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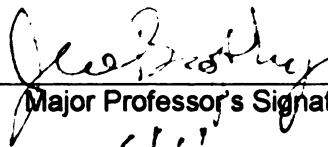
IMPROVING THE INTRINSIC MOTIVATION TO LEARN OF
FOURTH AND FIFTH GRADERS: A MOTIVATIONAL
ENHANCEMENT DELIVERED THROUGH A SOCIAL
LEARNING MODEL OF PARENT TRAINING

presented by

John Mark Froiland

has been accepted towards fulfillment
of the requirements for the

Ph.D. degree in Counseling, Educational
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**IMPROVING THE INTRINSIC MOTIVATION TO LEARN OF FOURTH AND
FIFTH GRADERS: A MOTIVATIONAL ENHANCEMENT DELIVERED
THROUGH A SOCIAL LEARNING MODEL OF PARENT TRAINING**

By

John Mark Froiland

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ABSTRACT

IMPROVING THE INTRINSIC MOTIVATION TO LEARN OF FOURTH AND FIFTH GRADERS: A MOTIVATIONAL ENHANCEMENT DELIVERED THROUGH A SOCIAL LEARNING MODEL OF PARENT TRAINING

By

John Mark Froiland

This study introduced and provided an initial test for the effectiveness of a motivational enhancement package (i.e., *The Love for Learning Project*) for fourth and fifth graders. Designed to elevate children's intrinsic motivation to learn, the enhancement package entailed teaching parents to use an autonomy supportive motivating style (i.e., the *Inspirational Motivational Style*) when interacting with their children about learning. Moreover, parents learned how to help their children set their own learning goals before engaging in homework assignments. In the families' homes, the consultant taught an autonomy supportive motivating style through the following: providing information about the motivating style; scripted modeling of the style in germane hypothetical learning-related scenarios; parental practice of the style in role-plays related to the scripted scenarios; and parental practice of the inspirational style with their children during educational games designed for parents and children. Parents also learned what learning goals are, practiced making some themselves, then learned how to teach their children how to set learning goals in an autonomy supportive way. The consultant used the collected learning goals sheets to provide feedback to the parents about the extent to which the written goals were actual learning goals. A parent booklet provided quick reference sheets for parents about the components of autonomy support,

the signs of intrinsic motivation to learn, and learning goals. The booklet also provided examples of each construct and differentiated them from related constructs (e.g., performance avoidance goals).

This study used a treatment versus control x pre-treatment versus post-treatment comparison. 15 families participated in the treatment group and another 15 families participated in the control group. The following measures were used in pre- versus post-treatment comparisons: the Relative Autonomy Index of the Academic Self-Regulation Questionnaire (SRQ-A); Children's Academic Intrinsic Motivation Inventory (CAIMI)-18-item general scale only; and the new Parent Questionnaire of Child Motivation to Learn (PQCML), which demonstrated excellent reliability and concurrent validity in this study. In addition, the Froiland Inventory of Homework Feelings (FIHF), a measure of child homework emotions (i.e., positive emotions, including sense of vigor; and symptoms of depression and anxiety, including somatic complaints) traced the development of self-reported emotional health from pre- to post-treatment. The FIHF also demonstrated excellent reliability and criterion-related validity in this study. As predicted, a MANOVA revealed that the treatment group grew significantly ($F(4, 25) = 5.10, p < .01, ES = .45$) in terms of motivational health relative to the control group. One-way ANOVAs then indicated that children in the treatment group showed marked improvement on the PQCML, FIHF, and the Relative Autonomy Index of the SRQ-A. Also, parents' high post-treatment satisfaction survey scores were corroborated by a 0% attrition rate. Overall, the Love for Learning Project showed signs of promise as a motivational and emotional wellness enhancement for fourth and fifth grade children.

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To my son Elijah John and my wife Denice. Also, to Dr. John Lee Froiland, M.D., who taught me how to love learning. Above all to my gracious Saviour, Jesus Christ, who gave me the strength to heartily complete this dissertation.

