Effects of Engaging in Success for All On Children's Causal Attributions

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ABSTRACT

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At-risk children in danger of experiencing failure in reading, face negative life consequences that may be alleviated by the inclusion of an attributional training program that would increase the possibilities of success. The present study investigated the causal attributions of students in a Success for All (SFA) school versus a traditional reading curriculum. A total of 197 children, 89 from the SFA experimental school, and 108 control children participated in this study. Data were collected through the posttest administration of the Causal Beliefs About Reading Questionnaire based on the attribution work by Ames (1978, 1981,1984) and others. Pretest reading achievement (Woodcock, Durrell) and diagnostic measures (PPVT) from the broader study by Chambers et al. (1996) were used as covariates since pretest causal data were not available. The correlations indicated some interesting patterns. Of significance, were the negative correlations between ability and task difficulty, and the positive correlations between ability and effort. While the ANCOVA results for the hypotheses were not significant, further ANOVA results employing ratings of children's perceptions of success in reading were significant. In particular, there was a 2-way interaction effect for the type of reading program and perceptions of success in reading on attributions to the difficulty of the task. These findings suggest important motivational and feedback techniques that should be taken into consideration by classroom teachers. The key is for teachers to use research-based teaching techniques in combination with effective attributional practices.

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Statement of the Problem

In Quebec, approximately one-third of high school students leave school before they have had the opportunity to develop moderate reading skills (Statistics Canada, 1996). For these at-risk children the effects of illiteracy are far-reaching. For example, in the long term it can have negative consequences on future employment opportunities, which in turn may directly impact on an individual's socioeconomic status (SES) (Statistics Canada, 1996). Illiteracy has the potential to create a vicious cycle of poverty, since low academic and poor life skills, learning disabilities, and a history of low socioeconomic status is sustained (Gage, 1990; Slavin, 1989; Keating & Oakes, 1988).

What is coined as at-risk is multi-layered in view of the fact that it comes with a variety of issues. Not all students from low-income families drop out of school, nor do all at-risk students come from low-income families. Although schools may be able to help low-income students achieve gains within the academic milieu, some may be unknowingly undermining the possibilities for student success. Poor attendance, low SES, and minimal parental involvement are but a few factors that can place all students, regardless of age, at-risk for failure.

Although addressing the needs of older at-risk students may appear to be the direction that would need to be taken to alleviate the potential illiteracy rate, the trend that has developed quite recently is to invest in children as early as possible (Cuban, 1989; Slavin & Madden, 1989). The literature and research today validate early intervention (i.e., tutoring, enriched prekindergarten and kindergarten) as the key to successful

schooling as a child continues to progress through the educational cycle. The objective would be to prevent illiteracy and reading difficulties before they might appear in the early years of school and thus, terminate the cycle of events equating poverty and illiteracy (Kagan, 1989; Ross, Smith, Casey, & Slavin, 1995).

However, while the process of early intervention is critical for the long-term success of elementary-aged children, there may be other influences involved in children's successes and failures in learning to read that delve beyond the realm of poverty. The motivation to learn to read or rather the children's perceptions of their success and/or failure to learn to read is just one such example. These perceptions of causality or attributions, rather than the reality of a given situation concerning children's success or their failure in learning to read, plays a vital role in their motivation to continue the reading process (Hunter & Barker, 1987). In other words, if children believe their inability to perform well on a task is due to illness or to an ineffective teacher, or their ability to achieve high grades is due to hard work, then these feelings or perceptions may in turn influence self-esteem, expectations for future outcomes, and subsequent motivation (Hunter & Barker, 1989; Pintrich & Shunk, 1996; Weiner, 1994).

The causes that people give to explain their own or other people's outcomes, and the effects that these attributions will have on subsequent achievement has been the focus of Attribution Theory, as developed by cognitive theorists such as Bernard Weiner. Attribution Theory examines how beliefs develop, as well as life influences that may have formed them (Pintrich & Schunk, 1996; Weiner, 1994). In the case of this thesis, the focus is on beliefs concerning reading.

Reading as a means of communication, is the ability to process and decode the

written word (Adams, 1990). Driving a car, shopping for food or clothing, writing a job application, or sharing a book with a child all require the capacity to discern and interpret the meaning of the combination of letters that confront us as we interact within our environment. However, the sense of being literate can also extend beyond displaying the literacy skills of interpreting the text to behaviors, which according to Heath (1983) allow an individual to reflect and communicate as well as make educated decisions concerning print.

The importance of reading cannot be overlooked. Reading provides a basis for all other subject areas, and consequently the achievement of success in school and beyond (Hiebart, Winograd, & Danner 1984). Research has shown that children who have not mastered the skills of reading by grade three, share a higher probability of dropping out of high school than those students who are proficient in reading and writing skills (Friedel & Boers, 1989; Lloyd, 1978; Slavin, 1989; Snow, 1994). As children progress through school and experience failure, the chances of improving self-concept, and consequently, attitudes towards reading become an ever-increasing problem.

The results of a longitudinal study conducted by Juel (1988) concluded that the prospects of success for children who had not mastered reading skills (e.g., phonemes, comprehension) in grade one were extremely poor by the time they had reached grade four. The skill of decoding was one of the primary elements that differentiated the less effective readers from the more effective readers. In fact, the poor readers in grade four had not reached the same level of capacity of decoding that the good readers had achieved by the end of grade two. This inability to decode, in turn, can impair students' comprehension - if they cannot decode, then they cannot understand what they have read.

In addition, Juel (1988) contends that a vicious cycle of negative consequences may ensue due to this inability to decode and comprehend written information. Students in the early grades who did not develop these skills disliked reading more notably than the more effective readers, which in turn was corroborated by other studies conducted by Dweck and Bempechat (1983), and Tunnell and Jacobs (1989). If children are not involved in the process of reading, then more than likely they miss out on attaining the skills (e.g., vocabulary, concepts of print) that are encouraged and developed due to the experiences of reading the printed word. This may contribute to the widening gulf between good and poor readers over time (Stanovich & Cunningham, 1992).

In addition, children need to learn to decode and comprehend what they are reading, and also to learn that reading in itself is an enjoyable and rewarding endeavor (Stahl, McKenna, & Pagnucco, 1994) - a product of strategic reading. Strategic readers know the purpose for reading, are also motivated to read, and employ reading strategies (i.e., rereading, sounding out, using context) when they get to a word they do not know. Since failure in reading can occur as children advance within the school system, research has concluded that intervention strategies need to be taught to those who perform below grade level as soon as the children are diagnosed in the lower elementary grades. In fact, Guthrie at al. (1996) furthered this discussion by implying that there is an indirect link between the use of cognitive strategies and intrinsic motivation for reading.

Although there are teachers who are committed to providing the best teaching techniques possible, we cannot at the same time disregard ineffective classroom instruction and sound educational practices. The fact that student self-perceptions and consequently, their attitudes towards learning to read in either a positive or negative

manner affect their future reading performance is not new (Jagacinski & Nicholls, 1987; Morrow, 1987). The results of a study by Heathington and Alexander (1984) have unveiled that although teachers are aware of these prevailing attitudes, they frequently do not take the time to build the development of positive attitudes towards reading into the general curriculum.

In addition, teacher feedback (e.g., providing assistance) and the effect on children's perceptions of success and failure have been the focus of a study by Pintrich and Blumenfeld (1985). In essence, children rated themselves on such questions such as 'How good are you at your schoolwork' (ability), and 'How hard do you work' (effort). Children who were praised for their work thought they were smarter and worked harder than children who received little praise. Interestingly, teachers' criticisms in general usually refer to carelessness and lack of effort that inadvertently may affect children's effort self-perceptions.

Ames and Archer (1988) and Dweck and Leggett (1988) reported that the effects of teacher attitudes go even further when the actual environmental conditions of learning are studied. The goal orientation or structure of the classroom climate as perceived by the students also takes precedent in whether they will succeed or fail. In fact, their attributional pattern may evolve from such a perception. If a teacher focuses on mastery goals rather than on performance, then the students will more than likely enjoy studying, utilize more effective learning strategies, and conclude that success is best achieved through one's own effort. The opposite is true when performance is seen as the most salient factor as students judge themselves according to ability. These types of attributions in the long-term may be very detrimental to the learning process. Ames and

Archer (1988) imply that changes to the goal structures within the learning environment from performance to mastery would diminish the effects of attributions based solely on ability.

Language arts program in Canada. In order to address the issues of unsuccessful reading achievement in Canada, the language arts instruction of Whole Language was presented as a panacea for what at the time was considered an ailing educational system. In 1982, Whole Language was introduced into the Quebec school system when the Ministry of Education mandated this language program. The central premise of this program in Quebec was based on the following philosophy: growth in the language arts is a developmental process which occurs over a period of time and flourishes in a supportive, literate environment in which children create their own order and cohesive language rules by using language in varied and functional and meaningful contexts (Government of Quebec, Ministry of Education, 1982, p. 3)

However attractive and alluring the philosophy of this approach may be in terms of a more child-centered methodology, Whole Language has come under recent attack. Although, there are some facets of the program that are judged to be educationally sound, the longitudinal results for reading achievement have been relatively poor. A major criticism of the movement by Chall (1983) and Simner (1993), among others, is that the philosophy may not be as effective for children at-risk since they may not have received the preparatory language development in the home setting. In contrast, children who are read to at home arrive at school with the understanding of the fundamental letter and sound relationships, in most cases having acquired the tools necessary to function under the Whole Language umbrella.

One answer to the ever-growing dilemma of illiteracy and drop-out has been the various school restructuring designs presented in the realm of reform that have infiltrated into educational systems across North America. One such restructuring program, Success for All (SFA), was developed by Robert Slavin and his associates at Johns Hopkins University in Baltimore. Approached in 1986 with the dilemma of how to best meet the needs of at-risk children living in poor neighborhoods, what emerged was an eclectic (e.g., best practices) reading approach that has succeeded in enabling students in high poverty elementary schools to master literacy skills (Slavin & Madden, 1993, 1995).

The philosophy behind SFA is simple: prevention and immediate intensive early intervention. In other words, the key is to provide all necessary strategies such as high quality classroom instruction, one-to-one tutoring, and parental support before the students begin to fall behind in school. Having all children reading at grade level by grade three is one of the long-term goals of Success for All. However, rigorous steps need to be in place before a school becomes an SFA site. Teachers need to vote 80% in favor of the program, followed by specific training of each component of the SFA program. Implementation visits are conducted throughout the initial school year and beyond in order to observe teachers, and recommend the next steps to encourage more effective teaching practices.

Success for All has shown demonstrable and quantifiable improvement in the reading achievement of elementary-aged children who have been diagnosed as at-risk (e.g., low SES, learning disabilities) for school failure (Slavin, Madden, Karweit, Dolan, & Wasik, 1992). According to Slavin and Madden (1993, 1995), SFA students, especially those in the lowest twenty-five percent of their class, perform significantly

better than students in non-SFA schools. In addition, the research results from schools in Montreal, Canada, corroborates the success rate that has occurred within the United States. Students at the experimental site displayed significantly higher reading achievement than control site students (Chambers, Abrami, Massue, & Morrison, 1997). Although the results of the research indicate that attention must be given to the inclusion of effective reading programs in our school systems, we must also pay close attention to the student's perceptions of causality in their attempts in learning to read. In essence, there are many causes that children may perceive as influencing their reading achievement such as illness, an incompetent teacher, or mood, as well as the four common causes attributed directly to achievement: ability, effort, luck, and task difficulty (Weiner, 1994). Therefore, as successful as the SFA reading program has been, if children attribute their success to factors outside their control (e.g., luck) or their failure to low ability, then the consequences could produce the debilitating effect of decreased motivation and lowered effort (Bar-Tall, 1978). Due to perceptions of lack of control over their outcome, these children may not attempt to learn to read.

Hence, it is essential to uncover the motivating factors behind each child's success or failure in the process of learning to read. If they make debilitating attributions related to their lack of ability, then an attributional retraining program might be instituted to shift these perceptions from lack of ability to lack of effort (Weiner, 1994). The shift from the "I am stupid and therefore may as well give up" attribution to "I did not try hard enough and have to try harder next time" is critical if children are to succeed. The positive link between effort and outcome needs to be emphasized.

According to Bloom (1985), successful people expend tremendous amounts of

effort. Associating success with effort supports the notion that successful people will continue to succeed if they continue to try. Interestingly enough, failure at a task does not cause successful people to feel disillusioned about their ability to perform tasks. Quite the opposite in fact is true. Failure due to perceived lack of effort often encourages individuals to try harder the next time (Weiner, 1986). In summation, if we want children to succeed in reading, the emphasis must not accentuate ability, but the expenditure of effort (Nicholls, 1990; Thomas & Oldfeather, 1997; Wigfield & Guthrie, 1997).

Although it is impossible to directly observe children's aspirations for their success and failure (Weiner, 1986), the goal of the present study was to understand the connection between children's attributions to their success or failure at reading, and their actual reading performance. The attributions of students in the upper elementary grades in the Success for All program were compared to control students who participated in a conventional reading program. The knowledge that we glean from the results of this study will provide a deeper understanding of the causal attributions of students who are having difficulty learning how to read in the SFA program. Perhaps a combination of an effective reading program with appropriate attributions would make for a stronger overall program. In addition, attention made to the inclusion of modifications to classroom environments may also be warranted based on the research.

In the sections that follow, the Whole Language Approach to teaching reading will be discussed, followed by information concerning the Success for All program and Attribution Theory. In addition, attributions will be covered within the philosophy of the Whole Language approach compared to that of the Success for All program.

Whole Language

The move to a Whole Language approach from that based on phonics was the result of dissatisfaction with the more traditional method of instruction that required children to write in workbooks read material out of basal readers, take spelling tests once a week, and work with readiness materials as well as handwriting kits (Goodman, 1986). In other words, the 'skill and drill' method was viewed as a mechanistic paradigm that lacked creativity and individuality. Thus, the Whole Language philosophy incorporating language, culture, the community, the student as active learner, and the teacher as facilitator was viewed as an attractive alternative (Goodman, 1986).

The philosophy of Whole Language, a holistic or top-down or meaning-emphasis and child-centered approach (Simner, 1993), in theory, is very appealing: provide children with a language and literature-rich environment based on the children's own experiences. The involvement of the children in their own learning, and the opportunity to become risk-takers in view of their own writing, are two of the strategies by which reading acquisition is achieved (Goodman, 1986). Based on the theories of humanistic learning where teachers and students work together as collaborators, Goodman (1986), a proponent of this philosophy of instruction states that Whole Language is "real kids using real language".

What Whole Language is not, however, is the teaching of a system of fragmented sounds, words, and syllables. Rather, it is a method or philosophy built on the principle that children create meaning through a relationship or link with literature (Edelsky, Altwerger, & Flores, 1991). Effective readers according to Whole Language advocates, depend wholly on contextual material rather than the study of individual words (Shapiro,

1992).

Whole Language is a philosophy of how children learn language - both oral and written language. The 'whole' is based on the four language arts components of listening speaking, reading, and writing (Weaver, 1994). Just as young children actively engage in the acquisition of their oral language development through interaction with the environment, so too do children learn to read within a Whole Language environment. The acquisition of children's literacy skills is seen as a natural process, according to Teale (1982), yet is not a process that is initiated in isolation. He observed that the acquisition of language coincided strongly with the social interactions between children and the individuals around them.

Language arts program in Quebec. Overall, the language arts program mandated by the Ministry of Education is based upon five general objectives that correspond to the Whole Language philosophy with emphasis on reading within a meaningful context. The first objective is that the student will view English as a dynamic and living language by responding to a wide variety of print in meaningful contexts (Government of Quebec, Ministry of Education, 1982, p 5). This point focuses on the teacher providing a climate of opportunities for students to be actively engaged in reading every day, as well as showing interest in books.

