceived self-efficacy beliefs. Dembo and Seli (2004) also noted that a learner’s self-efficacy beliefs are key predictors of his or her motivation and self-regulated behaviors. Bandura (1986) concluded: “Among the different aspects of self-knowledge, perhaps none is more influential in people’s everyday lives than conceptions of their personal efficacy” (p. 390).

Wolters (2003a) posited that self-efficacy reflects a belief about the self and, therefore, has a significant influence on students’ self-regulated learning. As Gallagher (1994) noted, the way a student views himself or herself becomes a key part of a student’s willingness or ability to learn. Consequently, Margolis and McCabe (2003) believe that many struggling learners view themselves as unable to do well, even if they

work hard; therefore, they avoid putting forth much effort at school. Yet, learners such as these must realize that low efficacy is not an incontrovertible, innate attribute. It is a modifiable, task-oriented set of beliefs largely derived from frequent failures (Margolis & McCabe) or from a person's achievement in a particular area (Brown, 1999).

Self-efficacy defined. Gallagher (1994) defined self-efficacy as an individual's assessment of her or his own abilities to organize and execute the actions necessary to attain desired performance. According to Jinks and Morgan (1999), self-efficacy is "a sense of confidence regarding the performance of specific tasks" (p. 224). Linnenbrink and Pintrich (2002) further defined self-efficacy as a learner's beliefs about her or his capabilities to do a task or activity. Note that these researchers did not address the actual skills learners possess but their perceived skills. Bandura (1997) explained, "In short, perceived self-efficacy is concerned not with the number of skills you have, but with what you believe you can do with what you have under a variety of circumstances" (p. 37). Bandura (1994) also defined efficacy as an individual's beliefs about his or her performance capabilities in a particular context or a specific task or domain. Bandura (1994) wrote, "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves, and act" (p. 2).

Self-efficacy is not a general belief about self-esteem, and it is distinct from general self-concept and self-esteem beliefs. Tileston (2004) defined self-esteem as the value a person places on himself or herself. Thus, a student can have a strong sense of self-esteem but very little self-efficacy toward a particular task (Tileston). Wehmeyer and Sands (1998) stated that

Self-efficacy refers to the individual's knowledge and confidence that he or she can perform a specific behavior to produce a desired outcome, and efficacy expectations refer to the belief that performance of this behavior will produce the desired or anticipated outcome. (p. 359)

This distinction between self-efficacy and efficacy expectations is an important one to consider in the classroom. Jinks and Morgan (1999), who posited that self-efficacy is vital to a learner's confidence in performing academic tasks, noted that "outcome expectation refers to a belief that one has regarding the result of an action regardless of one's belief about one's personal efficacy to perform that action" (pp. 224-225). For example, a student may be highly self-efficacious regarding his ability to perform well in social studies; yet if he believes his teacher does not like him and will give him a low grade no matter what his effort, his outcome expectations will likely diminish his academic efforts in social studies.

Bong (2004) added another important element to self-efficacy, stating that "existing evidence suggests that self-efficacy beliefs do generalize across multiple subject-matter areas, despite their highly context-specific nature" (p. 288). This research has suggested that high self-efficacy beliefs might help students in all subjects, not just the ones where they feel they are naturally inclined to succeed. Self-efficacy beliefs will also contribute to higher levels of student commitment to the task at hand. Wehmeyer and Sands (1998) posited, "When students perceive themselves as competent and self-determining in their learning attempts, they are more likely to commit themselves and to direct their efforts toward the attainment of learning goals or the successful completion of tasks" (p. 136).

To study the effects that self-efficacy beliefs have in an academic setting, Jinks and Morgan (1999) developed the Morgan-Jinks Student Efficacy Scale (MJSES), a Likert-type measurement to gain information about a learner's efficacy beliefs that potentially relate to academic success in school. The results of the study suggested that self-efficacy beliefs do affect academic success, though the authors went on to say that this effect may not be a direct one. They noted, "Efficacy beliefs lead to the behaviors that in turn contribute to achievement. These beliefs are, in other words, motivational in nature" (p. 228). Therefore, understanding how to build a student's self-efficacy will play a key role in understanding how to positively affect his or her academic achievement.

Building a student's self-efficacy. We have seen that social cognitive theorists believe that the control individuals exert over their lives and, therefore, learning are influenced by their perceptions of efficacy. Goddard (2001) stated, "Perceptions of efficacy serve to influence the behavior of individuals and the normative environment of collectives by providing expectations about the likelihood of success for various pursuits" (p. 468). Therefore, Bandura and Locke (2003) concluded that unless people believe they can accomplish desired results and avert unwanted results by their actions, they have little incentive to act or carry on when faced with adversity. After all, people are aspiring and proactive agents, not just reactive ones. Bandura and Locke stated, "Agents are not only planners and forethinkers, they are self-regulators as well. They adopt personal standards and monitor and regulate their actions by self-reactive influence" (p. 97).

Goddard, Hoy, and Hoy (2004) stressed that the choices an individual makes while learning are strongly influenced by his or her efficacy beliefs. Thus, self-efficacy is an important determinant of successful self-regulated learning since this type of learning

is associated with a student's choice-making strategies (Bandura, 2002). Unfortunately, not all learners have developed a self-efficacious attitude toward learning. Research has suggested that many struggling learners (students who have suffered numerous academically-related difficulties) will have low self-efficacy toward academics (Margolis & McCabe, 2003).

Low self-efficacy is demonstrated in several tangible ways. For instance, low self-efficacy has been shown to affect a learner's willingness to seek help in the classroom, even though help-seeking is an important part of a learner's self-regulated strategy. Newman (2002) posited, "Self-regulated learners feel autonomous. This does not mean they are self-sufficient and isolated from others. On the contrary, they feel comfortable asking for assistance when necessary" (pp. 134-135). Newman went on to state, "It is important for students, after determining that they do not understand an assignment, to take the initiative to get assistance rather than give up. But many students lack the competencies and motivational resources required for adaptive help seeking" (p. 137). Ommundsen (2003) wrote that these students with low self-efficacy are more likely to believe others will think their need for help shows that they lack ability; therefore, they are less likely to seek help. Ommundsen stated, "As a consequence, pupils' cognitive engagement may decrease and undermine self-regulatory strategies such as planning, monitoring of understanding, and changing approach to the learning tasks when needed" (p. 152).

Building self-efficacy in students will not only allow self-regulatory skills to flourish, it will give them a sense of empowerment toward learning. Zimmerman and Martinez-Pons (1988) posited that self-regulated learners are not only shown to be highly

self-efficacious; rather, self-regulated learners perceive themselves as self-efficacious. Zimmerman's (1989) study of the social cognitive relationship with self-regulated learning suggested that self-efficacy is a key personal influence of a learner's self-regulation, and these self-efficacy beliefs are positively related to a student's use of self-regulatory strategies (Linnenbrink & Pintrich, 2002; Perry & Drummond, 2002). Other research has correlated strong efficacy beliefs to an increase in a student's academic achievement (Bong, 2004; Gallagher, 1994; Goddard, 2001; Hofer & Pintrich, 1997; Horner & Shwery, 2002; Lapan & Turner, 2002; Linnenbrink & Pintrich; Pintrich & De Groot, 1990; Zimmerman, 1989).

The correlation of high levels of self-efficacy to academic success may be related to research that has shown that students with high self-efficacy beliefs are more likely to work harder, persevere, and achieve at higher levels than those with low self-efficacy beliefs (Linnenbrink & Pintrich, 2002). Bandura (1986) suggested that the stronger a person's perceived self-efficacy, the more persistent are his or her efforts. This persistence often leads to higher levels of academic achievement. Margolis and McCabe (2003) suggested that without sufficiently high self-efficacy, or the belief that they can succeed on specific academic tasks, many learners who struggle will not even make the effort needed to succeed academically. Butler (2002a) believes this lack of effort stems from a student's unwillingness to invest in tasks, including academic tasks he or she believes will lead to failure. Pintrich and De Groot (1990) also posited that students will only invest in tasks they believe to be interesting or worth learning. If a task is not perceived as such, they will lack the motivation and effort to complete it.

More than interest or perceived worth, Bandura (1997) suggested that people need confidence in their efficacy in order to initiate and maintain the effort required to succeed. Bandura (1997) believes this confidence is necessary since efficacy beliefs affect thought patterns that can enhance or undermine performance, including academic performance. Such efficacy is what allows a student's developing self-regulatory skills to thrive. Bandura (1997) stated, "In short, perceived self-efficacy is concerned not with the number of skills you have, but with what you believe you can do with what you have under a variety of circumstances" (p. 37). Yet, it is important to remember that these beliefs may or may not be grounded in the reality of one's abilities. Goddard et al. (2004) posited, "Efficacy judgments are beliefs about individual or group capability, not necessarily accurate assessments of those capabilities" (p. 3). It is still critical, however, for learners to have strong beliefs in their capabilities since without efficacious beliefs, there is little confidence to initiate or sustain a task.

If teachers are to help build efficacy beliefs in their students, how do students obtain such beliefs? According to Bandura (1997), self-efficacy beliefs are derived from four main sources of information: enactive mastery (learning from successes and failures), others vicariously (learning from modeling), verbal persuasion, and physiological and affective states (such as physical accomplishments or successfully coping with stressors). For Bandura (1997), these beliefs are not simply moribund predictors of potential outcomes. "The capacity to exercise self-influence by personal challenge and evaluative reaction to one's own performances provides a major cognitive mechanism of motivation and self-determination" (Bandura, 1997, p. 128). Bandura (1997) went on to say that in the pursuit of excellence; the higher a learner's efficacy

beliefs, the higher and more challenging the learner sets his or her academic goals. He (1997) noted that students demonstrating efficacy not only prefer comparatively more difficult tasks, they are also more likely to accomplish such tasks. It is, therefore, incumbent upon teachers to seek better ways of building a student's efficacy beliefs.

Linnenbrink and Pintrich (2002) agreed that teachers and other professionals in education should try to foster positive and accurate self-efficacy beliefs. Butler (2002a) believes a key instructional goal is to promote students' positive self-perceptions of competence and efficacy. And, according to Wehmeyer and Shogren (n.d.), learners need to develop perceptions of efficacy and control, along with self-awareness and self-knowledge, to give them the motivation and confidence to use self-regulated learning skills. Yet, teachers can do more than just talk about efficacy beliefs with their students. Zimmerman (1989) reminded teachers of the importance of demonstrating, not just discussing, techniques that increase self-efficacy. He stressed that the modeling of effective self-regulated strategies can improve the self-efficacy for all learners, even struggling learners. For instance, efficacy self-talk is engaging in thoughts or subvocal statements aimed at influencing a learner's efficacy for an academic task (Wolters, 2003a). A teacher could self-talk out loud, modeling how encouraging oneself can help complete an academic task.

Hofer and Yu (2003) found that teaching students such self-regulated strategies increased the students' self-efficacy for learning. Teachers can also strengthen struggling learners' self-efficacy by showing the relationship between new work and recent successes, teaching effective learning strategies, reinforcing effort, and helping the

learners identify and set academic goals (Margolis & McCabe, 2003). Margolis and McCabe wrote:

Because self-efficacy is task-specific (e.g. affected by the level and complexity of the task and the social and physical context in which it must be completed), in attempts to strengthen it teachers need to focus on the specific task or academic subject in which struggling learners feel incompetent. (p. 168)

It is interesting to consider that having a strong sense of personal efficacy not only helps students become more self-regulated; it can also help teachers who are unfamiliar with the self-regulated model adapt to the new methodologies required to teach self-regulated learning strategies. Weasmer and Woods (1998) wrote, “When educators introduce reforms, they must consider the direct impact that personal teaching efficacy may have on those reforms” (p. 247). These researchers expressed the need for a school’s leadership to ensure that the teachers are able to adapt. They added, “To facilitate teacher change, administrators should seek out teacher candidates who have already demonstrated a degree of positive personal teaching efficacy” (p. 247). Bandura (1997) went on to say, “Teachers’ beliefs in their efficacy affect their general orientation toward the educational process as well as their specific instructional activities” (p. 241).

Thus, self-efficacy is a critical component for learners to develop self-regulatory processes and to achieve academically. It is also important for teachers to have the confidence to introduce new ways of learning to their students. Yet, it is not efficacy alone that accounts for effective learning or academic achievement. Schunk and Zimmerman (1994) cautioned, “High self-efficacy will not produce competent performances when requisite knowledge and skills are lacking” (p. 79). Educating

students, even efficacious students, in the knowledge and skills of self-regulated learning is still crucial for academic success. Understanding and applying these skills and behaviors (the principal components of self-regulated learning) is necessary to foster self-regulatory abilities in the classroom.

The Principal Components of Self-Regulated Learning

Self-regulated learning can be operationally defined as a self-initiated, self-regulated process sustained by motivation which employs goal-setting, metacognition, and self-monitoring to help a student reach his or her academic goals. Many educators would agree that processes such as goal setting or self-monitoring are important, and nearly every educator would agree that some measure of motivation is required for academic achievement. But, these processes are more than independent qualities that enhance a learner's educational experience; they are indispensable components upon which the self-regulatory construct is built. It is necessary to discuss each one further to gain a better understanding of their role in self-regulated learning.

Motivation and self-regulated learning. Pintrich and De Groot (1990) suggested that knowledge of self-regulatory strategies is not enough to promote student achievement; students must be motivated. For Zimmerman (1989), self-regulation itself refers to the degree individuals are motivationally active agents in their own learning process. Zimmerman (2002) also believes that, because of qualities like superior motivation, self-regulated learners are more likely to succeed academically. And, self-regulated students are not only more motivated, but they also tend to be intrinsically motivated (Hofer & Yu, 2003; Perry & Drummond, 2002; Wehmeyer & Shogren, n.d.;

Winne & Perry, 2000; Zimmerman & Schunk, 2001) and self-motivated (Schunk & Zimmerman, 1994).

Self-motivation is an important part of human agency and the self-regulatory learning construct (Brown, 1999). Hofer and Pintrich (1997) also found that a student's self-motivation has been linked to cognitive engagement and self-regulation in the classroom, and Bandura (1997) posited that self-regulatory behaviors are crucial to motivation. He wrote, "Motivation is a general construct that encompasses a system of self-regulatory mechanisms" (p. 228). Researchers like Garrison (1997) believe that motivation helps self-regulatory skills development because it plays a significant role in the initiation and sustaining effort needed for learning. He wrote, "Motivation reflects perceived value and anticipated success of learning goals at the time learning is initiated and mediates between context (control) and cognition (responsibility) during the learning process" (p. 25). Though these researchers wrote of the importance of motivation for self-regulated learning, it is important to first define what motivation means within the self-regulated learning construct.

Defining motivation. Tileston (2004) defined motivation as the drive to do something. Linnenbrink and Pintrich (2002) defined motivation as a strong personal interest in a particular subject or activity. Margolis and McCabe (2003) suggested that motivation is the willingness to initiate and sustain goal-directed activity. Perhaps such differences in definition stem from the broadness of the term itself. Wolters (2003a) wrote that the term motivation is used broadly to refer to both a student's level of motivation as well as the processes that lead him or her to that particular level of motivation. Therefore, motivation refers not just to an end state but also to the means

through which that state is accomplished. Researchers further defined motivation by separating it into two broad categories: intrinsic motivation and extrinsic motivation.

Tileston (2004) stated, “Intrinsic motivation is the drive that comes from within; students do something for the sheer joy of doing it or because they want to discover something, answer a question, or experience the feeling of self-accomplishment” (p. 3). Brown (1999) also noted that motivation can occur internally, such as when a student accomplishes a task because of self-pride. Guthrie, Wigfield, and VonSecker (2000) wrote that intrinsic motivation “refers to being motivated to do an activity for its own sake and out of interest and curiosity” (p. 331). They also believe intrinsic motivation is a stronger predictor of learning than extrinsic motivation and that students who perceive the classroom as supportive of self-regulated learning are more likely to be intrinsically motivated than students who do not perceive such support in the classroom.

Wehmeyer and Sands (1998) suggested that intrinsic motivation is also an important motivator of learner behavior that is based on the individual’s need for competence and self-regulation. Perry et al. (2003) believe this is reflected in the value learners assign to personal progress and understanding, their willingness to try challenging tasks for the opportunity to learn new skills, and their optimistic view that mistakes are not failures but opportunities to learn. Garrison (1997) took the importance of intrinsic motivation even further, positing that it is essential for meaningful and worthwhile learning and ultimately leads to lifelong learning.

Lapan and Turner (2002) believe extrinsic motivation, unlike intrinsic motivation, refers to those situations in which an individual acts to obtain an outcome that is external to the activity itself, such as when a student does her or his homework because of the

expected rewards or consequences imposed by the parent. This is not necessarily a bad thing. Margolis and McCabe (2003) suggested that teachers need to provide extrinsic, age-appropriate reinforcers (stickers, small toys, free time, computer time, etc.) as motivation until students become interested in the work and develop a sense of intrinsic motivation. Yet, Dembo (2004) cautioned that not all students are motivated by such external reinforcers; in such cases, the teacher must find other avenues that will help increase internal motivation. Alevan, Stahl, Schworm, Fischer, and Wallace (2003) posited that a student's motivation, whether internal or external, influences the ways in which he or she acts within a learning setting. Therefore, it is critical for teachers to address this issue and see the importance of motivation to a student's academic progress in all subjects.

Encouraging motivation for self-regulating learning. Butler (2002a) posited that promoting students' motivational beliefs should be a fundamental instructional goal of teachers. Tileston (2004) also stressed the important role teachers play in the development of student motivation. Given that motivation is important for improving classroom learning, Keller (2004) believes it is also a leadership responsibility to ensure that motivation is fostered in the classroom. School leaders can do this by encouraging teachers to empower students to become motivated learners (Lapan & Turner, 2002).

There are several ways teachers can encourage a student's motivational development. Keller (2004) believes the first step to encouraging such motivation is to identify a learner's understanding of and attitudes toward motivation. Once the teacher identifies student attitudes toward motivation, he or she can better understand why the student feels motivated (or unmotivated) toward a particular subject or assignment. Grow

(2003) noted that few learners are equally motivated toward all subjects. But, students who initially lack motivation toward a particular subject can still increase their motivation toward it. Eshel and Kohavi (2003) believe that no matter what the subject, granting students opportunities for choice may enhance their motivation and, therefore, their investment in learning. Research has suggested that allowing students to choose learning activities increases their motivation (Wehmeyer & Sands, 1998). Wehmeyer, Agran, Palmer, and Mithaug (in press) posited that motivation is increased by many such experiences of control. Conversely, Wolters (2003a) believes that a lack of motivation is a common problem experienced by students at all age levels. In a related study, Wolters (2003b) suggested that student procrastination and attitudes important for finishing academic tasks are related to the student's motivational beliefs.

Another way to increase learner motivation is to increase students' abilities to self-regulate their own motivation. Wolters' (2003a) study of motivation focused on a learner's regulation of motivation, which he believes to be an underemphasized yet vital aspect of self-regulated learning. Wolters (2003a) believes that students' ability to regulate their motivation has not received the same level of attention as their ability to manage their cognitive processing, yet it is critical for sustaining cognitive activities. Learners show motivational regulation when they overcome motivational obstacles as they complete their academic work. Interestingly, strategies for regulating motivation and strategies for regulating cognition are closely related and might be used in combination with one another.

A typical way in which students regulate their motivation is through the use of self-administered consequences for their own behavior. Evidence has suggested that

students can use tangible consequences to regulate their own behavior (Allen, 2004). For example, students may use strategies designed to increase the immediate enjoyment they experience while completing an activity. Allen noted that such motivation helps one feel like he or she is not working at learning. Another strategy students may use to regulate their effort toward academic tasks is called environmental control. Behaviors like help-seeking are one way a learner can achieve a measure of environmental control in the learning process (Ommundsen, 2003).

Research has suggested that the development of these motivational strategies leads to higher academic achievement (Fuchs et al., 2003; Hofer & Yu, 2003; Wolters, 2003a; Zimmerman, 2002). Linnenbrink and Pintrich's (2002) study of motivation and its effect on academic success found, when viewed through social cognitive construct, motivation to be a dynamic, multifaceted phenomenon that strongly contrasts with the more definite view of motivation held by traditional models. The social cognitive model also stresses that students can be motivated in multiple ways and that the important issue is to understand how and why students are motivated for academic achievement. Linnenbrink and Pintrich also suggested that an individual's motivation is not constant but is more contextualized; motivation can vary depending on the situation. Finally, they posited that an individual's active regulation of his or her motivation, thinking, and behavior mediates the relationships between the person, context, and eventual achievement. Therefore, regulating motivation within a particular context can help a learner achieve her or his academic goals. This regulation will involve a high level of cognitive engagement often influenced by a learner's attitudes toward the subject studied.

Dembo and Seli (2004) researched the role of learner attitudes toward motivation and its effect on the learning strategies they employ. They wrote, “Educational researchers have ignored motivation as an explanation of why students fail to change their learning and study strategies” (p. 2). These researchers, along with Hickey (2003), suggested that motivation should continue to be a focus of psychologists and educational researchers. Pintrich and De Groot (1990) also called for continued research; believing that if we are to develop models of student motivation relevant to the academic work done in classrooms, then it is important to examine student performance on these types of academic tasks. Like Dembo and Seli, Pintrich and De Groot looked at learner attitudes toward motivation and their effect on effort and accomplishment. They posited that students who were motivated to learn and believed that their schoolwork was interesting and important were more cognitively engaged in the learning process and in their efforts to comprehend the material presented. These students were also more likely to be self-regulating. Additionally, students who were more cognitively engaged in trying to learn by memorizing, organizing, and transforming classroom materials through the use of rehearsal, elaboration, and organizational strategies performed better than students who did not use these strategies. They believed that students need to have both the will (motivation) and the skills (self-regulatory abilities) to be successful in the classroom. One such ability, goal setting, can be a powerful determinant of student motivation (Fuchs et al., 2003). Schunk (2000) believes motivation relates processes that initiate and sustain goal-setting and goal-attaining actions.

Goal setting and self-regulated learning. Self-regulated learning involves goal setting (Chen, 2002; Grow, 2003; Kitsantas, 2002; Ponton & Carr, 2000; Ruban et al.,

2003; Schunk, 2000; Wehmeyer & Sands, 1998; Zimmerman, 1989, 2002). Ponton and Carr (2000) believe self-regulation refers to the self-generated activities a person uses to accomplish his or her educational goals. They stated that self-startedness, or motivating oneself to begin a learning activity, occurs when the learner is able to identify desired outcomes, create goals, develop plans, and work independently toward goal attainment. Schunk also presented the importance of goal setting in self-regulated learning; believing that self-regulated learners employ goal-directed actions and, after self-monitoring and assessment, adjust them to ensure goals are met. Garavalia and Gredler (2002b) posited that forming academic goals is essential to the successful regulation of one's learning. Indeed, a learner's degree of self-regulation is partly determined by his or her use of strategies for setting and achieving academic goals (Zimmerman, 1989).

Defining goal setting. Goal setting in an academic setting refers to the activity of establishing learning goals that will lead to desirable learning outcomes (Ponton & Carr, 2000). Wehmeyer and Sands (1998) wrote, "More than a good intention to do well, a goal defines an end result with sufficient clarity to make it self-evident when that result is or is not reached" (p. 47). Margolis and McCabe (2003) posited several important guidelines for goals. They suggested that goals need to be personally important to learners; noting that nothing is more motivating than combining personally important goals with the belief that with reasonable effort, they are achievable. Also, these researchers noted that realistic goals as well as short-term (proximal) goals are more motivating than are excessively difficult or excessively easy goals.

Wolters (2003a) posited that proximal goal setting is simply a matter of breaking up larger tasks into simpler, more easily completed tasks. Pintrich and De Groot (1990)

suggested that proximal goal setting is important because most anticipated outcomes are too far off or too general to be of value to the learner. Horner and Shwery (2002) agreed; noting that short-term, specific goals are better than long term, general ones. They added that goals should not be too easy or too difficult, noting that a cognitively challenging but attainable goal is best. Bandura (1997) also proposed that the extent to which goals create personal incentives is partly determined by the goal's specificity. Specific goals are more easily attained than vague or overly broad goals. Yet, this is not to say specific goals are necessarily easy goals. Bandura (1997) went on to write, "When self-satisfaction is contingent on attainment of challenging goals, more effort is expended than if one adopts only easy goals" (p. 133). Not only should goals be specific, Bandura (2001) believes that the most effective goals are proximal goals. He (2001) suggested that the self-regulative effectiveness of goals greatly depends on the proximity of the goals projected. Overall, proximal goals boost a learner's initiative and focus a learner's actions toward goal attainment. Schunk and Zimmerman (1994) also noted that enhanced feelings of competence and interest come when goals are attainable within a short period of time.

Developing goal setting skills. Tileston (2004) believes students need to be taught specific strategies for setting and adapting goals. Wehmeyer and Shogren (n.d.) agreed, positing that having the skills to set and achieve goals is central to one's ability to act in a self-regulated manner. Yet, Wehmeyer and Shogren added, "It is important to remember however, that the value of teaching goal setting skills cannot always be measured exclusively in terms of goal achievement" (p. 13). This is not to say Wehmeyer and Shogren diminished the importance of improving goal setting. They went on to say, "The

process, however, of setting and working towards that goal improves the person's goal setting and attainment skills" (p. 13).