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LIST OF NEW ABBREVIATIONS

IMS	Inspirational Motivational Style
PQCM	Parent Questionnaire of Child Motivation to Learn
FIHF	Froiland's Inventory of Homework Feelings

CHAPTER I

INTRODUCTION

Improving the Intrinsic Motivation to Learn of Fourth and Fifth Graders: A Motivational Enhancement Delivered Through a Social Learning Model of Parent Training

Intrinsic motivation involves finding an activity rewarding in and of itself (Gottfried, Fleming, & Gottfried, 2001; Grolnick, Kurowski, & Gurland, 1999; Rigby, Deci, Patrick, & Ryan, 1992). Put another way, the process of performing the activity (e.g., reading; doing aerobics) helps meet inner psychological needs such as increasing perceived competence (or mastery), sense of relatedness to others, or perceived autonomy (Rigby et al., 1992). The intrinsically motivated individual may also engage in an activity for the satisfaction of curiosity or interest (Amabile, 1997; Gottfried et al., 2001).

Regarding intrinsic motivation to learn in particular, Gottfried et al. (2001) define academic intrinsic motivation as “the enjoyment of school learning characterized by a mastery orientation, curiosity, persistence, task endogeny; and the learning of challenging, difficult, and novel tasks.” (p.4). However, Brophy (1999) warns that an overemphasis on the enjoyment of learning may lead to inappropriate motivational recommendations. Namely, he points out that teachers should not feel pressured to make learning activities fun in the same sense as video games and carnival rides, since learning is a much different type of task. In accordance, the current author takes the position that intrinsic motivation to learn involves cherishing learning (i.e., holding a deep

appreciation for learning or cognitively delighting in the process of gaining knowledge and understanding), even though it may not always be affectively pleasing. Nonetheless, students who are intrinsically motivated to learn usually experience more positive affect toward school and learning than other learners (e.g., Cordova & Lepper, 1996; Stipek, Salmon, Givvin, & Kazemi, 1998). In fact, one study found that students who were intrinsically motivated to learn often had the perception that time *flies by* during class and homework (Conti, 2001).

Self-determination theory adds further complexity and insight to the construct of intrinsic motivation by positing that intrinsic motivation is the highest or purest form of autonomous self-regulation (Grolnick et al., 1999; Rigby et al., 1992). The theory provides a framework for conceptualizing the developmental level of self-regulation that a child experiences for important behaviors (e.g., doing schoolwork) that the child is not initially intrinsically motivated to perform. The major idea is that a child can come to freely choose to do a task (without the impetus of external rewards or negative internal states such as guilt or anxiety) that he or she originally found detestable, boring, or uninteresting. More specifically, the lowest form of self-regulation is external regulation, wherein the child feels that he or she is controlled by parents and teachers (and the reward structures they create). External regulation is associated with the least psychological health of all the levels of self-regulation (Ryan & Connell, 1989). Introjected regulation, the second level of self-regulation, is an improvement over external regulation in that the child engages in desirable behaviors with or without rewards, punishments, or commands. However, the child still feels somewhat controlled, albeit from within. Namely, the introjected child will often do her homework without her

parents coercing her into doing it, yet she will do it to avoid feeling guilty or ashamed. Interestingly, introjected children are more likely to worry about school or make self-deprecating statements than extrinsically regulated children (Ryan & Connell, 1989). It is as if the pressure from adults has now been internalized (Rigby et al., 1992).

The development of identified regulation (i.e., seeing the value or usefulness of an activity) is considered a form of autonomous regulation (e.g., Grolnick et al., 1999) and is likely to occur when adults help the child see the task (or domain) as germane, meaningful, or valuable (Brophy, 1999). In the identified regulation stage, children study because they see the usefulness of learning the material. For instance, a child may begin to freely choose to do his math homework because he is now convinced that math skills will help him function effectively in society.

Interestingly, when the child begins to develop identified self-regulation of originally extrinsically regulated behaviors, she experiences many of the benefits of intrinsic motivation (Grolnick et al., 1999; Rigby et al., 1992). Moreover, many of the same factors associated with the development of identified self-regulation are also associated with intrinsic motivation, such as autonomy supportive communication and provision for a sense of relatedness (Rigby et al., 1992).

According to self-determination theory, integrated regulation is the highest form of autonomous self-regulation below pure intrinsic motivation (Rigby et al., 1992). Integrated regulation involves engaging in activities because they flow out of one's sense of self (Rigby et al., 1992). A teacher, for instance, might enjoy going the "extra mile" to prepare a spectacular lesson plan because teaching has become a deep part of her. However, in the realm of children's motivation for scholastic learning, integrated

regulation is not emphasized as a part of the continuum. Rather, after identified regulation, the next highest phase of academic self-regulation is intrinsic motivation (Reeve, 1996; Ryan & Connell, 1989). This is due to the fact that child interviews revealed that external, introjected, identified, and intrinsic reasons were the main reasons that children engaged in scholastic activities (Ryan & Connell, 1989). Thus, Ryan & Connell's measure of academic self-regulation uses intrinsic as the highest subscale (see Data Sources and Treatment Evaluation within the Methods section).