The second objective, the student will recognize the importance of interacting with peers and others by reading and responding to written material for specific purposes in meaningful contexts concentrates on the development of group interaction techniques (Government of Quebec, Ministry of Education, 1982, p 5). Students share their oral or written responses with their classmates.

The emphasis on the importance of learning strategies that unlock the key to reading success, supports the third objective that the student will develop effective language-thinking strategies by responding to and making sense of messages in a variety of written texts (Government of Quebec, Ministry of Education, 1982, p 6). The students are continuously involved in the learning of strategies on their own.

The fourth objective, the student will construct his/her view of the world by accommodating an author's message in the confirming or reshaping of his/her expression and response, maintains the understanding that there is interaction between the child and the author as the child tries to make meaning of the print (Government of Quebec, Ministry of Education, 1982, p 7). While focusing on the meaning, so will the student concentrate on the form and structure of the language, the spelling patterns, and the letter/sound system. In addition, active processes such as prediction help students augment their understanding.

Lastly, the student will develop an appreciation of the use and potential of the English language by enjoying and making judgments about written material in a variety of meaningful reading contexts through reading-like behaviors, and the development of criteria needed in order to choose books for pleasure (Government of Quebec, Ministry of Education, 1982, p 8).

Traditionally, reading instruction is left to the discretion of the teachers. As in any program where the development and instruction of a program is left to the devices of the teacher, differences may be detected not only between schools, but between classrooms within school settings. Similarly, the distinction between a Whole Language class, and the more laissez-faire class where children are left to their own devices, according to

Smith (1992), is a concern for Whole Language proponents. The inconsistency in the delivery of the philosophy may have lead to ineffective practices, and may possibly account for the poor findings regarding literacy that have occurred within the school system in Quebec.

The Institute for Education Reform (1998), a proponent for reform within the educational system, builds a strong case surrounding specific training and education of teachers-in-training in the use of this methodology. In particular, there is a focus on the use of diagnostic tools, as well as classroom management techniques that focus on working with students of varying reading ability levels. The failure to provide training and support for teachers has been an underlying issue since the inception of the Whole Language approach (Norris, 1995). Interestingly enough, The National Right to Read Foundation (1998), which leans towards the integration of Whole Language, concurs with the importance of teacher training, and adds that reading teachers should have an understanding of how the mind works and knowledge about the English linguistic system. Successful instruction can only take place if the teachers are comfortable and competent with the information to be taught, plan well, and scaffold the children's learning into effective learning units (Biemiller, 1994).

Research on Whole Language. It must be noted that while research on the effectiveness of the Whole Language approach is a little blurred at the best of times, this is partly due to the fact that it is a 'set of beliefs, not methods Ï (Edelsky, 1990, p. 8). Since many differences exist in terms of the actual definition, it poses large difficulties in the acquisition of data culminating in differential results (Adams, 1994). As a consequence, there are a limited number of quantitative studies conducted, especially at

the upper elementary grades. It seems that Whole Language advocates, who may prefer qualitative methodologies, may experience a certain skepticism for experimental data, which has resulted in a two-camp mentality (Reutzel & Cooper, 1990).

In addition, lack of data and proper methodological strategies exist in many of the articles written about Whole Language. In fact, Almasi, Palmer, Gambrell, and Pressley (1994) examined nineteen quantitative and six qualitative studies on Whole Language instruction. The results indicate that quantitative studies dealt with reliability issues yet failed to provide information concerning the issue of validity. The inability to substantiate the credibility of the data and the procedures used to determine categories were found to be the major weaknesses in the qualitative studies. The authors concluded with an appeal to "stimulate more and better research on Whole Language, both of the quantitative and qualitative variety" (1994, p. 201).

However diverse the definition, numbers of studies, and proper methodological strategies, Adams (1994) is not so quick to dismiss the Whole Language approach and the dilemma that has ensued. Throwing out the 'baby with the bath water' is not effective practice. Although the two-camp mentality may exist, there are various documented instructional practices that have resulted from this on-going debate.

Research into the benefits of Whole Language has demonstrated some interesting results. A meta-analysis conducted on the effects of Whole Language by Stahl and Miller (1989), concluded that Whole Language was most effective with kindergarten children in developing a conceptual base for reading through the use of quality literature. An up-date on the meta-analysis by Stahl, McKenna, and Pagnucco (1994), confirmed previously known information about the effects of quality literature, however the authors added that

the Whole Language approach tends to improve children's attitude towards reading rather than emphasize actual achievement. Although the Stahl and Miller (1989) study suggested positive effects in children's attitudes in the lower grades, these effects were soon lost as the students progressed to the upper elementary grades.

Since basal readers are not employed in this approach, the use of quality literature and a literature rich environment, according to Morrow (1992) and Pressley (1994), is a vital component of the Whole Language curriculum. Quality literature promotes literacy for all children, augments vocabulary, and allows children to observe the structure of stories, hence increasing their comprehension skills. Adams (1994) applauds the use of literature as opposed to the manner in which phonics has been taught in the recent past.

The increased motivation to learn to read was primarily demonstrated in Whole Language classrooms as compared to traditional settings (Turner, 1995). Through observations, the author concluded that motivated children demonstrated the use of learning strategies, persisted on tasks, utilized volitional strategies (e.g., moving away from disturbances), and help-seeking behaviors. However, it must be noted that students in the settings where they were occupied with the filling in of worksheets 77% of the time, did not activate any of the above-mentioned strategies. What this does say, is that the less-structured Whole Language programs, with the use of open-ended activities provide opportunities for the children to become risk-takers, and subsequently to become empowered learners.

Graham and Harris (1994) noted that the writing style of children from kindergarten to grade two who were immersed in Whole Language programs tended to improve over the school year compared to those in more skill-based instructional

classrooms. However, what was more noteworthy according to these authors, was that there was more effect on children's thinking about writing than the actual writing process itself. Perhaps this was due to the fact that children in Whole Language classrooms spent more time writing and had the opportunity to develop a feeling of ownership over what they produced.

The discussion of reading would not be complete without addressing the impact on reading comprehension. Although Stahl et al. (1994) stated that Whole language instruction does not impact on reading comprehension, they also argued that there were too few studies to show whether this was a significantly valid conclusion.

The Whole Language versus phonics debate. Although some of the elements of Whole Language have been shown to be effective (Goodman, 1986), gaps in this method of instruction have surfaced in recent years. It is impossible to pick up a newspaper or to listen to the radio or television without reading or hearing about the concern and debate over children's inability to read. The call for back-to-basics or the traditional methods of teaching has been a hot topic of discussion not only among educators, but among parents and students as well.

According to Pressley (1994), although research into the effects of the Whole Language method offers little scientific evidence that children learn to read and write as a result of this approach, nevertheless this point continues to be debated. Details of a study by Engel (1991), whose sole method of instruction was Whole Language, demonstrated that grade one students were unable to read at grade level. This result was corroborated by an overwhelming body of evidence stating that Whole Language is most beneficial for the kindergarten level students (Adams, 1990; Biemiller, 1994; Graham & Harris, 1994;

Morrow, 1992; Pressley, 1994; Stahl & Miller, 1989; Stahl et al., 1994; Vellutino, 1991). Effects for elementary-aged students are very rarely pronounced, and at times nonexistent; in fact, research on the comparison of a Whole Language and traditionally-based reading program found little difference in the children's reading ability at the grade six level (Adams, 1990; Biemiller, 1994; Graham & Harris, 1994; Morrow, 1992; Pressley, 1994; Stahl & Miller, 1989).

In a study conducted by Castle, Riach, and Nicholson (1994) comparing Whole Language and skill-based environments, the results of two experiments indicated that children who were aware of phonics outperformed other children in reading skills regardless of teaching approach. In the first experiment emphasizing spelling acquisition, the overall results indicated that although both the control and experimental groups improved in phonemic awareness, the experimental group generated more effective gains on spelling tests. The second experiment focusing on the children's reading acquisition demonstrated that the experimental group that received phonemic training fared better than the control groups on the reading tests.

It must be made clear that neither a primarily Whole Language or a phonics driven curriculum has been shown to be effective in teaching children to learn to read. In actual fact, this should not be a Whole Language versus phonics debate. Rather, the focus on educational research indicates that differing methods of instruction tend to suit different children (Simner, 1992), and thus a shift towards a more eclectic approach to reading is needed in order to meet the needs of all children (Biemiller, 1994; Carbo, Dunn, & Dunn 1986; Pressley, 1994; Slavin et al., 1994; Stahl et al., 1994; Vellutino, 1991). The attention paid to the effects of eclectic programs and reading has been quite positive and

encouraging. As previously stated, Stahl and Miller (1994), discussed the shift from student achievement to attitudes towards a Whole Language class, but added that the eclectic approach of combining Whole Language and phonics actually seemed to improve both the children's achievement and attitude.

Biemiller (1994) concludes, in his article on Beginning Reading, that a balance of techniques needs to be in place if children are going to learn to read. He states that learning within meaningful contexts is clearly necessary; however, in the process of becoming independent and self-regulated readers, word recognition skills must be an essential facet of the learning experience. Findings of a study with sixth grade students combining traditional and Whole Language strategies have corroborated these recent ideas (Looby, 1987). These children had improved on word recognition and comprehension skills, regardless of gender and ethnicity, when they received a combination of traditional and Whole Language curricula.

In fact, researchers with various philosophical backgrounds have attained consensus on the manner in which phonics should be taught: within meaningful context that mirrors the instruction found in the top-down approach (Adams, 1994; Chall 1983). Most notably, at-risk children who may experience alienation within school environments have been shown to benefit from a diverse language curriculum that offers them the likelihood of success (Stahl & Miller, 1989; Biemiller, 1993; Pressley, 1994; Vellutino, 1991).

It has also been concluded that at-risk children may actually need a more structured learning environment, especially if they have not encountered a literature-rich environment at home. Teale (1986) in his investigation of low-income families and

literacy found that parents read to their preschool children less than two minutes a day, sixty hours a year in total. Whitehurst et al. (1988) ascertained that preschool children who have been read to (e.g., direct the child's attention to detail) for six to eight months demonstrated higher levels of verbal acuity and command of vocabulary over a control group who had not experienced similar patterns of literature enrichment.

Low SES and minority children experience difficulty with decontextualized language (e.g., words, information within context) since they may come from homes where written language is used intermittently, as compared to children who have had the experience of being read to, and communicating within a conceptual framework (Heath, 1983; Juel, 1988; Stahl & Miller, 1989). Stahl and Miller (1989) emphasized that learning to read does not take place in households where books are not present, or where literacy is given less prominence and status. Children, in turn, who have received little or no early exposure to literature may need direct instruction in order to reach similar competency levels of more effective readers. There is evidence that these children, according to Pressley (1994), do better in structured reading programs than in Whole Language situations. Clearly the emphasis placed on the value of print from adults and significant others in a child's literacy development is imperative in providing tools for reading awareness and ultimately in reading development (Adams, 1990).

Now we turn to a recent approach to reading instruction called Success for All, which takes a more eclectic perspective.

Success for All

The shift toward an integrative or eclectic approach to reading that has gained momentum in the past few years, is at the heart of the Success for All (SFA) reading

program (Biemiller, 1994; Pressley, 1994; Stahl et al., 1994; Stahl & Miller, 1989; Slavin et al., 1994). Effective components of Whole Language, in combination with phonics, direct teaching, and cooperative learning strategies have been combined into a program that provides the basics to meet all children's needs. This program embodies the best practices in reading, taught within a framework of cooperative learning strategies (Slavin, Madden, Dolan, & Wasik, 1996).

Cooperative learning research has revealed that academic achievement is better accomplished when the students work in partnerships or teams, as colleagues work together to make sure that everyone has mastered the body of information (Slavin, 1996). It may be more satisfying and rewarding to work with peers towards a common goal than it is to work alone, as peer interactions promote positive, interpersonal relationships and attitudes, as well as self-esteem (Abrami et al., 1995; Newmann, 1989; Slavin, 1995). Motivational factors aside, the value of the interaction also benefits students as the chance for the teaching and discussion of material to peers presents opportunities for further clarification of subject matter (Abrami, Chambers & d'Appollonia, et al., 1990; Abrami et al., 1995; Johnson, Johnson & Holubec, 1990). In addition to the aforementioned criteria, Slavin (1995) and Slavin, Karweit and Madden, (1989) advocate the use of individual accountability. Individual accountability allows for each member to be responsible for the learning of the material, then individually tested on the material followed by the culmination of a group mark.

In addition, five critical components embody Success for All. The first is that children are regrouped across grades in homogeneous classes for reading instruction according to their reading abilities. This permits teachers easier accessibility to children

who are at similar reading levels (Slavin, Madden, Karweit, Dolan, & Wasik, 1992). The second component is regular 8-week assessments of the children's reading progress. This is a critical step in ensuring that the children's progress is observed, and adequate intervention strategies are incorporated if there is a need. If a child experiences difficulties in reading, the third factor, intensive one-to-one tutoring is introduced for twenty minutes a day until the child has mastered the reading concepts. One-to-one tutoring has been shown to be the most effective method of intervention with young children; the focus in Success for All is primarily on first grade children (Wasik & Madden, 1991; Wasik & Slavin, 1990). Problems that arise concerning issues such as negative student behavior and academic difficulties are referred to the Family Support Team, the fourth component, comprised of administrators, guidance counselors, parents, teachers, and community leaders, who develop a plan of action to best suit the needs of the student.

The fifth criteria centers on the fact that the initial training of the teachers is followed by implementation visits by specialists or facilitators trained in the curriculum content areas of Success for All. These visits are comprised of observations and feedback sessions that revolve around the next steps for teachers in reading and improvement in teaching techniques. In essence, there is continual communication of ideas and more effective methodologies based on research on learning to read.

Current research has shown that no one single approach can effectively meet the complex range of needs for at-risk children. However, the combination of early intervention, supportive curriculum, one-to-one tutoring, the integration of learning strategies, and parental support can certainly improve the achievement opportunities, and

has been proven to be effective for positive reading outcomes.

Reading curriculum. The two levels of reading instruction at the elementary level are Reading Roots and Reading Wings. During the 90-minute reading blocks, students are engaged in a world of quality literature and language (Adams, 1990), while teachers 'make their thinking public' using think alouds and thus model metacognitive strategies and intervention strategies. The key to success lies with the verbalization of the thinking process thus providing the students with the tools that will aid them on the path to self-regulation and independent reading (Wasik & Madden, 1995).

Reading Roots, which usually extends to the end of grade one, combines phonics, decoding strategies, builds receptive and expressive language skills by utilizing quality literature (Adams, 1990; Madden, 1990). Madden and Livermore (1990) add that this level is composed of three basic components. First, comprehension strategies are introduced at the receptive level. Teachers read literature and engage children in story-telling and retelling (STaR) with books that are more difficult than those the children would normally read on their own. Second, shared stories with a phonetically controlled vocabulary emphasize learned skills and real reading. This is achieved through the use of books that are designed with large print for students, smaller print for teachers, with the addition of pictographs that replace difficult words. The adult-sized print and pictographs allow for the inclusion of more advanced vocabulary and decoding strategies. Third, the development of receptive and expressive language skills, which is accomplished through the use of a vocabulary kit that provides opportunities for students to be exposed to new words and expressions.