Ponton and Carr (2000) believe educators need to help learners see the connection between specific learning goals and the outcomes students desire from their education. For Bandura (1986), goal setting is merely the first step in goal attainment. He (1986) stated, "Goal setting enlists evaluative self-reactions that mobilize efforts toward goal attainment" (p. 338). Yet, goal attainment can only be known through a careful comparison of outcomes and stated goals. Butler (2002a) wrote that effective learners self-regulate by comparing progress against stated goals. If they perceive gaps between desired and actual performance, they will adjust their learning strategies accordingly. Wehmeyer and Sands (1998) posited that one of the three problems self-directed students must solve when they regulate their own learning is deciding what goals to set. These goal-setting skills must be taught if students are to understand how goal attainment is accomplished.

A learner's behavioral intention to set and attain goals is also an important indicator of potential academic achievement. A study done by Kitsantas, Reiser, and Doster (2004) sought to examine the effects of goal setting on a student's learning skills development. Their work suggested that goal setting has a positive effect on developing self-regulated learners. Lapan and Turner (2002) also noted studies that suggest goals substantially influence a student's overall approach to classwork and the subsequent level of academic achievement attained. Margolis and McCabe (2003) added, however, that teachers need to help students formulate the specific, personal goals needed for academic achievement. This need is illustrated in a study conducted by Kitsantas (2002) that

researched the self-regulatory processes used in students' test preparation and compared the processes of both high and low test scorers. His research found that of the key self-regulated learning strategies reviewed, goal-setting was more likely among the high test scorers than among the low test scorers.

An important role of the teacher desiring to develop a student's goal-setting abilities is introducing students to activities and processes that have perceived value to the student (Kuhn, 2003). In fact, Horner and Shwery (2002) noted an interesting correlation between goal setting and goal achievement: a goal of one's own choosing increases the value one ascribes to a task, thereby increasing the likelihood that the task is accomplished. Bandura (2001) also believes goals rooted in values give learning activities meaning and purpose, ultimately increasing a student's desire to complete a task. That is why Schunk (2000) and Fuchs et al. (2003) stressed the importance of goal setting as a motivational function and why Wolters' (2003a) believes motivation plays a crucial role in a student's desire to reach various goals and further develop his or her self-regulated skills.

Linnenbrink and Pintrich (2002) cited the importance of goals in the broader context of goal theory. Bandura and Locke (2003) posited that goal theories are rooted in the agentic perspective of social cognitive theory. Bandura (2001) also noted that through the exercise of mental planning as in goal setting, people motivate themselves and guide their actions in anticipation of future events. He (2002) wrote, "Unless people believe they can produce desired outcomes and forestall undesired ones by their actions they have little incentive to act or to persevere in the face of difficulties" (p. 3).

Goal theory proposes two general goal orientations individuals apply when engaging in a task: mastery goals and performance goals. Mastery goals are goals that help learners to develop new skills, understand their work, improve their competence level, or achieve a feeling of mastery based on a certain set of standards (Linnenbrink & Pintrich, 2002). Performance goals are goals that allow learners to focus on their ability and perceived self-worth, help them determine their ability by comparing their performance to others in competition, and allow learners to receive public recognition for their performance (Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002; Horner & Shwery, 2002). As Bong (2004) explained it, “Students who are oriented toward mastery or task goals strive to acquire new information to improve their competence. Performance-approach, goal-oriented students, in contrast, are motivated mainly by their strong desire to outperform others and to document their superior ability” (p. 288).

Dembo (2004) believes that goal theory supports adopting mastery goals to facilitate self-regulated learning. It is noteworthy that Linnenbrink and Pintrich (2002) presented empirical evidence showing that the adoption of mastery goals correlates positively to school learning and other study skills that enhance learner engagement. Pintrich (2000) added that mastery goals are linked to more intrinsic interest in a given task, though performance goals can result in higher achievement. Whether setting mastery or performance-related goals, Fuchs et al. (2003) believe that developing solid goal-setting skills is essential to strengthening other self-regulated processes, including the cognitive processes that enhance a learner’s metacognitive development.

Metacognition and self-regulated learning. Metacognitive development has been the subject of much research in education today (Tuckman, 2003), and the research has

suggested that self-regulated learners are metacognitively skilled (Garrison, 1997; Pintrich, 2002; Ruben et al., 2003; Winne & Perry, 2000; Wolters, 2003a; Zimmerman, 1989). In fact, Zimmerman (1989) stated that, in part, self-regulation refers to the degree individuals are metacognitively active participants in their own learning process. In terms of metacognitive processes, self-regulated learners plan, organize, self-instruct, and self-evaluate at various stages during the learning process (Zimmerman & Martinez-Pons, 1988). Stright and Supplee (2002) also stressed the importance of metacognition to self-regulatory learning, noting that metacognitive knowledge underlies a student's self-regulation skills.

Defining metacognition. Metacognition refers to the way one thinks about his or her thought processes (Garrison, 1997; Pintrich, 2002). For Pintrich (2002), metacognitive processes are cognitive processes learners use to monitor, control, and regulate their learning. Zimmerman (2002) defined metacognition as the awareness of and knowledge about one's own thinking. Flavell (1979) stated it as the "knowledge and cognition about cognitive phenomena" (p. 906). Hacker et al. (1998) wrote, "What is basic to the concept of metacognition is the notion of thinking about one's own thoughts" (p. 3). These researchers also wrote that there is a general consensus that metacognition includes "knowledge of one's knowledge, processes, and cognitive and affective states; and the ability to consciously and deliberately monitor and regulate one's knowledge, processes, and cognitive and affective states" (p. 11). For Chen (2002), it is the awareness, knowledge, and control of cognition. In fact, Chen believes the main action of self-regulation is metacognition. Perry et al. (2003) stated, "Metacognition is reflected in the awareness these learners have about their academic strengths and weaknesses and

strategies they can use to meet the demands of challenging classroom tasks” (p. 317). Garrison believes metacognitive awareness is part of the student’s overall cognitive development. He wrote, “Metacognitive proficiency is very much associated with the ability to be reflective and think critically” (p. 25). Ruban et al. (2003) believe metacognition is reflected in the awareness learners have about their academic strengths and weaknesses and their awareness of the skills and strategies they can use to accomplish a task.

Developing a student’s metacognitive abilities. Wolters (2003a) found that, historically, research on metacognition has roots in many areas of psychology including cognitive development and learning strategies. Research in social cognitive theory specifically has addressed the importance of an individual’s metacognitive development. According to Bandura (1997), metacognition is the assessment and control of one’s cognitive activity. Yet, Bandura (1997) noted that there is an important difference between metacognitive skills and their effective use. Pintrich (2002) also recognized the need for the learner to effectively use his or her metacognitive skills. He (2002) wrote, “Students who know their own strengths and weaknesses can adjust their own cognition and thinking to be more adaptive to diverse tasks and, thus, facilitate learning” (p. 222). Similarly, Pintrich and De Groot (1990) stated that knowledge of metacognitive strategies is not enough to promote student achievement. They added that students must also be motivated to properly put their metacognitive skills to use. Thus, teaching students how to identify their metacognitive processes and how to employ these processes for effective learning is of utmost importance.

Unfortunately, many teachers have assumed that students will be able to develop metacognitive knowledge on their own, or that some students simply lack the ability to develop such knowledge (Pintrich, 2002). Therefore, Pintrich (2002) stated, “In terms of instruction, there is a need to teach metacognitive knowledge explicitly” (p. 223).

Pintrich (2002) added, however, that metacognitive skills should not be necessarily relegated to a particular subject or learning time. He (2002) suggested that metacognitive knowledge be embedded within a teacher’s usual lessons in various subject areas.

Pintrich (2002) added:

The key is that teachers plan to include some goals for teaching metacognitive knowledge in their regular unit-planning, and then actually try to teach and assess for the use of this type of knowledge as they teach other content knowledge. (p. 223)

Metacognitive knowledge can play an important role in student learning and, therefore, in the ways students are taught and assessed.

The metacognitive knowledge learners have regarding their own learning strategies is linked to how they will learn and perform in the classroom, since students who are aware of the different kinds of strategies for learning and problem solving are more likely to use them (Pintrich, 2002). One way to promote these problem solving skills is to help students become more metacognitively aware of their own learning (Fuchs et al., 2003). Though metacognitive knowledge is seen by some to be an advanced cognitive process, a study by Glaubman et al. (1997) suggested that this is not necessarily true. The researchers provided training in metacognitive processes to kindergarten students, and the result of their study suggested that these young learners acquired skills

that made them “motivated, curious, autonomous, self-directed learners who consciously used critical thinking” (p. 372).

In Pintrich’s (2002) research on the role of metacognitive knowledge in learning, he noted that metacognitive knowledge includes knowledge of general strategies that can be applied according to the task, knowledge of the conditions under which these strategies should be used, knowledge of the effectiveness of the strategies chosen, and knowledge of the strengths and weakness of oneself. He summarized this metacognitive knowledge as follows:

1. Strategic knowledge: knowledge of basic strategies for learning, thinking, and problem solving.
2. Cognitive task knowledge: an individual’s accumulated knowledge about different cognitive tasks. Knowledge of tasks includes knowledge that different tasks can be more or less difficult and may require different cognitive strategies.
3. Self-knowledge: knowledge of one’s strengths and weaknesses.

According to Pintrich (2002), students can develop this knowledge by seeing metacognitive instruction modeled by teachers. For example, consider a math teacher looking at an example problem she placed on the chalkboard. As she begins to work the problem for the students, she can simply state the processes involved in solving the problem. Or, to truly model metacognitive processes, she can think out loud, explaining the whys as she moves from one process to the next. Students get to listen in on these thoughts and learn a potentially new way to solve a problem. The teacher models metacognitive thinking, and the students cognitively listen. But, the lesson learned can be

recalled when they begin to complete a math problem set; and they may apply, metacognitively, the new processes learned to help them complete the problems. Yet, in order for students to reflect on their need for new learning processes, they must see the shortcomings and failures of the learning processes they presently use. This comparison can only come through self-monitoring, another key component in the development of self-regulatory abilities.

Self-monitoring and self-regulated learning. Another important self-regulatory behavior is a learner's self-monitoring of his or her cognitive efforts (Stright & Supplee, 2002). Self-monitoring is a critical part of the self-regulated learning process (Butler, 2002a; Chen, 2002; Garrison, 1997; Horner & Shwery, 2002; Pintrich & De Groot, 1990). Bandura (1997) wrote, "The capacity to exercise self-influence by personal challenge and evaluative reaction to one's own performances provides a major cognitive mechanism of motivation and self-determination" (p. 128). This link between self-evaluation and self-determination is reinforced by Kitsantas et al. (2004) who posited, "Self-evaluative judgments are not only closely linked to achievement outcomes but also to one's self-satisfaction and causal attributions" (p. 270). Fuchs et al. (2003) posited that one approach for strengthening the self-regulated learning process is for the learner to incorporate self-monitoring strategies. Schunk (2000) also suggested that effective self-regulation includes self-monitoring strategies and actions that lead to process adjustment to ensure success. He believes learners must monitor their learning since students cannot regulate their actions if they are not aware of what they are doing.

Butler (2002a) believes effective learners self-regulate by comparing progress against the task's set standards to judge how they are doing. If these learners perceive

gaps between desired and actual performance, they adjust learning activities accordingly. Bandura (2001) stated, “Monitoring one’s pattern of behavior and the cognitive and environmental conditions under which it occurs is the first step toward doing something to affect it” (p. 8). Horner and Shwery (2002) also noted that self-regulated learners, after observing and monitoring their behaviors and cognitions, are able to make judgments regarding their progress toward goals and then react to these judgments. For Zimmerman (1989), this self-monitoring involves a learner’s systematic comparison of his or her performance with a standard or goal, which can lead to increased levels of performance. Kitsantas et al. (2004) researched the role of self-evaluation and found that students who did not receive self-evaluative conditioning had lower levels of self-efficacy. They wrote, “Studies on the effect of self-evaluation during learning have shown that students who engage in such activities typically outperform students who are not encouraged to do so” (p. 270).

Defining self-monitoring. Garrison (1997) defined self-monitoring as ensuring that existing and new knowledge structures are combined in a meaningful manner and that learning goals are attained. Self-monitoring addresses cognitive and metacognitive processes: both the array of learning strategies available as well the awareness of and the ability to think about one’s own thinking. Wehmeyer and Shogren (n.d.) believe self-monitoring involves teaching students to assess, observe, and record their own behavior. These researchers suggested that self-monitoring involves a student’s identifying and providing reinforcement for performance or achievement of a goal. In fact, the use of self-administered consequences is a typical way in which students regulate their motivation for a learning task (Wolters, 2003a).

Developing a student's self-monitoring abilities. Ponton, Derrick, and Carr (2005) suggested that teachers can foster autonomous learning tendencies by helping students increase their awareness of their learning choices through active self-monitoring. Paul and Elder (2002) also noted that to become a skilled learner is to become, in part, a self-monitoring and self-corrective learner who adheres to high standards of thought and needed action. These researchers placed great emphasis on self-monitoring in order to accomplish self-correction. Yet, in order for a student to properly engage in self-monitoring, self-monitoring skills must be taught (Schunk, 2000). Indeed, Butler (2002a) contended that in order to promote self-regulation in general, teachers must assist students to engage in self-monitoring and analysis. Prescott (2001) stated, "In promoting self-directed learning, teachers must train students to become more reflective about their own learning" (p. 330). Unfortunately, few teachers directly teach these skills (Martinez-Pons, 2003).

Teachers must therefore help learners to understand the importance of self-monitoring and to use effective self-monitoring techniques. As students develop these techniques and employ sound self-monitoring strategies, they will not only increase their academic achievement, but they will also continue to hone their self-regulatory skills. Schunk (2000) and Zimmerman (1989) suggested that self-regulation consists of three processes: self-observation, self-judgment, and self-reaction. These theorists believe observing oneself can provide information about how well one is progressing toward one's goals. Bandura (1986) also wrote of the importance of self-monitoring and self-reflection for self-regulation, noting that such measures are significant to motivation and learning and are indicative of self-regulatory individuals. Bandura and Locke (2003)

stated, “Agents are not only planners and forethinkers, they are self-regulators as well. They adopt personal standards and monitor and regulate their actions by self-reactive influence” (p. 97). Pintrich and De Groot (1990) believe the use of self-monitoring is essential for positive academic performance on various types of classroom tasks. These self-reported processes were closely correlated with the students’ performance on standardized tests and with the teachers’ observations of their self-regulatory processes (Martinez-Pons, 2003). This achievement is possible when students who know their own strengths and weaknesses can adjust their own cognition to be more adaptive to tasks and thus facilitate learning (Pintrich, 2002). Thus, the self-monitoring strategies of students directly influence the other processes of self-regulated learning such as goal-setting, metacognition, and motivation. When these processes are presented and encouraged in the classroom, self-regulated learning can flourish.

The Need to Foster Self-Regulating Learning Environments

Though the need for the self-regulated components of goal-setting, metacognition, motivation, and self-monitoring is evident; such learning can only occur in environments supportive of self-regulatory behaviors. Self-regulated learning environments are different from more traditional environments of learning. Wehmeyer and Sands (1998) noted that self-regulated learning focuses “on helping students to solve their own problems of knowing what to learn, how to construct a strategy to learn it, and how to manage behaviors to follow that strategy for learning” (p. 320). Zachlod (1996) posited, “Giving children a sense of ownership in their classroom can lead to the kind of open and cooperative learning environment that most teachers dream about” (p. 50). This type of

environment is different because the self-regulated approach is unlike traditional approaches to learning.

Self-regulated learning environments are especially different from conventional, teacher-centered environments. That is because, as Gibbons (2002) suggested, self-regulated learning “requires a different approach by the teacher and demands new skills from students” (p. 3). Gibbons delineated the differences between teacher-directed learning and student-directed learning. In teacher-directed learning, the teacher decides the course goals and the content to be studied, presents course content to students in lessons, sets exercises and assignments for study, monitors completion and assesses accuracy of student work, and tests and grades student performance. In student-directed learning, the teacher teaches students to set their own goals and eventually choose what they will study; teaches students the skills and processes involved in setting goals, making plans, and initiating action; negotiates student proposals for learning and acting; guides students through self-directed challenge activities; and reviews students’ assessment of their work. Though Gibbons saw the need for both types of learning, some research has suggested that self-regulated learning is a better way to learn. Knowles (1975) stated, “there is convincing evidence that people who take the initiative in learning (proactive learners) learn more things, and learn better, than do people who sit at the feet of teachers passively waiting to be taught (reactive learners)” (p. 14). And, environments that encourage the development of self-regulatory skills can be nurtured in any level of education. Orange (1999) posited, “Self-regulation is important for academic success, and it is important to teach self-regulation strategies at all levels of education” (p. 37).

As Knowles (1975) posited, the self-regulated learning environment helps students become proactive learners. Such an environment also encourages skills that lead to academic success. Academic success can be measured in several ways including a student's level of academic achievement. Eom and Reiser (2000) found that a learner's use of self-regulated learning strategies in academic settings positively influences academic achievement. Hofer and Yu (2003), Perry et al. (2003), Perry and Drummond (2002), and Lapan and Turner (2002) also found that self-regulated learning is important for increasing student academic performance and achievement levels. Zimmerman's (2002) research demonstrated that the proper use of self-regulation skills correlates with academic achievement and performance on standardized test scores. These findings are consistent with those of Bandura and Wood (1989) who posited that enhancing a student's opportunities for self-regulated learning contributes to his or her academic performance. Schools that provide opportunities for learners to become self-directed, self-disciplined, self-monitored, and self-corrective will develop skilled students whose learning strategies can lead to increased academic achievement (Paul & Elder, 2002).

Conversely, Young and Ley (2003) believe poor self-regulation may help explain a student's low academic achievement since self-regulated learning is consistently related to higher performance levels at various age and grade levels. Interestingly, Lapan and Turner (2002) found that self-regulated learners are less likely to attribute poor performance to ability. They are more likely to understand poor performance as being due to insufficient effort or ineffective strategies. This understanding is a powerful cognitive process that helps students develop better learning strategies. Pintrich (2002) believes students who know and understand their own strengths and weaknesses can

adjust their cognitive processes to better facilitate learning. Knowles (1975) also found that people who take this initiative in the learning process learn better and more effectively than do people who are passive learners.

Another encouraging outcome of self-regulated learning is increased learning effectiveness. Butler and Winne (1995) posited that the most effective learners are self-regulating learners. Students who use self-regulated, self-determined learning strategies not only achieve more, but they are more satisfied in their academic work (Lapan & Turner, 2002). Self-regulation contributes to a learner's effectiveness and satisfaction in several ways. Ruban et al. (2003) noted that self-regulated learners are more strategic in their learning decisions. They understand and use their cognitive processes to enhance their learning environment. For example, self-regulated learners have an array of effective learning strategies they can apply appropriately and contextually to any given learning situation (Perry & Drummond, 2002; Wolters, 2003a). Self-regulated learners also actively control their learning activities and know how to regulate the outcomes such activities produce (Butler, 2002a; Chen, 2002). Moreover, self-regulated learners perceive themselves as self-efficacious, autonomous, and intrinsically motivated (Zimmerman & Martinez-Pons, 1988). Students who see themselves as able to accomplish tasks independently are more likely to commit to and, therefore, accomplish the tasks. As Wehmeyer and Sands (1998) noted, "When students perceive themselves as competent and self-determining in their learning attempts, they are more likely to commit themselves and to direct their efforts toward the attainment of learning goals or the successful completion of tasks" (p. 136).

The importance of developing a competent, self-determining outlook is demonstrated in a study conducted by Pape and Smith (2002). These researchers studied the effects of implementing a developmental math instructional model consisting of self-regulatory skills embedded into the math instruction. The teaching focused on helping students become more aware of their cognitive processes and better monitors of their problem-solving skills. The researchers found that the growing sense of control exhibited by the math students served to increase their competence and self-efficacy for learning mathematics. Initially, many of the students did not think they were good at math. But, by the end of the strategy-embedded mathematics course, student reactions had changed to responses such as, “I guess I’m okay at this stuff” and “I can’t believe I’m saying this, but I think I’m good at math” (p. 95). Guthrie, Wigfield, and VonSecker (2000) reached similar conclusions when studying the reading abilities of students receiving self-regulatory instruction. They found that students who perceived the classroom as supportive of self-initiated learning were more likely to be intrinsically motivated for reading than students who did not perceive such support in the classroom. The results suggested that the students in the classroom that fostered self-regulatory behaviors and self-efficacy were more effective readers.

The benefits of self-regulatory skills go far beyond simply raising mathematics scores or enhancing reading abilities. Wehmeyer and Sands (1998) stated, “Self-instruction is a self-management strategy shown to be effective across multiple domains and instructional areas and with a wide range of students” (p. 314). Therefore, nearly all students; regardless of subject area, grade level, or academic ability; can benefit from developing self-regulatory skills. Martin et al. (2003) also found that self-regulating

strategies have been shown to empower students to manage not only academic behavior but social behavior as well. Zimmerman (2002) added that because of their advanced motivation and adaptive learning methods, self-regulated students are not only more likely to succeed academically but to view their futures with optimism. This social aspect of self-regulation continues to grow with the student. Self-regulation continues to emerge across the life span of learners as they adopt skills and attitudes that enable them to be causal agents in their lives (Wehmeyer & Shogren, n.d.).

Therefore, Knowles (1975) proposed that self-regulated learning is needed for more than academic or self-improvement outcomes; it is needed for any society to advance. Knowles is not alone in his beliefs. Research has suggested that self-regulated learning processes are necessary for students to develop lifelong learning skills (Candy, 1991; Lapan & Turner, 2002; Palmer & Wehmeyer, 2003), achieve academically (Chen, 2002; Hofer & Yu, 2003; Pintrich & De Groot, 1990; Wolters, 2003a; Zimmerman, 2002), and attain desired outcomes in many aspects of life (Grow, 2003; Perry et al., 2003; Ponton & Carr, 1999; Wehmeyer & Sands, 1998). Indeed, Martinez-Pons (2003) warned, “The failure of students to become sufficiently self-regulatory to manage learning on their own is of considerable social concern” (p. 126). Gibbons (2002) explained why:

The journey into adulthood—into the world—has seldom been more challenging. Globalization is rapidly expanding the economic field of play. Change is dramatically shifting the nature of life and work. Knowledge is doubling every few years. Technology is transforming the way we live and the way we work. Work itself is transformed from the well-protected lifelong job to the precarious

short-term performance contract. Individuals will not be looked after from the cradle to the grave; increasingly, they must look after themselves. Students must know how to learn every day, how to adapt to rapidly shifting circumstances, and how to take independent initiative when opportunity disappears. SDL prepares students for this new world in which the active learner survives best. (p. 2)

Yet, according to Ponton and Carr (2000), fostering self-regulated learning skills is not often considered from a pedagogical perspective. Zimmerman (2002) found that few teachers effectively prepare students to learn on their own. Some researchers believe this is due to the staid, traditional classroom methodology present in most of today's classrooms which, according to Baum, Owen, and Oreck (1997), may discourage or limit self-regulation. Wehmeyer et al. (in press) stated, "Teaching students to take greater control over and responsibility for their own learning and to become causal agents in their lives is a process that often does not lend itself to traditional models of teaching" (p. 7). Patrick and Middleton (2002) added, "These opportunities for students to be self-regulated, rather than others-regulated, are not always plentiful in traditional classrooms" (p. 29). For instance, Hofer and Yu (2003) noted that although self-regulated learning is an important aspect of student performance and achievement, it is seldom an overt goal of classroom instruction. According to Schweikert-Cattin and Taylor (2000), this should give any educator cause for concern. They wrote:

We have now seen how the traditional approach to education is struggling to meet the needs of young people in an ever-changing society. In fact, not only is it struggling—for a significant portion of the population, it is failing. (p. 227)

This lack of classroom application prompted Hofer and Yu (2003) to develop a course to teach self-regulatory processes at the college level. The course, called Learning to Learn, included discussion sessions and weekly lab meetings where self-regulatory strategies were taught and demonstrated. The results of the course suggested that students enrolled in Learning to Learn increased in mastery orientation and self-efficacy for learning, both key indicators of increased academic success. These researchers maintained that traditional classroom teaching methods must change in order for students to become more self-regulated. In another study of the course conducted by Tuckman (2003), students who received the training in self-regulated learning strategies earned significantly higher GPAs for the term than similar students in a comparison group who did not receive the training. Such findings led researchers such as Bandura (2002) to write, “Educational systems must change their emphasis from mainly imparting knowledge to teaching students how to educate themselves throughout their lifetime” (p. 4). But, it is not only the educational systems that must change; it is the educators within these systems who also must change.

Gallagher (1994) believes those who wish to modify teacher behavior to adopt self-regulated learning strategies must take into account the belief systems of the teachers they are trying to change. He noted that the ongoing presence and reinforcement of the teachers’ extant belief systems could explain their resistance to accepting new concepts requiring a shift in their attitudes and values. As Brooks and Brooks (1993) stated:

Our position is that the mimetic approach to education is too compelling for many educators to give up. It is amenable to easily performed and widely accepted measurement, management, and accountability procedures. This approach has

long dominated educational thinking, and, therefore, policymaking. If students can be trained to repeat specific procedures and chunks of information, then they are viewed as “having learned.” (pp. 15-16)

Some suggested that school administrators are also resistant to incorporating self-regulated learning concepts in the classroom. One reason for such resistance was described by Eshel, Kohavi, and Revital (2003). Their research has suggested that some school administrators believed making students more active in the learning process would diminish a teachers’ responsibility to ensure learning. But, these researchers noted that no research has supported such a position and contended that there is no contradiction between granting students a greater share in classroom decision making and retaining, at the same time, teacher responsibility for student learning. Such uninformed beliefs may be rooted in a common misconception of self-regulated learning, that self-regulated learning means simply doing it yourself (Wehmeyer & Shogren, n.d.). But, the research clearly has indicated that teachers continue to be vital to student development and to his or her academic achievement (Candy, 1991; Guthrie et al., 2000; Schunk & Zimmerman, 1998). As Bandura (2002) noted, “Learners need live mentors to help build their self-regulatory efficiency, cultivate aspirations, and to find meaning and direction in their intellectual pursuits” (p. 5).