Self-determination theory informs the motivational assessment process by suggesting that the child may begin to manifest growth in autonomy (e.g., move from writing the book report to avoid guilt, to writing the book report because it helps the child to reach personal goals) before she begins to actually show remarkable increments on measures of pure intrinsic motivation (e.g., before she would say in an interview that she actually cherishes learning through reading books). Indeed, Froiland (2003) found that children usually responded immediately with overt signs of autonomy and intrinsic motivation in response to parental autonomy support (chi-square analysis revealed the relationship was significant, $p < .001$). However, the autonomous behaviors and verbalizations were slightly more frequent than purely intrinsically motivated behaviors. This suggests that, despite the theoretical and empirical association between autonomy and intrinsic motivation, it may be necessary to trace the development of both when conducting assessments of children's response to an intrinsic motivational intervention.

Problem

One longitudinal and two cross-sectional studies have shown that most children experience a gradual decline in intrinsic motivation as they progress from kindergarten to

12th grade (Gottfried et al., 2001; Lepper, Sethi, Dialdin, 1997; Sansone & Morgan, 1992). This is quite alarming, especially considering the numerous educational benefits of intrinsic motivation. For example, intrinsic motivation to learn is positively associated with various measures of academic growth, such as creativity (Grolnick, Gurland, DeCoursey, Jacob, 2002), long-term recall, deeper understanding (Conti, Amabile, & Pollack, 1995) and reduced drop-out rates (Vallerland & Bissonnette, 1992). Children with higher levels of academic intrinsic motivation also tend to get higher grades (Gottfried, 1990).

Moreover, intrinsic motivation is considered a psychological protective or resilience factor (Wyman, Sandler, Wolchik, & Nelson, 2000). Indeed, children and adolescents who have an intrinsic motivational orientation have fewer depressive symptoms (Boggiano & Barret, 1992; McClure, Rogeness, & Thompson, 1997). Furthermore, college-aged students with an intrinsic goal orientation tend to have higher levels of psychological well-being, a greater sense of vitality, fewer reported physical symptoms, fewer narcissistic tendencies, and less Machiavellianism (Kasser & Ryan, 1996; McHoskey, 1999; Schmuck, Kasser, & Ryan, 2000).

In addition, there is some evidence that children who develop autonomous self-regulation or intrinsic motivation are less likely to engage in delinquent behavior at school (e.g., Battistich, Schaps, Watson, & Solomon, 1996; Grolnick & Ryan, 1989). An even more clear example of the protective strength of intrinsic motivation is provided by Grolnick, Kurowski, Dunlap, & Hevey (2000). They found that children from autonomy supportive homes experienced fewer increases in learning problems and acting-out when making the notoriously tough transition to junior high. Thus, interventions that foster

intrinsic motivation must be developed, in order to promote children's psychological and academic health both now and in the future.

Rationale for Target Selection

This study focused on fourth and fifth graders for three reasons. First of all, academic intrinsic motivation becomes increasingly stable, in terms of individual stability within the group (i.e., rank-order consistency), as the school years progress. Thus, much like intelligence and personality, academic intrinsic motivation may become less pliable or responsive to interventions as the child approaches adolescence (Gottfried, 2001). Furthermore, intrinsic motivation to learn and autonomous self-regulation are preventive of middle school adjustment problems (Grolnick et al., 2000). Also, by fourth grade, children are probably capable of learning how to set and implement learning goals, since children become better at using learning strategies as elementary school progresses (Paris & Cunningham, 1996).