From the primer level to grade six, Reading Wings, the focus of the present study,

is an adaptation of the Cooperative Integrated Reading and Comprehension (CIRC) curriculum (Stevens et al., 1996). It builds on "comprehension, thinking skills, fluency, and pleasure in reading" through a program built around quality novels or basal readers (Slavin et al., 1992, p 13). This is achieved through such components as cooperative learning, partner reading, story structure and story-related writing, vocabulary, spelling, and augmented with tests at the conclusion of each novel or basal series.

The curriculum is organized into three main activities of Listening Comprehension, an interactive reading program: Reading Together, involving the teaching of concepts through the use of novels and or basal readers; and Book Club or Additional Skills. Listening Comprehension promotes interaction among students with direct teaching of story structure skills such as setting, main ideas and parody while teachers read aloud with expression incorporating higher order thinking skills and questioning techniques. In addition, exposure to the various genres of literature such as expository text and poetry are but two of the examples utilized during this time.

The format for Reading Together follows the same sequence of instructional events. The first is the direct teaching of literary concepts followed by team practice. Students use Treasure Hunts, specifically created for each novel, incorporating the practice of concepts, answering of summative and predictive questions, writing and retelling activities. Individual practice ensues proceeded by peer pre-assessment, whereby partners ready themselves for the final test. After the final test, teams are then awarded points based on completed tasks, homework, and behavioral and cooperative learning criteria. Reading Together concludes with a 2-minute edit that focuses on writing mechanics.

The last fifteen minutes of Reading Wings is comprised of either Book Club, Sustained Silent Reading (SSR) or Additional Skills. Book Club allows the students to share their ideas and theories relating to a book with their classmates in various manners from the conventional book report to more elaborate presentations such as puppet shows, and dramatic presentations. In addition, homework consists of twenty minutes of reading each night where the students are required to write a response to what they have read. Sustained silent reading, or 'reading in your head' (Trelease, 1995, p. 199), one of the more effective reading interventions (Krashen, 1993), allows the students to read without interruption for fluency, communicate with the text, and enjoy the act of reading. Since testing can be a major portion of school time especially in the United States, time can be taken to demonstrate test taking skills, as well as work on areas that need extra attention such as reading skills and intervention strategies. In short, SFA is a structured and rigorous reading program that incorporates a systemic approach to teaching reading.

Research on SFA. Although most of the research comes out of Johns Hopkins University, there are a few independent research projects that have been conducted throughout North America, namely at the University of Memphis in Tennessee, and Concordia University in Montreal, Canada. Longitudinal studies have been in place in six schools in Baltimore and Philadelphia, and continue to provide on-going data to assess the effectiveness of the program.

Overall, the method of evaluation employed is similar in nature. Experimental and control schools are matched on such criteria as historic achievement level, ethnicity, and poverty, which is measured by the calculation of the number of free lunches provided for the students (Slavin, 1993). For the sake of consistency, only children who have been

involved in SFA since kindergarten or grade one are included for the analyses. Children are matched using a district administered measure or the Peabody Picture Vocabulary Test-Revised (PPVT-R) (Dunn & Dunn, 1981), which assesses vocabulary acquisition. Analysis of covariance with pretests as covariates are used to compare raw scores, with separate analyses for students in general, and those that fall within the lowest 25% of their grade level (Slavin et al., 1996; Slavin & Madden, 1993).

Achievement is measured by the use of standardized measures, individually administered to the children. The Durrell Analysis of Reading Difficulty focuses on comprehension (Durrell & Catterson, 1983). The three subtests of the Woodcock Reading Mastery Tests-Revised (WRMT-R) investigate word attack skills, knowledge of phonics, and comprehension within context (Woodcock, 1987).

Overall, there have been positive gains and outcomes for reading achievement in all schools that have been involved in the SFA program. The results of the multi-site experiments conducted between 1988-1994 demonstrated that there were positive effects for students in grades one to five in the experimental sites, and effect sizes at half a standard deviation for each grade level. The research was particularly strong in demonstrating effects for the lowest twenty-five percent of children where the effect sizes ranged from +1.03 in grade one to +1.68 in grade four (Slavin et al., 1996).

As far back as 1988, Slavin and associates in the pilot school in Baltimore indicated that students in the SFA program attained higher achievement scores. Although children in kindergarten, grades one and two performed well, the most dramatic improvement was to be found at the grade three level. The experimental site children read on average at 3.6 grade level compared to control students who achieved the 2.5 grade

level. The lowest twenty-five percent of experimental children emerged at the 2.7 grade level compared to control children at 1.9 grade level. These findings suggest early gains in reading ability take some time to consolidate, but demonstrate the effectiveness of the program by the time children are in grade 3. In addition to the reading gains, absenteeism rates were lower and children apparently were more interested in attending the SFA schools.

The University of Memphis data have also been very positive and encouraging. Ross and Sanders (1998) conducted research independent from Johns Hopkins University comparing the progress of eight Roots and Wings schools, of which SFA was a component of control and district schools over a two-year period. The outcomes were consistent with previously cited SFA research findings: the experimental schools growth in the second year of implementation were significantly more pronounced than in the comparison schools.

SFA research in Montreal. Following the model of earlier SFA research, a study was conducted in Montreal (Chambers et al., 1998). The data collection in Montreal took place at one school that implemented SFA, with the inclusion of three control sites. Results demonstrated that SFA students scored significantly better on the reading measures compared to control students. In particular, the SFA students scored higher on the Word Identification and Word Attack subtests of the Woodcock Reading Mastery Test, as well as on the Durrell Analysis of Reading Difficulty. In addition, special needs children in the SFA school scored higher on the two subtests of the Woodcock Reading Mastery Test than the control children.

In sum, although the results of the SFA research suggest the effectiveness of the

program, there has been some criticism directed at the effects of the program in the past year. Most recently, Walberg and Greenberg (1998), suggested that Slavin utilized testing materials that support the program thereby negating any gains found, hire SFA staff to score the measures, and cite only the positive results rather than reporting negative outcomes. Further, two studies were analyzed in the article demonstrating the ineffectiveness of the program. In response, Slavin has contested that the criticisms were unfounded since they hire researchers outside of Johns Hopkins University in order to alleviate these biases. As for the two studies, the one school never fully implemented the program, while the other study disclosed that although the grade five children were not on grade level for reading, they had made substantial gains over the control schools Ò a factor not taken into account by Walberg and Greenberg.

Nevertheless, Success for All still continues to be one of the most researched restructuring programs in the educational field at this present time. Notwithstanding the positive results and the power of replicability, SFA research has not delved into an essential component of learning - the causes to which we attribute our success or failure. The next section will examine the roles these perceptions take in the learning process.

Attribution Theory

Researchers have found that there are a host of causes to which children may attribute their successes or failures. Circumstances that affect children's lives outside the academic milieu such as illness, single parent households, and neglect, are possible causes that play a part in the development of self-perceptions. Within school or achievement settings, children may look at such causes as intelligence, type of schooling, assistance from teachers and parental involvement as possible sources of self-perceptions.

In addition to the possible causes that may be attributed to success or failure, Pintrich and Shunk (1996) further this discussion by describing favorable conditions that if present, would more than likely permit an individual to seek out attributions. For example, a good student who experienced prior competency in school achievement would not engage in an attributional search due to continuous successes. However, if an unexpected event such as failure on an exam should occur, then this student might engage in a search about the reasons why failure occurred. Negative outcomes to events would also lead a person to seek out attributions, however, focusing primarily on the perceived causes of failure. An event or outcome that would be considered important to an individual would also trigger a search, in addition to new situations where prior knowledge is not present.

The four most common explanations of success and failure within school settings that will be given attention in this thesis are effort, ability, luck, and task difficulty, of which ability and effort are the most salient (Weiner,1986). According to Weiner, the perceived causes of success and failure can be classified into three dimensions: (1) locus of causality (internal versus external); (2) stability (stable versus unstable); and (3) controllability (controllable versus uncontrollable). Each dimension maintains a bipolar continuum, classified at each extremity as internal-external, stable-unstable, and controllable-uncontrollable (Weiner, 1986).

Attributional dimensions. The locus of causality relates to the concept that success and failure can be attributed to internal influences ("me") or to external influences ("not me") (Hunter & Barker, 1987). Examples of attributions to the internal locus are ability, effort, and mood, since they originate within the person. Luck and task difficulty are

considered external attributions since they originate outside the person (Bar-Tal, 1990). Ability and effort, although similar in locus, are dissimilar in that ability is uncontrollable and stable while effort is controllable and unstable.

Attributions of success to internal causes of ability and effort result in feelings of pride, self-esteem, and confidence (Bar-Tal, 1978; Weiner, 1994). Success in relation to ability and effort says that "I can do it, and expect to do well in the future". De-Santi and Alexander (1986) found that the internal locus of control was associated with reading achievement, attitude towards reading, positive self-concept, and personal responsibility for academic outcomes. However, although success attributions were related to ability, Kurtz-Costes and Schneider (1994) found that they were not always a direct predictor of achievement.

Attribution of failure to a lack of ability however takes on a different meaning. Lack of ability discloses that "I cannot do" and invokes feelings of stupidity and therefore "why should I try". Failure ascribed to a lack of ability, which is internal, stable, and uncontrollable, elicits an attitude of "I cannot", produces shame and embarrassment and in turn elicits performance decrements (Bar-Tal, 1978; Weiner, 1994). Failure ascribed to a lack of effort, which is internal, unstable, and controllable, elicits feelings of guilt and the attitude that "I need to try harder next time" producing performance increments (Weiner, 1994).

Stability, the second dimension, was conceived by Weiner et al. (1978) as a answer to the fluctuation among the internal causes of behavior. The stability dimension relates to whether causes remain constant (stable) or change over time (unstable). Causes that are perceived as unstable are effort and luck, while stable causes are ability and task

difficulty. Weiner's expectancy of success is determined by the stability of causes (Bar-Tal, 1990). Success attributed to stable causes is the ideal because this allows for the expectancy of continued success. On the other hand, failure attributed to unstable causes may encourage the possibility of future success since unstable causes have the tendency to change. However, failure ascribed to stable causes is not as hopeful since failure is expected to continue over time.

The third dimension of controllability refers to causes that are subject to the volition of the individual. Effort is the one behavior that is mostly under an individual's control while ability, task difficulty, and luck are uncontrollable since they cannot willfully be changed. Effort is expended when the belief is that effort will influence future results. However, when success or failure is attributed to ability, task difficulty, or luck then the chances are that effort expenditure will diminish. Since low ability is seen as uncontrollable, a belief system is built upon the perceived notion that one can not alter the course of failure.

In recent literature on attribution theory, a fourth dimension, that of intentionality has been raised. Intentionality is not as easy to classify as the three other dimensions, since it usually does not refer to a cause; it would be difficult to state that someone's ability or lack of ability is purely intentional. However, we can certainly view acts as intentional. According to Weiner (1986), intentionality should be categorized under controllability, however, the relationship between intentionality and controllability needs to be clarified in further research.

Interestingly, a lack of ability that is uncontrollable, elicits sympathy and consequently a lack of punishment from fellow students, although shame and

embarrassment leading to performance decrements is the likely outcome. Reaction to a lack of effort elicits anger and punishment from peers since it controllable. Feelings of guilt ensue followed by performance increments (Weiner, 1994). Meyer et al. (1979) and Graham (1984) created a scenario that involved teacher reaction in the form of either anger or modest attention to student behavior. Peers perceived that the child who received a negative response (anger) from the teacher deserved the behavior because there was a lack of effort involved on the student's part. However, they also perceived that the student who had received the anger was higher in ability than the student who had received little recognition for failure.

Developmental influences. In addition, age-related changes need to be considered when focusing on attributions, since children at distinctive stages in their lives ascribe performance to varying causes (Shell, Bruning, & Colvin, 1995; Stipek, 1993). According to Stipek (1984), Nicholls (1979, 1984), and Wigfield (1988), children in the early elementary grades tended to be extremely positive in their achievement related cognitions (e.g., causal attributions, expectations for success) and did not seem to differentiate between effort and ability with regards to outcome. In fact, ability and effort were seen as synonymous: effort implies learning that is equated with ability, while greater effort implies higher ability (Nicholls, 1984). Dweck and Bempechat (1983) stipulated that although the separation between effort and ability is less noticeable at this young age, it does not mean that children will not equate disapproval with unworthiness. Failures may indicate that they are 'bad' and in the future may exhibit difficulty with experiencing negative outcomes.

As children reach middle childhood, a more socialized viewpoint with regards to

success and failure takes place (Dweck & Leggett, 1988). In a study conducted by Wigfield (1988) the results indicated that 12-year-old children have developed a very adult-like view of success and failure: older children attributed success more to ability and failure to a lack of ability. In fact, the perception of their achievements takes on a whole new hue as more information is internalized and used to explain their performance within a given task. Since effort and ability are inversely related, when ability is thought of as capacity, then higher effort in a task can actually imply lower capacity. If an adolescent expends as little effort as possible, it is unclear as to his or her ability level since low effort can be used as an excuse for failure. Feelings of guilt are much easier to bear than feelings of shame and humiliation associated with lack of ability ("I look stupid") (Jagacinski & Nicholls, 1990).

In addition to the changes in the attributions of effort and ability, children vary in the manner in which they may explain their successes and failures. For instance, children who equate their successes with high ability and failures with little effort or a difficult task have developed mastery-oriented attributions. They rebound from any failures and continue to be persistent in their efforts to learn. On the other hand, some children develop learned helplessness patterns of behavior that are debilitating since they attribute success to luck and failure to low ability (Ames, 1984; Dweck & Bempechat, 1983; Elliot & Dweck, 1988; Seligman, 1975). In turn, they also believe that ability is fixed, and therefore give up before they have even tried (Elliott & Dweck, 1988). As children mature, a greater number of them will attribute failure to a lack of ability (Wigfield, 1988). Apparently, older children's increasing cognitive development allows them to observe and recognize limitations that had not been so evident to them in earlier years.

When viewed from both angles, learned helplessness can become a more problematic concern for educators. In actual fact, children who have developed these types of behaviors fail to acquire and maintain metacognitive as well as self-regulative behaviors that will aid them in becoming successful readers (Berk, 1994). On the basis of findings from studies by Heyman and Dweck (1992) and Thompson, Davidson, and Barber (1995), the cycle of failure will continue to persist as children continue to choose less challenging tasks in order to insulate themselves from the constant failures that afflict their lives. When tasks that result in poor performance are thought to reflect low ability, the likelihood is that poor performance will follow, while an attribution to external factors is prevalent. Jagacinski and Nicholls (1990) and Nicholls (1990) attribute this self-preservation modality to be a consequence of the fear of poor performance: it is better to diminish the level of effort than to appear foolish in front of one's peers.

Attributions and low socioeconomic status. Lower socioeconomic status (SES) home environments, where goals and values may not be in keeping with school goals and values, place children at a disadvantage when compared to children who come from higher SES brackets homes where education is often given a place of importance. In a meta-analysis conducted by Cooper and Tom (1984) the results indicated that lower SES students have been shown to exhibit a weaker achievement drive as compared to higher SES students. Plausible causes for the differences between class structures are differences in child rearing practices, and an emphasis on achievement and mastery training. Although research has indicated that socioeconomic status is a more important determinant of achievement motivation than race or ethnicity (Cooper & Tom, 1984; Klonsky, 1990), nonetheless there are cultural differences that may be influential. Studies

by Aaron and Powell (1982) and Irvine (1986) have shown that teachers communicate in a more negative fashion towards black children as compared to white children. Children from ethnic minority families may also have the tendency to give up easily if they observe significant adults in their lives are less than rewarded for their achievement efforts.