Learners need mentors and teachers to help build their self-regulatory skills, because self-regulatory skills can be taught (Dembo & Eaton, 2000; Grow, 2003; Hofer & Pintrich, 1997; Knowles, 1975; Zimmerman & Schunk, 2001). Hofer and Yu (2003) found this to be true among traditional college students. Wehmeyer, Palmer, et al. (2000) demonstrated the same in several studies involving primary-level and secondary-level

children with learning disabilities. These studies confirmed that self-regulatory skills are not natural or genetic. Chen (2002) further suggested that self-regulation is not a personal characteristic formed early in life; it is a skill that can be taught. Zimmerman's (2002) research also suggested that self-regulatory processes are teachable and can lead to increases in a student's academic achievement. Bandura (1997) concurred; adding, "Effective self-regulation is not achieved through an act of will. It requires the development of self-regulatory skills. To build a sense of controlling efficacy, people must develop skills for regulating their own motivation and behavior" (p. 286).

Straight and Supplee (2002) suggested that teachers can create classroom atmospheres and teach methods that can help students develop self-regulatory skills. Eshel and Kohavi (2003) added that the classroom procedures a teacher establishes are another important part in the development of self-regulation. As Schunk and Zimmerman (1998) stated, "Educators can create a learning environment that results in academic success by delivering effective instruction that challenges students and by promoting self-management in students" (p. 185). For Perry and Drummond (2002), self-regulated learning is more likely to develop in a classroom where teachers guide, rather than direct, the learner. Helping students become self-regulated learners includes "guiding students through tasks, delivering corrective feedback that helps a learner see where he has gone wrong, and providing hints about how to correct the problem." (Ley & Young, 2001, p. 99). Dembo and Eaton (2000) stressed, "Teachers must provide the context in which self-regulatory skills can be taught and developed" (p. 486).

Thus, according to Ponton and Carr (2000), it is incumbent upon the educator to guide the student as to which tools are appropriate for developing self-regulated learning.

Dembo and Eaton (2000) insisted that much can be done to teach students self-regulatory strategies. For these researchers, “Teachers must provide the context in which self-regulatory skills can be taught and developed” (Dembo & Eaton, p. 486). Wehmeyer and Shogren (n.d.) also saw the role of educators in promoting self-regulation, stressing the importance of teaching students the knowledge and skills they need to become causal agents in their lives. Lindner, Dooley, and Williams (2003) noted that these skills must be taught at the individual level. They wrote:

Effective teachers should attempt to design and deliver individualized instructional sequences to provide the greatest opportunity for student growth. Failure to do so results in teaching to “the middle” and providing material that is too challenging for some students and too simple for others. (p. 26)

Thus, students should receive individualized instruction that enhances the development of their unique, individualized learning strategies.

Much like Hofer and Yu’s (2003) research, Gallagher (1994) found that direct instruction using models of self-regulation helps all students become more effective learners. Fuchs et al. (2003) also found that explicit instruction designed to increase student behaviors related to self-regulation promoted self-regulated processes as well as learning. Pintrich (2002) found this to be especially true when teaching cognitive processes that encourage self-regulation. Margolis and McCabe (2003) suggested that direct instruction helps develop student self-efficacy, an important component of self-regulated learning. They noted that teachers need to explicitly and systematically teach students new skills of learning, the strategies that produce success. According to Scharle and Szabó (2000), there is also a need for tangible, classroom-based exercises in self-

regulated learning strategies. Wehmeyer, Agran, and Hughes (2000) agreed; they wrote, “One of the primary instructional activities that can promote student self-regulation of learning and, ultimately, promote self-determination is the use of student-directed learning strategies” (p. 59).

But, not all researchers have concurred that self-regulated teaching processes need to be explicitly taught. Pintrich (2002) noted that there are strategies for embedding self-regulation in instruction to facilitate self-regulated learning. Ley and Young (2001) believe embedded self-regulation instruction may be more important for some learners than others. Ponton and Carr (1999) suggested that such embedding is especially helpful for less-expert learners. Ley and Young noted that lower-achieving learners can greatly benefit from embedding four key principles that help foster self-regulation. According to Ley and Young, these four principles are an attempt to embody both effective and flexible guidance for embedding SR [self-regulation] into instruction:

1. Guide learners to prepare and structure an effective learning environment.
2. Organize instruction and activities to facilitate cognitive and metacognitive processes.
3. Use instructional goals and feedback to present student monitoring opportunities.
4. Provide learners with continuous evaluation information and occasion to self evaluate. (pp. 94-95)

Even self-regulated assessment and evaluation techniques can be embedded to build these skills in students (Perry et al., 2002). Another method of embedding self-regulated strategies is for the teacher to model them. Zimmerman (1989) found teacher

modeling to be an effective way to convey self-regulated strategies and found that such modeling improves skills, even for deficient learners. Pintrich (2002) agreed, but added that such modeling should be accompanied by an explanation of the processes that lie behind the modeling. Finally, Wehmeyer and Sands (1998) saw the need for both direct and embedded instruction; noting, “Effective teachers employ multiple models of teaching, taking into account the unique characteristics of the learner and types of learning” (p. 299).

Not only must teachers account for the uniqueness of the individual and his or her learning styles, they must also understand that many learners may resist the move from teacher-directed to self-regulated learning. In a study on students’ resistance to change in their learning strategies, Dembo and Seli (2004) posited that one of the emergent themes “was the dichotomy between knowing what to do and actually doing it” (p. 10). They went on to say that teachers must be prepared for this dichotomy and for students who have little motivation to erase this dichotomy even though their academic success may be jeopardized. Dembo and Seli urged teachers to develop strategies for teaching students how to change. They wrote:

This change strategy involves more than providing information about how to learn, such as note-taking and exam preparation strategies; it involves helping students use this information so they can learn to control their own behavior and actually benefit from the knowledge of the strategies. (p. 10)

When teachers help students accept the move to self-regulated learning, they not only increase the student’s opportunities to achieve academically, but they offer the student hope for better performance (Westburg & Martin, 2003).

Self-Regulated Learning: A Leadership Responsibility

The need to facilitate self-regulated learning strategies is clear, yet data collected by Wehmeyer, Agran, and Hughes (2000) have suggested that the number of teachers employing these teaching models is minimal at best. Wehmeyer, Agran, and Hughes wrote, “To date, there has been limited information about the degree to which teachers promote their students’ self-determination and teach students self-directed learning” (p. 59). Therefore, these researchers conducted a national survey of teachers to gauge each teacher’s knowledge and promotion of self-regulated learning. For all respondents, just 60% ($n = 725$) indicated that they were familiar with the self-regulation construct. The most frequently cited experience with self-regulatory learning was via journal articles, conference presentations, and graduate training. The results also indicated that there were three chief barriers to providing instruction in self-regulation: lack of sufficient training or information; the need for teachers to learn strategies, through preservice and in-service education, to teach students to self-regulate and self-manage their learning; and a lack of authority for teachers to provide instruction in this area. The teacher alone cannot overcome these three barriers. Educational leaders committed to self-regulatory skills development must partner with teachers to overcome them. As Irvin and White (2004) noted, “Principals are called on to make a difference in the lives of their students, schools, and communities. To do so, principals must focus on learning, teaching, and improving student performance” (p. 24).

Improving curriculum and teaching models are two of the most effective ways leaders can help improve student performance. Part of the process of helping students become more self-regulated is for the teacher to become more aware of various learning

theories and curriculum including self-regulated learning (Prescott, 2001). The awareness of new learning theories and curriculum can come by exposing students in education to new paradigms of learning. Muller (1998) reviewed educational trends in teacher training for many advanced industrialized nations and noted that many educational institutions, particularly in higher education, have shifted from a performance-based pedagogic mode to a more learner-centered, self-regulatory mode. Another way to provide the training teachers need is for a school's leadership to actively support the adoption and implementation of curriculum supportive of self-regulatory learning in their schools, ensuring that appropriate training and continued professional development in self-regulatory learning are afforded to teachers to help them properly implement the curriculum.

Mason and Weber (2003) believe leaders can enhance learning for all students by supporting new teachers and "adopting curricula and instruction to fit students' needs" (p. 30). An example of this type of curriculum support was recently demonstrated in Bennett and King's (1991) study of a St. Paul, Minnesota school district where several educational leaders sought to incorporate self-regulated strategies in their public schools. Yet, these leaders understood that traditional learning environments usually inhibit such practices. Bennett and King wrote, "Powerful new ideas about learning abound, but we are hard pressed to fit them into our time-honored traditional schooling model" (p. 41).

Not only did these educators understand the difficulty of applying new teaching models in traditional settings, but they went on to suggest that the responsibility for transforming the culture of the school to accept new models resided in the school's leadership (Bennett & King, 1991). As leaders, they noted:

We had reflected long and hard about a process for systematic and powerful changes in education. . . . We felt we were in the right place at the right time to develop a re-tooled, transformed, completely redesigned school in which virtually every student could and would learn. (Bennett & King, p. 41)

The Superintendent of Schools partnered with a project director to implement the new approach to teaching and learning, and the results have been very positive.

This example illustrates what Vickery (1988) once noted, “Leadership in the [school] district is first and foremost *instructional* leadership” (p. 54). Vickery added:

It is not enough to introduce a new instructional process; any innovation must be supported by a curriculum, by school practices, and by organizational structures, all intentionally aligned toward achieving the same outcomes. And that intentional alignment does not stop with school support systems but extends to the whole administrative system and to the board of education. (p. 54)

Reese (2004) also suggested that instructional leadership is one of the most important areas of leadership a principal can provide. Such instructional leadership does exclude teachers from instructional design and development; indeed, proper instructional leadership encourages all stakeholders to participate in a planned, concerted effort.

Hinson, LaPrairie, and Cundiff (2005) wrote:

School leaders know that lasting instructional change is difficult to develop and maintain. However, sustainable changes can occur through development of long-term goals and objectives, involvement of representative stakeholders, an inclusive implementation timeline, and comprehensive formative assessment procedures. (p. 30)

One of the most encouraging developments in teaching models that truly promote self-regulated learning is the Self-Determined Learning Model of Instruction (SDLMI). According to Wehmeyer and Agran (2006), the SDLMI was developed “to provide teachers with a model of teaching that enables them to teach their students to become causal agents in their lives and become self-regulated learners” (para. 3). Its developers explained that it is a model designed to enable educators to teach students to assume greater control over and take responsibility for their lives and their destinies (Wehmeyer et al., in press).

Wehmeyer and Sands (1998) stated:

The Self-Determined Learning Model of Instruction is a variant of the self-regulation process in that it describes the problem solving in which people engage to satisfy their needs and interests, as contrasted with the problem solving in which people engage to reach goals that others expect them to meet. (p. 305)

Thus, the model is based on the individual and her or his desired outcomes, enhancing an individual’s self-determined behaviors. Wehmeyer et al. (in press) also wrote that the SDLMI is a teaching model that focuses on promoting student self-regulated problem solving based within the overarching context of promoting self-determination.

Furthermore, the SDLMI was designed to promote self-regulated learning in both traditional and nontraditional settings and is adaptable to students in lower elementary through high school grades. Palmer and Wehmeyer (2003) have researched its utility and noted that the model “is appropriate for students with and without disabilities across a wide range of content areas and enables teachers to engage students in their education programs by increasing their opportunities to self-direct learning” (p. 116). Such enabling

is needed if teachers are to promote self-regulation in their students. According to Wehmeyer, Agran, and Hughes (2000), several barriers exist in providing instruction in self-determination including insufficient training and information and the need for teachers to learn strategies to teach students to self-regulate and self-manage their own learning. Wehmeyer and Sands (1998) further explained:

Using this model to teach students to direct their own learning requires a substantially different perspective on instruction than that to which we are accustomed or what we may have experienced as teachers or as students in elementary or secondary schools. (p. 319)

Research into the effectiveness of the SDLMI has indicated that it is effective in developing self-regulated learning abilities. For instance, the field test for the model suggested that it was effective in enabling students to attain their academic goals (Wehmeyer et al., in press). Wehmeyer and Agran (2006) posited that such success is evidenced by the following:

1. Goal attainment Scaling of student goals showed model efficacy, with approximately 50% of the students achieving or doing much better than expected on their individually set outcomes.
2. Pre- and post-assessment of the Goals Questionnaire, students showed an improvement in their perceptions of goal-setting abilities.
3. Pre- and post-assessment locus of control using the Nowicki-Strickland Locus of Control Scale indicated a positive change to a more internal locus of control.

4. Pre- and post-assessment measure of self-determination showed enhanced self-determination as a result of receiving instruction using the model.
5. Students reported that the model allowed them to take an active part in their schoolwork and they enjoyed meeting and talking about their work with their teachers.
6. Teachers reported that the model was an effective way to have students learn goal setting and problem solving.
7. 89% of the students who participated in the National Outreach Project at Utah State University achieved or exceeded goal expectations; moderate to marked level changes in performance from baseline to training conditions for all students. (¶ 8)

Such results are encouraging and reinforce the need to provide teachers with successful models that aid teachers in facilitating a student's self-regulated learning tendencies.

Yet, it is not enough to simply plan and implement new methods of instruction. According to Irvin and White (2004), a principal needs to take time to reflect on new instructional methods and act on the results such new methodologies bring. Such reflection will require the leader to remain abreast of new research in instructional methods and other developments in the field of education. Mason and Weber (2003) stated, "To provide leadership that results in equity for students, principals must be diligent in continually updating their knowledge regarding the most effective teaching practices" (p. 33). Mojkowski (2000) added another dynamic, noting the complexity of curriculum implementation. He wrote, "If the curriculum is to serve as a dynamic tool for creating high quality student learning opportunities, it will require a dynamic, real-time

process for learning about its implementation” (p. 76). For Mojkowski, the task of watching curriculum implementation falls to principals in their role as instructional leaders. This need is verified by Ley and Young (2001) who found that closely monitoring curriculum interventions has been shown to improve student performance.

Therefore, it is the responsibility of educational leadership to provide information about self-regulated learning and training in how to effectively promote self-regulated learning principles, techniques, and curriculum in the classroom. Research has suggested that providing teachers with this information and training works. Young and Ley (2003) found that teachers enrolled in preservice education courses benefited from instruction supporting self-regulated learning strategies such as cognitive skill instruction, effort reinforcement, and metacognitive skill use. Additionally, the research found that providing information on a number of self-regulatory activities (including the definitions of each of the self-regulatory strategies) identified by Zimmerman and Martinez-Pons (1988) was especially helpful.

Research by Martin et al. (2003) also demonstrated the importance of providing teachers with the knowledge and tools needed to promote self-regulated learning. Their research highlighted curriculum that actively promotes self-regulated learning principles, such as the Choicemaker Self-Determination Curriculum. This curriculum teaches self-regulation by covering several key processes of self-regulation: decision making, independent performance, self-evaluation, and adjustment as well as self-awareness, self-advocacy, and self-efficacy. In another study of curriculum promoting self-regulated learning, Cleary and Zimmerman (2004) found that when a school implemented a program called the Self-Regulation Empowerment Program (SREP), students learned

how to set goals, monitor their progress, and adjust their goals and learning strategies; thereby increasing their self-regulated learning skills.

Further research was conducted by Schweikert-Cattin and Taylor (2000) who implemented self-regulated learning strategies for students at the School Without Walls (SWW); an alternative, innovative school educating approximately 50 children at the high school level. The study addressed learners deemed at risk and challenged them to take control of their education. Unlike traditional schools, the SWW practices voluntary student participation, incorporates self-regulated learning techniques, and provides an environment that encourages student responsibility for their own learning. If students are to become more self-regulated in their approach to learning, Schweikert-Cattin and Taylor posited they must acknowledge and give up some traditional viewpoints and assumptions such as the following:

1. The teacher knows everything.
2. Education is not the student's responsibility.
3. The student is not capable of knowing what to learn and how to learn it.
4. Everyone learns the same way (or, if you don't, you have a disability).
5. Traditional testing methods are the only way to know if students have learned.

(p. 229)

The results of the study suggested that students looked positively on the opportunity to become self-regulated in their learning. The study also suggested that the learning model was effective in helping students take responsibility for their learning.

Interestingly, Feldhusen and Wood (1997) also researched the need to develop self-regulated learning in nontraditional students. Their study, however, was not focused

on at-risk learners or learners with exceptional needs. Instead, their research sought to demonstrate the need to develop self-regulatory skills with gifted students. Feldhusen and Wood suggested that self-regulated processes such as goal-setting and self-evaluation not only enhance school achievement in average students, but these processes enhance achievement in gifted students as well. They wrote, “School districts around the country provide opportunities for gifted and talented students to develop their talents, but often fail to provide opportunities for these students to take ownership in the process of developing their own talents” (p. 24). The research conducted by Feldhusen and Wood again demonstrated the importance of affording all students the opportunity to develop self-regulated learning abilities.

Gibbons (2002) took yet another approach to self-regulated learning, focusing on developing self-regulated learning among students attending traditional schools rather than special-needs or advanced learners. In Gibbons’ book on self-directed learning, he offered principals and teachers of adolescent students a handbook suggesting practical ways to implement self-regulating learning strategies in traditional classrooms. The techniques advanced by Gibbons are intended to help students from all learning backgrounds develop self-regulating skills that, according to Gibbons, will enhance their academic experience. Gibbons called for an action contract in which students commit to the key processes of self-regulating learning: goal setting, a plan for goal attainment, and self-assessment. Gibbons contended that by teaching self-regulated learning strategies, and by applying the action contract in the classroom, students from teacher-directed backgrounds can learn to take greater ownership of their learning and develop skills that will last a lifetime.

Goddard et al. (2004) cautioned, however, that it is not enough for leaders to merely impose upon teachers new ideas of teaching and learning. They posited that teachers must feel a part of the process that brings about such pedagogical change. Granting decision-making privileges and curriculum interventions on teachers will not only give them a sense of ownership, but it will increase their chances for success when the new curriculum is implemented. Goddard et al. wrote:

When teachers are empowered to influence instructionally relevant school decisions, they are likely to report more confidence in the capability of their faculty to educate students than would be the case if teachers were given less control over decisions that affect their professional work. (p. 10)

Chapter Summary

In summary, an abundance of research has suggested that self-regulated learning helps students (exceptional, at risk, traditional, and gifted) develop skills that increase academic performance and effectively promote lifelong learning. Also, studies have suggested that these self-regulatory skills are not necessarily intrinsic but, to the contrary, are skills that can be taught. Additionally, teachers who understand and are empowered to implement self-regulated instructional models are shown to increase their students' self-regulated learning skills. Finally, research has indicated that it is the responsibility of school administrators to actively promote learning models and instructional methods that encourage these very findings. The next chapter will detail the methodology used to investigate the research question and address how local school leaders currently encourage and equip their teachers to facilitate the development self-regulated learning.

Chapter 3 - Method

This study investigated how leaders encourage and equip teachers to facilitate self-regulated learning in the classroom. In order to explore this research question, leaders from schools supportive of self-regulated learning were interviewed, educational processes and leader/teacher interactions were observed, and organizational documents and archives were reviewed. A qualitative study, employing case study methodology, was employed to address the research question. This chapter will explain how this research was conducted by discussing each of the principal components of the study: the conceptual framework, research methodology, and research design.

Conceptual Framework

Due to the nature of the endeavor, qualitative methodology was utilized in order to best address the research question. These methods were chosen for numerous reasons based on current research in the fields of leadership and education. For instance, Holliday (2002) wrote:

Qualitative research is increasing in use in a wide range of academic and professional areas. It develops from aspects of anthropology and sociology and represents a broad view that to understand human affairs it is insufficient to rely on quantitative survey and statistics, and necessary instead to delve deep into the subjective qualities that govern behavior. (p. 7)

Similarly, Seidman (1998) suggested that the primary way to investigate an institution and its processes is by examining the experiences of the people who make up the institution and carry on its processes. He stated, "So much research is done on schooling in the United States; yet so little of it is based on studies involving the perspective of the

students, teachers, administrators. . . whose individual and collective experience constitutes schooling” (p. 4). For Seidman, the experiences of these individuals can only be known through qualitative inquiry.

Not only can the experiences of individuals be examined through qualitative analysis, the programs and processes to which these individuals contribute can be investigated as well. Patton (1987) wrote that qualitative methods “can provide depth and detail about the program’s strengths and weaknesses. What’s working? What’s not working so well? What are the perceptions of program participants? Of program staff?” (pp. 28-29). This study attempted to find out how leaders (the individuals) equip and encourage teachers to facilitate self-regulated learning (the processes). This research included an examination of the experiences and perspectives of the individuals involved in learning and, through such examination, determined what is or what is not working for the organization. Though there are numerous types of reliable qualitative inquiries, the multiple-case study method was employed in this research endeavor.

Rationale for Choosing Case Study Methodology

According to Yin (2003), three conditions must be considered when determining which type of analysis one will apply in any qualitative investigation. These conditions include the type of research question needed; the extent of control an investigator has over the actual behaviors of the participants; and the degree of focus, whether the events studied are contemporary or historical in nature.

In response to the first of these three conditions, a how question was addressed. The research examined how administrators, in schools that support the self-regulated learning model, encourage and equip teachers to facilitate self-regulated learning in the

classroom. Yin (2003) believes such how questions are more explanatory in nature and are, therefore, more likely to be used in case studies. In response to the second condition, in this research endeavor, participant behavior could not be controlled. Again, Yin believes the case study is preferred “when the relevant behaviors cannot be manipulated” (p. 7). The final condition relates to the time element of the proposed research. This study sought to address how leaders are presently encouraging and equipping teachers to promote self-regulation, a contemporary phenomenon. Yin stated, “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (p. 13). Thus, after addressing the three conditions Yin proposed in considering research methodology, the case study is well suited for this particular investigation.

It is also important to consider the utility of case study methodology for use in both a leadership and educational context. Referring to its use in management study, Gummesson (2000) stated, “Qualitative methodology and case studies provide powerful tools for research in management and business subjects, including general management, leadership, marketing, organization, corporate strategy, accounting, and more” (p. 1). More than just acknowledging qualitative methodology, Gummesson explained that the case study, if properly implemented, can provide a meaningful investigation of leadership within an organization. Strauss and Corbin (1997), researchers in qualitative study, specifically grounded theory research, also support the use of qualitative investigation in leadership issues; noting that such a mode “has spread from its original use by sociologists to the other social sciences and to practitioner fields, including at least accounting, business management, education, nursing, public health, and social work” (p. vii).

Additionally, Bogden and Biklen (1998) encouraged the use of qualitative methods like the case study in educational research. They suggested that educational research has only recently seen the tremendous growth and support of qualitative methodology. Education, they noted, is a field that “had been dominated by measurement, operationalized definitions, variables, hypothesis testing, and statistics” (p. ix) but soon “made room for a research agenda that emphasized description, induction, grounded theory, and the study of people’s understandings—an approach to research we refer to as ‘qualitative’” (p. ix). Therefore, the case study is an appropriate method of inquiry for examining leadership in an educational setting.

Research Design

Yin (2003) posited, “The case study as a research strategy comprises an all-encompassing method—covering the logic of design, data collection techniques, and specific approaches to data analysis” (p. 14). Yin, therefore, believes it is critical to begin case study research by carefully developing the study’s research design which serves as the blueprint to build a valid, reliable study. He believes five components of the research design to be especially important: the study’s research question(s), its propositions, its unit(s) of analysis, the logic that links the data to the propositions, and the criteria for interpreting the findings. Chapter 1 detailed the research question to be investigated. The following paragraphs examine the remaining components of research design: the propositions, the units of analysis (case study sampling), the logic linking data to the propositions (the process of data collection), and the criteria for interpreting the findings (the process of data analysis). A final thought suggested by Yin was that although a well developed, written research design will help ensure successful investigation; it is

important for the researcher to maintain a flexible design throughout the investigative process.

Research Propositions

Propositions help identify relevant information to avoid reviewing enormous amounts of information that may have no direct bearing on the topic studied. They also help direct the reader's attention "to something that should be examined within the scope of the study" (Yin, 2003, p. 22). For this study, several important subcategories were delineated that helped focus the research: (a) how do leaders view their role in creating an atmosphere conducive to self-regulated learning? (b) what actions do leaders undertake to encourage teachers to promote this type of learning? (c) how do teachers view their leader's responsibility for promoting self-regulated learning? and (d) what obstacles do leaders face when encouraging teachers to promote self-regulated learning? Such subcategories helped define the study's scope and give parameters to the data collection process.

Apart from these subcategories, there are several important propositions that tell an external observer why certain aspects of the phenomenon were reviewed. For example, an external observer might ask why self-regulated learning was investigated at the expense of other types of learning. Other questions that might be asked include why the behaviors of local school leaders rather than district or national leaders were studied and why two schools rather than three or four were used for the case study.

For example, considerable attention in the form of an extensive literature review was given to the topic of self-regulated learning. Part of this research included self-regulated learning's propensity to foster lifelong learning skills. The development of

lifelong learning skills, the research has suggested, is an important learning outcome for primary and secondary schools. Thus, self-regulated learning is a valid learning model for leaders to implement and is, therefore, appropriate to investigate. Additionally, research has suggested that leadership is responsible for an organization achieving its desired outcomes. Research referenced in chapter 2 suggested that the local school leader plays a powerful role in ensuring that the school's learning outcomes are met and that he or she provides significant educational leadership ranging from overseeing curriculum selection to ensuring that teachers receive the professional development needed to properly implement it. Finally, the following section demonstrates why two schools were selected to participate in this study. Thus, offering these propositions demonstrates the logic used in the development of the research design and proactively answers some of the questions that may naturally be raised.