The primary consultees in this study were parents. This is due to the belief that parents are usually the most influential over a child's attitude toward school (Christenson, 1995). Indeed, quite a few studies have shown that parental autonomy support is related to higher intrinsic motivation and has many other psychological and educational benefits (e.g., Deci, Driver, Hotchkiss, & Wilson, 1993; Gottfried, Fleming, & Gottfried, 1994; Grolnick et al., 2002). Moreover, one study suggested a connection between an autonomy supportive style and an authoritative style, which is known to have many long-term developmental benefits. Ginsburg & Bronstein (1993) found that under-controlling (defined by the qualities of permissive parents) and over-controlling (defined by the qualities of authoritarian parents) parents had children who had an extrinsic motivational

orientation. On the other hand, children of autonomy supportive (defined chiefly by much of the responsive aspect of authoritative parenting) parents were more intrinsically motivated. This study suggests a notable link between these vast, yet separated, literatures showing the plethora of benefits of autonomy supportive and authoritative parenting styles (Baumrind, 1993; Ginsburg & Bronstein, 1993). Baumrind (1993) found that the children of authoritative parents have much better outcomes than children of “good-enough” parents (i.e., parents who showed average levels of responsivity to their children), suggesting the appropriateness of an enhancement approach. Moreover, Baumrind (1993) also suggested that even authoritative parents could become more effective through a boost in their perceived ability to parent effectively (what could be called parental self-efficacy). Because of the use of a social learning model of parent training/consultation, it is likely that the Love for Learning Project will enhance the self-efficacy of the parents (Brown, Przywansky, & Shulte, 2001), thereby increasing the effectiveness of parents who already have a “good-enough” autonomy supportive or an authoritative style.

In terms of the preventive nature of this intervention, there is an additional benefit to seeking to enhance family autonomy support. The results from various studies suggest that the parents of anxious and depressed children and adolescents are highly controlling, failing to grant acceptable levels of autonomy support (Kendall, Chu, Pimentel, & Choudhury, 2000). Moreover, Williams, Frankel, Campbell, & Deci (2000) have argued that autonomy support is antithetical to the type of negative and critical family interactions that are associated with worse outcomes for those with various psychological

and physical disorders. Thus, the family may provide the ideal target for a preventive intervention that teaches an autonomy supportive style.

Rationale for Choice of Intervention

Although the rationale for promoting parental autonomy support and elevating intrinsic motivation is described above, this section will briefly describe the rationale for teaching the use of learning goals. Then, the rationale for using the social learning model (SLM) of parent training will be explained.

Children with *learning goals* (also referred to as task-involvement or mastery goals) are oriented toward increasing their knowledge and skill (Brophy, 1998; Dweck & Leggett, 1988). In contrast, children with *performance goals* are concerned with acquiring a good evaluation of their ability (Brophy, 1998; Dweck & Leggett, 1988). Children with learning goals tend to enjoy the following cognitive, affective, and behavioral benefits (Dweck & Leggett, 1988): they view high effort as a strategy for pursuing mastery, rather than viewing the need for exerting high effort as a sign of low ability; they are buffered against learned helplessness because failure is perceived as feedback about a need to revise one's strategy; emotional energy is channeled into the learning process, rather than distracting one from learning; children experience ongoing intrinsic rewards for facing challenges with effort; and challenging tasks are sought, as opposed to being avoided due to a risk of a bad evaluation. It is the author's position that learning goals are a specific type of intrinsic goals, which all orient one to finding value in an activity or area of activity, independent of evaluation concerns. (Kasser & Ryan, 1996). For example, physical fitness goals (another subtype of intrinsic goals), like learning goals, lead to greater persistence, less anxiety, and higher intrinsic interest

(Kasser & Ryan, 1996; Schmuck et al., 2000). Conversely, exercising in order to impress others is an extrinsic goal, which brings the same type of negative consequences that performance goals often bring in the academic domain.

Recent research has brought into question the simple contrast between learning and performance goals (e.g., Hidi & Harackiewicz, 2000; Pintrich, 2000). Although the issue is not completely resolved, findings are converging to suggest that performance goals and learning goals are somewhat independent of each other (Hidi & Harackiewicz, 2000), much like intrinsic and extrinsic motivation (Lepper et al., 1997). Furthermore, one study suggested that children who have high levels of both learning goals and performance goals may experience the same motivational and affective benefits as those who are only high in learning goals (Pintrich, 2000). On the other hand, children with high levels of performance and low learning goals show the motivational and affective deficits that were originally summarized by Dweck & Leggett (1988). This suggests that it is the presence of learning goals that should be strived for in the Love for Learning Project, not the eradication of performance goals. However, there is mounting evidence that performance goals can be divided into performance-avoidance/self-defeating goals (i.e., focused on avoiding a negative judgment of competence) and performance-approach or self-enhancing goals, which are focused on reaching a positive evaluation of competence (Rawsthorne & Elliot, 1999; Skaalvik, 1997). Not surprisingly, a meta-analytic review suggested that most or all of the negative effects of “performance goals” are accounted for by performance-avoidance goals (Rawsthorne & Elliot, 1999). Thus, although the consultant taught the parents how to teach their children to set learning goals, he also mentioned that it is okay for the child to also have a secondary goal of