Attributions within competitive/noncompetitive environments. Studies by Ames (1978, 1981, 1984), Ames and Felker (1979), Ames and Ames (1981), and Nicholls (1975, 1979) contend that there is a link between the achievement effects of competitive and noncompetitive environments, and, in particular, attributions concerning ability and effort. Competitive classrooms where the rule is 'to win' increases the perceptions of the role of ability and luck as factors of success and/or failure as well as the awareness of one's performance. For instance, winning at a task is associated with perceptions of high ability, whereas losing promotes humiliation and low ability and consequently the feeling of shame. Cooperative reward contingencies not only allow for higher self-esteem but for higher achievement and interpersonal relationships (Slavin, 1977). Positive effort attributions such as "I did not try" were more prevalent within classrooms that promoted individualistic conditions.

In a study of attributions within contrasting reward structures by Ames (1978; 1981; 1984), Ames and Ames (1981), and Ames and Felker (1979), paired grade five and six students were assigned to individual, and then to group reward structure settings. The condition format necessitated that within the pairing one member perform at a higher level than the other partner on a puzzle task (e.g., high and low performers). Four questions, each representing one of the four common attributions of ability, effort, luck, task difficulty were included as follows: (1) How smart do you think you were in solving

the puzzles?; (2) How hard did you try to solve the puzzles?; (3) How hard did you think the puzzles were to solve?; and (4) How lucky did you think you were in solving the puzzles? Children were then asked to rate their performance, as well as the performance of their partner.

The results of this study were consistent with work previously conducted by Nicholls (1979), Ames et al. (1977), and Ames and Felker (1979). In the final analysis, teams who won within a competitive setting focused more on ability and luck attributions, while losing teams experienced lowered perceptions of ability. In addition, the winners within this setting judged themselves on a higher scale of performance and more deserving of reward than nonwinners. In contrast, members of a successful cooperative group experienced more helping and sharing behaviors, in addition to more effort attributions. What is a key issue however, is that less successful cooperative teams actually demonstrated negative attributional attitudes towards the competitive structures, and thus experienced lowered performance expectations similar to those who fail within a competitive structure.

Recent research by Chambers and Abrami (1991) obtained similar results to the aforementioned studies. Their major hypothesis that team outcome would be positively related to individual achievement was confirmed when members of successful teams did in fact rate their ability and luck attributions higher than unsuccessful teams. Student perceptions of ability, effort, task difficulty and luck on a task were measured by the administration of a Likert scale that ranged from 'not at all' to 'very much', and concluded that effort was the single most significant cause related to their individual achievement. The results of these studies, Chambers and Abrami contend, give rise to

implications for the use of a between-team reward system within a cooperative situation. When all groups reach a goal and the whole class is rewarded, this may guarantee the elimination of winning and losing conditions, and thus positively encourage achievement and attributions towards success.

Attributions and reading. There is a moderate body of work that concerns reading and attributions that result from the success or failure of learning to read. The overall results of the research support the theory that those who read well exhibit more positive self-concepts and attributions than those who were categorized as poor readers ((Jagacinski & Nicholls, 1987; Morrow, 1987; Russ 1989; Wigfield & Guthrie, 1997). Poor reading performance will become more apparent as children experience negative outcomes, which in turn will affect future expectancies as children put less energy into the process of learning to read (Dweck & Bempachat, 1983; Lipson & Wixson, 1991). As one can ascertain, patterns of positive or negative behaviors towards reading have the opportunity to develop.

According to Frieze and Weiner (1971), the environment in which reading takes place can affect the development of achievement attributions. The attributions of success and failure of students in high and low reading achievement groups were studied according to their reactions to two reading conditions of reading for pleasure and reading for evaluation. Three major results were found by Hiebert, Winograd, and Danner (1984). Firstly, the sixth grade student's locus of control scores varied across situations, while third graders scores did not. Secondly, two attributional causes of studying and paying attention were more salient than ability, luck, and task difficulty. Finally, the age of the students and achievement interacted with low-achieving third graders giving higher

ratings to causes than their peers who were high-achievers, whereas low and high sixth graders did not differ in their attributional causes.

Apart from the research mentioned above, recent research by Shell, Bruning, and Colvin (1995) compared high and low achievers in relation to their reading and writing performance. The results indicated that low achievers seemed to have developed unrealistically high outcome expectancies that were not in line with actual achievement, while on the other hand ascribing attributions to external or uncontrollable factors. In particular, although low achievers rated effort as important as high achievers, they may have developed a contingency plan in order to protect themselves from the effects of failure.

Another important contribution to the effects of reading of high and low achievers by Hiebert, Winograd, and Danner, (1984) demonstrated that attributions to effort were high regardless of the level of reading outcomes in sixth grade children. These findings are not in keeping with attribution theory where low achievers frequently attribute their successes to factors beyond their control, and failures to a lack of ability (Bar-Tal, 1978). This may actually necessitate the need to further differentiate the definition of effort since children may utilize the overall definition distinctive to their own needs and not within context of the given situation within the research (Hiebert, Winograd & Danner, 1984).

Attributions and Whole Language and Success for All. A survey of the literature did not reveal research on Success for All and attributions, while at the same time uncovered limited information on attributions and Whole Language. The need for this type of research is essential since children's perceptions of their reading achievement is strongly correlated with their success and failure within the school environment (Hiebert

et al., 1984; Shell et al., 1995).

Elements of Success for All and attributions. There are specific elements to SFA that it is argued will help children to develop perceptions regarding their success or failure in reading. These elements may or may not be present in Whole Language classrooms, however, they are integral to SFA and provide the rationale for the hypotheses in the present study. In particular, the work or tasks that the students accomplish within an SFA reading class are more structured than what is normally found within a Whole Language curriculum, as defined by the Quebec Ministry of Education. Although the teaching of Whole Language can take on different interpretations within school settings, the average class according to Goodman (1986), relies on the provision of child-centered environments. In particular, students are immersed in a literature rich environment that is based on their prior experiences.

In a typical SFA class, however, there is no assumption that at-risk students enter the school environment with the prior knowledge that would enable them to be successful readers - this criteria along with others that augment strategic reading skills are built into the reading program. For example, the Reading Wings component is much more well defined by the actual structure and implementation of the reading program than is the typical Whole Language method. The SFA teacher instructs a 5-day well-organized program that is essential to follow if children's gains in reading are to be evident. The academic objectives for each segment of the program are clear, distinct, and follow a prescription of a step-by step methodological plan providing children with clear expectations about daily tasks related to reading.

As for the students, the reliance on teamwork ensures that all teammates are

immersed in the reading process at all times for the duration of the 90-minute reading block. Based on a story or basal reader, they are asked to discuss and support predictions and structural components, read and master specific vocabulary words, as well as work on the development of word attack skills. Silently reading the story and then reading aloud with their partner allows for a more complete understanding of the content as the children can help each other if issues arise with comprehension. After reading, comprehension questions follow that require students to discuss and write answers that focus on story structure, and then develop a written story on a topic related to the book or basal. Again, these structured, distinct, teaching strategies provide students with clear strategies to become successful strategic readers.

The tests that accompany the SFA program require an 80% or more mastery level. For example, the Words Out Loud test requires that the students read the vocabulary words, and the Word Meaning test asks each student to write a meaningful sentence with words that demonstrate that they understand the meaning of the vocabulary. The test scores at the end of each unit are used as an evaluative tool for the weekly team scores that each team receives. If the overall score of a team is 90% or more then the team receives a Super Team award status; if the team receives 80% or more, then Great Team status is involved; and if a team receives 70% then Good Team is awarded. The use of the tests gives students and teachers a clear picture of the current level of the children's reading ability.

Partners are involved with assessing each others' progress and are consistently asked to check each others' work. Students learn the flow of the program and the progression of each segment within the program. Students have definite expectations as

to what they need to complete on each given day. Clearly the students have a firm understanding of where they fall within the reading spectrum within the classroom environment.

In accordance with review and evaluation, after each eight week period there is an assessment that takes place. This assessment allows for the tracking of each student's progress within the program, and if needed one-on-one tutoring is provided. In conclusion, these elements of SFA discussed above provide the rationale for the prediction that SFA students will perceive their success or failure in learning to read differently than the control students.

The Present Study

The participants of the present study were a part of an original project that had been initiated by a research team at Concordia University (Chambers et al., 1998). The purpose of the project was to investigate the effects of Success for All on children's achievement and self-concept. Following from the larger question, the present study was designed to examine causal attributions for reading achievement of children in a Success for All reading program compared to children in a conventional Whole Language reading program. In order to investigate attributions, children's beliefs were assessed using The Causal Beliefs about Reading Questionnaire. The two measures of reading achievement (i.e., Durrell, Woodcock), that were administered at pretest and posttest sessions, were used as covariates. The measure for attributions was administered at the post-test session only.

Hypotheses:

The following predictions were investigated. See Table 1 for a graphic representation of

the hypotheses:

Ability. In general, perceptions of failure due to low ability by both SFA and control students will only be accelerated by the fact that ability is seen as stable. Thus, failure ascribed to stable causes does not lead one to be hopeful since failure is expected to continue over time. The lack of ability discloses that that 'I cannot do' therefore 'Why should I try?' perceptions and behaviors. This, according to Bar-Tal (1978) and Wiener (1994), will elicit performance decrements. In addition, some children develop learned helpless attribution patterns that are debilitating since the children attribute success to luck and failure to low ability (Ames, 1984; Dweck & Bempechat, 1983; Elliot & Dweck, 1988; Seligman, 1975). In turn, they also believe that ability is fixed, and therefore they may give up before they have tried a given task (Elliot & Dweck, 1988).

Given the above literature, it is hypothesized that students within the SFA program who are not successful in reading will rate their ability (internal, stable, uncontrollable) lower than control school students who are not successful in reading. Perceptions of failure will be more predominant for unsuccessful SFA students since SFA is a more pervasive and comprehensive program than the Whole Language curriculum with likely higher expectations of success by SFA teachers, parents, and students. Because the SFA research indicates students in SFA learn to read, perhaps this added burden of the expectation of success might hinder some student's perceptions of their ability if they do not learn to read.

On the other hand, it is expected that students who are successful in reading in both the SFA schools and in the control schools will attribute their reading achievement to similarly higher levels of ability. According to the research, successful students who

perceive themselves as high in ability will perceive themselves as able in all facets of academia regardless of program (Weiner, 1984; Bloom, 1985). Success attributed to stable causes is ideal since this allows for the expectancy of continued success.

Effort. Effort, which is internal, unstable, and controllable, is expended when the belief is that effort will influence future results positively. Also, Teale (1986) and Whitehurst et al. (1988) ascertained in their research that the benefits of a structured program for at-risk students are quite powerful. In particular, the aspects of structure that may be more present in an SFA classroom than a Whole Language classroom are a predictable schedule of covering the program components, team-work, and a step-by-step presentation of the curriculum. This structure of the SFA program may permit some students to feel comfortable and secure in the learning environment, thus permitting them to believe that their effort will be rewarded.

It is hypothesized that SFA students who are successful in reading will attribute their success to a higher effort expenditure than successful readers in the control schools. Although all successful students will expend the effort to achieve in reading (Weiner, 1986), SFA students will perceive themselves as expending more effort than control students, since the SFA program is dependent on more structured activities than are found in a more conventional classroom as mentioned above. Thus the more structured SFA program facilitates perceptions of effort for successful readers.

Failure ascribed to a lack of effort, may elicit feelings of guilt and shame and clear performance expectations. In contrast to successful readers, non-readers may feel shame due to their poor performance, therefore they may have less motivation to work harder. This may be evidence of the self-preservation modality (Nicholls, 1978). Thus the

consequence of the fear of poor performance leads to lowered effort in unsuccessful readers. Therefore, it is hypothesized that effort expenditure in both conditions will be perceived at similar levels. In other words, although the SFA and Whole Language programs are dissimilar in design, the unsuccessful students in both treatment conditions will perceive that they place equally low effort into their reading program.

Luck. In general, the nature of a program like Success for All that involves components such as continuous weekly testing and eight-week assessments, readily reinforces the idea that one cannot succeed primarily through luck. The structure of the program that necessitates students to follow a prescribed pattern of components allows little room for students, in particular successful readers, to perceive that luck has played a role in their success in learning to read. Therefore, it is hypothesized that successful students in the SFA program will be less likely to attribute success to luck than the control students since the SFA students perceive themselves as able and having put much effort into their work. Therefore, they will perceive their attribution to luck to be at lower levels than the control students.

In contrast, unsuccessful students will be more likely to attribute their failure to 'bad luck' (Ames, 1984; Dweck & Bempechat, 1983; Elliot & Dweck, 1988; Seligman, 1975). Specifically, it is hypothesized that due to the structure of the SFA program the unsuccessful SFA school students will rate luck lower than the unsuccessful control school students. This prediction is based on the fact that the possibilities of succeeding by chance in the SFA program are very low.

Task difficulty. According to Weiner (1986), the perceived difficulty of a task is dependent on an individual's ability and effort expenditure. Successful students have

been shown to exert greater effort and perceive themselves as higher in ability than unsuccessful students (Weiner, 1996). However, since SFA promotes more work-oriented activities in a pre-determined sequential order within a more structured program than is found in a typical Whole Language classroom, SFA students will perceive the tasks as more difficult than the control students. Therefore, it is hypothesized that students in SFA who experience success in reading will rate task difficulty (external, stable, and uncontrollable) at a higher level than successful students in the control schools.

It is predicted that unsuccessful students in both conditions on the other hand, will perceive the task as difficult since their perception of their ability may not be as highly integrated as successful students. In other words, there will not be any differences in the way the two groups perceive the task difficulty of learning to read. In addition, on the basis of findings from studies by Heyman and Dweck (1992) and Thompson, Davidson, and Barber (1995), the cycle of failure will likely continue to persist as children continue to choose less challenging tasks. When tasks that result in poor performance are thought to reflect low ability, the likelihood is that poor performance will follow.

Table 1

Summary Table of Hypotheses

	Success for All	Control
Success	Ability: perceive ability at similar level as control group Effort: perceive effort level > than control group Luck: perceive luck < than control group Task: perceive task as > difficult than control group	Ability: perceive ability at similar level as experimental group Effort: perceive effort level < than experimental group Luck: perceive luck > than experimental group Task: perceive task as < difficult than experimental group
Failure	Ability: perceive ability < than control group Effort: perceive effort at similar level as control group Luck: perceive luck < than control group Task: perceive task at similar levels as control group	Ability: perceive ability > than experimental group Effort: perceive effort at similar level as experimental group Luck: perceive luck > than experimental group Task: perceive task at similar levels as experimental group

METHOD

Participants

The research project was conducted within four schools serving lower SES multi-cultural populations in Montreal, Canada. A subset of these subjects was used for this study. A total of 197 subjects ($n = 197$) in grades four to six participated in the study, 89 of whom were experimental students, while 108 were control students. There were 49 boys and 40 girls in grade four; 28 boys and 24 girls in grade five; 23 boys and 33 girls in grade six. In the experimental school, there were two classes of children identified with a learning problem ($n = 29$), while there were 9 coded children mainstreamed in the control schools. These children were identified according to the official codes of the Ministry of Education.

Procedure

In the fall of 1993, the Centre for the Study of Classroom Processes (C.S.C.P.) conducted a Success for All workshop in order to introduce the reading program to administrators from local school boards. A second meeting was later scheduled with Robert Slavin of Johns Hopkins University, attended by various personnel from the school boards, including elementary school principals and teachers. Although a few principals expressed interest in the project, one of the principals persisted, and consequently her school became a Success for All site. In order to facilitate testing, letters of consent were subsequently distributed to the children in all schools in order to acquire parental permission to participate in the study.