Case Study Sampling

Different types of research require different types and numbers of samples. Patton (2002) maintained that qualitative inquiry, including the case study, often employs a small sample, even a single sample, which is purposefully selected by the investigator.

He wrote:

What would be “bias” in statistical sampling, and therefore a weakness, becomes intended focus in qualitative sampling, and therefore a strength. The logic and power of purposeful sampling lie in selecting *information-rich cases* for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term *purposeful*. (p. 230)

More than just sample number, Patton (2002) suggested that the sample type should be considered as well. Patton (2002) listed several types of samples utilized in qualitative research.

Sample type. This study used intensity sampling, which Patton (2002) identified as a sample based upon its information-rich tendency to display excellence or uniqueness in the phenomenon being studied. This investigation used intensity sampling since the schools selected for the case study offer an information-rich, unique study. For example, the research question identified schools that support the self-regulated learning model. Thus, this study only investigated schools currently implementing curriculum supportive of self-regulated learning, a unique scenario for most traditional classrooms. Yin (2003) believes using the research question to narrow sample criteria is necessary for a successful case study. He posited, “If your questions do not lead to the favoring of one unit of analysis over another, your questions are probably either too vague or too numerous—and you may have trouble conducting your case study” (p. 24).

Sample number. In traditional quantitative research, investigators typically pursue a large sample size in order to ensure a statistically valid study. Yet, this type of thinking is not necessary in qualitative or case study research. Yin (2003) posited, “Because a sampling logic should not be used, the typical criteria regarding sample size also are irrelevant” (p. 51). Yin believes the choice of how many cases to replicate is wholly decided by the researcher. Though Yin and other qualitative researchers (Glaser & Strauss, 1999; Holliday, 2002; Patton, 2002) have noted that a valid qualitative study can be accomplished from a single sample, Yin has maintained that multiple-case designs are likely to be stronger studies than those that only examine one case. This is true since

analytic conclusions that arise independently from multiple cases are more powerful than those that arise from just one case. Yin suggested that such analytic benefits may be substantial. Another strength of the multiple-case study is the opportunity for generalizability. In a multiple-case study, the contexts of the cases, though in many ways similar, will differ to some extent. If common conclusions can be reached from these somewhat divergent contexts, the prospects for generalizability will increase considerably.

In an effort to improve the study's analytic strength and increase the opportunity for generalizability, two cases that fit the criterion for an intensity sample were purposefully selected. Choosing more than two cases may jeopardize the study's feasibility since the time and work demands of a multiple-case study are significant, especially when conducted by a single researcher. Yet, using two cases provided the opportunity to reap the benefits of a multiple-case design. Yin (2003) posited, "Even if you can only do a 'two-case' case study, your chances of doing a good case study will be better than using a single-case design" (p. 51). Yin suggested that any researcher who uses more than one case should carefully select each case so that it predicts similar results, similar to experimentation studies seeking to replicate their findings in subsequent experimentation. Therefore, further criteria were developed to ensure that both cases are similar, information-rich samples.

Research sample selection. Patton's (2003) call for information-rich samples led to the development of specified criteria for sample selection. This is consistent with the stance of Glaser and Strauss (1999) which stressed the importance of establishing certain criteria in selecting samples for research studies. To address the research question and

complete the study, leaders of schools using curriculum supportive of self-regulated learning were investigated.

For the purposes of this study, leaders are defined as the primary decision makers of the school who have ultimate responsibility for its day-to-day operations, including curriculum implementation and staff development. These leaders were selected from schools that presently use curriculum espousing certain tenets of self-regulated learning. Other leadership criteria include having been the school's leader for at least 2 years and having a basic understanding of and support for self-regulated learning. This information was gleaned by first contacting schools that are members of an association that encourages autonomous learning. Each school administrator was asked the following questions:

1. Does your school utilize a teaching model and curriculum that foster self-directed, autonomous learning?
2. Does this model include the basic tenets of self-regulated learning including employing goal-setting, metacognitive behaviors, self-monitoring, and motivation to help students reach their academic goals?
3. Are you responsible for the school's day-to-day operations and for making decisions related to curriculum?
4. How many years have you been the school administrator?

Leaders from schools who meet the stated criteria were given the opportunity to participate in this study. Participants of this study were not compensated.

Administrators from two private schools participated in this study. Tables 1 and 2 highlight certain demographic information for each school and administrator. The first

school is located in a suburb of a large metropolitan area of northeastern Virginia. The second school is located in a suburb of a small city in central Virginia. As stated, schools were selected based upon their use of curriculum supportive of self-regulated learning. Though such curriculum may employ many of the “buzz words” of self-regulated learning (terms such as learner autonomy, goal-setting, self-monitoring, intrinsic motivation, and embedded instruction), it was not known how leaders encourage and equip teachers to use this curriculum properly. As Zimmerman (2002) noted, it is both the quantity and quality of self-regulated instruction that demonstrate high correlations with academic achievement. It is also important to note that in the United States alone, nearly 5,000 private schools and more than 200 public schools use this curriculum. This research may benefit these students and others who may use a similar curriculum.

Table 1

Demographic Information for Participant Schools

	School A	School B
Student enrollment	206	36
Number of teaching staff	31	5
Number of administrators	3	1

Table 2

Demographic Information for Participant Administrators

	School A	School B
Gender	Female	Male
Education level	Masters degree	Masters degree
Formal training in self-regulated learning	Yes	Yes
Total number of years in education	32	21
Number of years as present school administrator	2	21

Theoretical sampling during data collection and analysis. Another type of sampling, theoretical sampling, occurs during the data collection and analysis stages of the investigation. Glaser and Strauss (1999) defined theoretical sampling as “the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges” (p. 45). While this research endeavor does not attempt to generate theory, the analytical technique Glaser and Strauss pioneered was used as the primary method for this study’s data analysis discussed later in this chapter.

Though the cases and sample participants were chosen prior to the investigation, with theoretical sampling the number of participants used in data collection may increase or decrease depending on the quality of data collected. This is consistent with Yin’s

(2003) call to maintain a flexible design, since information gleaned in the data collection process may necessitate change. As far as the participants selected for research, Glaser and Strauss (1999) believe their selection should be based on “their theoretical relevance for furthering the development of emerging categories” (p. 49). Therefore, any group that will help generate as many properties of the categories as possible during data collection may be selected.

Glaser and Strauss (1999) posited a final thought on theoretical sampling: it does not require collecting as much data as possible from every participant, except at the beginning of the study when categories are emerging. It only requires collecting data on categories for the “generation of properties and hypothesis” (p. 69) until saturation is reached. This understanding should moderate the tendency to go back to the site investigated again and again to gather new information, an unnecessary activity if categories are already saturated. Glaser and Strauss believe this is an important point since there is a penchant for researchers to wait for new information to develop, needlessly prolonging the study.

Data Collection

Qualitative analysis employs several methods of data collection and draws upon multiples sources of evidence. It also allows the researcher to play an analytic role in the process of data collection. For example, Yin (2003) believes case study data collection to be more than merely recording data in a formal, prescribed, mechanical fashion. Yin suggested that an investigator “must be able to *interpret* the information as it is being collected and to know immediately, for instance, if several sources of information contradict one another and lead to the need for additional evidence—much like a good

detective” (p. 61). To better understand how the investigator collects, processes, and analyzes data; it is essential to review the methods of data collection and the sources of evidence from which data can be gleaned. Before reviewing these methods and sources, one should understand the need to adopt a contextual perspective for case study data collection.

A Contextual Perspective

In qualitative research, the process of data collection represents more than just distributing a survey, employing a test, or conducting an experiment. Instead, data collection often occurs within a phenomenon’s natural setting, providing a context-rich source of data for analysis. As Patton (2002) posited:

Researchers and evaluators analyzing qualitative data strive to understand a phenomenon or program as a whole. This means that a description and interpretation of a person’s social environment, or an organization’s external context, is essential for overall understanding of what has been observed during fieldwork or said in an interview. (p. 59)

A participant’s environment can only be described or interpreted if the environment itself is part of the study, reinforcing the need for on-site visits that create the opportunity for context-rich observations.

Bogden and Biklen (1998) suggested, “Qualitative researchers go to the particular setting under study because they are concerned with context. They feel action can best be understood when it is observed in the setting in which it occurs” (p. 5). Patton (2002) added, “The advantages of qualitative portrayals of holistic settings and impacts are that greater attention can be to nuance, setting, interdependencies, complexities,

idiosyncrasies, and context” (p. 60). For Yin (2003), this holistic context is critical to case study research and differentiates it from other types of research such as experimentation which, Yin contended, purposefully separates phenomenon from its context so that attention can be focused on a limited number of variables. Patton (2002) also suggested that qualitative inquiry presents context as essential to understanding. Within this naturalistic context, several methods of data collection may be employed that take full advantage of the numerous sources of evidence available in a case study investigation (Holliday, 2002).

Methods of Data Collection

Yin (2003) listed six sources of evidence from which data may be collected when using the case study method: documentation (such as letters, memos, communiqués, agendas, announcements, meeting minutes, written reports, and administrative documents), archival records (such as client records, organizational records, maps and charts, lists, survey data, personal records), interviews, direct observations, participant observations, and physical artifacts. These sources of evidence can be further distilled and restated into the three primary methods for collecting evidence: interviewing, observing, and reviewing documents. Each of these methods provides important insights for case study analysis.

Interviewing. The primary method of data collection was open-ended interviews with the leaders and teachers of the selected schools. Yin (2003) maintained that interviews are necessary sources of case study information. He wrote, “Interviews are an essential source of case study evidence because most case studies are about human affairs” (p. 92). Seidman (1998) echoed the need for interviews, stating that “the primary

way a researcher can investigate an educational organization, institution, or process is through the experience of the individual people, the ‘others’ who make up the organization or carry out the process” (p. 4). Such an experiential investigation requires one to extract the experiences of those involved in the phenomenon through open-ended interviews. Seidman added, “Interviewing provides access to the context of people’s behavior and thereby provides a way for researchers to understand the meaning of that behavior” (p. 4).

The majority of the interview questions (presented in Appendixes A and B) are based on Wehmeyer, Agran, et al.’s (2002) research identifying obstacles faced while facilitating self-regulated learning and seek to ascertain how leaders might address them. Additional questions were written to collect demographic information and to better understand each participant’s context, as suggested by Seidman (1998). The similarity in questions asked to leaders and teachers was intended to investigate different participant points of view, a technique Patton (2002) posited reinforces the triangulation needed for a robust data analysis. Finally, many questions were written in an open-ended format, which Yin (2003) suggested for case study research.

An open-ended interview is one that begins with a few questions that serve as a springboard for informants to relate their stories and experiences. Seidman (1998) posited, “An open-ended question, unlike a leading question, establishes the territory to be explored while allowing the participant to take any direction he or she wants. It does not presume an answer” (p. 69). Thus, the participant is free to discuss the particular issue addressed without feeling the need to respond in a predetermined manner. This may lead to a participant segueing into subjects or experiences that have little bearing on the

phenomenon being studied. Therefore, Yin (2003) noted the importance of the focused interview: an open-ended interview that follows a certain set of questions according to the established case study protocol.

Yet, it is at this juncture that the interviewer must exercise caution. She or he must not intercede too quickly or too strongly to keep a participant “on track.” Seidman (1998) maintained that this is why listening is of utmost importance. He posited, “Listening is the most important skill in interviewing. The hardest work for most interviewers is to keep quiet and to listen actively” (p. 63). However, this type of open-ended interviewing does not mean the interviewer ceases to interject or take part in the discussion. It does, however, change the apparent timbre of the interview. As Yin (2003) suggested, “The interviews will appear to be guided conversations rather than structured queries” (p. 89).

One activity that may help keep open-ended interviews focused is the practice of note taking. Seidman (1998), for example, suggested that interviews should be recorded electronically and manually via note taking. Note taking helps interviewers focus on what the participant is saying. Taking notes also helps to “keep interviewers from interrupting the participant by allowing them to keep track of things that the participant has mentioned in order to come back to these subjects when the timing is right” (Seidman, p. 64). In conjunction with note taking, electronically recording the interviews can also be helpful. Audio recording provides the opportunity to revisit previous conversations and allows the actual words of those interviewed to be accurately filed. This can also lend reliability to the data analysis if these recordings are properly catalogued and made accessible.

Finally, Seidman (1998) noted that it is important to follow up on what the participant says, to ask questions when the participant's answer is not understood and to ask the participant to elaborate on subjects that are intriguing. However, Seidman stressed the importance of exploring not probing the participant's experiences. Since this type of interviewing can take considerable time, Glaser and Strauss (1999) stressed that it should be done in a quiet place where it can be accomplished uninterrupted.

Observing. Yin (2003) believes it is important to visit the case study site itself to conduct interviews and to make and record direct observations. He wrote, "By making a field visit to the case study 'site,' you are creating the opportunity for direct observations" (p. 92). Yin posited that these observations include participant behavior during interviews, certain types of behaviors from others in the organization, the condition of physical space and buildings, and furnishings and room layout. Holliday (2002) noted that observations also include observing unstructured talk, what people are overheard saying gathered through audio recording or note taking.

Aside from direct observation, Yin (2003) suggested that participant observation is sometimes used in the data collection stage. Participant observation is a special mode of observation in which the researcher is not just a passive observer. Instead, she or he may assume a variety of roles within the case study investigation. This study, however, included only direct observations of relevant behaviors such as leader/teacher interaction, student work and study habits, teacher/student interaction, student use of self-instructional curriculum, overt and embedded teacher instruction (including self-regulated learning facilitation), and each school's relevant physical environment.

Reviewing documents. Document reviews that may benefit case study research include organizational letters, memos, and communiqués (Yin, 2003). Others include meeting agendas and minutes, faculty and staff announcements, formal and informal written reports, and various administrative documents. Also, there may be important archival records to review such as client records, organizational records, maps and charts, lists, survey data, and personal records. Because of their overall value, Yin believes “documents play an explicit role in any data collection in doing case studies” (p. 87).

Though the primary method of data collection is interviewing, conducting a thorough review of relevant documents adds an important element to the evidence chain. Yin (2003) wrote, “For case studies, the most important use of documents is to corroborate and augment evidence from other sources” (p. 87). Thus, data gleaned from document reviews were used to corroborate and augment evidence gleaned from interviews and observations. Yin cautioned against unmitigated confidence in document evidence, however, since documents may be written or stored with organizational bias, intentional or not. He cautioned, “When archival evidence has been deemed relevant, an investigator must be careful to ascertain the conditions under which it was produced as well as its accuracy” (p. 87). Although bias may be present in documents and archival records, Yin maintained that such documents are still valid and useful for case study analysis provided that certain measures to ensure the validity and reliability of the data are employed.

Ensuring Reliable Data Collection

When using these sources of data, it is important to follow principles of data collection to help ensure the validity and reliability of the study. Yin (2003) posited three

principles for reliable data collection: using multiple sources of evidence, creating a case study database, and maintaining a chain of evidence.

Gathering data: Multiple sources of evidence. Yin (2003) believes that “a major strength of case study data collection is the opportunity to use many different sources of evidence” (p. 97). As noted, there are six primary sources of evidence from which data may be gathered. For Yin, using multiple sources of information is necessary to the process of triangulation. Patton (2002) posited that triangulation adds strength to a study and “increases credibility and quality by countering the concern (or accusation) that a study’s findings are simply an artifact of a single method, a single source, or a single investigator’s blinders” (p. 563). Yin also stressed the importance of triangulation, noting that “any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode” (p. 98). Not only does using multiple sources of information increase a study’s accuracy, it helps address construct validity by providing multiple measures of the same phenomenon. As previously stated, this study will ensure triangulation by investigating multiple sources of evidence and using multiple methods of data collection.

Recording data: Creating a case study database. Gathering data from multiple sources provides its own challenge: effectively organizing and storing data. For Yin (2003), these challenges are met through the creation and use of a database. There are two types of case study data cataloged in a database: the data (or evidentiary base) and the investigator’s report. Yin believes these data are often difficult to distinguish in the case study format since the investigator’s report typically contains the evidence derived

from interviews and observations. Thus, it is important to accurately record and catalogue data collected from interviews, observations, and document reviews.

Yin (2003) suggested that notes are likely to be the most common component of a case study database. These notes are derived from interviews, observations, and document reviews and may be handwritten and/or recorded and later transcribed. For a case study analysis, the important thing is to maintain an accessible, organized database. Likewise, any documents collected for the research should be organized and stored in a manner that would make retrieval efficient and logical. This can be accomplished by providing an annotated bibliography or other classification system.

Several methods of data recording were used during the data collection phase of this study, including taking electronic notes on a laptop computer during observations and document reviews. An audio recorder, in conjunction with handwritten notes, was used to record data from interviews. Subsequently, the interview recordings were transcribed and catalogued in an electronic database. Finally, a notebook was maintained for notes taken during observations and document reviews when the laptop was not used.

Ensuring logical data: Maintaining a chain of evidence. Yin (2003) believes maintaining a chain of evidence is important for increasing the reliability of a case study. Yin wrote that maintaining a chain of evidence is “to allow an external observer—in this situation, the reader of the case study—to follow the derivation of any evidence, ranging from initial research questions to ultimate case study conclusions” (p. 105). In other words, there should be a logical flow of evidence that an external observer could follow to see how and why a particular piece of evidence was collected. If this chain of evidence is maintained, a case study “will have addressed the methodological problem of

determining construct validity, thereby increasing the overall quality of the case” (Yin, p. 105).

Aside from presenting the logic of data collection, there are other tangible ways to maintain the evidential chain. For example, citing specific sources referenced in the study (interviews, documents, or observations) can help build the chain of evidence (Yin, 2003). Additionally, the study’s database should present the circumstances under which the evidence referenced was collected. It is also important that all evidence-collecting procedures and processes follow the case study protocol laid out in the methodology section of the case study, allowing the reader to transition logically through the case study process. This study will outline the case study design (protocol), cite reference sources, record circumstances under which evidence was collected, and follow stated processes to ensure that the evidential chain is maintained.

Conducting a Pilot Case Study

A final preparation for a complete case study design is to conduct a pilot case study. Yin (2003) posited that the pilot study case may be selected with different criteria than those used for selecting the cases investigated in the final case study design. For example, the pilot case may be chosen for ease of entrance or geographic convenience. Though the selection criteria may differ from the final design criterion, a pilot study’s importance to a successful investigation should not be diminished. Yin suggested that the pilot case will help refine the data collection plan including interviewing and observation techniques. The pilot site itself becomes a sort of laboratory, allowing a researcher “to observe different phenomena from many different angles or to try different approaches on a trial basis” (Yin, p. 79).

For the pilot study, a regional administrator of a private school consortium that uses curriculum supportive of self-regulated learning was interviewed. The regional administrator was presented with the purpose and basic framework of the proposed study. His initial response was very positive and supportive of the study; noting most of the schools using this curriculum had small enrollments (less than 50 students) and were therefore able to support the intimate, individualized instruction required by self-regulated learning. He also suggested that, in his experience, school leadership needed to better understand the importance of their role in ensuring self-regulated learning, and he believed that these leaders could do much more to equip teachers to facilitate self-regulated learning in their schools.

An on-site visit was made to a school that fit the stated criteria for a research sample within the consortium to make general observations and to conduct informal document reviews and interviews with the administrator and staff. Two classrooms as well as before and after school activities were observed to note leader/teacher interaction, leader activities in regard to faculty support and maintaining the learning environment, and teacher/student interaction in facilitating self-regulated learning. Several documents were also reviewed including an administrator's manual, notes on teacher training, and samples of the curriculum. Finally, an informal interview was conducted with the administrator to gauge his perception of his role in ensuring successful organizational outcomes (for his organization, learning outcomes) and the self-regulated learning process. Another informal interview was conducted with one of the teachers to ascertain how she perceived the administrator's role in encouraging and equipping her to facilitate self-regulated learning. The results of this pilot study encouraged the construction of a

formal case study to more fully investigate the phenomenon and to address the research question.

Data Analysis

Yin (2003) defined data analysis as the act of “examining, categorizing, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of the study” (p. 109). Yin also emphasized the importance of analysis quality:

Regardless of the choice of strategies or techniques, a persistent challenge is to produce high-quality analyses, which require investigators to attend to all the evidence, display and present the evidence separate from any interpretation, and show adequate concern for exploring alternative interpretations. (p. 109)

It is critical to choose the method of analysis at the outset of case study investigation. Yin stated, “The strategy will help you to treat the evidence fairly, produce compelling analytic conclusions, and rule out alternative interpretations. The strategy also will help you to use tools and make manipulations more effectively and efficiently” (p. 111).

According to Yin (2003), there are three general strategies for effectively analyzing case study data: relying on theoretical propositions (which Yin described as the first and preferred strategy), thinking about rival explanations, and developing a case study description. This case study relied on theoretical propositions, as investigated and discussed in chapter 2, to guide the data analysis. Once the general strategy is chosen, specific analytic techniques must be selected for the investigation’s data analysis. Yin posited that these techniques include pattern matching, explanation building, time-series

analysis, logic models, and cross-case synthesis. According to Yin, explanation building is especially helpful in explanatory case studies.

This research sought to explain how leaders encourage and equip teachers to facilitate self-regulated learning. Therefore, the explanation-building technique was used for this multiple-case study's data analysis. Though more than one case was investigated, the explanation technique is still valid. Yin (2003) posited, "In multiple-case study, one goal is to build a general explanation that fits each of the individual cases, even though the cases will vary in their details" (p. 121). One way a general explanation is built is through the use of narrative reporting. Creswell (1998) posited that the analytic process in grounded theory research presents data in a narrative form, a story the researcher writes to integrate and present the findings suggested from the data. Yin also suggested that in most case studies, explanation building occurs in narrative form and is often used in grounded theory research. Therefore, the analytic processes used in grounded theory research were employed for this study's data analysis.

Grounded Theory Inquiry: A Brief Overview

According to Creswell (1998), the intent of grounded theory is "to generate or discover a theory" (p. 56) that relates to a particular situation in which "individuals interact, take actions, or engage in a process in response to a phenomenon" (p. 56). Creswell posited that Glaser and Strauss first proposed grounded theory as a method of inquiry in 1967. They believed theories should be grounded in data from the field, "especially in the actions, interactions, and social processes of people" (Creswell, p. 56). Though this research did not seek to generate theory while addressing the research

question, the analytic processes used in grounded theory were an excellent fit for the analytic requirements of this case study.

Data Analysis in Grounded Theory Research

In grounded theory, interviews are conducted in the field to collect data to saturate the categories developed by the researcher. A category represents a “unit of information composed of events, happenings, and instances” (Creswell, 1998, p. 56) the researcher develops as the data are collected. Glaser and Strauss (1999) noted that a category “stands by itself as a conceptual element of the theory” (p. 36). Conceptual categories can be divided into two broad groups: lower level and higher level. Lower level categories develop early in the research; whereas higher level categories that integrate and conceptualize the phenomenon tend to come later during the collection, coding, and analysis of the data. As the categories are developed, data are collected until the categories are saturated.

Saturation of the category is achieved when additional information no longer adds to the data already collected. To help reach this saturation point, a review of documents related to the phenomenon being studied may be conducted. Creswell (1998) suggested that all such data are collected in a zigzag process of gleaning information from the field, analyzing the data, and returning to the field to gather new information until saturation occurs in a method known as comparative analysis. In comparative analysis, information is gathered and compared to emerging categories in a continuous process until the categories become saturated. Glaser and Strauss (1999) posited, “Joint collection, coding, and analysis of data is the underlying operation” (p. 43). Thus, data analysis occurs simultaneously with data collection.

The comparative analysis method is useful with a small sample size and is therefore compatible with case study inquiry. Glaser and Strauss (1999) wrote that comparative analysis as a strategic method “assigns the method its fullest generality for use on social units of any size, large or small, ranging from men or their roles to nations or world regions” (pp. 21-22). This type of data analysis is systematic and follows a standard format. Creswell (1998) summarized the principal steps of open coding, axial coding, and selective coding. According to Creswell, in open coding:

The researcher forms initial categories of information about the phenomenon being studied by segmenting information. Within each category, the investigator finds several properties, or subcategories, and looks for data to dimensionalize, or show the extreme possibilities on a continuum of, the property. (p. 57)

In axial coding, the researcher “assembles the data in new ways after open coding” (Creswell, p. 57). This information is presented with a logic diagram or coding paradigm in which the researcher identifies the central phenomenon:

The researcher explores causal conditions (i.e., categories of conditions that influence the phenomenon), specifies strategies (i.e., the actions or interactions that result from the central phenomenon), identifies the context and intervening conditions (i.e., the narrow and broad conditions that influence the strategies), and delineates the consequences (i.e., the outcomes of the strategies) for this phenomenon. (Creswell, p. 57).

In selective coding, Creswell explained that the researcher “identifies a ‘story line’ and writes a story that integrates the categories in the axial coding model. In this phase, conditional propositions (or hypothesis) are typically presented” (p. 57). The data

analysis procedures of this study followed similar steps, which Glaser and Strauss described as coding through the constant comparative method.

Coding and the Constant Comparative Method

As previously discussed, data were gathered through interviews, observations, and document reviews. This process began with the identification of categories or themes that emerged from these data, a process defined as open coding. Glaser and Strauss (1999) suggested that each incident be coded into as many categories of analysis as possible. Coding should occur as soon as the data are recognized to fit categories already formed or as new categories begin to emerge from the data.