getting good scores on homework and tests. The key is that the child does not let the performance-approach goal turn into apprehension or a distraction from the process of pursuing the learning goal.

The Love for Learning Project taught parents how to use an autonomy supportive style of communication, particularly when talking about learning or homework. Parents also learned how to teach their children to set learning goals related to school. This study can be considered a child motivational wellness enhancement and parent motivating style enhancement. This is because parents and children were not selected for treatment based on any identified motivational orientation or motivating style deficiency; rather, it was hoped that the preventive intervention would enhance parenting style and child motivation, regardless of their starting points. As mentioned earlier (see Problem section), intrinsic motivation to learn is a precious resource that enhances important aspects of children's academic and psychological health, while protecting children from upcoming stressors.

This study sought to foster child intrinsic motivation through a SLM of parent training that teaches parents how to become more autonomy supportive. SLM training/consultation involves effective teaching techniques, such as verbal persuasion, modeling, role-playing and corrective feedback (Brown et al., 2001). SLM training is highly effective for teaching new skills in a way that enhances the self-efficacy and the performance of the trainee (Schunk, 1999; Sterling-Turner, Watson, Wildmon, Watkins, & Little, 2001). In fact, SLM leads to greater gains in self-efficacy and treatment integrity than more traditional/didactic forms of instruction (Schunk, 1999, Sterling-Turner et al., 2001). In particular, one study found that an SLM form of parent training

was especially effective in raising treatment integrity with mothers of a lower socioeconomic status (Knapp & Deluty, 1989). A model of parent training that enhances parental self-efficacy seems especially suitable to the current study, since enhanced self-efficacy will sustain the parent's motivation (Schunk, 1999) to support the child's motivation.

This study was designed to make an initial determination of the Love for Learning Project's effectiveness. In particular, the following predictions were examined: 1) the Love for Learning Project would lead to significantly enhanced intrinsic motivation, as measured by the Relative Autonomy Index, the Parent Questionnaire of Child Motivation to Learn, and the Children's Academic Intrinsic Motivation Inventory; 2) the Love for Learning Project would lead to significantly enhanced emotional health surrounding homework, as measured by Froiland's Inventory of Homework Feelings; 3) the Love for Learning Project would be satisfying to parents as measured by the Parent Satisfaction Form for Motivational Consultation and the attrition rate.

CHAPTER II

METHOD

Participants and Setting

The participants in this study were fourth and fifth-grade children, along with their parents. The families were recruited primarily from three private elementary schools in or near a mid-sized Midwestern city. Parents were primarily of middle socioeconomic status, while their children were from general education classrooms. Data on race and ethnicity were not formally collected, however, the treatment group consisted of 11 white children, one Native-American/white child, one African-American child, one African-American/white child, and one Hispanic child. Since the control group was drawn from the same population (a predominantly white student body), it is likely that its racial and ethnic composition was similar.

15 parents and children (11 boys and 4 girls) participated in the treatment group and another 15 families (with 11 girls and 4 boys) participated in the control group. Eight fourth graders and seven fifth graders participated in the treatment group, while six fourth graders and nine fifth graders participated in the control group.

Parents were recruited primarily through schools in which the teacher sent the Love for Learning Project flyer (see Appendix A) home with all of the fourth and fifth grade children in the classroom. This flyer let parents know of the opportunity to either fill out motivational surveys at the beginning and end of the study or to participate in the sessions, in addition to filling out the surveys.

The control group consisted of families that returned the flyer and indicated that they would be willing to only fill out surveys. The author sent these families the four surveys during the week that the treatment group's sessions began. The author never met with the control group families in person. When most of the treatment group finished the seven sessions (about seven weeks later), the same surveys were sent to the control group families again.