Success for All training took place in the winter of 1995. The program was then implemented in kindergarten and grades one to three including junior learning disabled

classes (LAD Jr.). Grades four to six and the senior learning disabled classes (LAD Sr.) have been involved in the program since September 1995, and constitute the sample for the experimental group in the present study. In the control schools, it was assumed that the teachers implemented the Whole Language curriculum because it is the Ministry mandated language arts program. Observations of the control sites language arts programs were not conducted, thus it is not possible to make statements about the actual implementation.

The broader study (Chambers et al., 1998) examined achievement through the use of individually administered measures. The students from grades four to six were administered the Durrell Analysis of Reading Difficulty (Durrell, 1980), the Woodcock Reading Mastery Tests-Revised (WRMT-R) (Woodcock, 1987), and the Peabody Picture Vocabulary Test-Revised (PPVT - R) (Dunn & Dunn, 1981). Information on self-concept was gathered through group administration of the Self-Perception Profile for Learning Disabled Students (Renick & Harter, 1988), however, this information was not used in the present study. All the preceding measures were administered in September 1995 and again in May 1996. The attribution measure, The Causal Beliefs About Reading Questionnaire, designed to determine children's attributions regarding success and failure in reading, was adapted from Chambers et al. (1991), and group administered in May 1996.

Measures

The Causal Beliefs about Reading Questionnaire. The attribution measure administered to the children for this project was a revised attribution measure based on the Beliefs about Learning Questionnaire developed by Chambers et al. (1991). The

Chambers et al. questionnaire is an adaptation of the measure developed by Ames and Felker (1979), and Ames (1981). It asked children to evaluate their own performance related to their perception of success or failure in reading with regards to the four common explanations of ability, effort, task difficulty and luck. In sum, there were eight questions based on a Likert scale, two for each attribution in order to control for response bias. The Likert score sheet items consisted of the numbers from 1 to 9, and the students were asked to circle one number that best represented their perception of their reading achievement over the past school year.

For effort, the questions asked, "How hard do you try to do well in reading?"/"How much effort did you put into your reading?" with the range of answers extending from "not hard" to "very hard" and "no effort" to 'a lot of effort'. The questions for ability asked, "How smart do you think you are in reading?"/"How bright do you think you were in reading?", the response extending from "not smart" to "very smart" and "not bright" to "very bright". "How lucky do you think that you are in reading?"/"How much did chance play a part in your reading?" were the two questions related to the attribution of luck, with "not lucky" to "very lucky" and "not at all" to "very much" at the extremes. "How hard was reading for you?"/"How difficult do you think reading was?" were related to task difficulty with "not hard" to "very hard" and "not difficult" and "very difficult" as the choices. See Appendix A for the measure.

Reading achievement measures. The children's reading achievement was measured at pretest by the administration of the Durrell Analysis of Reading Difficulty (Durrell and Catterson, 1984), and the Woodcock Reading Mastery Tests - Revised (WRMT- R) (Woodcock, 1987. The Peabody Picture Vocabulary Test - Revised (PPVT-

R) (Dunn & Dunn, 1981) a diagnostic measure was also administered at pretest.

(a) Durrell Analysis of Reading Difficulty (Durrell & Catterson, 1984). The subtest, Oral Reading, concentrates on the overall level of reading achievement using various levels of difficulty in the paragraphs. There is a correlation of .85 between paragraphs. An example is found in Appendix B.

(b) Woodcock Reading Mastery Tests - Revised (WRMT - R) (Woodcock, 1987). The Woodcock subtests range from letter investigation (Letter Investigation), word identification (Word Identification), and phonics knowledge (Word Attack) to questions concerning a student's knowledge base of contextual clues (Passage Comprehension). The reliability classification is from .84 to .98 on all subtests. An example is found in Appendix C.

(c) Peabody Picture Vocabulary Test -Revised (PPVT- R) (Dunn & Dunn, 1981). The PPVT-R, a diagnostic tool, examines a subject's receptive language utilizing standard American English. An individual's knowledge of vocabulary has been documented as the single best indicator of success in school (Dunn & Dunn, 1981). The PPVT-R has test reliability for raw scores ranging from .73 to .91. An example is found in Appendix D.

RESULTS

In the section to follow, the results of the descriptive statistics regarding the posttest measures and hypotheses are presented. All tables are found at the end of the Results section.

Descriptive Statistics

In Table 2, the means and standard deviations of the posttest measures are presented. The mean pretest PPVT score demonstrates quite clearly that this sample is within an average range, however, the standard deviation is large therefore indicating that there is a wide range of abilities of children in this sample.

Table 3 illustrates the correlations between the achievement measures used at the posttest. All these measures were significantly positively correlated indicating that they may have measured a similar underlying construct. This, in turn, provides a basis for the subsequent factor analysis designed to create a single factor of reading.

The correlations found in Table 4 measured the associations between the eight questions on the Causal Beliefs About Reading Questionnaire. Questions 2 (Q2) and 8 (Q8) both measured attributions about effort, and were significantly correlated and, thus were collapsed into a single measure of effort. Questions 3 (Q3) and 9 (Q9) measured luck attributions, and were found to be positively correlated and collapsed into a single measure of luck. Questions 4 (Q4) and 6 (Q6) measured ability attributions, while questions 5 (Q5) and 7(Q7) measured attributions about task difficulty, following similar patterns to those of effort and luck attributions.

In addition, Q2 (effort) and Q8 (effort) questions were positively correlated with Q4 (ability) and Q6 (ability) questions demonstrating that the student's perceptions of

effort and ability were seen as attaining equal status in their achievement motivation. Q3 (luck) was positively correlated with Q4 (ability). Q4 (ability) and Q6 (ability) questions were negatively correlated with the task difficulty questions of Q5 and Q7. Thus, the more able a student perceived his or her ability, the easier they viewed the task, while the opposite occurred where children who held lower perceptions about ability may have perceived greater difficulty on the task.

The examination of Table 5 displays the correlations between the posttest measures, age, gender, and the questions from the Causal Beliefs About Reading Questionnaire. What is apparent is the lack of significant correlations between attributions and measures of age, gender, Woodcock (Letter), and PPVT. In addition, some attribution questions were negatively correlated with the posttest measures, specifically a pattern was evident between the two questions of task difficulty (Q5 and Q7), Word Attack 2, and the Durrell. Q4 was positively correlated with the Durrell demonstrating that children's perceptions of ability rose as their scores on the Durrell also rose.

Finally, in Table 6, Pearson correlations were run on Q1, which focused on the student's perception of success in reading. This question, 'how successful were you in reading?', was correlated with each of the attribution scores of ability, effort, luck, and task difficulty. Ability and effort were positively correlated with student's perceptions of success, which affirms that as students perceived that they were more successful they attributed this to effort and ability. Alternatively, as they perceived their effort and ability to be higher, they perceived greater success in reading. There was no correlation between luck and how successful students felt they were in reading. Task difficulty was negatively

correlated with reading success, which in turn suggests that the more successful they felt they were in reading the easier the task. Alternately, the more difficult the task the less able the students perceived themselves to be.

Tests of the Hypotheses

To test the hypotheses, a series of repeated 2 (SFA reading program vs. control) x 2 (high and low reading ability groups) Analysis of Covariances (ANCOVAs) was used. The ANCOVAs focused on testing the hypotheses. In addition to the ANCOVAs, a series of repeated measures ANOVAS was conducted. The purpose of these analyses was based on Q1 that focused on the student's self-rating of their perception of their success in reading.

ANCOVAs. First a factor analysis was employed in order to create a single factor based on the five reading achievement measures from the posttest. These measures were the Durrell, PPVT, and the three subtests of the Woodcock (Letter Identification, Word Attack, and Word Identification) assessed at prettest. The factor analysis created a single factor on reading skills and allowed for the creation of high and low reading groups.

The independent variable in the ANCOVAS was the method of instruction: the Success for All reading program in the experimental school, and the conventional Whole Language reading program in the control schools. The other independent variable was the level of reading achievement (high and low). The attributions of effort, ability, task difficulty, and luck that the students held about their reading achievement were the dependent variables. The PPVT, Woodcock, and Durrell scores at pretest were used as covariates in order to control for the possible inequality between the two groups, as well as to control for the absence of pretest information on the Causal Beliefs About Reading

Questionnaire. An ANCOVA summary table is graphically represented in Table 7 for each hypotheses.

Hypothesis 1. Hypothesis 1 predicted that students within the SFA program who were not successful in reading would rate their ability lower than control school students who were not successful in reading. In turn, it was expected that students who were successful in reading in both in the SFA school and in the control schools would attribute their reading achievement to similarly higher levels of ability. A 2 (SFA vs. control) x 2 (high and low reading achievement) ANCOVA was conducted. The overall results of this analysis were significant, $F(4,180) = 2.75$, $p < .05$, however, there were no main effects for reading ability, type of program, nor was there an interaction effect. Both hypotheses were not supported by the analyses.

Hypothesis 2. This hypothesis predicted that SFA students who were successful in reading would attribute their success to a higher expenditure of effort than successful readers in the control schools. Unsuccessful readers would perceive their effort as equal in both groups. A 2 (SFA vs. control) x 2 (high and low reading achievement) ANCOVA was conducted with effort as the dependent variable. Results of the analysis were not significant, $F(4,181) = .62$, ns. There were no main effects for reading ability, type of program, nor was there an interaction effect. The fact that SFA students would perceive themselves as expending more effort was not realized. Both hypotheses were not supported by the analyses.

Hypothesis 3. This hypothesis predicted that successful students in SFA and in the control schools would be less likely to attribute success to luck equally, while the unsuccessful students in the control school would rate luck as higher than the

unsuccessful SFA school students. A 2 (SFA vs. control) x 2 (high and low reading achievement) ANCOVA was conducted with the luck measure employed as the dependent variable. Results of this analysis were not significant, $F(4,180) = .75$, ns. There were no main effects for reading ability, type of program, nor was there an interaction effect. Both hypotheses were not supported by the analyses.

Hypothesis 4. This hypothesis predicted that students in SFA who experienced success in reading would rate task difficulty at a higher level than successful students in the control schools. Unsuccessful students in both groups would rate task difficulty equally. A 2 (SFA vs. control) x 2 (high and low reading achievement) ANCOVA was conducted with the task difficulty measure employed as the dependent variable. Overall, results of this analysis were significant, $F(4,180) = 5.89$, $p < .01$, however, there were no main effects for reading ability, type of program, nor was there an interaction effect. Both hypotheses were not supported by the analyses.

ANOVAs. A series of repeated measures ANOVAS were run based on Q1 from the Attribution questionnaire. This question focused specifically on the students self-ratings of their success in reading. The question, 'how successful were you in reading', was first correlated with each of the attribution scores of ability, effort, luck, and task difficulty.

From Q1, a variable called 'percep' was then created by dividing the score at the mean to establish the low and high groups ($M = 7.11$); please note that the median score on Q1 was 7.0). In the ANOVAs, the independent variables were school (experimental and control) and percep (high and low groups). The dependent variables were the four attribution scores of ability, effort, luck, and task difficulty. The ANOVA summary table

is graphically represented in Table 8 for each hypothesis.

Hypothesis 1. Hypothesis 1 predicted that students within the SFA program who were not successful in reading would rate their ability lower than control school students who were not successful in reading. In turn, it was expected that students who were successful in reading in both in the SFA school and in the control schools would attribute their reading achievement to similarly higher levels of ability. A main effect for perception of ability was evident, F (1,186) = 54.0, $p < 01$, Ms = 6.26 for ability in low successful group, and 7.84 for ability in high successful group. There were no main effects for school and no 2-way interaction as reported in Table 8. Thus, if the rating on Q1 was high, then the student's perception of their reading ability was also high, regardless of program.

Hypothesis 2. This hypothesis predicted that SFA students who were successful in reading would attribute their success to a higher expenditure of effort than successful readers in the control schools. Unsuccessful readers would perceive their effort as equal in both groups. The ANOVA 'effort by precep' and 'school' analysis revealed main effects for perception of effort, $F(1,186) = 16.75$, $p < .01$, Ms = 6.86 for effort in the low successful group, and 7.74 for effort in high successful group. There were no main effects for school or a 2-way interaction. If the rating on Q1 was high, then the children's perception of their reading effort was also high, regardless of the program.

Hypothesis 3. This hypothesis predicted that successful students in SFA and in the control schools would be likely to attribute success to luck equally, while the unsuccessful students in the control school would rate luck as higher than the unsuccessful SFA school students. The ANOVA 'luck by percep' and 'school' revealed

no main effects for reading ability, type of program, nor was there an interaction effect as reported in Table 8. Both hypotheses were not supported by the analyses.

Hypothesis 4. This hypothesis predicted that students in SFA who experienced success in reading would rate task difficulty at a higher level than successful students in the control schools. Unsuccessful students in both groups would rate task difficulty equally. The ANOVA 'task by percep'' and 'school' analysis revealed main effects for perception of success, $F(1,186) = 21.43$, $p < .01$, a trend for school, $F(1,186) = 3.16$, $p = .08$, and a 2-way interaction between 'percep' and 'school', $F(1,186) = 12.0$, $p < .01$.

To further interpret the 2-way interaction a series of simple effects tests were conducted. First, a set of ANOVAS compared the task difficulty for reading by students who rated themselves as either high or low on Q1 according to the experimental (SFA) or control situation. Students in the SFA school did not differ in their ratings of task difficulty according to whether they or not they perceived themselves as low or high in reading success, $F(1,87) = .40$, ns, Ms for task difficulty: for low perceptions of success = 3.96, for high perceptions of success = 3.66. Thus, the means of those students who perceived themselves as having low or high success in reading did not differ in their view that the task was difficult. In contrast, the control students who perceived themselves as having low success in reading viewed the task as difficult, while those control students who perceived themselves as successful readers perceived the task as easy, $F(1,99) = 45.8$, $p < .001$, Ms for task difficulty: 4.18 for low perceptions of success, 2.12 for high perceptions of success.

A second set of ANOVAS revealed a significant effect for school by task difficulty for students who rated themselves as more successful in reading $F(1,91) =$

14.04, $p < .01$, Ms for task difficulty: SFA = 3.66, and control = 2.12. When observing the differences between schools, the SFA students perceived that the task of reading was significantly more difficult that the control site students. In contrast, there were no significant differences between SFA and control students who rated themselves as less successful in reading, $F(1,95) = 1.72$, ns, Ms for task difficulty: SFA = 3.66, control = 2.12.

The hypothesis that stated that successful students in SFA would rate task difficulty at a higher rate than control students was supported by the analyses. Thus, if students perceived themselves as successful in reading, then perceptions of task difficulty were also high. However, the SFA students perceived that the tasks were more difficult than the control site students. The hypothesis that focused on the less successful students was not supported by the analyses in that although both conditions perceived the task as difficult, there was no difference in perceptions between the students in the two schools.