For example, in this investigation, open-ended interviews with the administrator and teachers will provide various responses regarding the use of curriculum that facilitates self-regulated learning. One response from a teacher might be, “You just see his eyes light up when he realizes he found out the answer on his own; as if he is saying, ‘I figured it out!’” Similarly, the administrator might comment, “A student realizes he has what it takes to pass the test; it makes him more likely to go after it the next time.” These comments reflect properties described by the category titled “builds self-efficacy” and are coded accordingly.

Coding can be recorded in an informal manner such as by marking categories on the margins of the interviewer’s notes, or it can be done with more formal methods like classifying categories on separate cards (Glaser & Strauss, 1999). Yet, it is during this procedure that Glaser and Strauss stressed the defining rule for coding with the constant comparative method: “*while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category*” (p. 106).

For instance, in the above example, if the teacher's comment was coded for the category named "builds self-efficacy," the previous incidents that were collected and coded for that category should be reviewed to ensure that the statements reflect similar properties. Thus, the teacher's comment would be compared to the administrator's comment. If, upon further consideration, the teacher's comment does not reflect the properties of "builds self-efficacy," the incident might be recoded and placed in another category already identified or in a newly-emerging category. In this example, the teacher's comment "You just see his eyes light up when he realizes he found out the answer on his own; as if he is saying, 'I figured it out!'" could be recoded in an emerging category such as "learner motivation."

However, Glaser and Strauss (1999) suggested limits to this process of continued assessment. They posited that after coding for a category and reviewing it three or four times, the researcher should stop coding and record a memo on his or her ideas. They continued, "This rule is designed to tap the initial freshness of the analyst's theoretical notions and to relieve the conflict in his thoughts" (p. 107). Then, as the process of coding continues, the coded incident may change from an incident-to-incident comparison to comparing the incident with properties of the category that resulted from the study's initial comparisons. The process of re-examining the categories (and making changes to them when necessary) has been called axial coding.

Finally, the data gathered and analyzed from the preceding steps are fashioned into a narrative. Though QSR's NVivo software was initially obtained to aid the data analysis, the richness of the data gleaned was sufficient to develop a narrative that explains and interprets the data to further the reader's understanding of the phenomenon

investigated. Strauss and Corbin (1990) stressed that this narrative “closely approximates the reality it represents” (p. 57) to ensure that the data are reported properly. Indeed, throughout the investigative process, prescribed measures supporting the validity and reliability of the study should be followed. These measures are identified and explained in the next section.

Maintaining Validity and Reliability

Yin (2003) posited that the development of a case study “needs to maximize four conditions related to design quality: (a) construct validity, (b) internal validity, (c) external validity, and (d) reliability” (p. 19). He offered several methods for ensuring that the design quality addresses these validity and reliability issues.

For case study construct validity, Yin (2003) suggested using multiple sources of evidence and establishing a chain of evidence. This study used multiple sources of evidence including open-ended interviews with administrators and staff, on-site observations in two separate locations, and organizational document and archive reviews. The chain of evidence was written into the design of the study and is presented in summary fashion in chapter 1 and explained more fully throughout chapter 3.

To ensure a case study’s internal validity (for explanatory or causal case studies), Yin (2003) suggested conducting pattern-matching analysis, developing explanation building, addressing rival explanations, and using logic models (which Yin believes are especially important in case study evaluations that observe cause-effect patterns). In this explanatory case study, open and axial coding for pattern-matching analytic techniques were used to develop explanation-building narratives which were used to address rival

explanations. Logic models, though similar to pattern-matching analysis, visually represent cause-effect patterns and, therefore, were not used to present data in this study.

To maximize a case study's external validity, Yin (2003) suggested using replication logic and conducting a multiple-case study when possible. Case study replication logic is analogous to the logic behind research involving multiple experiments, when the experiments are repeated to see if the initial experiment's findings can be duplicated. Yin posited, "The logic underlying the use of multiple-case studies is the same" (p. 47). Just as multiple experiments seek to duplicate the same conditions as the first experiment, the multiple-case study may use select cases to predict similar results. This selective process is known as literal replication. Further, Yin suggested that a study consisting of even two cases increases one's chances of conducting a good case study. Therefore, a multiple-case study examining two cases suited for literal replication was employed.

Finally, Yin (2003) believes in following case study protocol (the research design) and developing and maintaining a case study database to help ensure case study reliability. This study's protocol (research design) is highlighted in chapter 1 and is more fully developed in this chapter. Also, an organized case study database was maintained including all audio recordings, electronically-produced notes, handwritten notes, data, and any miscellaneous documents collected.

Chapter Summary

This chapter has described the process for examining how leaders encourage and equip teachers to facilitate self-regulated learning. A multiple-case study was conducted in two schools supportive of self-regulated learning. The leaders and selected teachers of

these schools were interviewed, on-site observations were conducted, and relevant organizational documents and archives were reviewed. Data collected from these evidential sources were analyzed with open and axial coding through the process of comparative analysis until categorical saturation was reached. The findings from those data were organized and presented in narrative form and are discussed in the next chapter.

Chapter 4 – Results

This chapter presents a qualitative analysis of the data gleaned from a multiple-case study. The findings of this analysis are divided into two principal sections based on the research question addressed. These sections include how leaders equip teachers to facilitate self-regulated learning and how leaders encourage teachers to facilitate self-regulated learning. Each section is further divided into categories correlating to the principal coding developed during data collection and analysis.

Coding the Results

Data were collected from three primary sources: open-ended interviews, observations, and document reviews. As notes were taken during each mode of data collection, key concepts were identified as categories through which the data were coded. As each interview was transcribed, additional categories emerged; and new data were compared to previously coded data. This process of axial coding eventually narrowed the number of categories and helped identify each category's relationship to the two principal components of the research question: how leaders equip and encourage teachers to facilitate self-regulated learning.

Topics that address how leaders equip teachers to facilitate self-regulated learning include: (a) leaders properly equip the classroom, (b) leaders protect the learning environment, and (c) leaders encourage the professional development of their faculty. Topics relating to the second component, how leaders encourage teachers to facilitate self-regulated learning, include: (d) leaders foster the school community's understanding of self-regulated learning, (e) leaders provide support in the teacher's relationships with parents, (f) leaders seek to remove obstacles to the facilitation of self-regulated learning,

(g) leaders are available to the school community, (h) leaders offer constructive criticism and feedback, (i) leaders form partnerships with faculty, and (j) leaders promote professional autonomy. Each topic presents data gleaned from multiple sources; providing a robust, triangulated evidential base from which the data were analyzed.

General Observations of the Case Study Sites

School A is located in an affluent suburb of Washington, DC and is situated on a corner lot near a new middle school and many housing subdivisions. The building itself is 3 years old, is beautifully landscaped, and has inviting architectural brickwork. It has a wedge-shaped design; allowing each of its two principal wings to face a road, allowing maximum exposure and giving the impression that the school is much larger than it is. Inside, the school has a welcoming foyer and help desk centered between the two halls. One hall is dedicated to primary classrooms; the other is dedicated to elementary classrooms. Administrative offices are adjacent to the foyer and are walled on one side with glass, allowing both visitors and staff to be in full view of each other. The center of the school has a large great room that serves as a multipurpose room for large gatherings. It also has a full working stage and large, expansive windows overlooking the school's courtyard. Each classroom is rather large and is fully equipped with resources deemed essential to the learning model. Each also has both men's and women's bathrooms. The elementary classrooms are larger than the primary classrooms by design, since there are bigger bodies needing more room to learn independently (Director A, personal communication, March 8, 2006). Outside, there are two playgrounds, one for elementary children and a downsized one for primary children. The director noted, "we can't say that each child develops and learns at his own pace and then expect them to play on the same-

sized equipment” (personal communication, March 7, 2006). There is a fenced courtyard with numerous learning opportunities for students including a potting shed to allow each classroom to plant a garden and a wildlife pond, professionally stocked and maintained, to teach children about nature. The library was open to the hall, though it was stepped for stadium-seating and featured a sunken fireplace. Since it was small, the fireplace added an intimate feel to story time and other informal gatherings. Some parent meetings are also held in this area (personal observation, March 8, 2006). Each classroom has bulletin boards posted just outside its door; featuring class information, announcements, and student work. School furnishings are new and evoke a “spare no expense” aura. The design of the campus (classrooms, playgrounds, ancillary rooms, and lobby area) supports self-directed learning. Director A stressed how the design and layout was geared toward the independent, individualized development of the child (personal communication, March 7, 2006).

School B is located in a small town of central Virginia, situated near middle-class suburbs and large farmlands just outside of the city. The building is older and has only two learning centers. Though the school is nicely decorated and clean, its architecture and amenities convey that the budget may be more limited than other private schools (personal observation, February 15, 2006). School B is much smaller than school A, invoking a more intimate setting than other schools. The lobby has an unpretentious air about it. It has a bulletin board to communicate school-related announcements to parents and visitors. The furniture is sparse, and the school’s part-time secretary has a desk along one wall of the lobby. The windows are adorned with handmade signs and learning-related decorations (personal observation, February 15, 2006). The most striking feature

of the lobby is a large observation window through which one can view the primary learning center. This seems to indicate an open approach to visitors and parents who want to observe the children in the natural learning environment. Most of the facility is dedicated to the learning center with several smaller side rooms connected to the larger classroom. These smaller rooms provide various learning centers for the students; rooms dedicated to arts and crafts, reading, a tactile center, and so forth (personal observation, February 15, 2006). School faculty and staff were welcoming and helpful upon each visit made. The staff members were willing to discuss the benefits of self-directed learning, even though not directly questioned about it. There appeared to be an overt enthusiasm for this type of learning that led to their desire to share it with visitors. In fact, during the first observation, the lead teacher of the learning center took time to come out and discuss her class and the learning model. She, too, offered a tour of the school and was willing to answer any questions presented.

Each case study site was visited on multiple occasions. Initial site visits included meetings with the director of each school, tours of each school's facilities and grounds, observations of the general environment and physical layout of each school, and introductions to faculty and staff. Additional site visits were made to conduct on-site interviews and to collect materials for the document reviews.

How Leaders Equip Teachers to Facilitate Self-Regulated Learning

When leaders were asked how they equip their teachers to facilitate self-regulated learning, their answers typically fell into two emerging categories: providing a quality learning environment and encouraging the faculty members' professional development. It is interesting to note that these primary categories both reveal a certain measure of

financial commitment, a type of support each director may have equated with the word *equip*. Protecting the learning environment, an activity that does not require financial resources but only leadership commitment, was another important element of the well-equipped environment.

Leaders Properly Equip the Classroom

Leaders in education and the social sciences referenced in the literature review have suggested the importance of creating an environment conducive to facilitating self-regulated learning. The environment's importance was also strongly emphasized by director B who stated:

You create an environment like you see here and show the child how to operate things in that environment by giving them lessons; and, then, they're free to go back to things on their own. And, its through interaction with the environment that the child concentrates and, in that concentration, is the balancing element to the whole method. (personal communication, March 3, 2006)

For director B, a leader who creates the right environment does more than encourage good teaching, he or she encourages the child to teach himself or herself. The director stated:

We don't teach anything. We provide the child with the next interesting thing. And, that next interesting thing is something like this or like that, and that is the environment. So, the more interesting the environment is, the better. (personal communication, March 3, 2006)

Though the environment is crucial, it is up to the leader to make it an exciting, engaging environment that welcomes the learner. Director B explained:

It's almost like when, you know, you wake up on Christmas morning, and you are running downstairs, and you have that anticipation in your heart. . . you know there's going to be just a "whammo" waiting down there. And, that's what you want the child to feel like every day when they come here. So, that's what the challenge is, to keep that environment right on the edge day after day after day. So, the physical environment is something we keep working on—keeping it fresh, making it new, changing things around. (personal communication, March 3, 2006)

The director concluded by stating, "If we get out of the way and create the environment, they will automatically know what to do" (personal communication, March 3, 2006).

Director A also expressed the important responsibility that the director has in ensuring that each teacher has a well-equipped classroom from which to work and that each teacher is trained to use a properly prepared environment to facilitate self-regulated learning. The director proposed that "the type of support a teacher gets to keep her classroom ready at all times is very important" and that "there's a tremendous amount of support for the teachers" to prepare the environment (personal communication, March 8, 2006). The director continued, "Every classroom is beautifully equipped with the materials that we believe are the sequential materials that we need" to foster the learning model (personal communication, March 8, 2006).

Director A noted that much thought and expense went into the design of each classroom to enhance and reinforce the teachers' efforts to develop independent students who love learning. The director believes part of the reason the school is able to commit substantial resources to properly prepare and equip the learning environment is because the owner of the school is trained in and supportive of self-regulated learning.

The leader's commitment to ensuring that the environment has the materials and resources it needs is, according to several of the faculty, one of the strongest demonstrations of the leader's support for the teacher and his or her ability to foster self-regulated learning. For example, though the teacher interviewed from school B (teacher B1) related that limited finances can present an obstacle to her work, she believes her director does everything possible to prepare the environment, which is critical to the learning model. She stated that she has a "beautifully equipped classroom" (personal communication, March 31, 2006) that promotes self-regulated learning. Later in the interview, long after discussing the importance of the environment, she added:

One thing I wanted to say about the materials that's really important. . . is that, you know, you're sitting here in the classroom. Does it look beautiful to you? Doesn't it? The model is reinforced by the attractiveness of the learning materials. (personal communication, March 31, 2006)

She described how each area of her classroom is purposefully equipped to develop a student's independence and also stated that her director ensures that she has the materials she needs to be a successful facilitator.

In school A, teacher A2 was also asked about her director's role in equipping the classroom environment. She stated:

The physical space is one of the nicest classrooms I've ever had to work in. I love the light, and I've actually been reading some studies lately about how they're saying active boys need higher ceilings and more natural sunlight and that improves some of their behavior, so I love that aspect of it. (personal communication, March 8, 2006)

She added that she not only believed the resources helped foster self-regulated learning, but the layout of the room fostered it as well. For instance, she noted that no classroom has a teacher's desk. "We're here to float around and assist the children in their work. This is their classroom of which we're just a part of that community" (personal communication, March 8, 2006).

Teacher A2 also believed that her director provided the leadership necessary to help her create the most beneficial learning environment. She talked about her director's proactive approach to ensuring a quality environment:

I often find things slipped into my box that [the director] has seen and thinks would be useful in the classroom. A piece of material, or an article, or a work idea—even unsolicited—that is just always nice. Other times, [the director] will have heard me mention that I don't have something that I feel I want for the classroom. And, the next day, [the director] will have brought it from home, if [the director] had it, or [the director] will have brought something. . . for me to copy. So, there are both unsolicited and solicited things that I often find that [the director] comes through with. I definitely feel like [the director] cares that I have what I need. (personal communication, March 8, 2006)

The leadership commitment to the environment expressed by teacher A2 is not limited to little things. She added:

When it comes to sort of large, costly items, . . . [the director is] always supportive. As long as we make a case for why we need that, [the director] will always sign-off. So, I know that it's not [the director] that's holding things up. That works well here. (personal communication, March 8, 2006)

The effect such support has is powerful. Teacher A2 said, “I feel like that I have everything I need; or, at least, every attempt is made by the director to make sure that happens” (personal communication, March 8, 2006). She concluded, “I’m very lucky to have the director we have” (personal communication, March 8, 2006).

Teacher A1 believes a prepared environment is one of the most important aspects of self-regulated learning. She stated, “Everything in the room is geared to the child” (personal communication, March 7, 2006). While she acknowledged that her classroom’s immediate needs are met very well, she also appreciated that her director supports the addition of new materials as needed. Small expenditures are reimbursed without a formal request, but larger expenditures can be problematic to attain. She posited:

At the start of the year, there is an inventory taken by each teacher at which time missing, damaged, or additional resources can be ordered. I’m not going to say that that’s the best process because we have five campuses, and there’s one person who’s in charge of that. It’s very frustrating. (personal communication, March 7, 2006)

Teacher A2 made similar conclusions. At the start of the year, she said, “it’s nice to have that core foundation of all the necessities provided. It’s here when you walk in the door” (personal communication, March 8, 2006). Yet, concerning the obstacles having five campuses can create, she added:

The only thing I’d say we’re probably a little bit weak on is just maintenance and facilities. Because we’re five campuses, . . . it often can be a bit of an ordeal getting something fixed. But, I think that’s just the nature of it being a large organization. (personal communication, March 8, 2006)

Teacher A2 did indicate, however, that having a monthly budget to maintain the learning environment was a great support, though she still pays for a lot of things out of pocket.

A final thought from teacher A1 actually concerned the potentially negative aspect of having such a beautiful, well-equipped environment. She warned:

I kind of feel like everything here is so nice, it's kind of like a well-oiled machine.

It looks nice; and, sometimes, parents are drawn to that more than what they should be drawn to. And, in some cases, I think it could be working against us.

(personal communication, March 7, 2006)

However, she concluded, "the environment is set up for the development of the child" (personal communication, March 7, 2006); and, in the end, it offers a tremendous opportunity to foster their self-regulated learning.

Leaders Protect the Learning Environment

Once a well-equipped learning environment is provided, leaders ensure that an environment conducive to self-regulated learning is maintained. Being able to focus on the self-directed student's needs, without distraction or unnecessary interruption, is an important component of successful self-regulated learning. In each school observed, mornings were particularly important as a learning-focused time, as opposed to afternoons which were often used for enrichment activities and other school functions. Since the morning time was emphasized as a learning time, teachers were particularly concerned about protecting that time from disruption.

Leaders have a powerful role in protecting this learning time. In school B, for example, the director had a large one-way viewing window installed to allow parents to observe classroom activities without interrupting the classroom (personal observation,

February 15, 2006). The director designed this feature to protect the learning environment while allowing visitors to observe the learning model in action. Also, the director plans extracurricular activities for afternoons to allow maximum learning to occur in the morning uninterrupted. This emphasis on the morning learning time is reinforced in the school's newsletter which describes the morning learning time as being free from interruption to allow faculty to properly foster the learning model (document B2). Director B believes this communicates that "this is important" to the parent and the teacher, thereby supporting the teacher's efforts in the class (personal communication, March 3, 2006).

Director A maintained that even the construction of the classroom was designed to minimize learning interruptions. "I think there was a careful design in the size of the classroom. . . so that the classroom doesn't need to be interrupted to function as a group" (personal communication, March 8, 2006). Each classroom, for example, has its own restroom so students can remain in one location throughout the morning. Having to take an entire class to a restroom reduces the amount of time spent on learning and disrupts the morning learning regimen, which director A noted "interrupts what we consider sacred, which is our work period" (personal communication, March 8, 2006). The importance of properly designing the classroom and maintaining the learning environment is reinforced by school A's informational video, shown to all prospective parents prior to enrolling their child (document A18); a booklet that explains how the learning model is implemented in the class (document A9); and a parent's guide that describes the classroom as being designed for the child in order to facilitate the child's learning (document A8).

During the first observation, the director introduced the investigator to the observation class' teacher and stated that the investigator's observation would last for at least 2 days. The teacher appeared somewhat taken back and visibly disconcerted about the prospect of an outside observer in her class for an extended period. Additionally, she noted that two parents were scheduled to observe that same morning, and she expressed concern for the potential disruption of the learning environment. When asked later about her reaction to the extended observation, teacher A1 responded that "it was really no problem. I just want to make sure that these observations don't become a distraction to the class" (personal communication, March 7, 2006).

When teacher A2 was asked how well her leader protected her learning time from too much observation or outside distraction, she readily agreed that that was something she guarded against. "That 3-hour morning work cycle is protected as sacred. . . which we consider crucial to the success of the philosophy" (personal communication, March 8, 2006). Yet, when responding to the disruption parents and observers can present, she responded that the observations presented little disruption to learning overall. She believed her director did a good job instructing parents on how to observe unobtrusively. She stated, "I think it works. We try to prepare parents, observers, who come in to try to be as unobtrusive as possible. In general, I find that most people who come in have been properly 'prepped' by the office" (personal communication, March 7, 2006). Teacher A1 concluded, "It works" (personal communication, March 7, 2006).

In school B, teacher B1 pointed out the viewing window as a demonstration of her director's commitment to protecting the learning environment. Also, she stated that it is school policy for parents or other visitors who wish to come into the classroom to first get

permission. Like school A, her school relegates enrichment activities and other nonacademic routines to the afternoon. She noted, “We like to have at least 3 good hours in the morning for our instructional time” (personal communication, March 31, 2006). Director B reinforced the importance of this time during the first telephone interview, during which the first observation time was being scheduled. While he allowed the investigator to enter the classroom for the purpose of the observation, the director asked for a delayed entrance to allow the teacher time to establish the learning routine (personal communication, February 15, 2006).

Leaders Encourage the Professional Development of Their Faculty

Leaders do more than equip the classroom for self-regulated learning, they also ensure that teachers are professionally equipped to facilitate the learning model with students. Though each school hires only certified teachers, the directors of each school stressed the need to provide continual professional training and development to encourage the best possible learning in the class. The director of school A believes that the director’s role in ensuring faculty training and professional development is essential for preparing them to “do their jobs” properly (personal communication, March 8, 2006).

For director A, employee training begins by ensuring that every employee is in compliance with local labor and social service laws. For instance, every faculty member must be certified in CPR and receive training in first aid procedures. To ensure that there is clear understanding on state and local laws, the director provides an in-service session for all faculty and staff at the start of each school year that focuses on social service regulations (personal communication, March 8, 2006). Once the regulatory needs of the city and state are satisfied, the school provides continued training in various professional

topics to ensure that the faculty and staff are equipped for their roles in the school.

Director A believes this feature to be a strength of the school (personal communication, March 8, 2006), a strength stressed to all prospective parents during the new parent tour (personal observation, March 8, 2006) and during the informational video presented to parents after the tour (document A18).

Director A also plans several days of in-service training, which the director initiates and leads, at the start of each school year. These sessions include general sessions for all staff and faculty; which the first teacher from school A interviewed (teacher A1) referred to as the “mundane stuff” (personal communication, March 7, 2006); and breakout sessions that become more specialized for lead teachers, assistant teachers, and support staff; which teacher A1 noted are much appreciated by the faculty. There are also in-service days scheduled two or three times throughout the school year. In-service training is provided both by the director and veteran teachers as well as outside speakers who are brought in to speak on various topics (personal communication, March 8, 2006). Outside speakers tend to be particularly appreciated. Teacher A1 remembers “a few times they have brought in some outside people who have given us some really great seminars and given us books, that sort of thing” (personal communication, March 7, 2006).

Director A presented sample notes from the most recent training session. This session included topics applicable to all employees; whether faculty, staff, or support personnel. The session included a PowerPoint slide show that focused on student health and faculty and staff responsibilities (document A11). The training also included sample forms, their proper use, and directions for filing student health-related issues. An

important part of the training included information on state standards and local health requirements as well as a “What if…” section to help staff make important decisions quickly (document A11). Director A believed this session to be especially important for helping faculty feel confident in the classroom (personal communication, March 8, 2006).

During the second observation, director A held an all-staff meeting to specifically train staff in the learning model. The meeting was centered on the book *Montessori: The Science Behind the Genius* by Lillard (2005), and the director shared insights and thoughts about the methodology and logic behind the learning model. There was strong encouragement to be true to the learning model and to look at it as more than just an idea but a complete method of education that can be mastered by faculty and presented logically to parents (personal observation, March 8, 2006). The director hoped this meeting would be especially helpful for teachers confronted by parents who could not see the logic behind self-regulated learning (personal communication, March 8, 2006).

These sample notes were reviewed along with director A’s staff training notebook, a collection of notes derived from magazine articles published by a professional association that promotes the self-regulated model. Director A stated, “I use these articles—a great resource—to help the teachers do a better job” (personal communication, March 8, 2006). Notes incorporated into training sessions included teaching tips to help teachers better facilitate self-regulated learning, suggested resources for the classroom, bulletin board suggestions, and approaches teachers can take to communicate better to parents and encourage autonomous learning at home (document A5). Though this information was presented at school A, a larger school, the material was appropriate for schools of any size and budget to better facilitate self-regulated learning.

Director A posited that teachers need to be presented as trained professionals since, in the director's estimation, they have not been recognized as the "professional, certified" teachers they are (personal communication, March 8, 2006). To counter this, several documents distributed to the parents of school A emphasize that trained faculty staff the school. The parent information folder, given to all perspective parents, contains documents reminding parents that all lead teachers are trained and certified. Document A9, for example, posited that the educator is trained to be intimately familiar with the needs of the child since the teacher "does not specialize in subject matter; she specializes in the whole child" (p. 14). The document further asserted that the teacher is tuned to the unique individuality of the child, permitting him or her to direct the child toward their natural interests in learning. Document A8 asserted that teachers are trained to observe and recognize a student's periods of learning readiness. The school website also maintains that all teachers are required to be trained at an accredited training facility and that the school will "encourage and support financially as much training as an employee might want to pursue" (document A1). The most recent parent newsletter promoted the upcoming professional development of the staff (document A4).

Like director A, the leader of school B conducts in-service sessions at the start of the school year and provides periodic in-service sessions throughout the year. These in-service training sessions may be conducted by in-house staff or visiting lecturers who present a variety of topics (personal communication, March 3, 2006). The director stated that the staff "may attend conferences of their choosing" (personal communication, March 3, 2006) and that there is financial incentive to attend. Director B also emphasized the director's informal approach to training, noting that meetings were called as the need

arose (personal communication, March 3, 2006). Lead teachers serve as models and mentors to assistants, thereby providing indirect training to nonlead faculty and staff. Teacher B1 noted, however, that one of the obstacles she faced when attempting to facilitate self-regulated learning came from a staff member or assistant who lacked the skills necessary to be a true help in the classroom (personal communication, March 31, 2006). Though the leader of school B approaches training considerably different from school A, both directors believe that the professional development of the faculty is important for the proper facilitation of self-regulated learning (personal communication, March 3, 2006, March 8, 2006).

Professional development opportunities are afforded to all full-time faculty and faculty assistants in school A. Teacher A2 commented, “we’re very strongly supported in professional development” (personal communication, March 8, 2006). The director noted that the most important avenue for ensuring professional development is financial support and posited that the school provides “financial support for workshops that we would like to attend” (personal communication, March 8, 2006). Since these workshops may occur on regular work days, the teachers are given paid time off to attend professional development activities (personal communication, March 8, 2006). Director A also arranges for substitute teachers to allow the faculty to attend the workshops. Sometimes the director arranges the workshops using a local educational association to provide the development opportunity. Teacher A1 noted that this may be due to the owner’s membership in the local teacher’s association, which teacher A1 sees as a plus. She noted, “[The director] can get a lot of really neat programs together for us” (personal communication, March 7, 2006).

Most faculty in school A choose to attend an annual national conference that focuses on the particularities of the school's learning model and the unique needs schools implementing the model face. The school pays for each lead teacher's conference registration and provides each teacher with a scholarship to pay for the expenses incurred by attending the annual conference. The conference is not required but is strongly encouraged by the school's leadership. Director A stated, "It's encouraged financially. . . and in the number of days that we can take each year to do this sort of thing" (personal communication, March 8, 2006). In fact, the director noted that lead teachers are free to attend any training or professional development whether in the learning model or not. Teacher A1 was glad for this freedom; noting, "We are offered the ability to attend any type of seminar or learning experience we want" (personal communication, March 7, 2006). Yet, most lead teachers choose to go to the national conference. Director A stated, "Assistant teachers are also encouraged to go to the annual conference" (personal communication, March 8, 2006). One teaching assistant, though not receiving all of the financial support lead teachers receive, chose to go to the national conference. "She's attempting to grow," noted the director who added, "we encourage professional development" (personal communication, March 8, 2006).

Opportunities for professional development are sometimes communicated through school A's "Monday Morning Memos," a series of weekly memos written by the director to keep faculty and staff abreast of school activities, calendar reminders, and occasional encouragement notes and information on learning topics (document A6). Several memos included encouragement for teachers to attend educational conferences and attendance guidelines and procedures for those interested in attending (document A6). Director A

believes these memos help to keep everyone “on the same page” (personal communication, March 8, 2006), helping to keep a teacher’s frustrations at a minimum so that he or she can focus on teaching. The notebook of memos is kept in the director’s library which also contains a dozen books on various topics of self-regulated learning and autonomous educators (personal observation, March 7, 2006).

Director B also encourages the professional development of his staff in similar fashion. Interestingly, several of the documents reviewed at school B also promoted the importance of professional development and the faculty’s highly-trained status to parents. Document B3, for instance, described teachers as well-trained in child development. Document B2 posited that teachers are trained to create caring environments that ensure that a student’s needs are met. Document B5, the school’s monthly newsletter, included a “teacher spotlight” that highlighted certain biographical information for the selected teacher including recent professional development opportunities he or she experienced in the learning model and education in general.

When asked about the training and professional development opportunities available at school B, teacher B1 noted, “we’re required to have 10 hours a year of training. Some of that we do, in-house. . . you know, in-service” (personal communication, March 31, 2006). Teacher B1 indicated the financial incentive to attend professional development conferences and seminars was somewhat sporadic; though, when it is provided, it is very much appreciated. “This year the board was very supportive. And, they paid for me to go to a conference,” one directly related to honing her skills in the learning model (personal communication, March 31, 2006). She continued, “I like to have a certain amount of my continuing education” to be directly

related to self-regulated learning (personal communication, March 31, 2006). Teacher B1 also indicated that she believed her director encouraged her professional development and expressed that the development was needed to stay current in her field.

How Leaders Encourage Teachers to Facilitate Self-Regulated Learning

More than just providing a well-equipped classroom, a protected learning environment, and opportunities for ongoing training and professional development; leaders take an active role in continually encouraging their faculty to facilitate self-regulated learning. These actions reveal a variety of leadership initiatives that teachers believe to be important to their success with the self-regulated model. Help includes educating and communicating with parents, supporting teachers in their parent-teacher relationships, removing obstacles faculty face, remaining available to the school community, providing constructive criticism and feedback, partnering with teachers as fellow educators, and promoting each teacher's professional autonomy.

Leaders Foster the School Community's Understanding of Self-Regulated Learning

Chapter 2 highlighted several research endeavors that have suggested that self-regulated learning is not readily found or accepted in many traditional schools. For many parents and educators, the learning model presents a fundamental shift away from the traditional, entrenched learning models many of them grew up with and, in the case of many teachers and leaders, were professionally trained to propagate. This unfamiliarity and often misunderstanding regarding the self-regulated learning model presents one of the biggest challenges each school leader needs to overcome. Without exception, leaders and teachers in schools that facilitate self-regulated learning maintained that parent education is a key to fostering an understanding of and appreciation for the learning

model, an understanding that directly impacts the teacher's ability to successfully facilitate self-regulated learning.

Both of the leaders interviewed believe that communicating the school's self-regulated approach to teaching and learning is an important factor in the success of the student's move to autonomous learning and in establishing a good relationship with new parents. Both leaders also believe in the importance of continued parent education to not only strengthen what is being taught in the school but to encourage them to continue developing independent learners in the home. Each leader provides numerous opportunities for parents to become more knowledgeable about their student's education and the distinctive learning process he or she is experiencing.

Director A, for example, related the numerous educational opportunities a parent in school A receives. The director stated, "Our enrollment process starts with an explanation of the function of what we do. . . . We do believe people need to be educated" (personal communication, March 8, 2006). The director also stated that all interested parents must first attend a new parent tour, scheduled once a week, to orient themselves to the school and its learning model. The orientation begins with an informational video and is followed by a tour, led by the director, and includes a brief visit to several classrooms. Director A stressed, "We do not accept an application unless somebody has been on the tour" (personal communication, March 8, 2006). The director believes an important part of the tour includes classroom observations. Since the observations are brief, longer observations are also encouraged. Yet, before they participate in additional observations, parents receive an informational letter that encourages them to acquaint themselves with the learning model so that they will be

prepared to see a learning environment much different from a traditional environment (document A14). Another informational booklet given prior to an extended observation identifies the unique learning experience parents are about to observe. It posits, “At any one time, you will see a variety of educational activities in process because each child will be working at his or her own level of interest and ability” (document A8, p. 61). This information is accompanied by a full-color brochure detailing the educational model and explaining how the school facilitates the model for each child (document A9).

Once a prospective parent has toured the facility and enrolled their child, they again meet with the school leader. “I meet with every parent for a family interview,” director A maintained, “. . . to start a relationship” (personal communication, March 8, 2006). After the child is enrolled, the parents can avail themselves of numerous other learning opportunities. One of the first comes from reading the Parent Handbook, a requirement to complete the enrollment process (personal observation, March 8, 2006). Prior to presenting information on school policy and procedures, the handbook emphasizes the uniqueness of self-regulated learning and how it differs from traditional education. It reads, “The only real important thing in education is to teach the child how to learn” (document A13, p. 15). The handbook continues, “Children need to learn to trust their own ability to think and solve problems independently. The goal is to lead students to think for themselves and become actively engaged in the learning process” (document A13, p. 15). The handbook addresses how the learning model encourages such thinking and attempts to prepare the parent for a new experience in education.

More than just introductory information, director A maintained that the school provides continuous information to educate parents and keep them informed. She stated,

“To our community of our parents and what have you, we have weekly newsletters” (personal communication, March 8, 2006). One newsletter written by the director provided parents with tips on how to encourage independent learning at home. The newsletter also promoted school events and encouraged classroom observation (document A4). Another newsletter, written by a faculty member, continued a previously published informational article explaining the school’s learning model and how it helps a child’s cognitive development. It, too, encouraged parent participation and continuation of the training in the home and gave tips to parents to help them encourage their child’s independence (document A3). Director A continued, “I offer monthly coffees, which usually have a theme and demonstration involved with it” (personal communication, March 8, 2006). These coffees offer an opportunity for the school leader and the parents to interact in an informal setting while providing needed information. The director also schedules periodic meetings in the evening as part of the ongoing education process. “We have parent education nights specifically for certain subjects” (personal communication, March 8, 2006). The director noted that these nights are “approximately hour-and-a-half presentations with our materials and philosophy on display and then a question and answer period” (personal communication, March 8, 2006).

In addition to parent education nights, director A hosts a yearly open house every January with mandatory attendance for all staff. She noted, “We open up the entire school; and, here at this campus, we open up the entire curriculum” (personal communication, March 8, 2006). These open houses are especially important for helping parents understand the self-regulated nature of the curriculum. The director stated, “It’s hard to show materials sitting on a shelf” (personal communication, March 8, 2006); so,

they take them out, spread them out, and put them on display with a teacher to answer any questions. The director also believes in communicating the results of the curriculum, employing two student progress forms developed by teachers and distributed periodically throughout the school year. The progress forms are different for the primary and elementary students and include various topics and subjects for evaluation and reporting (document A10).

Director A also believes that the director's presence at such functions is an important demonstration of support for the teachers and the learning model. "I do my best to attend every function that the school has" (personal communication, March 8, 2006). The director added, "I also participate in the parent education nights. I walk the halls. I direct the traffic in the parking lot. I guard the fire lane on big nights" (personal communication, March 8, 2006). The director believes that the director's presence communicates significance to the parent, an approach director A believes eventually helps the teacher.

For teacher A1, the director's initiative to educate the parent on the self-regulated model is essential to her success in the classroom. In fact, she believes parents who are not educated in the model present her biggest challenge. "I think the biggest challenge is the parents, . . . educating the parents" (personal communication, March 7, 2006). She added:

I've just encountered a lot of resistance. I don't know if it's this area, or we haven't done as good as a job as we could have in educating them. Especially from the first-year parents, there's a lot of resistance because there not used to it.

So, that's definitely the biggest challenge. (personal communication, March 7, 2006)

The process of educating parents is an ongoing one. Teacher A1 continued, "It's kind of an ongoing thing. When the parents come in to enroll for the first time, they're supposed to have an interview with the director" (personal communication, March 7, 2006). As noted, director A provides an introduction to the learning model as part of the interview process, an informational booklet designed to help the parent understand the purpose and application of this type of education is provided (document A9) as well as the most recent weekly newsletter. Parents also receive a book that explains the learning model and how to best help their child adopt to the new curriculum (personal communication, March 8, 2006). Though teacher A1 believes the director to be primarily responsible for educating parents in the learning model, she is willing to help the director any way she can.

Teacher A1 expressed appreciation for the up-front communication and training afforded to parents and believes that these initiatives can help educate them. She stated:

Before they even enroll, they have to have a tour and an observation. . . as part of the application process. So, they kind of get a taste for it then; because some parents are, you know, afraid of it, and they just don't want their children here.

So, it's helpful for them to find that out from an observation as opposed to enrolling their child. (personal communication, March 7, 2006)

Teachers also get involved in the ongoing education of parents. Teacher A1 uses newsletters to educate parents about the learning model and its unique educational materials (personal communication, March 7, 2006). Teacher A1 had recently written a newsletter encouraging parents to support the learning model in the home, reminding

them that “one of the primary objectives of [the learning model] is to develop the child’s ability to do things for herself—in other words, independence!” (document A3). She also described her role in the school’s back-to-school night when each teacher is responsible to educate parents on various aspects of self-regulating learning (personal communication, March 7, 2006).

When asked about the need for parent education, teacher B1 believes many parents “lack clarification” of the learning model (personal communication, March 7, 2006). “So, we have parent workshops. . . . Parent education is extremely important in this approach. The child should be, ideally, you know, getting the same thing at home that they’re getting here” (personal communication, March 31, 2006). Teacher B1 also believes her director could enhance the educational opportunities provided to parents by providing a parent resource library. She stated:

I really want to see us build a good parent library. We do have things; we have articles that we’ll give them with those areas of interest to them, you know, hand-outs at the parent workshops and books that we’ll recommend to them. But, I would love to build on that more; I really would. (personal communication, March 31, 2006)

Teacher B1’s school does offer parents some introduction to the learning model via printed resources, but the selection and depth of these resources is limited. Available resources include an informational newsletter, a brochure describing the learning model, extra copies of the monthly newsletter, a catalogue, and the school’s own promotional brochure (personal observation, February 15, 2006). Parents are also given helpful book

titles if they desire to learn more about self-regulated learning and how the model is applied in school (personal communication, March 3, 2006).

Though teacher B1 attempts to help both students and parents acclimate to the new learning environment, there have been some who could not adjust. She stated, “I’ve had parents who just never got it; they just never understood. And so, what they were doing was so counterproductive to what we were trying to do,” and their child was encouraged to find another school (personal communication, March 31, 2006).

Teacher B1 also recognizes her responsibility in helping her leader educate parents about self-regulated learning. “We have conferences, and I meet informally with parents day in and out along with [the director], and I might tell them about what their child did that day.” Teacher B1 admitted, however, “some parents are more interested than others and ask more questions and ask for more guidance. And, we have written materials that we can give them” (personal communication, March 31, 2006).

In school B, the director believes earning trust is the key to fostering parent understanding of and commitment to self-directed learning. “Trust is a huge issue,” the director stressed then added, “Anytime a parent has a child and they put them anywhere, trust is the number one issue. So, we work very hard at getting and maintaining trust” (personal communication, March 3, 2006).

One of the ways the director fosters trust is to communicate openly and often, especially with new parents. The director stated:

I talk to new parents that are interested in coming into the school, and I talk to parents on a daily basis when they come to pick up their kids, and I talk to them when they have problems. (personal communication, March 3, 2006)

This type of conversation appeared to occur quite naturally and seemed to engender friendly discourse (personal observation, March 31, 2006). Director B believes these conversations are critical since they communicate what will be a new approach to teaching and learning for most students and parents. The director continued:

When I talk with them initially, I go through the method and what the benefits [are that] they can expect for putting their kid here and how the method works. I, hopefully, get them up to speed with what we're doing and how we're doing it; and we can talk at any point of time. (personal communication, March 3, 2006)

Like school A, there are times when parents new to school B may realize they are not comfortable with the self-regulated philosophy. Director B admitted, "There are some people who can't grasp" aspects of the learning model and choose not to enroll their child (personal communication, March 3, 2006). Teacher B1 concurred; noting, "The way we approach education is different. . . . The children will do that work themselves. We aren't doing it for them" (personal communication, March 31, 2006).

Director B posited that one of the best ways to educate parents about the school's learning environment is to invite them to observe a class (personal communication, March 3, 2006). In fact; during one of the investigator's observations; a parent came in, went into the classroom, and participated in a learning activity (personal observation, February 15, 2006). This occurrence demonstrates director B's openness to parents and overall open-school approach. The director stated, "We throw it out there, like even having them come into the front room. Please, come in any time, and look through that front window. Then, we'll talk" (personal communication, March 3, 2006). This comment references the large viewing window through which a parent can observe the

class in session. The window faces the lobby, so any parent or visitor can observe the class during any part of the day (personal observation, date).

Leaders Cultivate Commitment to the Learning Model

More than just educating people in the self-regulated model of learning, leaders seek to continually communicate the strengths of the learning model to foster a stronger commitment to its facilitation in the classroom. These leaders feel this will positively affect the way their faculty is perceived, thereby encouraging them in their work. For example, Director A believes it is of utmost importance to communicate the strength of the learning model and the immense talent of the faculty that foster it. One of the reasons the director believes it is so essential is because of the misconception some have regarding the learning model. Some, the director maintained, view the model as easy or nonacademic. Director A stated:

[Our] teachers do not get the respect that I believe they deserve. We are preparing the future; and many of us are considered to be less than the qualified, certified individuals. And, that can be hard. Plus, the demands of a teacher, there's no way that you can get your work done within the hours of your contract. Every teacher, regardless of what age they teach, takes things home and does things at home.

(personal communication, March 8, 2006).

Communicating the strengths of self-regulated learning is not necessarily accomplished with more traditional forms of advertising. For instance, director B noted, "We have advertised; we have gone on TV and radio and put signs up; but, at the end of the day, word of mouth is the best way of getting kids in here" (personal communication, March 3, 2006). Indeed, during an observation of school B, a parent commented that she

“loved the school” and appreciated that “the children learn how to learn rather than ‘here’s what to do’ where everything is fed to them” (personal communication, February 24, 2006). She also encouraged friends and family to consider the school. “There is a real community of those who understand the method of learning. It is like a family” (personal communication, February 15, 2006).

In school A, director A readily admitted that [the director] has not rigorously pursued community-wide advertising. The director stated, “I don’t know that we do a good job with that” (personal communication, March 8, 2006). However, the director emphasized the importance of community but defined community as that which relates to the constituents of the school. This concept is also discussed in a booklet given to all parents, emphasizing the importance of the community and how parent involvement helps build community (document A9). Though there had not been direct advertising to the community outside of the school; director A emphasized that the primary avenue of growth, much like school B, has been positive word-of-mouth from satisfied parents. Subsequently, director A has chosen to direct communication efforts and resources to the parents and families of the students.

Both leaders, however, do communicate often and openly to the learning community, if not the community at large. Each leader employs various written communiqués, in both written and electronic formats, to keep parents informed of school activities, important dates, learning issues, and staff information. They believe such clear communication will not only provide helpful information; but it will help strengthen the parent-teacher relationship, an important consideration for effectively facilitating self-regulated learning.

Director A, for example, offers a wide variety of written information to parents and others interested in the school and the self-regulated learning model the school employs. This information is included in pamphlets and letters written by in-house staff; brochures, pamphlets, and books; an introductory video that explains the learning model; and a professionally designed website with detailed explanations of the school, its emphasis on self-regulated learning, and a listing of the school's policies and programs (personal observation, March 7, 2006).

Each parent or family that visits school A is asked to attend a parent tour that includes an informational meeting conducted by the director (personal observation, March 8, 2006). At the conclusion of the tour, each family is presented with a folder that contains multiple pieces of information including a welcome letter from the school's owners, a brief description of the school, a parent handbook, an application for admission, financial information, a booklet that describes the learning model, and a school menu and calendar. An interesting way to describe and inform parents of the learning model is through a Frequently Asked Questions sheet also included in the folder. This sheet answers numerous questions new parents may have including "What is it?" in regards to the learning model (document A16). The director believes these tours and information folders are vital to properly start any potential parent-school relationship (personal communication, March 8, 2006).

The tour was highly informative and noticeably appreciated by most of the parents, many of whom expressed their appreciation for the time and information (personal observation, March 8, 2006). During the initial welcome, the director stressed the importance and uniqueness of the self-regulated learning model the school employs.

The need for strong parent-teacher relationships as well as the pivotal role the parent plays in the continued education of the student, themes indicated by teachers as crucial to their success with the learning model, were also stressed. There was also a question and answer time at the conclusion of the tour. Several parents remained to discuss their questions, and the director stayed until each parent question was satisfactorily addressed.

Director B provides an introductory, informational letter to all interested visitors and parents (personal observation, February 15, 2006). The newsletter communicates the importance of the learning environment, the role the faculty plays in ensuring the learning environment, and the importance of the parent-teacher partnership. The letter also promotes the self-regulated learning model adopted by the school: “Our goal at [the school] is to aid children in the awesome task of self-construction in a nurturing environment” (document B2). The letter further invites parents and other interested parties to contact the staff to arrange a meeting and to read additional material for more information.

The director also issues a catalog to all parents that offers teaching materials that reinforce self-regulated learning. The catalogue features inspirational articles relating to the learning model and descriptions and explanations of resources and how they complement autonomous learning (document B4). Additionally, the director publishes a monthly newsletter that is given to each parent and posted on the community bulletin board in the lobby (document B5).

Other informational material includes a newsletter directly related to the learning model (document B2). Again, the letter discusses the learning model, its basis in current educational research, the curriculum used to help children “learn how to learn,” and the

model's focus on understanding. The newsletter also begins to distinguish its model of learning from traditional models, positing "experiences that aid in the development of independence and autonomy are often very limited in traditional schools" (document B2, p. 6). The information concludes by expressing the benefits students will derive from learning with this nontraditional approach. Director B believes this information will help prepare the parent for the notable change in teaching and learning the child will encounter; a preparation which the director hopes will ease the parent's transition, thereby increasing the likelihood of a successful parent-teacher relationship (personal communication, March 3, 2006).

Leaders Provide Support in the Teacher's Relationships With Parents

A leader's support for the teacher is also demonstrated by supporting the teacher when difficulties arise with parents. Since several teachers expressed the significance of the parent-teacher relationship, the leader's help and support in problems in this area are critical. For example, teacher A1 noted the need to go to her director for help and support with parents and felt free to ask the director for assistance, "especially when I wanted the extra show of support" (personal communication, March 7, 2006). When asked how such support is demonstrated, she stated that the director would be "an active part of the conference" (personal communication, March 7, 2006). Though this level of support is available to teacher A2, she admitted that she does not avail herself of the director's presence as often as she should. She posited:

In fact, [the director] has even said that I don't use that enough. That, you know, I'm just hesitant to "bother them down there," and that a lot of teachers (and I think I'm one) don't want to. . . . We want to feel like we can handle everything

ourselves. But, there are times when it just. . . , it definitely sends a stronger message to bring in this other person, and they respect her very much. They know she's in charge. (personal communication, March 8, 2006)

Though she does not bring the director into conferences very often, she insisted, "I definitely know that I'm always welcome to do that" (personal communication, March 8, 2006).

Teacher A1 indicated that parent conflicts represent one of the biggest challenges to facilitating self-directed learning. Though she believes that the leader educating parents is a key to fostering better relationships, she does not believe this will solve all of the problems. She stated, "Going back again to the parents, it's not just the educational aspect of things but helping them understand that this program isn't about just academics; it's about the development of the whole child" (personal communication, March 7, 2006). Teacher A1 noted that the leader's initiative in helping with parent difficulties communicated powerful support for her endeavors in the classroom. She does believe director A supports the teacher in parent-teacher conflicts, at times even suggesting that the parents may find better success for their child by enrolling him or her in another school. Speaking of the director, teacher A2 noted, "She's always been incredibly supportive of the teachers" (personal communication, March 8, 2006).

Director A demonstrated a keen understanding of facilitating smooth relationships between teachers and parents. As noted, the director encourages an open door communication policy for parents as well as staff. "Sometimes parents come in just to unload. That's part of what I do" (personal communication, March 8, 2006). Yet, this unloading can at times indicate a more serious problem; sometimes, it is followed by a

demand for the leader's action. When these situations occur, the director responds by listening to what the parent said yet ensures that the teacher is included. This is accomplished one of two ways. Director A first asks the parent, "Have you talked to the teacher?" Because, that's where I think good communication needs to start" (personal communication, March 8, 2006). Since some parents feel they cannot resolve the problem by going first to the teacher, the director will seek the teacher's presence in a meeting. She stated, "I am used as the intermediary, the arbitrator. I certainly listen to what the parent has to say. . . . I encourage a three-way meeting. Let's find the teacher, and let's all talk about what is happening, what is your concern" (personal communication, March 8, 2006). Though this meeting helps resolve many issues, director A believes the issue can be quite complex. Concerning the divergent perspective teachers and parents sometimes take, she stated:

I think sometimes it's hard for the parent to understand that the teacher really does care about the child. It's a different kind of caring. The parent has unconditional love for the child. And, I think teachers do also. But, we're not their parents; we're their teachers. We see them very differently. And, we treat them very differently. And, I think that that's a big gap to get both sides to understand. (personal communication, March 8, 2006)

Director B believes some of the blame for this difficulty may rest with the traditional mindset held by many of the parents. He posited, "There are a lot of parents who default back to their own patterns of child rearing which can compromise us to some degree" (personal communication, March 3, 2006). Unfortunately, some of these parents seem intent on faulting the school. Referring to the many misunderstandings some

parents have when self-regulated learning is facilitated, director B added, “I’ve found over the last 20 years if somebody wants to see something [negative] here, they will see it” (personal communication, March 3, 2006). Still, the director acknowledged that, as the director, he is key to supporting teachers as they seek to develop healthy parent-teacher relationships, noting that the director will often join the teacher in meetings with parents to help resolve difficult issues.

Leaders Seek to Remove Obstacles to the Facilitation of Self-Regulated Learning

Since research referenced in chapter 2 has suggested that teachers seeking to facilitate self-regulated learning face many obstacles, it was important to ask teachers about the obstacles they face and how their leaders help them overcome them. In school B, obstacles to properly facilitating self-regulated learning are sometimes financial in nature. Though pleased with the overall amount and quality of resources to help her foster self-regulated learning, teacher B1 noted, “You always have a certain degree of wanting something from the facilities that isn’t there. Wanting something that, you know, financially, you may not be able to be supported” (personal communication, March 31, 2006). Director B believes, however, that funding issues have been mostly resolved. He stated, “I work closely with the staff to address physical needs,” such as the classroom and learning resource needs that help the teacher to do his or her job well (personal communication, March 3, 2006). When asked about the financial limitations the school may experience, director B stated, “We’ve kind of overcome all that. I mean, yes, there have been, you know, things. . . not enough money” (personal communication, March 3, 2006). But, he concluded, “We have enough resources” and indicated there had not been

difficulty obtaining needed materials or curriculum the faculty needed (personal communication, March 3, 2006).