Table 2

Means and Standard Deviations of the Posttest Measures

	Mean	Standard Deviation
Durrold2	4.07	1.25
PPVT2	103.77	20.48
Letter2	47.75	3.57
Wattack2	26.05	10.58
Word2	69.10	15.62

Table 3

Correlations Between Achievement Measures Used in the Study

	Durrold2	PPVT2	Letter2	Wattack2	Word2
Durrold2	1.00				
PPVT2	.46**	1.00			
Letter2	.41**	.33**	1.00		
Wattack2	.55**	.44**	.45**	1.00	
Word2	.69**	.52**	.55**	.85**	1.00

**$p < .001$

Table 4

Intra-Correlations Between Combined Questions of the Causal Beliefs About Reading Questionnaire

	Q2 (effort)	Q3 (luck)	Q4 (ability)	Q5 (task)	Q6 (ability)	Q7 (task)	Q8 (effort)	Q9 (luck)
Q2 (effort)								
Q3 (luck)	.02							
Q4 (ability)	.25**	.17**						
Q5 (task)	.06	.20	-.29**					
Q6 (ability)	.24**	.09	.65**	-.23**				
Q7 (task)	-.07	.07	-.36**	.61**	-.32**			
Q8 (effort)	.24**	.11	.25**	-.16	.24**	-.15		
Q9 (luck)	-.07	.49**	.16	.11	.15	.00	.04	

**$p < .001$

Table 5

Correlations Between Posttest Measures and the Causal Beliefs About Reading Questionnaire

	Age	Gender	Woodcock2 (Letter 2)	Woodcock2 (Word2)	Woodcock2 (Word Attack2)	Durrell 2	PPVT 2
Q1 (successful)	-.02	.02	.01	.13	.17**	.11	.11
Q2 (effort)	-.08	.15	-.03	-.07	-.11	-.02	-.03
Q3 (luck)	.15	.11	-.12	-.12	-.16	-.04	-.02
Q4 (ability)	.03	.08	.16	21	.16	.18***	.08
Q5 (task)	.01	-.06	-.16	-.42***	-.42***	-.31***	-.03
Q6 (ability)	-.08	.07	.06	.20	.04	.09	-.08
Q7 (task)	-.04	-.09	-.09	-.29***	-.31***	-.23***	-.07
Q8 (effort)	.05	.06	-.07	-.08	-.06	-.08	.04
Q9 (luck)	.18	.09	-.04	-.02	-.09	-.07	.05

**$p < .01$

***$p < .001$

Table 6

Correlations of Question 1 and the Four Attributions of Ability, Effort, Luck, and Task Difficulty

	Ability	Effort	Luck	Task Difficulty
Q1	.37**	.68**	.08	- .46**

** $p < .001$

Table 7

ANCOVA Summary Tables for the Hypotheses

Ability

	SS	DF	MS	*F*	Sig of *F*
Within Cells	1747.08	180	9.71		
Regression	106.87	4	26.72	2.75	.030
Readgrp	1.19	1	1.19	.12	.7226
Schlgrp	.59	1	.59	.06	.805
Readgrp by Schlgrp	3.25	1	3.25	.33	.563

Effort

	SS	DF	MS	*F*	Sig of *F*
Within Cells	1603.98	181	8.86		
Regression	21.91	4	5.48	.62	.650
Readgrp	.13	1	.13	.01	.905
Schlgrp	.10	1	.10	.01	.914
Readgrp by Schlgrp	4.41	1	4.41	.50	.482

Luck

	SS	DF	MS	*F*	Sig of *F*
Within Cells	3324.12	180	18.47		
Regression	55.17	4	13.79	.75	.561
Readgrp	2.14	1	2.14	.12	.734
Schlgrp	5.71	1	5.71	.31	.579
Readgrp by Schlgrp	.06	1	.06	.00	.953

Task Difficulty

	SS	DF	MS	*F*	Sig of *F*
Within Cells	2846.15	181	15.72		
Regression	370.43	4	92.61	5.89	.000
Readgrp	9.31	1	9.31	.59	.443
Schlgrp	1.58	1	1.58	10	.752
Readgrp by Schlgrp	6.21	1	6.21	39	.531

Table 8

ANOVA Summary tables for Students Perceptions of Success in Reading

Ability

	SS	DF	MS	*F*	Sig of *F*
Main Effects (Combined)	118.49	2	59.24	27.794	.000
Percep	115.09	1	115.09	53.99	.000
School	2.89	1	2.89	1.355	.246
2- Way Interactions	3.83	1	3.83	1.79	.182

Effort

	SS	DF	MS	*F*	Sig of *F*
Main Effects (Combined)	37.600	2	18.80	8.57	.000
Percep	36.76	1	36.76	16.75	.000
School	.655	1	.655	.298	.585
2- Way Interactions	.973	1	.973	.443	.506

Luck

	SS	DF	MS	*F*	Sig of *F*
Main Effects (Combined)	.319	2	.160	.033	.968
Percep	.177	1	.177	.036	.849
School	.148	1	.148	.031	.862
2- Way Interactions	2.85	1	2.86	.585	.445

Task Difficulty

	SS	DF	MS	*F*	Sig of *F*
Main Effects (Combined)	96.40	2	48.20	12.41	.000
Percep	83.264	1	83.26	21.43	.000
School	12.271	1	12.27	3.16	.077
2- Way Interactions	50.28	1	50.48	12.99	.000

DISCUSSION

Educational research reveals that a number of factors can place at-risk students in either a position of academic success or in danger of academic failure. Among the most prominent criteria that may affect future achievement performance, are personal, emotional, social, and academic characteristics (Weiner, 1994). These characteristics, in combination with perceptions of success and/or failure, may affect future outcomes (Ames, 1984; Bar-Tal, 1990; Chambers et al., 1997; Dweck, 1991; Weiner, 1994). The process of constructing perceptions or beliefs, as well as the influential factors or characteristics that develop these perceptions with regards to children's reading ability, are at the core of this thesis.

Attribution theory and research focuses on the way people explain their successes or failures. Weiner (1986, 1992, 1994) concluded that people's perceptions of the causes of their successes or failures influence future expectations. Research indicates that success-oriented and low-achieving individuals offer differing explanations concerning the causes of their successes or failures. Success-oriented individuals tend to attribute their successes to ability and effort, and their failure to a lack of effort, which, consequently, does not lessen their expectations of future success. In contrast, low-achieving students tend to attribute success to easy questions or luck, and failure to inability, thus accentuating the expectation of future failure rather than success (Bar-Tal, 1978, 1990; Graham & Barker, 1990; Pintrich & Blumenfeld, 1996; Weiner, 1986).

Of the four most common explanations of success or failure that can be found within the school setting, effort is the most under volitional control; it is possible to willfully change our behavior within any situation (Freize, 1980; Weiner, 1986). The

research supports the integration of sound educational techniques that concentrate on shifting children's attributions to failure from the more debilitating attribution of lack of ability to that of lack of effort.

The children's reading status is, more often than not, the most distinctive aspect of their academic achievement within the school setting. Children very quickly understand the importance of learning to read, but in many cases may not be able to control for the circumstances that encompass their lives. Therefore, what may be critical for reading achievement is developing the motivation to want to learn to read in combination with appropriate attributions of success and failure.

In the sections to follow, the hypotheses and the possible explanations as to why some of the findings were not significant are discussed. Following this is an exploration of the correlational analyses and the patterns they may represent, in addition to the limitations of the study. Since some correlations between the attributions were found, the role of the teacher and teacher-student communication regarding student's work-related activities are discussed since they may play a critical part in the development of attributional patterns. The thesis concludes with suggestions for future research as well as implications for educators in the SFA program.

Hypotheses

Overall, the ANCOVA analyses of the hypotheses did not reveal any significant results between the experimental and control groups, although the ANOVA analyses did reveal some findings regarding children's perceptions of their success in reading. Overall it was predicted that the SFA program, designed to be rigorous and challenging, would have made a difference in some of the children's perceptions of the four attributions of

ability, luck, task difficulty, and effort. The idea was that the SFA students would have perceived some of these four attributions quite differently than their peers who were taught within a more traditional setting. Since the Whole Language curriculum is primarily a literary engagement within a child-centered environment, and is not as rigorous as the SFA program, it was expected that some differences should have been detected, especially within the lower achieving student population. The findings based on the ANCOVA results are discussed in the next section, followed by the ANOVA findings.

ANCOVA Findings

Hypothesis 1. The first hypothesis predicted that unsuccessful students in an SFA reading program would attribute their reading achievement to lower levels of ability than the unsuccessful students in the control condition, while successful students in both conditions would attribute their ability at similar levels of achievement. This question was not supported. Children in both conditions perceived themselves as equally capable.

One possibility for this lack of differentiation is that the students were not able to distinguish between the ability level of activities within the SFA and traditional reading program. Because there was no pretest data of the measure of casual attributions, it is difficult to measure real change in their attributions. However, it may be that their perception of ability for their present academic status may be that they are more capable than previously. Therefore, when answering the ability items on the questionnaire they may have been indicating 'yes, I am more capable than before', so therefore 'I am smart', and 'I am bright'. Nevertheless, in the present study, the type of reading program had no effect on the children's attributions about ability.

Hypothesis 2. The second hypothesis predicted that although successful students in both conditions would expend effort, the SFA students would expend more effort than control students due to the rigorous nature of the SFA reading program. This prediction was not supported. Children in both conditions perceived themselves as equal in effort.

In essence, it was predicted that the SFA students would have noticed the effects of this major curricular change in terms of work output, and have perceived that they would have to expend more effort to complete their work than the students in the control school. The results indicating there was equal effort from successful students in both conditions, supports the attribution literature that successful students do perceive themselves to expend effort, but to what level is not known. Successful people, in general, expend greater amounts of effort, which in turn continues the expectancy cycle of success (Bloom, 1985). Hiebert, Winograd, and Danner (1984) supports these results in a study demonstrating sixth grade children's attributions to effort were high regardless of the level of reading outcomes. In the present study, the type of reading program had no effect on the children's attributions about effort.

Hypothesis 3. The third hypothesis predicted that successful students in SFA and the control conditions would be less likely to attribute reading success to luck. The unsuccessful students in both conditions would perceive bad luck as the cause for failure, however, the unsuccessful students in the control condition would rate luck as higher than SFA children. This question was not supported. Children in both conditions perceived themselves as equal in attributions of luck.

The prediction for the unsuccessful students was based on the fact that SFA is a highly structured reading program and that there is almost no room for luck to play a part

in the 90-minute reading program and the 8-week assessments. Analyses did not yield support of this hypothesis.

When successful students achieve academically, the assumption is that it was based on the fact that they were smart, an internal stable attribution, not on luck. In contrast, students who fail at a given task, would like to believe that they experienced bad luck, an external, unstable attribution, which allows for the possibility of succeeding next time. Some studies have shown that even in situations in which success is completely due to luck, students who are high in internal locus of control will believe that it was their effort that made them succeed or fail. In the present study, the type of reading program had no effect on the children's attributions about luck.

Hypothesis 4. The fourth hypothesis predicted that successful students in the SFA condition would ascribe a greater degree of difficulty for reading compared to the ascription of the control site students. The analysis did not confirm the prediction and in the present study, the type of reading program had no effect on the children's attributions about task difficulty.

ANOVA Findings

Hypothesis 1. The ANOVA analyses for ability indicated that students who perceived themselves as successful readers rated themselves as able, whereas students who perceived themselves as less successful readers rated themselves as less able (Weiner, 1979, 1986, 1992, 1994). These findings support the attribution literature that notes that successful children equate success with high ability, while low achieving children attribute failure to low ability and consequently may develop learned helpless

behaviors (Ames, 1984; Dweck & Bempechat, 1983; Elliot & Dweck, 1988; Jagacinski & Nicholls, 1990; Seligman, 1975).

The type of reading program had no effect on the children's attributions about ability, which was contrary to the predication in this study. This issue is addressed in the later section on criticisms of the SFA program.

Hypothesis 2. The ANOVA analyses for effort indicated that students who perceived themselves as successful readers rated themselves as high in effort. In contrast, students who perceived themselves as less successful rated themselves as lower in effort (Weiner, 1979, 1986, 1992, 1994). These findings support the attribution literature that notes that successful children equate success with high effort, while low achieving children attribute failure to low effort. They may in turn, develop feelings of guilt about poor effort expenditure and learned helpless behaviors (Ames, 1984; Dweck & Bempechat, 1983; Elliot & Dweck, 1988; Jagacinski & Nicholls, 1990; Seligman, 1975).

In addition, the type of reading program had no effect on the children's attributions about effort. Again, this is addressed in the criticisms of SFA section.

Hypothesis 3. There were no significant findings on luck attributions. The type of reading program had no effect on the children's attributions about luck. As discussed previously, successful students do not attribute success to luck, since this gives little indication about the likelihood of success in the future. Apparently, in the present study, students who perceived themselves as unsuccessful also did not attribute their lack of success to bad luck, contrary to the literature (Bar-Tal, 1978).

Hypothesis 4. There was a 2-way interaction effect for type of reading program and perceptions of success in reading on attributions to the difficulty of the task. The

interpretation of the 2-way interaction supported the hypothesis that successful readers in SFA would rate the task as more difficult than successful readers in the control schools. Successful students in SFA perceived the tasks as more difficult than less successful readers in the SFA program. Perhaps this finding was due to the difficulty of the individual pieces of the curriculum requiring more attention to detail. Perhaps SFA students may have perceived the tasks differently than those presented in the Whole Language curriculum that they experienced the previous year.

In contrast, the simple effects test used to interpret the 2-way interaction revealed that there were no differences between schools on ratings of task difficulty for children who viewed themselves as unsuccessful readers ñ students in both conditions perceived the tasks equally as difficult. These findings provide clear support for the hypothesis related to task difficulty and further supports the literature (Heyman & Dweck, 1992; Thompson, Davidson,& Barber, 1995). The cycle of failure more than likely will continue to develop for children who perceive themselves as less successful readers unless strategies or modifications to the curriculum are provided for the children.

In addition, the simple effects test used to interpret the 2-way interaction revealed that the students in SFA, whether they perceived themselves as successful or less able, did not differ in their ratings of task difficulty. Conversely, within the control school environment, there was a significant difference produced: students who viewed themselves as successful readers rated the task as easier and low successful students rated the task as hard. The effects in the control site are supported by the literature, which states that children who perceive themselves are successful rate the task as easier, whereas less

successful children perceive the task to be more difficult (Ames, 1984; Jagacinski & Nicholls, 1990).

General comments regarding the hypotheses. Pintrich and Schunk (1996) discussed the possibility of the occurrence of attributions when certain conditions are present (e.g., unexpected event, negative outcome). The control site students, who have been involved with a familiar curricular pattern over a number of years, did not experience any changes in the curriculum thus perceptions regarding academic achievement remained stable. Students at the experimental site might have experienced differing attributional patterns, but the measure utilized might not have been sensitive enough to single out these differences.

In addition, filling out the questionnaire may have been a self-preserving experience for some children (Jagacinski & Nicholls, 1990; Nicholls, 1990). While effort can enhance one's chances of success, ability sets the boundaries of what one's efforts can achieve. Effort then becomes not only a source of threat to one's self-worth, but withholding effort also represents a means of averting that threat. By expending little or no effort, estimates of one's ability tend to remain uncertain since low effort alone is a sufficient excuse for failure. The consequence of guilt may be easier to endure than the humiliation of incompetence, although these students also rated their ability as low (Nicholls, 1984).

The study by Hiebert et al. (1984) provides support for the idea of a self-preservation modality. They found that regardless of the level of student reading ability, effort attributions were high. In addition, the study by Shell et al. (1995) indicated that low achievers developed very unrealistic expectations that were not in line with their

actual academic performance. Although the self-preserving modality may be a possible explanation for the lack of findings in the present study, clearly this speculation requires further research.

Correlational Analyses

There were some patterns found within the correlational analyses that require discussion. First, the two questions of ability and effort were positively associated, indicating that the more capable the students perceived themselves to be, the harder they reported that they worked. Interestingly, there are inconsistent findings in the literature. On the one hand, the literature in general documents that children can differentiate between effort and ability. In contrast, mounting evidence supports that children correlate or confuse the two constructs (Blumenfeld, Pintrich & Hamilton, 1986; DeBellefeuile, 1985; Kun, 1977; Nicholls, 1978; Nicholls & Miller, 1984). Stipek and Tannett (1984) noted that children's judgment of their ability depended on work completion and speed, indicators usually associated with effort. In addition, the confusion between ability and effort may also be associated with children's classroom conduct since teachers may utilize children's overt behavior as an indicator of ability.