Another obstacle faced by teacher B1 related to the ancillary staff, the teaching assistants. She stated, "Sometimes, there might be a staff member who hasn't quite met your expectations or might be more of a hindrance than a help in certain ways" (personal communication, March 31, 2006). When asked how she believed her director could help her overcome this obstacle, she expressed a desire to be a part of the staff evaluation process; an idea which, she believed, her director would implement once the formal evaluations were completed.

In school A, the director was asked about the obstacles the faculty faced while trying to facilitate self-regulated learning. The director's response was that they do not normally face obstacles. Instead, the director believes, "They come in trained. So, we're not trying to teach them anything; we're trying to let them do their jobs" (personal communication, March 8, 2006). However, teachers A1 and A2 noted that there were several obstacles, most of which were related to parent education and the parent-teacher relationship.

For teacher A2, the biggest obstacle faced was "having a large number of students coming into this class" who were unfamiliar with the self-regulated approach to learning (personal communication, March 8, 2006). Some students were so unable to adapt to the new responsibility for learning that she even suggested other schools might be a better fit. Teacher A2 noted that the environment "can be over-stimulating for some children, for whatever reason; and they need more structure, and they need a quieter place, and that this just does not work for them" (personal communication, March 8, 2006). She

concluded, “So, I do believe this is not necessarily the right thing for every child. At times, the parents are resistant to acknowledging that or trying to resolve some of the issues” (personal communication, March 8, 2006).

Teacher A1 also faced obstacles with some parents. While both teacher A1 and teacher A2 insisted that these problems are few and far between, they do create the biggest obstacle to their job of facilitating self-regulated learning. Teacher A1 stated:

I think the biggest challenge is the parents, educating the parents that their kid is going to be bringing home paperwork everyday. And that, just because their child is able to use a material in the classroom like the addition strip board to find out what 5 plus 5 equals, that doesn't mean they've memorized it. So, there's kind of a learning gap there that I'm trying to bring the parents up to speed on. So, I think, you know, and then the parents also, trying to educate them on what is helping their child to be independent. (personal communication, March 7, 2006)

Following that, teacher A1 occasionally receives children “with some learning disabilities that are not diagnosed or treated. It's difficult to adapt the learning regiment to these children” (personal communication, March 7, 2006). Teacher A1 believes such obstacles may never be eliminated but can be mitigated through proper parent education, an area she believes is ultimately a leadership responsibility.

Leaders and teachers expressed the need to properly educate parents about self-regulated learning and its application in the classroom. More than just educating parents, however, leaders encourage teachers by supporting them in developing strong, productive relationships long after the parents have been educated in the learning model. These

relationships can facilitate strong communication, thereby lessening the likelihood of misunderstandings that can lead to parent-teacher conflict.

Director A, for example, believes that developing a relationship with every parent is crucial to the teacher's success (personal communication, March 8, 2006). The director believes this relationship begins with the parent's very first visit or even the first phone call to the school. For instance, when school A was contacted as a potential participant for this study, the administrative assistant was cheerful, knowledgeable, and immensely helpful in answering all of the questions presented to her, a response that encouraged this research endeavor (personal communication, March 1, 2006). Director A maintained:

You're building a relationship. I meet with every parent for a family interview, not as an acceptance type of thing; but as part of our enrollment process, I meet with every parent, and I meet with every child for about an hour just to start a relationship. (personal communication, March 8, 2006)

For director A, part of ensuring that the relationship develops properly is to begin the relationship with good communication that will help the parent understand the school and learning model better.

Director A stressed the importance of this relationship by making it analogous to a family that takes time to grow. She stated, "We're trying to build a relationship with the family. It doesn't happen overnight. It's a process" (personal communication, March 8, 2006).

One way relationships are fostered is through regular communication with the parent. Director A noted:

We use . . . documentation that helps us keep track of the lessons we present and the work children are doing in class. We have a self-designed progress report that goes home to the parents monthly. We have [a] self-designed report card that goes home to the parent twice a year. (personal communication, March 8, 2006)

Director B also strives to provide continuous sources of information. By keeping parents informed of important events, school news, learning model distinctives, and general reminders; the directors hope to facilitate clear communication between teachers and parents; thereby providing support that may preempt misunderstandings about timelines, schedules, and so forth that can strain a parent-teacher relationship.

Demographic information presented earlier indicated that school A (one of five campuses that comprise the school) has seven times the number of children and six times the number of faculty as school B. Though this size difference may correlate to the difference between the financial obstacles faced by teachers in both schools, it may also contribute to a different type of obstacle that the leadership and staff of school B may never encounter. Teacher A1 explained:

I think it's difficult to have five large schools and run them well. I think that this school in and of itself is a challenge to run. But, when you're trying to oversee five schools, . . . sometimes you can get too big. I think you can lose some personality. I mean, we have wonderful materials here; we have a great environment; but, sometimes, it can just get a little too big, not that there's anything I can do about it. I mean, it's not [the director's] fault. It's, you know, the way that the owners decided to pursue their business. (personal communication, March 7, 2006)

This business aspect that teacher A1 referred to also affects the leadership at the local school level. She continued:

I think it's hard to try to run a school when you're working through so many layers. You own the school, and you think that you should be able to have it run your way. But, then you're going through a director who views things differently. And, the director is going through the teacher, so I think that's kind of a long chain of command to have. (personal communication, March 7, 2006)

When asked how her leader might help overcome this obstacle, teacher A1 related that her director may not be able to bring about the needed change. Though the director has an open door policy, and though teacher A1 feels free to share problems and concerns with her director, the ultimate responsibility for the direction of the school as a whole resides with the owners of the school. The teacher expressed appreciation, however, for the open door policy and the availability of her director when obstacles arose.

Leaders Are Available to the School Community

When teacher A2 was asked how her leader encouraged her to successfully facilitate learning in the classroom, she responded that her director was “always there for her” (personal communication, March 8, 2006). The availability of the director, from the director's literal presence on the campus to the director's willingness to talk about things that affected the teacher, had a direct impact on a teacher's ability to successfully facilitate the learning model. One of the phrases used in school A to describe this availability is the director's open door policy. When teacher B1 was asked about her director's availability, she replied, “Oh yeah, oh yeah, anytime” (personal communication, March 31, 2006). For many teachers, the ability to freely go to their

director with a question, concern, or problem was one of the strongest demonstrations of their leader's commitment to their success. Director B stated that a staff member can approach him anytime to address a concern or remedy a problem (personal communication, March 3, 2006).

Though director A stressed that weekly meetings, monthly all-staff meetings, periodic observations, and informal discussions comprise the majority of her communication with faculty; she added that "the open door policy is also important" for resolving problems or just being there for the teacher (personal communication, March 8, 2006). Teacher A2 takes advantage of such openness; noting, "I often ask my administrator for suggestions of ways that I can improve" (personal communication, March 8, 2006). She then added, "I've always found [the director] more than willing to share ideas and come in and help" (personal communication, March 8, 2006).

Director B also stressed the importance of having open communication with his faculty and staff (personal communication, March 3, 2006). Informal conversations are the norm at school B, and problems and concerns can be addressed anytime the director is available. The director also believes that such openness is important with parents and welcomes parent visits, calls, and impromptu conversations. Director B deems an open atmosphere to be essential to building right relationships with parents (personal communication, March 3, 2006). During one observation, the director casually walked through the learning centers and welcomed and talked with parents as they picked up their children (personal observation, March 31, 2006). Teachers expressed appreciations for directors who observed their classrooms and students. They understood that through

such observations, leaders could provide the constructive feedback they needed to improve their facilitation of self-regulated learning.

Leaders Offer Constructive Criticism and Feedback

Each school director noted the need to provide formal periodical staff evaluations for both the betterment of the staff members' services to the school and to communicate staff members' strengths and successes. Faculty members revealed that knowing where their skills need improvement, as well as knowing the things they do well, is an immense help to properly fostering self-regulated learning. Interestingly, though each director readily recognized the need for such assessment, very little formal assessment was done in school B. And, teachers in school A indicated a desire for more formal evaluations though each leader does conduct informal faculty reviews throughout the school year.

For instance, when asked about her director's performance review methods, teacher B1 related that there are no formal staff evaluations. Instead, faculty meet with the director when the need arises. She did mention her director's current attempts to develop a formal evaluation form and welcomed such reviews. Director B affirmed the school's development of formal evaluations; noting, "We are in the process of creating our staff evaluation forms and all of that. We're going to go to that level, but we're not there yet. We've talked about doing, that but we don't have that aspect" (personal communication, March 3, 2006).

School A's leader also emphasized the need to provide faculty and staff with regular performance reviews. She posited:

I think it's probably part of the hardest thing that I do. It's constant observation, on my part, of the classroom, what we call the normalization of the class, the

classroom working, the children being able to come in and select their materials and do their job, the documentation. I check the documentation. I have...every teacher is responsible to hand me lesson plans. On a regular basis, every teacher and I discuss what their plan is. (personal communication, March 8, 2006)

School A's formal evaluation form had recently been revised. One of the newer developments in the form was a section devoted to a self-evaluation by each staff member (personal communication, March 7, 2006). The reviews also included more descriptive evaluation methods and presented information in narrative form. The performance reviews met with mixed reviews from school A's faculty. Teacher A1 responded, "It was certainly. . . , there was more freedom in critiquing my own job performance. And, I do think there's more to evaluating a teacher's success or competence than just sort of nitpicking every little piece" (personal communication, March 7, 2006). However, teacher A2 also stressed the need to evaluate every staff member's adherence to important commitments and functions like timeliness, after-school duties, and preparedness. By using the new evaluation form that omitted most of these areas; she said, "I think some items might sort of get lost that way" (personal communication, March 8, 2006).

Teacher A1 appreciates the new form but believes planned observation and evaluation times might help. She stated:

We have a yearly review which we just finished. That is, you basically rate. . . this is something new. . . we rate a paragraph about what we think our major accomplishments are, sort of what our future goals are, that sort of thing. Then, we sit down with [the director], and she gives us feedback on what she thinks our

strengths have been. There isn't a formal time when [the director] comes in and just sits down and observes. She's also like popping in and out, . . . but we don't necessarily have a time when someone sits down to observe and make recommendations, unless there's a problem. (personal communication, March 7, 2006)

Still, she maintained that staff evaluations occur on a regular basis. Though these evaluations lack the consistency and formality of a standardized evaluation process, they provide the teachers with at least some feedback needed to improve their classrooms. When speaking of measuring teacher effectiveness; director A added, "I also think I see it when I see the children. It's pretty obvious to me which classrooms are settled and progressing" (personal communication, March 8, 2006). Yet, each teacher interviewed desired to have regular evaluations accompanied by individual conferences to help them hone their skills and celebrate their successes. Teacher A2 noted, "I like the sit-down, face time with the director to discuss it. Because, you don't always get overall. . . general feedback like that. It's nice to get a reality check. How do you really think I'm doing?" (personal communication, March 8, 2006). Teacher A1 took the concept of direct observations and conferences a step further, sharing an idea she believed would benefit the professional evaluations they received:

I think that it would be really helpful to . . . have another director come in from a different campus or something like that. I mean, there might be some kind of a bias for [the director]; but, to have someone come in, maybe, twice a year, . . . I think that that would be helpful to have a better understanding. (personal communication, March 7, 2006)

Whether school A adopts an outside evaluation process or not, teacher A1 stressed the importance of regular evaluations. She stated:

I think we're all trying to learn here. So, even though we're the teachers, . . . if you try to make it about sharing your observations to help the teacher improve her classroom as well as pointing out what's going well, I think that that would be really useful. That that doesn't happen here at all. . . . So, there's really no way for me to know if there's just something blatantly obvious that I'm messing up on, or if there's something that I really excel at, you know. I think that having that, 'cause that's what I do with the children, it makes sense to have someone else come in. (personal communication, March 7, 2006)

Interestingly, the desires of teachers A1 and A2 to have more critical feedback and professional evaluations seemed to correlate with their director's comments regarding resources deemed necessary to best facilitate self-regulated learning. Director A stated:

I think we are going to need academic deans, because the job of director is too big to fit that piece in there also, to have that as part of your job description. So, I think, down the road, you're going to need—we're going to need—and the organization is very thin at the top, purposefully thin at the top. They don't want this big support, a big group that they have to support through [school] tuition; they want to be able to support the teachers with the tuition, so they're being very careful. (personal communication, March 8, 2006)

However, the director stressed that, in order to have the time and attention necessary for providing staff with observation and feedback, additional help will be needed. Director A stated:

We're going to need more than a director. We're going to need a director of academics. We need more secretary and support help. Not only to help the director, but the teachers as well. And, I think that's the support that maybe the teachers need in writing their reports and keeping on top. Just a body, just another body at times. (personal communication, March 8, 2006)

More than just formal performance evaluations, several faculty members indicated a desire for more of the director's informal feedback. Such feedback, they believe, will help them more efficiently facilitate self-regulated learning. Much of this feedback is given after informal observations. Teacher A2 noted:

I do think that our director spends enough time in each of our rooms to have a basic sense of our style and how we've structured our classroom and whether [the director] thinks that's going to be working. (personal communication, March 8, 2006)

Director A cautioned, however, that giving too much feedback can potentially limit the teacher's creativeness and autonomy. She stated, "I don't feel like I should put mandates on them that make their jobs harder" (personal communication, March 8, 2006).

In school B, most informal feedback is given during impromptu meetings between the faculty member and the director. For director B, this creates the teamwork that is desired to be the best model possible for the students. He stated, "Again, I think that's leadership. What do we need to do, and how are we going to do it" (personal

communication, March 3, 2006). Teacher B1 underscored the importance of these meetings and expressed appreciation for the input such meetings afford. She also related that since the director is typically not present in the school in the morning, such meetings help keep each other “on the same page,” though she did mention that he does visit on occasion to observe and even substitute when the need arises (personal communication, March 31, 2006). Teacher B1 agreed that the approach her director takes fosters a team spirit, a sense of partnership between leadership and faculty that aids the teaching process.

Leaders Form Partnerships With Faculty

An important responsibility for leaders in learning organizations is taking on the role of instructional leader to ensure that learning objectives are accomplished. Interestingly, in both schools, leaders did not view themselves as the primary instructional leader. Instead, these leaders, while maintaining their overall responsibility for ensuring that self-regulated learning occurred, believe that a strong partnership with the faculty is the best way to encourage the faculty to excel in the classroom.

For example, when asked about the director’s role in providing instructional leadership, director B began addressing the need to be a team player. He posited:

We operate on a team concept. At this point and time, we are a really well-meshed, good team—which is, again, very rare to achieve. It’s taken years to get here. I think you could feel it when you walked into the building. And, I feel the atmosphere is part of the building as well. When you walk in and feel happy and joyful, and I think the intentions and motions of the people that work here, if

they're together and meshed, that creates more. It's a very sensitive environment.
(personal communication, March 3, 2006)

Teacher B1 echoed his emphasis on the team when discussing instructional leadership. She stated:

I go to him to discuss certain things. . . . There might be questions or problems I'm having with a child. It might be from something that I wanted to, you know, introduce into the curriculum; and I might get his feedback on it. But, mostly, we have pretty much the same training and a lot of the same experience, so we all meet as a staff and talk and give each other feedback. We really try to work as a team, and the director's part of that team. (personal communication, March 31, 2006)

Teacher B1 also noted, however, that sometimes the director is not present at some of these meetings. The staff will make their recommendations and check with him for his opinion and to keep the director involved in the process.

Conversely, in school A, the word *team* was not used by any of the interview participants. That is not to say the concept of team is neglected. Teacher A2 recounted a strong partnership with the director in regards to the learning process:

She originally came here as the education director, and that was last year, and that was my first year teaching, and we had a weekly meeting. And, I would go to her all the time and ask questions. She would come in if I wasn't sure how to teach a lesson. She'd teach it, and I'd get to watch so that I'd be learning it too. I mean, it was a wonderful model that I really enjoyed having a . . . mentor as a new teacher.
(personal communication, March 8, 2006)

However, such opportunities for partnership have diminished in recent months. Teacher A2 concluded, “It’s unfortunate. I wish I had more interaction with [the director], and I think [the director] does, too” (personal communication, March 8, 2006).

For director B, the team concept is also critical to encourage teacher participation in the decision-making process. He explained:

I’m upfront. I want us all to be a team. I want us all to be a dialogue. If there’s any complaint, then let’s just put them on the table and hit a positive solution.

Here we are; we’re supposed to be teaching these kids how to think creatively and have positive solutions and communicate clearly, and we have to do that. We have to be the model of that. Otherwise, we’re hypocrites. And, I don’t want to be a hypocrite. And, if we’re asking them to be a close-knit group and be friends and talk things out and work with each other, then we need to do that, not only here, but everywhere. That’s the way the teacher needs to be. And, to me, that’s what leadership is. . . being a model or an example of what it is you’re saying.

Otherwise, it’s empty and hollow and then you get into an autocratic, linear, you know, hierarchy kind of thing where it’s all empty. (personal communication, March 3, 2006)

The director added that there is a need for constant communication. “We talk on a regular basis about the kids and what’s needed in the room and what’s not needed and how the playground looks” (personal communication, March 3, 2006). The director also noted that there are impromptu discussions on curriculum and learning needs. Teachers respond well to the open communication which he believes keeps things “fluid” and

helps thing to go well by discussing problems on a regular basis (personal communication, March 3, 2006).

The director of school A also stressed the importance of regular meetings to ensure that classrooms run smoothly. The director stated, “I hold weekly lead teacher meetings where we share information, we share materials, we—I—give directives. Sometimes, I talk too much” (personal communication, March 3, 2006). The director added that these frequent meetings are important to maintaining the support of the teachers for the learning program and any changes that have to be made to the learning program. The director also noted the importance of flexibility as a way to include all constituents:

We meet monthly as a full staff, and we vary the staff meetings (right after school, evenings, just days of the week) because there’s always something somebody has to do on a Tuesday; and if I always held meetings on Tuesday, it wouldn’t be fair to that one person who really needs that Tuesday night off. (personal communication, March 8, 2006)

Teacher A2 acknowledged the helpfulness of such meetings. She noted that she could pose a question regarding teaching needs “in our weekly meeting, or whenever I needed [the director]” (personal communication, March 8, 2006). She also felt the freedom to seek at a mutually satisfying solution to problems. Teacher A2 noted:

I often go to [the director] and say I don’t feel like “X” is working, you know, I have a problem here. And, we’ll brainstorm together. Or, [the director] sometimes come in and observes either a certain student who is having difficulty or a certain

area that I would like some help with and then gives me some feedback. (personal communication, March 8, 2006)

By allowing the liberty to get help and weigh the suggestions out, the director encourages better communication with his or her staff and reinforces the faculty member's sense of professional autonomy, a critical area of leadership support that directly affects their ability to facilitate self-directed learning.

Leaders Promote Professional Autonomy

When asked if the director supported her autonomy, Teacher B1 was somewhat hesitant. But, her hesitance was not based on a disinclination to share a criticism of her director; it was based more on her perceived inability to share a simple answer, that the director supported her autonomy absolutely. She stated, "What you have to understand is that we are all pretty much on the same page, you know. So, I feel like he's very supportive; and anything I do, he seems to support me in it" (personal communication, March 31, 2006). She based the support on their mutual vision for learning:

I just feel like his support is there; it's underlying everything. But, where I'm going in with my work in the classroom is pretty much where he would go too. So, I don't know that he's done a lot of direct facilitation; we're both coming from the same place. (personal communication, March 31, 2006)

Teacher A1 recounted a recent story that she believes represents the importance of maintaining autonomy in the classroom:

There was a new change this year. We have, in the practical life area, food preparation activities, and I'm a really big proponent of that. I really feel strongly that that's an important part of the classroom, and I did a lot of variations and

extensions on that last year. Apparently, because we are part of such a big school, it's not just [the director], there's the owner of the school, and she mandates some things. And so, this year, she mandated exactly what we have to put on our shelves for food preparation, which upset me because I'm a very big proponent of that, and I like to be creative. And, for someone to tell me that I can't do it that way, it's kind of frustrating. (personal communication, March 7, 2006)

The teacher related that the policy was soon changed and hinted that it was changed, in part, due to its unpopularity. She added, "I think that was part of the learning process, to allow us to be autonomous is the better way to go" (personal communication, March 7, 2006)

Teacher A2, from the same school, posited that although the school's owner may make decisions affecting her autonomy, her director was typically very supportive of her authority in the classroom. Even when she asked the director for help or advice, it was always presented as a suggestion. She stated:

What I also appreciate about [the director], individually, is that she would never expect that that was how I should do it. I mean, she would give me the freedom to experiment and find out what worked for me but also be there as a resource, so that I didn't have to reinvent the wheel. Yet, she still shared resources with me. (personal communication, March 8, 2006)

Teacher A2 felt secure in following or disregarding the advice of her director. "If I don't like it, she's not going to be offended if I come up with something else" (personal communication, March 8, 2006).

Yet, although teachers acknowledged the importance of autonomy in the class, they do not seem to believe autonomy is granted without question or that autonomy is expected without responsibility. Teacher A1 noted:

We have certain requirements we have to show to [the director] to make sure we're doing our jobs. We turn in lesson plans that basically show that we're following the child. We're not mandated to do that; it's just showing that we're thinking about the process. (personal communication, March 7, 2006)

She also added, "We are responsible every month to give the parents a progress update" that has to be given to the director for review (personal communication, March 7, 2006). "We are also responsible for a monthly newsletter. Though the content is not necessarily regulated, a copy is turned in to the administrator" (personal communication, March 7, 2006). Teacher A1 believes "freedom within limitations" best describes the director-teacher relationship (personal communication, March 7, 2006).

Each of the teachers interviewed revealed a need for professional autonomy in the classroom, and each teacher indicated that her director provided her with an exceptional level of it. Teacher A2 summed up her discussion and appreciation for her director's support, stating "I couldn't ask for a better director" (personal communication, March 8, 2006).

Chapter Summary

This chapter presented the results of the data gathered from a multiple-case study and analyzed through open and axial coding. The data suggest that leaders equip teachers to facilitate self-regulated learning by properly equipping the classroom, protecting the learning environment, and encouraging their professional development. The data also

suggest that leaders encourage teachers to facilitate self-regulated learning by fostering the school community's understanding of self-regulated learning, providing support in the teacher's relationships with parents, removing obstacles to the facilitation of self-regulated learning, making themselves available to the school community, providing constructive criticism and feedback, forming partnerships with faculty, and promoting their faculty's professional autonomy. The next chapter presents a discussion of this analysis and suggests possibilities for future research that may contribute to our understanding of the leadership role in facilitating self-regulated learning in learning organizations.

Chapter 5 - Discussion

Research by Wehmeyer, Agran, and Hughes (2000) has suggested that several important obstacles may hinder teachers from successfully facilitating self-regulated learning. These barriers include the lack of information provided to teachers, their inability to properly facilitate self-regulated learning, and the lack of authority granted them to provide instruction in self-regulated learning. Since this multiple-case study was conducted in schools where teachers currently foster self-regulated learning, the obstacles identified by Wehmeyer, Agran, and Hughes presented an appropriate framework from which to examine the leadership role described by the research question. The analysis of the data gleaned from this study, as presented in chapter 4, suggests that leadership plays the primary role in removing these obstacles and ensuring that teachers are properly prepared to facilitate self-regulated learning.

The research question addressed in this investigation was: how do administrators, in schools that support the self-regulated learning model, encourage and equip teachers to facilitate self-regulated learning in the classroom? The following discussion will focus on the three obstacles identified by Wehmeyer, Agran, and Hughes (2000) as they relate to the research question and explain how leaders actively seek to remove or, at least, mitigate these obstacles for the faculty in their organizations.

How Leaders Equip Teachers to Facilitate Self-Regulated Learning

The leaders interviewed in this multiple-case study felt it was their responsibility to properly equip the faculty to do their jobs properly; that is, to facilitate self-regulated learning for the students they served. Though each leader had a unique perspective of how to best equip teachers to do their jobs well, both leaders interviewed believe that

providing their staff with training and professional development opportunities is an important facet of the equipping process. Both leaders also emphasized the importance of properly equipping the classroom itself by providing a physical environment well suited to the learning model and resources conducive to autonomous learning. Together, these equipping actions, providing training and professional development and adequate learning resources, help overcome two of the obstacles identified by Wehmeyer, Agran, and Hughes (2000) to better facilitate self-regulated learning.

Addressing Obstacle 1: The Lack of Information

Each school leader understood the importance of hiring teachers trained in the application of self-regulated learning. In fact, both schools employed only teachers certified in the learning model as lead teachers, and leaders encouraged assistant teachers to receive formal training in self-regulated learning. This is not necessarily an easy task, since self-regulated learning is not a common learning model in many schools of education and has only recently received widespread acceptance as a method of teaching and learning. Teacher B1 noted, for instance, that she never came across self-regulated learning models, even though her undergraduate and graduate degrees were in education (personal communication, March 31, 2006). More than hiring certified faculty, however, leaders need to ensure that faculty are provided opportunities for continued training and development.

Leaders Ensure Faculty Training and Professional Development

Without exception, each faculty member interviewed expressed the desire to receive continued training and professional development. They viewed it as essential to their professional development and the enhancement of the school's academic program; it

benefits the students as teachers learn new and better ways to facilitate learning and help their students develop lifelong learning skills. Following are several of the benefits of training and professional development related by the leaders and faculty of this study.

Training helps foster a self-regulated perspective. Self-regulated learning is a learner-centered model that differs from more traditional teacher-centered models most educators experienced during their years in school. In a self-regulated learning environment, the classrooms themselves are designed to physically facilitate self-regulated learning. The administrators of the schools in this investigation, for example, do not provide teachers with desks; teachers are to partner with students in the student's learning, not serve as a content expert to be approached for direction or a prescribed learning regimen.

Though formal training offered by national conventions can provide teachers much needed training and development, each leader feels that it is particularly important to host in-house training and development sessions. These typically occur prior to the start of an academic year and usually last 2 to 3 days. Each leader conducts some of the sessions, uses veteran teachers to present training in various topics, and uses speakers from a local association supportive of self-regulated learning to provide further training and development. In this way, leaders take the ideas presented during these sessions and apply them to their particular school as well as each teacher's individual classroom, making the training practical and relevant for the teacher.

The two leaders also ensure that in-house training occurs throughout the school year. Though the director of school A offers more opportunities for formal, planned training and development; the director of school B also sets aside some time for

continued training. In each school, leaders use regular faculty and staff meetings to address needs that arise from time to time. Teachers expressed appreciation for these training opportunities and both in-house and guest speakers, though guest speakers seemed to garner greater interest among the staff.

Though in-house training was appreciated, each teacher interviewed expressed a desire to attend national or regional conferences to further develop their skills and knowledge in teaching as well as gain specific training in self-regulated learning. These conferences not only afford them the contact hours needed to maintain their certification; they present opportunities for teachers to develop professional relationships with others fostering the learning model, providing much needed peer support and encouragement as they deal with similar obstacles and challenges while facilitating self-regulated learning. Leaders who not only encourage but financially support attendance at these conferences convey strong support for the teacher and what he or she seeks to accomplish in the class. Though school B's financial resources are more limited than school A's, school B's director ensures that funds are made available for faculty to attend at least one national conference. Since the leadership of school A offers prescribed financial support for continued development, the director views it as her responsibility to strongly encourage each teacher to avail themselves of the national conference; though neither director A or director B required such attendance.

Training encourages self-efficacious teachers. One of the hindrances presented by a lack of information is the effect it has on teacher self-efficacy. Research referenced in chapter 2 has suggested that one of the strengths of self-regulated learning is the self-efficacious tendencies it fosters in students. More than one study has addressed the need

for teachers who utilize self-regulated learning techniques to believe they can successfully foster autonomous learning in their classrooms. Leaders who provide information; whether in the form of in-house training, regional or national professional development, or continued staff development meetings; do much to build their teacher's self-efficacy for delivering the self-regulated model. Director A, for example, recalled her days as a teacher and remembered how encouraged she was after witnessing a breakthrough facilitating self-regulated learning and how this empowered her as a teacher and a leader. The director recounted the former student's success:

He learned to be independent, and how he learned to learn, and how he loved to learn. Not at the beginning, because it was a struggle. He hated it. He hated school; he hated me; he hated the work. But, that ability to work at his own pace, the ability to practice what he didn't know without being criticized, without the rest of the class waiting for him to get that page done or that exercise done. And, to be a witness to him flying was the most rewarding thing and is still one of the most rewarding things that I do. (personal communication, March 8, 2006)

Though the director noted initial doubts in her abilities to foster self-regulated learning, such successes increased the director's sense of self-efficacy with the learning model.

Addressing Obstacle 2: The Inability to Facilitate Self-Regulated Learning

Providing information, training, and development in self-regulated learning are not the only tangible actions leaders can take to equip their faculty to employ the learning model. Leaders can also ensure that the environment, from a supportive school community to a protected learning time in the classroom, helps a teacher to facilitate self-regulated learning.

Leaders Ensure an Environment Conducive to Self-Regulated Learning

“Absolutely essential” is how one leader described the importance of providing faculty with a well-equipped environment (personal communication, March 8, 2006). At first glance, this would seem to indicate the need for leaders to ensure that each teacher had a furnished classroom, books and curriculum, and other supplies and materials needed to teach. This investigation revealed much more than this, however. An environment conducive to self-regulated learning is one with a supportive community of well-informed parents, well-furnished classrooms designed for self-regulated learning, and an environment protected from unnecessary distractions to encourage optimal learning.

To educate the learning community. Self-regulated learning is, for the most part, a departure from teacher-directed learning models used in most traditional classrooms, the models with which most educators and parents were educated and therefore understand and appreciate more readily. This presents an enormous challenge to leaders in schools that facilitate self-regulated learning; since a change in perspective, approach, and application is required to properly promote autonomous learning. The need to continuously train and develop faculty has been described already. However, there is also the need to educate parents on the unique attributes of self-regulated learning and how it is fostered in the classroom. This type of education enhances a parent’s understanding of what the teacher is trying to accomplish in the class. When parents understand the purpose of various classroom learning activities and actively reinforce them in the home, teachers can better focus on fostering self-regulated learning.

Leaders who successfully equip and encourage their teachers to facilitate self-regulated learning welcome the opportunity to educate parents and other stakeholders of the learning organization's community. Each leader interviewed understands their responsibility to carefully introduce parents to the learning model, furnish materials to enhance understanding of the learning model, and provide opportunities for continued education to build support for the learning model. Though again, there were differences between the leaders as to the regularity, breadth, and scope of the educational materials and learning opportunities afforded to parents. Both work diligently to ensure that parents stay informed and continue to develop their understanding of self-regulated learning. This training begins as soon as parents walk into the school, when each are introduced to a unique learning environment equipped to facilitate self-regulated learning.

To ensure a prepared learning environment. An environment conducive to self-regulated learning is often physically different from environments found in more traditional schools. In each school investigated, gone are neatly ordered rows fronted by a teacher's desk. Instead, classrooms are set up with various learning centers that students may visit as they regulate their own learning objectives for the day. Teachers' desks are absent; instead, teachers are seen working with individual students at a learning center, a computer, a table, or with small groups as they present a topic to several learners at once. Students have an abundance of materials with which to work, and the classrooms are large enough to allow for such freedom of movement.

Both directors reported that this type of environment is carefully designed, and the resources are thoughtfully selected to complement the environment and the self-regulated model. Both also noted the considerable expense building such environments

incurs. Yet, each director believes the time, effort, and money expended to create a well-designed, well-prepared environment are critical to equipping teachers to do their jobs well. The teachers also noted that a quality environment is essential to their success and believe their directors have worked hard to ensure a well-equipped environment. These teachers also reported that, more than just supplying a well-equipped environment, their directors help them facilitate self-regulated learning when they protect such quality environments from distractions that impede a student's ability to learn.

To protect the learning environment. Leaders need to strike a careful balance between opening up their classrooms to parents and visitors in hopes of educating them in how self-regulated learning is fostered and protecting the classroom from excessive distractions that disrupt the learning environment. The teachers interviewed welcome visitors (especially parents) to their classrooms yet maintain that visitors should first be instructed on how to conduct themselves while in the class, a responsibility they feel belongs to their directors. Director A offers materials to instruct parents on what to expect and what to look for when observing. Director B also offers written materials that explain the learning model to those interested in observing. Both leaders require parents and visitors to obtain permission before observing a class.

Another action the leaders have taken to protect the learning environment is by minimizing disruptions to the morning learning time. In each school, this learning time lasts about 3 hours; therefore, enrichment classes, assemblies, and other routine disruptions are delayed until the afternoon. The directors believe that this allows their teachers to focus on fostering self-regulated learning rather than on schedules, dismissals,

and getting their classes to start and stop the learning process. All teachers interviewed expressed appreciation to their director for protecting the morning learning time.

A final action taken by these leaders to protect the learning environment occurs long before the teacher enters the class to teach. The leaders ensure that the very classroom itself was designed to foster autonomous learning free from unnecessary disruptions. For instance, both directors oversaw classrooms that included younger elementary students. Normally, such students take restroom breaks as a class, requiring the teacher to stop everyone's learning for the sake of one student's need. Each classroom in the schools investigated had access to adjacent boys' and girls' restrooms, freely allowing student use without stopping the class to line up at a designated time. Also, each classroom had the needed resources for students to complete their work; libraries were not needed for the typical classroom assignment. This type of thoughtful development on the part of school leadership allows the teachers to focus on initiating self-regulated learning and the students to hone their autonomous skills.

Providing training opportunities and allocating resources to encourage a teacher's professional development presents a powerful demonstration of the leaders' commitment to properly equip their faculty for success in the classroom. Additionally, leaders who thoughtfully design classrooms to minimize disruptions and who take measures to protect the learning environment further equip the teacher to better foster self-regulated learning.

These actions are welcomed and appreciated and, to a certain extent, expected by the teaching staff. But, teachers related more than just the need to be knowledgeable of and equipped to provide self-regulated learning. They also stressed the need for autonomy in the class to design instruction to better meet their student's needs; to have

the freedom to try new techniques or curriculum; and to know that should differences arise between the teacher and a student's parent, their leader will support them and seek an equitable solution. Unlike the actions leaders take to equip teachers, these measures do not require a financial commitment; only the commitment by leaders to trust their teacher's professionalism, classroom management, and honest dedication to the student-teacher and parent-teacher relationship. Such a commitment presents a powerful encouragement to the faculty to continue their work in the class.

How Leaders Encourage Teachers to Facilitate Self-Regulated Learning

When leaders were asked how they encourage their teachers to facilitate self-regulated learning, their responses shifted away from providing-oriented answers to more relationship-oriented answers. Director B, for example, discussed the importance of teamwork and maintaining good communication. Teacher A2 discussed encouragement she has received from the director such as small notes in her mailbox or mentoring opportunities. Leaders and teachers went on to talk about the encouragement that comes from exercising autonomy in class, knowing (from a teacher's perspective) you are supported and trusted in the parent-teacher relationship, and partnering together to choose learning materials and educational resources. Leaders who encourage teachers through these avenues help remove the third obstacle from successfully facilitating self-regulated learning: the teacher's need for authority.

Addressing Obstacle 3: Supporting the Teacher's Authority

Experiencing difficulties with the parent-teacher relationship and being asked to follow arbitrary decisions that detract from classroom autonomy discourage several of the teachers interviewed. Interestingly, these teachers suggested that their leaders could make

a profound difference in the parent-teacher relationship by simply supporting them and being available to them to help with parent-teacher disagreements. Teachers also noted that leaders could partner with them to make decisions that affect their classrooms, rather than making unilateral decisions without seeking any input from the teacher.

Supporting Teacher Authority: Allowing Autonomy in the Class

Two of the teachers interviewed provided contrasting examples of how their directors have supported their autonomy in the class. Teacher A1 related her frustration regarding a decision made by the school owner (not her director) that hindered what she believes to be an important element in a student's autonomous development. Her director listened to her concerns and shared them with the owner, and the directive was soon withdrawn. This provided a powerful encouragement to the teacher, and her confidence in and trust for her director increased considerably.

Teacher B1 believes she has considerable autonomy in the class to direct learning activities and meet individual student needs as she deems best. Though her director has never had to settle an issue with an owner, she is nonetheless appreciative of her director and the level of autonomy her director provides. In fact, she believes the level of autonomy she enjoys can be attributed to their constant communication and shared vision for fostering self-regulated learning. Yet, autonomy in the class can only be granted when leaders trust the direction and instructional leadership of their faculty. When this trust is present, leaders also seek to partner with teachers when making decisions that affect the classroom.

Supporting Teacher Authority: Seeking Teacher Input

The teachers interviewed do not expect total autonomy; they understand that their directors are ultimately responsible for student learning and, therefore, need to oversee curriculum, student progress, and overall classroom management techniques. The teachers also believe, however, that they understand their particular learning environments, their students, and their classroom needs better than anyone and, therefore, desire to be a part of decisions that affect their classrooms. Both directors communicate often with their faculty to check on classroom progress and to address problems or concerns the teachers may have. The directors often use these informal discussions to garner teacher input on changes that may help the classroom or to discuss curriculum decisions. Both leaders expressed several advantages of this partnering approach including encouraging unity and a team spirit, gleaning the wisdom and expertise of the faculty, and fostering good communication to help minimize misunderstanding when the changes are made.

Supporting Teacher Authority: Assisting the Parent-Teacher Relationship

The need to educate parents in the basic tenets of self-regulated learning was stressed by both leaders and teachers as fundamental to the success of the classroom. Since the self-regulated model presents many changes for the child and parent alike, the need to develop strong parent-teacher relationships is essential. Though leaders can do much to develop these relationships and expend much time and energy in educating parents; there will be occasional misunderstandings and disagreements between parents and faculty and, at times, parents and the school leader. Leaders can do much to support teachers and their authority in the class by aiding them in the parent-teacher relationship.

By supporting them in the parent-teacher relationship, leaders encourage teachers to continue their unique approach to the facilitation of self-regulated learning. This support is more than just standing up for them if differences arise with parents. Teachers related that support begins at the initial enrollment of the student, when leaders begin the educational process and foster strong relationships with the parent. As parents become educated, well-informed partners in their student's learning; they will be less likely to question the unique approaches self-regulated learning involves. But, when differences do arise, leaders must be careful to balance the need for resolution; and, in the case of private schools, the need to retain tuition-paying parents; and the need to support their faculty in the presence of the parent.

Teachers do not necessarily expect unquestioned support, nor do leaders necessarily provide it. Yet, leaders can defer to their trust in the faculty member when hearing a parent complaint. Director A, for example, listens to the parent's concern but encourages the parent to address the faculty member directly. If this is not possible, the director makes sure that the teacher is present in any further discussion to ensure that both parties are represented. These actions often moderate parent hostility and temper their complaints to help achieve an agreeable solution.

Both directors acknowledged times when differences were insurmountable; when this occurred, the parents were encouraged to withdraw their student and seek enrollment in another school. Though neither the director nor the teacher believe this to be a happy solution, they understood it was the best solution for the situation. Teachers expressed appreciation for a director who would "lose" a student rather than compromise their

authority and, subsequently, the learning environment. This presents strong encouragement for the teacher to continue their work in the classroom.

Other Leader Actions

Interviews with leaders and teachers revealed that additional leader actions that do not necessarily correlate to the obstacles identified by Wehmeyer, Agran, and Hughes (2000) contribute to a teacher's successful facilitation of self-regulated learning nonetheless. These actions included fostering a team spirit and maintaining strong communication. Though each of these actions is, at least, tangentially identified in earlier discussions, the leaders interviewed stressed their importance to helping teachers foster the learning model.

Leaders Encourage a Team Spirit

Though a stronger team spirit was identified as a benefit of partnering with teachers, leaders can work to foster a team spirit independently of instructional design issues. Both directors interviewed believe in working with their faculty to resolve issues, address problems and challenges, and create the best possible learning environment. Leaders stressed that a team spirit is essential, since both leadership and faculty are responsible for learning outcomes and since both need the contributions of the other to accomplish these outcomes. Leaders foster a team spirit when they partner with their faculty in curriculum and learning decisions and communicate often with faculty in both formal and informal situations and on a continuous basis. Teachers who sensed this team spirit feel autonomous and are encouraged to facilitate self-regulated learning in the class. These teachers also sensed the team spirit when they know they can discuss things with

their directors at any time, availing themselves of the partnership that can develop when leaders encourage open communication through an open door policy.

Leaders Encourage Open Communication

The need for honest, open communication was a consistent theme with both directors interviewed. Their faculty also expressed an appreciation for the communicative opportunities their directors offered, some even relating the desire to have more time to talk with their directors and all of them expressing the desire to have more evaluative-based communication. Though they did not necessarily use the term *open door*, both leaders noted that their faculty and staff are free to talk with them at any time and that they make themselves available to their staff on a daily basis. These leaders also take the initiative to engage their faculty in various dialogues from school-yard issues to classroom needs and parent-teacher relationships. Additionally, both leaders expressed the need for honest communication to know when faculty needs are not being met, when problematic issues are not being addressed, and when the director could do more to make faculty successful in the classroom. For the most part, the teachers interviewed perceive their director to be open and to accept honest communication, and this seemed to demonstrate support on the director's part for what they are trying to accomplish in the class. The directors interviewed perceive a connection between good, frequent communication and faculty success; a necessary leadership perspective to help achieve the organization's outcomes.

The Leadership Perspective

Each leader in this case study believes that they are responsible for the learning objectives of their organization to develop autonomous learners who love learning and

develop lifelong learning skills. They also believe, however, that it is the teacher who actually ensures this; their job is to make it possible for the teacher to do this to the best of his or her capabilities. Deferring to the teacher's primacy in attaining student learning outcomes while accepting the ultimate responsibility for achieving the outcomes provides the impetus for each director's actions to properly equip and encourage teachers to facilitate self-regulated learning. This perspective is deeply imbedded in each director's firm belief in the learning model and its importance to the proper development of each student in the school.

For example, director A stated, "Since our goal is independence in the classroom, it's our job [as leaders] to watch the independence develop and to make sure we're ready when the child needs some guidance" (personal communication, March 8, 2006). When asked if lifelong learning was also a goal of the school, the director replied, "Yes, absolutely, and a love of learning. Actually, a love for learning. . . lifelong, but [the student] loves to learn" (personal communication, March 8, 2006).

Director B expounded on the connection between independent, lifelong learning and good leadership. The director ended the interview with a passionate address of a leader's responsibility for equipping the faculty to facilitate self-regulated learning. The director believed:

If we're successful, [the student] will have incarnated the patterns that will create success and will create a leadership mentality out there, because what we're talking about is getting them ready for life. In life, you need to have those patterns set that where you can, you know, solve a problem without having a neurotic meltdown, where you can think independently and come up with an answer; you

can communicate clearly how you feel, what you like, and what you don't like.
(personal communication, March 3, 2006)

More than just preparing them for learning, director B believes a critical component to their mission is to prepare the student for living. He concluded:

What kind of world are we sending these kids out into? And, *how* are we sending them out? And, that's to me where leadership comes in, to create a place like this and lead it so that the kids who come out of here, at least, have a fighting chance to make it. (personal communication, March 3, 2006)

For these leaders, creating an environment conducive to self-regulated learning is central to their leadership role in the organization. They believe that to lead their organizations toward these critical learning outcomes is more than a responsibility; it is a rewarding opportunity to impact learners to love learning and develop skills that will help them become lifelong learners.

Recommendations for Future Research

This multiple-case study investigation sought to address the ways leaders equip and encourage teachers to facilitate self-regulated learning in learning organizations. Though the data gleaned from this study suggest numerous actions leaders in both small and large organizations can take to do this, the research process also revealed several themes that need further investigation. For instance, though the local school leader (per criterion set forth in chapter 1) was the primary subject of inquiry, many schools have multiple administrators who share some of the instructional leadership responsibilities. These administrators could be interviewed to ascertain their roles in fostering self-regulated learning. Therefore, the following is a list of recommendations for future

research that not only may enhance this study but may contribute to the growing body of literature on the leadership role in ensuring the facilitation of self-regulated learning.

Investigating How Administrative Teams Work Together to Achieve Learning Outcomes

The private schools selected to participate in this investigation exhibited two different leadership structures. In school B, the school leader, as described in chapter 1, was also the owner. The administrative “office” consisted of one administrator and a part-time business manager. In school A, the school leader answered to the school owners who oversaw an administrative team consisting of five campus directors as well as ancillary staff. Several of the responses given by the director and teachers in school A, responses directly relating to the facilitation of self-regulated learning, revealed occasional dissonance between the school owners and the local school director. There were not such difficulties in school B where there was just one administrator. Future research could examine the relationship between administrators more closely and investigate the role each administrator plays in ensuring the successful facilitation of self-regulated learning.

Conducting Research in Schools with Prohibitive Budgets

Though the participating schools were dissimilar in operating budgets and per-class expenditures, each director commits considerable resources to properly equipping the classrooms to best foster autonomous learning. Teachers in both schools believe that their directors provide them with the resources needed to properly implement the learning model. Also, in each school, funds were appropriated to support the training and professional development of the faculty and, to some extent, each school’s staff (though, again, the amount spent varied considerably). In each school; enrollment is robust, and

financial obligations are met. Yet, as one director noted, not all private schools committed to self-regulated learning are fortunate enough to have fully-equipped classrooms or discretionary funds for teacher development. In these schools, how do leaders compensate for the obstacle presented by limited financial resources? Further research may suggest new insights to the leadership role in such schools.

Examining How Leadership Initiatives Differ in Publicly-Funded Schools

Both of the above recommendations assume a continuation of research in private school environments. Yet, research referenced in chapter 2 has suggested that not only is self-regulated learning an appropriate learning model in traditional public school settings, it is becoming more accepted by administrators and teachers at every level. Public school leaders, while not needing to address the relationship between directors and owners, need to address a myriad of other relationships affecting the leadership role in self-regulated learning. Such relationships include the leader and local school board; the leader and district, regional, and state administration; and the leader and forms of national administration, such as legislation requiring prescribed educational standards that may hinder the leader's ability to properly encourage self-regulated learning. Investigating these relationships presents numerous opportunities to enhance our understanding of public school leadership and their actions that equip and encourage teachers to foster autonomous learning.

Investigating Leadership Development

Regardless of the learning organization's orientation (public or private), leaders need to receive continued training and professional development in self-regulated learning. Such training and development opportunities help administrators stay abreast on

the latest findings and developments in self-regulated learning; furthermore, leaders can use this information to better understand what their faculty is doing in the classrooms and subsequently provide the encouragement and support the faculty needs to succeed.

Conducting research examining the training and development opportunities afforded to school administrators may reveal the needs of administrators seeking to foster the self-regulated learning model.

Chapter Summary

This chapter discussed the results of the data analysis conducted in chapter 4. The discussion focused on Wehmeyer, Agran, and Hughes' (2000) research suggesting three key obstacles to the successful facilitation of self-directed learning. Specifically, leader actions that equip and encourage teachers to facilitate self-regulated learning, as suggested by the data analysis, were identified as they related to the lessening or removal of each obstacle. Finally, the chapter presented several recommendations for further research that could enhance this investigation as well as further our understanding of the leadership role in fostering self-regulated learning.

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Appendix A – Administrator Interview Questions

Demographic/historical Information

1. How many years have you been in administration?
2. How many years have you been in administration at this school?
3. How many years has your school been in operation?
4. Do you have a college degree? If so, what degree(s)?
5. Do you have formal training in self-regulated/autonomous learning models? If so, describe the type and duration of learning.
6. Do you have formal training in directing or administrating schools that employ the self-regulated learning model? If so, describe the type and duration of learning

Perceptions of Self-Regulated Learning

1. Explain what self-regulated learning means to you.
2. Explain how your school presently promotes self-regulated learning to the community.
3. How do you perceive your role as the instructional leader?
4. Describe your involvement with curriculum selection and implementation.
5. How do you perceive *your* role in promoting self-regulated learning?
6. How do you perceive your level of responsibility for ensuring that self-regulated occurs?

Equipping & Encouraging Teachers to Facilitate Self-Regulated Learning

1. Describe ways you ensure that teachers are prepared to facilitate self-regulated learning.
2. Describe ways you encourage teachers to facilitate self-regulated learning.
3. Explain how you measure teacher effectiveness in ensuring self-regulated learning.
4. What resources are provided to help teachers facilitate self-regulated learning?

5. What types of professional development are afforded teachers to develop self-regulated learning?
6. How is successful instruction in self-regulated learning recognized?
7. Describe your role in the parent/teacher relationship.
8. How are curriculum problems/learning issues typically resolved?

Overcoming Obstacles

1. Have teachers indicated any obstacles in their attempts to foster self-regulated learning? If so, what are they?
2. How have parents new to the school viewed the self-regulated learning-oriented classrooms?
3. Have there been curriculum or textbooks problems in attempting to support self-regulated learning? If so, describe the problems.
4. Explain how funding affects self-regulated learning.
5. Are there any other obstacles you encounter while supporting self-regulated learning?

Creating an SRL-friendly environment

1. Describe the physical environment/set-up up your school and how it aids self-regulated learning.
2. Are there ideas or plans not yet realized that you think would help self-regulated learning? How are these being pursued?
3. What more could you as the administrator do to ensure self-regulated learning takes place in the classroom?
4. Do you have any other comments that you'd like to add?

Appendix B – Teacher Interview Questions

Demographic/historical Information

1. How many years have you been teaching?
2. How many years have you been teaching at this school?
3. Do you have a college degree? If so, what degree(s)?
4. Do you have formal training in self-regulated/autonomous learning models? If so, describe the type and duration of learning.

Perceptions of Self-Regulated Learning

5. Explain what self-regulated learning means to you.
6. Explain how your classroom promotes self-regulated learning
7. How do you perceive your administrator's role as the instructional leader?
8. Describe your administrator's involvement with curriculum selection and implementation.
9. How do you perceive your administrator's level of responsibility for ensuring that self-regulated occurs?

Administrator Support of Self-Regulated Learning

10. Describe ways your administrator equips and encourages you to facilitate self-regulated learning.
11. Explain how he or she measures teacher effectiveness in ensuring self-regulated learning occurs.
12. What resources are you provided with to help facilitate self-regulated learning?
13. What types of professional development are you afforded to develop self-regulated learning?
14. How is successful instruction in self-regulated learning recognized?
15. Describe your administrator's role in the parent/teacher relationship.
16. How are curriculum problems/learning issues typically resolved?

Overcoming Obstacles

17. Have you encountered any obstacles in your attempts to foster self-regulated learning? If so, what are they?
18. Were these obstacles requiring leadership attention? How were they addressed?

Creating an SRL-friendly environment

19. Describe the physical environment/set-up up of your classroom and how it aids self-regulated learning.
20. Are there ideas or plans not yet realized that you think would help self-regulated learning? How are these being pursued with your administrator?
21. Is there anything more that your administrator could do to ensure self-regulated learning takes place in the classroom?
22. Is there any other comment that you'd like to add?