Notwithstanding, this confusion between the definition of ability and effort may have influenced the children's responses on the Causal Beliefs About Reading Questionnaire. In order to clarify this differentiation between effort and ability, Blumenfeld et al. (1986) state that effort should be identified by the outcome rather than as an ability cue such as mental exertion for future reference and research.

A second finding in the present study reported that one question of luck was positively correlated with one question of ability. This is a more difficult correlation to

explain in light of the previous associations between ability and effort. As students perceive that they are capable, so do they perceive that luck is an explanation for their success, a finding also reported by Frieze (1980). Luck, which is external and unstable, in essence, can be viewed in two ways. Students who are successful would want to attribute this success to the fact they are smart, not because they were lucky or even because they tried hard, since this gives little indication about the likelihood of success in the future. On the other hand, unsuccessful students would want to attribute their failure to bad luck, since it saves face, and therefore holds promise of future success.

If this is not a spurious finding in the present study, then this type of attribution should be monitored, since some children believe their ability is positively associated with luck, a random event. This type of factor is consistent with the learned helplessness model that extenuates children's attributions of luck to academic situations. Due to the potential debilitating aspect of this attribution, further study is needed to explore this finding.

In a third set of findings, the two questions of ability and task difficulty were negatively correlated. Thus, the more able a student perceived his or her ability, the easier they viewed the task, while the opposite may have occurred where children who held less able perceptions about ability perceived greater difficulty on the task. This supports the research that discusses the inverse relationship between ability and task difficulty attributions (Nicholls, 1984).

The result of this correlation has important implications for classroom use. The development of ability and task difficulty attributions become more apparent depending on the type of classroom situations in which they are defined. According to Ames (1978,

1981, 1984), Ames and Felker (1979), Ames and Ames (1981), and Nicholls (1975, 1979, 1984) evaluations of cooperative, competitive, and individualistic reward structures support varying levels of achievement performance. When students are forced to compete with each other, all but the best students can become discouraged from trying hard because their chances of winning are low. Most students come to feel that they are failures, and consequently competitive experiences may extinguish their motivation to achieve in school tasks.

Indeed, research suggests that noncompetitive, cooperative reward structures, in which students work independently to improve their mastery of the subject matter, may tend to promote the motivation to learn (Chambers & Abrami, 1990; Johnson & Johnson, 1989). Chambers and Abrami (1991) provide an interesting discussion on the elimination of competition within between-team cooperative reward structures using a criterion-referenced rather than a norm-referenced system. In essence, cooperative learning teams would work towards a common standard that all classmates would have to achieve, followed by a whole class reward system. The increased possibility of success would add to the effective criteria that encompass a mastery-based goal orientation.

In addition, some attribution questions were negatively correlated with the posttest measures, specifically a pattern was evident between the two questions of task difficulty and the (a) Durrell, an achievement measure, (b) the Word Identification, and (c) the Word Attack subtests from the Woodcock Reading Mastery Tests. As one might expect, as children perceived the task as difficult, the lower the children's score on the two measures. Yet, as they perceived the tasks as easier, the higher the children's score on the two measures. In addition, one ability question was positively correlated with the Durrell

measure indicating as the children's perceptions of ability rose, so did their scores on the Durrell.

The correlation between task difficulty, and the Durrell and the Woodcock measures is similar to the previously discussed negative correlation between ability and task difficulty. It appears that student self-perceptions of ability are associated with their subsequent achievement behavior (Nicholls, 1979; Pintrich & Blumenfeld, 1985; Weiner, 1979). This is in keeping with the expectation that children's ability is linked with achievement (Pintrich & Blumenfeld, 1985). The knowledge that ability is correlated with task difficulty and consequently with achievement, in turn, highlights the importance of the role of classroom motivation as well as the relationship of teacher expectations and feedback. These issues are discussed in the implications section below.

Limitations

There were a number of limitations in the present study. There was a small sample size involved in the control and experimental conditions; in particular, low numbers were evident in the experimental condition. The small number of students involved in the study created a condition of lower power for statistical analyses. In addition, the small sample size may also not have been sensitive enough to detect the differences in hypotheses between experimental and control groups.

Pretest causal data had not been collected the preceding fall, which makes the analyses of data less clear. Furthermore, The Causal Beliefs About Reading Questionnaire used in the study, although modeled after attribution studies by Ames (1978, 1981, 1984), Ames and Ames (1981), Ames and Felker (1979), Nicholls (1975, 1979) and Chambers and Abrami (1991), was not a standardized measure. Possibly it was

not sensitive enough to detect differences in children's attributions regarding academic success and failure. In the future, the collection of data such as teacher expectations might add pertinent information to the analyses.

The length of implementation of the SFA program at the experimental site could also be a consideration in the outcome of events. The students from the experimental site had only been in the SFA reading program for one year, so perhaps they had not had sufficient time to develop their attributions towards their reading achievement. In fact, the students may have perceived a shift in their reading ability from non-reader to reader, even though they may not really have improved academically. It is difficult to speculate since this shift was not documented by the collection of pretest data. A longitudinal study would perhaps shed more light on the student's attributions, as the children are monitored over time. After the second year of implementation, differences in attributions might become more clearly defined by the children themselves.

The age-related differences might also have played a part in the lack of differences in this study. Nicholls (1975,1979a, 1979b, 1984a, 1984b) and Wigfield (1988) states that children have achieved an adult-like attributional style by the age of twelve. At this level, children are able to observe that ability and effort attributions are inversely related. Thus, students as young as ten and eleven years of age may not have reached that adult-like level, and therefore may have viewed effort and ability as equal in status as was documented in the present study (Kurtz-Costes, 1994). Hiebert et al. (1984) had also found age differences their study, whereas the older high and low achieving students did not differ in their rating of attributions of success and failure.

In addition, other attributions may have affected the children's responses. As

Weiner (1986) had discussed, since attributions are not easily observed and monitored, perhaps other attributions may have, in fact, affected their perceptions of their actual reading ability level. Those attributions that might have led to a lowering of aspirations include for example, illness, or a snub by a teacher. An elevated level of aspiration might have taken into account advice given by the teacher at a crucial moment or time in class to study for an exam. In future, the need to measure more of these attributions is required so as to help control for them in future research.

Criticisms of the Success for All Program

Given the general lack of findings for the hypotheses based on the ANCOVA and ANOVA analyses in the present study, the following issues regarding teacher training, teacher instruction, the format of program design, in addition to the components of cooperative learning and pacing will be discussed. The basic question focuses on why the SFA model did not produce the anticipated results: in spite of the fact that it did produce student achievement: that is, the positive influence of the SFA program on the children's attributions regarding their success in reading. The results signify that the program design or the actual implementation of the program in the schools may necessitate a critical review.

Teacher training. One of the major weaknesses in the SFA training component may be the method in which the teachers are trained. Two days of intensive training occur for each component piece (e.g., Roots, Wings). However, during this time, there is little discussion of classroom management, yet this seems to be an area that is fundamental to the implementation of the SFA program (or any program since it depends on a well-managed class) (Jagaconski & Nicholls, 1987; Morrow, 1987; Pintrich & Blumenfeld,

1985). More efficient classroom management techniques could impact in the manner in which a teacher interacts with the students and thusly impact a student's attributional pattern.

Moreover, research has demonstrated that some teachers may not know how to relate effectively to the many types of behaviors exhibited by the students and sometimes they may react to them inappropriately (Ames & Archer, 1988; Heathington & Alexander, 1984; Jagacinski & Nicholls, 1987; Morrow, 1987; Pintrich & Blumenfeld, 1985). For instance, the focus on goal orientation or structure of the classroom climate (e.g., mastery goals, performance goals) by the teacher may inadvertently affect the student's attributional patterns (Ames & Archer, 1988). That is, a focus on mastery is more than likely to facilitate children's perceptions that success is achieved through effort. In contrast, a focus on performance facilitates children's perceptions that success is dependent on ability. Although this study did not concentrate on teacher instruction, the content of the SFA program and task demands for the students may unintentionally create a classroom setting based on performance goals by the teacher, and thus emphasize ability rather than effort. In addition, the results of the 8-week assessment may also focus the teacher's goals on performance since the final percentage calculated for each student may affect the student's perception of success and failure based on the final marks. This is a question for future research.

It has been documented that a link between achievement effects and competitive and non-competitive settings regarding differing attributions of ability and effort, have been found in contrasting reward structures within classrooms (Ames & Felker, 1979; Ames & Ames, 1981; Nicholls, 1975, 1979). In addition, the strength of the cooperative

learning element is congruent with the implementation of this component. Perhaps a more effective team reward system that eliminates winning and losing conditions could be instituted (Chambers & Abrami, 1991). For example, when all teams meet a common goal, then the entire class is rewarded, thus emphasizing both (ability) and effort. The outcome would emphasize more cooperative behaviors (e.g., helping and sharing) needed to achieve the goal (Ames & Ames, 1981; Ames & Felker, 1979; Chambers & Abrami, 1991).

Very clearly, the issue of classroom management suggests that attributional retraining be considered as a part of the preparation training that teachers receive in order for them to effectively manage their classrooms, which would in turn support the implementation of the SFA program.

Children in difficulty. Perhaps the format of the SFA program does not meet the needs of all children, especially those who perceive that they are unable or less inclined academically. The program celebrates ability because children need to achieve at an 80% level before moving to the next reading level, so the students who perceive themselves as capable are then able to succeed based on both their ability and effort output. However, the high-risk students may experience difficulty in reaching the 80% level and may come across little in terms of a safety net (e.g., pass/fail approach). According to the literature, teachers do not typically model many strategies to help these children (e.g., think alouds, metacognitive strategies) (Ames & Archer, 1988; Dweck & Leggett, 1988). In addition, for students who continue to experience academic difficulties, the attribution research on learned helplessness and ability is clear: when tasks that result in poor performance are

thought to reflect low ability, then the likelihood is that poor performance will follow (Heyman & Dweck, 1992; Jagacinski & Nicholls, 1990).

Specifically, the pacing of the SFA program may be too fast for some children, thus inducing feelings of learned helplessness. In addition, the particular parts of the SFA program and how they are implemented may not meet the needs of the less successful students. Some aspects that may be problematic are partner reading, comprehension questions, the story tests, and 8-week assessments. For example, if the teachers have not modeled strategies very well (e.g., think-alouds, metacognitive strategies), then the less successful students may not have formulated a strong foundation in the necessary strategies for reading success. According to Guthrie et al. (1996), there is an indirect link between the use of cognitive strategies and an intrinsic motivation for reading. Thus, there is a need for continued modeling of strategies for low achieving students. In some cases, children may lack a firm foundation in the English language suggesting the need for a strong developmentally appropriate pre-kindergarten and kindergarten program, although this would not help children who come to school after kindergarten. Clearly, attention to the low successful students raises questions for future research.

Task difficulty and children's attributions. The results for task difficulty are clear: successful and less successful students within the SFA program in general perceived the tasks as equally difficult. However, the successful students in the SFA program rated the task as more difficult than the successful control students.

Student's perceptions of the SFA tasks may differ from their perceptions of Whole Language tasks. SFA is a more prescribed format that accentuates greater attention to detail and completion of tasks, which children may have perceived as difficult. In

addition, the pacing of the SFA program may have appeared to be more rapid compared to the Whole Language approach, which in contrast may have been less intensive and less pressured for the children. Therefore, the successful SFA students might have perceived the SFA program as a challenge. This interpretation is based on the 2-way interactions in the ANOVA analyses.

Although the above interpretations surrounding task difficulty are at best speculation, it is quite evident that attention to the less able students is critical. The more able students may be more resilient in terms of their success in reading achievement since not only are they more likely to have the strategies necessary to be successful in reading, but they also perceive that they do (Weiner, 1986). Therefore, modifications in the program, in addition to modifications of teaching style, need to be emphasized in order for the less able students to succeed. In particular, modifications that will help build a stronger foundation for less able students might include the following: the reduction of the number of comprehension questions found in the Treasure Hunts; teachers could scribe for students who experience weak fine motor control, as well as model the processes involved in writing questions so that the students observe the appropriate processes that are involved. The purpose of such modifications would be to make the tasks clearer and provide more scaffolds for the children to learn how to read successfully. In addition, providing tutoring for the less successful students outside of the 90-minute reading block would also ameliorate the reading process by providing more intensive concentration on strategies and decoding skills (Juel, 1988; Wasik & Madden, 1991; Wasik & Slavin, 1990).

Recently the SFA teacher training has emphasized the teacher's role in developing

creative approaches to the delivery of the components of the program, which may help to address and strengthen the attitudes of teachers who have embraced this method of reading instruction. Also school boards and principals need to take a more flexible approach to this issue since they may at times, be inflexible in the implementation of the SFA model and are concerned about doing it 'the right way', rather than for allowing for teachers to implement the program in a more creative fashion.

Success for All workshops. Recently, SFA has addressed a number of these concerns with the development of workshops that are at the forefront of the experienced site conferences and sessions that can be integrated at the school level. Workshops focus on curricular issues such as special needs children and English as a Second Language in order to aid teachers to adapt their teaching styles and suggest ways of modifying curriculum to meet the needs of the students. Tutoring workshops deal with reviewing the methodology related to the structure of the component and strategies to provide tools of success for students. As the literature demonstrates, one-to-one tutoring is the most effective method of teaching for less able students (Juel, 1988; Wasik & Madden, 1991; Wasik & Slavin, 1990).

Teacher needs. In addition to the four components of Family Support, there is a need to add a fifth component that revolves around the needs of the teacher. Specifically teachers do not receive any training in classroom management and attributional retraining. There is a need for the teacher to be included under the umbrella of Family Support, in order to not only strengthen the links between school, family, and teacher, but also to strengthen classroom management skills.

One final issue that has not been considered is what are the criteria for being a

good teacher, regardless of program. That is, managing a classroom effectively, giving appropriate feedback, understanding children and their learning styles, and modifying teaching to meet those individual styles. While these issues have been addressed in a piecemeal fashion by SFA (e.g., parts of workshops), the larger issue of what makes a good teacher needs to be addressed. Until this issue is addressed, further growth of the program will be difficult. When armed with information that in essence empowers teachers to make the right choices, and thus indirectly empowers schools to function at a higher level of implementation, the SFA program can continue to develop in the future. Nevertheless, these ideas apply to all teachers, regardless of program.

In conclusion, the program has been shown to be effective in teaching students to read (Chambers et al., 1997; Slavin & Madden, 1993, 1995; Slavin et al., 1992) however, the program needs to focus on certain issues as outlined above, in order to improve student's beliefs about learning. The continuing development of workshops and adjustment to the reading program based on recent research findings suggest that the SFA model is not static. Rather, it continues to move in the direction of the best interests of at-risk children.

Implications

Based on the findings here, there are some implications for educators that should be considered such as the effects of classroom motivation and attributional retraining.

Classroom motivation. The negative correlation between ability and task difficulty may provide attributional patterns resulting from the children's overall perceptions of the structure of classroom teaching. If teachers are teaching specifically to ability, and there is high differential teacher treatment based on ability (e.g., performance goal structure), the

children who hold less able perceptions will more than likely continue to perceive themselves as lower in ability and perhaps give up (Pintrich & Blumenfeld, 1985). A teacher who conducts his or her classroom from the notion of mastery goals, provides the children with the tools necessary to become successful, as well as the perception that effort really counts.

Therefore, the integration of specific teaching techniques and the development of children's attributions concerning effort may help to pave the way to success. The general implication of Attribution theory is that if motivation is to be fostered in the classrooms, learning experiences should be designed to include ways of changing perceived causes of student performance. Students should be taught to attribute failures to insufficient effort or lack of information rather than a lack of ability. Students need to be taught to recognize the link between effort and outcome. This means that teachers must make sure that students can accomplish academic tasks if they apply reasonable effort. This may be accomplished by beginning instruction at the students' level, and preparing students sufficiently for each new step so that they can learn without frustration (Brophy, 1987).

Unsolicited help, generous praise, and minimal blame, although viewed as positive and well-intentioned teacher behaviors, can function as a low ability cue system for students and, thus elicit negative results since these students may perceive themselves as less able (Brophy, 1981; Graham & Barker, 1990; Mayer, 1982). Moreover, teachers monitor the work and behavior of low achievers more closely compared to higher achievers (Weinstein et al., 1984). This helping behavior of the teacher correlated with the students' ability related judgments informs the less able students to expect failure to continue in the future. Conversely, teacher anger leads students to develop attributions of

lack of effort and higher expectations for the future.

Attribution retraining. According to Forserling (1985) and Schunk (1982, 1983) attributional retraining methods have been successfully utilized to increase children's motivation and performance within achievement settings. As children develop cognitively, perceptions related to ability become more important than those of attributions to effort; effort is not seen as the determining factor in achieving academically (Dweck & Leggett, 1988; Schunk, 1982; Wigfield, 1988). Attributional retraining, as defined by Schunk (1982, 1983) and Forsterling (1985), focuses on changes within the children's cognitive and behavioral domains by shifting attributions of failure from a lack of ability to a lack of effort. Since learned helpless students have been found to make fewer attributions to effort, they would also benefit, according to Dweck (1986), from ascribing their failures and successes to effort.

However, what is critical to the attributional retraining process is the complexity of the context in which educators deliver it. Schunk (1982, 1983) cautions educators to structure their feedback accordingly to obtain the most effective results. For instance, if a teacher acknowledges that his or her students' past achievement is due to effort, this will in turn increase motivation. However, if students are informed that future achievement will occur if they work harder, this may be perceived as a sign that they lack ability and, therefore, must put forth more effort in order to succeed. In addition, if the task is easy, effort combined with praise may actually signal low ability to the children. Effort feedback over time may also signal the perception of lower ability if some students receive more feedback from the teacher than their classmates (Schunk & Cox, 1986).

Simply praising older children for effort would not likely have much effect since

they are more concerned about being perceived as capable. Much of student motivation is best understood in terms of attempts to sustain a reputation of competency and hence self-worth (Ames, 1990; Covington, 1984). Students must be convinced that the outcome of their effort is worth the trouble. If effort is portrayed as an investment that will produce knowledge of skill development, it will be seen as a means to empower students, rather than as a risk of failure or embarrassment (Brophy, 1987).

Effort attributions can be encouraged in the classroom in a very consistent and resourceful manner (Stipek, 1993). Assigning realistic tasks, rewarding all effort involved, allowing students to set attainable goals and opportunities to display competence in class, as well as self-monitoring and self-instruction strategies are just some of the techniques that may play a critical role in the development of positive attributions. Interestingly, all these criteria are established elements within the SFA program. The key may be to develop more emphasis on these elements in the training of teachers. In essence, teachers need to be trained in attributional retraining to counter effects of a program that is perceived as difficult.

Suggestions for Future Research

Although it is difficult to control for all the variables when dealing within the field of attribution research, the administration of a standardized valid measure of attribution would be encouraged. The Causal Beliefs About Reading Questionnaire may not have been sensitive enough to measure the different attibutional causes, and a standardized measure would provide more insight into the causes and effects. In addition, the collection of pretest data would allow for the possibility of change to be observed over time.

This study focused on the effects of two reading programs on children's causal attributions. In general, there were no significant results regarding the hypotheses of ability, effort, luck, and task difficulty, the four most common explanations of success and failure. Future research should include an exploration of other influences on the children's lives. There are a host of other causes such as teacher assistance, parental involvement, mood and illness that are also possible sources for the development of self-perceptions, since these causes do not work in isolation but impact upon each other.

Several important correlational patterns have emerged from this study. The patterns suggest that students' perceptions are impacted by what occurs within the classroom. In the classroom, students constantly receive feedback from others concerning their academic performance, whether that be from peers or from their teachers. Attribution theory is important to understand since students interpret the feedback in relation to their academic achievement. According to Pintrich and Blumenfeld (1996), feedback ultimately influences the development of self-perceptions. Future research could investigate further teacher training techniques in attributional retraining on how to best provide feedback in each causal domain that would have the greatest motivational value (Ames, 1992; Pintrich & Blumenfeld, 1992). In addition, the reward structure as defined by Chambers and Abrami (1991) would be an interesting area of study since it would allow for the possibility of success for all. Finally, investigating reading programs and attributions would be of great importance.

Conclusion

For children who are at-risk, schools and communities need to create resources and policies in order to help break the cycle of illiteracy and poverty. The most successful

schools consist of principals who have incorporated clear standards that are implemented by the teachers, institute programs for early intervention, provide regular assessment by external agencies, and include a strong parental support system. In essence, it may become increasingly difficult to improve children's reading attitudes as they progress through school if children have developed debilitating attributions towards academic success. For children who have developed positive attributional patterns, the necessary tools to sustain the pattern would need to be provided to the students.

Therefore, recommendations can be made in reference to educating Success for All teachers in the utilization of effective strategies to empower their students with the tools necessary to become strategic readers. However, one other step must be incorporated for success. Not only are the actual metacognitive and think-aloud practices crucial to academic growth, but the adaptive learning strategies and other self-regulated thought processes directly related to attributional beliefs must be integrated into the curriculum as well. Although educators and researchers have acknowledged that students' perceptions and attitudes toward reading affect academic performance, the need for additional research remains strong. The key is for teachers to use sound, research-based practices along with the integration of effective attributional practices that will in the end, motivate and enable students to achieve success in reading while keeping their self-concept intact.

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Appendix A

The Causal Beliefs About Reading Questionnaire

The Causal Beliefs About Reading Questionnaire

Name: _____ School: _____ Grade: _____

Think back to how much you have improved in your reading over the past school year. Answer the following questions by drawing a circle around the number that shows what you think.

1). How successful were you at reading?

1 2 3 4 5 6 7 8 9

not successful very successful

2). How hard did you try to well in reading?

1 2 3 4 5 6 7 8 9

not hard very hard

3). How much did chance play a part in your reading?

1 2 3 4 5 6 7 8 9

not at all very much

4). How smart were you in reading?

1 2 3 4 5 6 7 8 9

not smart very smart

5). How hard was reading for you?

1 2 3 4 5 6 7 8 9

not hard very hard

6). How bright do you think you were in reading?

1 2 3 4 5 6 7 8 9

not bright very bright

7). How difficult do you think reading was?

1 2 3 4 5 6 7 8 9

not difficult very difficult

8). How much effort did you put into your reading?

1 2 3 4 5 6 7 8 9

no effort a lot of effort

9). How lucky do you think you were in reading?

1 2 3 4 5 6 7 8 9

not lucky very lucky

10). How much do you like reading?

1 2 3 4 5 6 7 8 9

not at all

very much

11). How much do you read outside of homework?

1 2 3 4 5 6 7 8 9

none very much

Appendix B

Durrell Analysis of Reading Difficulty

Oral Reading

A **Robert Fulton's Steamboat**

In 1807 Robert Fulton took the first long trip in a steamboat. He went one hundred fifty miles up the Hudson River. The boat went only five miles an hour, but this was faster than a steamboat had ever gone before. Crowds gathered on both banks of the river to see this strange boat as it passed. Fishermen objected to it because they were afraid that its noise and splashing would drive away all the fish. The fishermen tried to keep other steamboats from traveling on the river, but they could not stop them.

____ 1. What kind of boat did Robert Fulton have? _____
____ 2. How far did Robert Fulton go? _____
____ 3. How fast did the boat go? _____
____ 4. Why did the crowds gather? _____
____ 5. Who did not like the boat? _____
____ 6. What were the fishermen afraid of? _____
____ 7. What did the fishermen try to do? _____
____ 8. Did they succeed? _____

A Time _____sec Errors _____ Comprehension _____

	4			5		
GRADE	L	M	H	L	M	H
TIME	58	52	50	47	45	38

B **People of the Deer**

The Eskimos who live in the North often call themselves "People of the Deer" because an important source of food has been the reindeer. For a while, the herds of reindeer went down to dangerously low levels because of the arrival of fur traders. The Eskimos began trapping for extra furs to exchange for knives and guns, instead of just for their own food and clothing. They had to travel farther to set trap lines, and they needed more sled dogs to transport the furs. So they had to kill more reindeer to feed the dogs. As a result, the reindeer herds were much reduced. Eventually, the government saw what was happening and made a plan to build up their numbers. Now the herds are again increasing in size.

____ 1. What do the Eskimos call themselves? _____
____ 2. Why do they call themselves that? _____
____ 3. What did the Eskimos want from the fur traders? _____
____ 4. Why did the Eskimos need more dogs? _____
____ 5. How did the Eskimos feed the dogs? _____
____ 6. What happened to the herds? _____
____ 7. Who saw what was happening? _____
____ 8. What did the government do? _____
____ 9. What is happening to the herds now? _____

B Time _____sec Errors _____ Comprehension _____

	5			6		
GRADE	L	M	H	L	M	H
TIME	73	62	60	58	56	45

C **The History of Golf**

Golf started in Holland as a game played on ice. The game in its present form first appeared in Scotland. It became very popular there, and kings enjoyed it so much that it was called "the royal game." James IV, however, thought that people neglected their work to indulge in this fascinating sport, and so it was forbidden in 1457. At last, someone persuaded James to try the game, and he relented when he found how attractive the game was. Golf immediately regained its former popularity, spreading gradually to other countries, and being introduced into North America in 1890. It soon gained a wide following and has grown in favor until there is hardly a town that does not boast of either a public or a private golf course.

____ 1. Where did golf start? _____
____ 2. How was it first played? _____
____ 3. Where did golf first appear in its present form? _____
____ 4. What was its nickname? _____
____ 5. Why was it called that? _____
____ 6. Why was golf forbidden by James IV? _____
____ 7. Why did the king change his mind? _____
____ 8. In 1890, where was golf introduced? _____
____ 9. How do we know golf has become very popular? _____

C Time _____sec Errors _____ Comprehension _____

	6		
GRADE	L	M	H
TIME	92	73	55

ORAL READING

Time		Comprehension		
Paragraph	Grade	Good	Fair	Poor
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
Median Grade	____			

CHECK LIST OF DIFFICULTIES:

Fluency
____ Word-by-word reading
____ Inadequate phrasing
____ Incorrect phrasing

Voice, Enunciation, Expression
____ Strained, high-pitched voice
____ Monotonous tone
____ Volume too loud ____ too soft
____ Poor enunciation in all reading
____ Poor enunciation of difficult words
____ Ignores punctuation
____ Habitual repetitions
____ Habitual additions
____ Habitual substitutions

Word Skills
____ Low sight vocabulary
____ Word-analysis ability inadequate
____ Guesses at unknown words from context
____ Ignores word errors and reads on
____ Poor enunciation of prompted words

General Reading Habits
____ Marked head movements
____ Loses place easily
____ Holds book too close or incorrectly
____ Frowns and shows signs of tenseness
____ Poor posture
____ Effort and attention low
____ Easily distracted

Appendix C

Woodcock Mastery Test - Revised

TEST 3

WORD IDENTIFICATION

Basal ..... *the first 6 consecutive correct responses that begin with the first item on an easel page.*

Ceiling ..... *the last 6 consecutive failed responses that end with the last item on an easel page.*

	Score (1 or 0)	Error Response
1.		is
2.		you
3.		and
4.		up
5.		cat
6.		stop
7.		come
8.		jump
9.		help
10.		book
11.		play
12.		sun
13.		blue
14.		two
15.		no
16.		boy
17.		little
18.		bed
19.		milk
20.		car
21.		swim
22.		fast
23.		down
24.		rug
25.		with
26.		find
27.		said
28.		night
29.		sleep
30.		after
31.		woman
32.		summer
33.		table
34.		work
35.		stove
36.		ground
37.		airplane
38.		chair
39.		because
40.		beautiful
41.		slowly
42.		watch
43.		early
44.		heavy
45.		already
46.		laugh
47.		hurry
48.		largest
49.		expert
50.		evening
51.		passage
52.		receive
53.		gasoline
54.		calendar
55.		human
56.		twilight
57.		certain
58.		dwarf
59.		furnace
60.		amazement
61.		torpedo
62.		vehicle
63.		departure
64.		yardage
65.		urgent
66.		mechanic
67.		wounded
68.		zenith
69.		petroleum
70.		stigma
71.		spectacular
72.		cologne
73.		miser
74.		hysterical
75.		pedestrian
76.		yacht
77.		mathematician
78.		almanac
79.		relativity
80.		instigator
81.		prognosis
82.		judicious
83.		causation
84.		vernacular
85.		alkali
86.		philanthropist
87.		naive
88.		inordinate
89.		carnivorous
90.		artesian
91.		quintessence
92.		heterogeneous
93.		cygnet
94.		expostulate
95.		tableau
96.		zymolysis
97.		tuberculous
98.		surreptitious
99.		internecine
100.		taupe
101.		quadruped
102.		epistrophe
103.		dossier
104.		picayune
105.		oenology
106.		zeitgeist

Test 3 Raw Score ◯

Appendix D

Peabody Picture Vocabulary Test - Revised

Plate Number	Word	Key	Response	Error
112	astonished	(3)		◇
113	liberated	(1)		○
114	portable	(2)		□
115	physician	(4)		△
116	canine	(3)		Ω
117	agriculture	(4)		♡
118	solar	(2)		☆
119	precipitation	(2)		◇
120	hovering	(3)		○
121	amphibian	(1)		□
122	dome	(3)		△
123	descending	(1)		Ω
124	embracing	(1)		♡
125	judicial	(2)		☆
126	mason	(4)		◇
127	fowl	(3)		○
128	lubricating	(1)		□
129	porcelain	(2)		△
130	appraising	(3)		Ω
131	beacon	(4)		♡
132	attire	(4)		☆
133	nape	(2)		◇
134	salutation	(2)		○
135	concave	(3)		□
136	incisor	(1)		△
137	dwelling	(1)		Ω
138	orating	(1)		♡
139	illumination	(4)		☆
140	submerging	(4)		◇
141	laminated	(2)		○
142	convergence	(2)		□
143	angler	(2)		△
144	receptacle	(1)		Ω
145	enticing	(3)		♡

Plate Number	Word	Key	Response	Error
146	stamen	(3)		☆
147	expunging	(3)		◇
148	prodigy	(1)		○
149	encumbered	(3)		□
150	depleted	(4)		△
151	recumbent	(1)		Ω
152	equestrian	(2)		♡
153	caliper	(4)		☆
154	impale	(1)		◇
155	ellipse	(4)		○
156	apparition	(2)		□
157	gable	(4)		△
158	rapture	(3)		Ω
159	edifice	(4)		♡
160	perusing	(2)		☆
161	portal	(1)		◇
162	bovine	(2)		○
163	mendicant	(3)		□
164	arable	(3)		△
165	morass	(3)		Ω
166	ingenious	(2)		♡
167	sibling	(1)		☆
168	laciniate	(1)		◇
169	deciduous	(4)		○
170	casement	(4)		□
171	copious	(2)		△
172	bumptious	(4)		Ω
173	imbibing	(4)		♡
174	consternation	(3)		☆
175	pedagogue	(1)		◇

Calculating Raw Score

Ceiling item .....

minus errors* .....

Raw score .....

*Count errors between highest basal and lowest ceiling only.