A total of seven parent training sessions were conducted, once a week. If necessary due to individual family scheduling problems, the sessions were stretched out over as long as nine weeks (10 weeks was the preset limit). Each session lasted approximately 30 minutes in each family's home, which increased the likelihood that a variety of families was able to participate (Wood & Baker, 1999).

Procedure

This intervention taught parents to develop an autonomy supportive style and help their children set learning goals through modeling, role-playing, and feedback. Some of the autonomy supportive modeling involved directly encouraging an intrinsic motivational orientation in the child, which is a method that autonomy supportive teachers commonly use during instruction (Reeve & Cai, 1999). The autonomy supportive style was first introduced with a clear explanation of the construct, along with the associated benefits for child learning and well being. Because many people conflate autonomy support with providing unlimited choice, the term *inspirational motivational style* was used as the general label for the construct. This is warranted since numerous studies show that autonomy support is associated with high levels of intrinsically motivated (or inspired) learning. Moreover, an autonomy supportive motivating style

involves components such as acknowledging the child's feelings that have nothing to do with choice. Also, autonomy support is given in a developmentally appropriate fashion, so that choice is only given to the extent appropriate.

In addition to an autonomy supportive style, a controlling style of motivating was described, along with the negative outcomes associated with it. Also, an under-involved or permissive style of parenting was briefly explained and contrasted with autonomy support, so that parents were able to clearly differentiate autonomy support from less salubrious motivational styles.

Once the autonomy supportive style was clearly explained and any questions were answered, the parents were provided with The Love for Learning Project: Reference Booklet for Parents (see Appendix B), which reiterated what was already explained and also provided some hypothetical examples of parental autonomy support and likely child reactions. Within the booklet, quick reference sheets were pointed out which break the inspirational motivational style into rather concrete components (see Appendix B).

Next, the consultant assured the parents that the training sessions would help them to learn and apply autonomy support in a sound and interesting way. This is called verbal persuasion in Bandura's social learning model and likely increased the parents' self-efficacy for learning the motivating style. A positive expectation for a good outcome is important in SLM consultation and in therapeutic outcomes in general. Likewise, a relationship marked by warmth, empathy, and trust leads to greater consultee satisfaction, consultee imitation of the model (Brown et al., 2001), and better therapeutic outcomes in general (Template Implementation Work Group of the Board of Professional Affairs, Board of Scientific Affairs, and the Committee for the Advancement of Professional

Psychology of the American Psychological Association, 1999). Thus, a non-specific part of this motivational enhancement involved the consultant conveying that he shared the parents' interest in the childrens' motivational growth and well being.

Once the parents said that they understood the autonomy supportive style, the consultant modeled a component of autonomy support in a hypothetical education-related scenario the parents were likely to encounter regularly. One of the parents played the role of the child and responded rather favorably (i.e., with signs of intrinsic motivation or autonomy as described in the Reference Booklet for Parents, Appendix B). While it was explained that the child will not always show overt positive responses, the parent learned about the general relationship between an autonomy supportive style and child responses. Also, the parents likely gained a sense of the superiority of autonomy support as they experienced the way in which the autonomy supportive style is much more pleasing to receive than the controlling or under-involved style. Before demonstrating an autonomy supportive style in a particular scenario, the consultant modeled what not to do in an isomorphic situation. Namely, the consultant either used an over-controlling or an under-involved style, often in an exaggerated way to spark levity. After each particular pair of scenarios was displayed, the parents were invited to discuss their observations and point out the components of autonomy support in the positive scenario and control or under-involvement in the negative scenario. The consultant introduced each new set of scenarios (i.e., the opposing negative and positive models) with a brief explanation of the particular component of autonomy support being featured. Also, the consultant handed out a role-play sheet for each session which described the scenarios and the scripts for roles the parents played (see Appendix C).

The following are examples of scenarios that involved modeling and role-playing:

1a) Warm listening- the positive model involves a parent warmly and attentively watching and listening as the child describes how her math test went; 1b) Contrast- the parent pretends to listen to her child, saying, “uh-huh” frequently but failing to make eye-contact; 1c) Contrast- as the child is describing her feelings about the test, the parent interrupts and says “bottom line, what did you score?” 2a) Providing an explanation when the parent has to ask the child to do something related to school- the parent clearly explains why he wants his son to start working on his social studies project soon, also reminding the child of the features of the project that are interesting or the skill that he might develop; Contrast- the parent says that he better see his son sitting at his desk in 10 seconds, “or else!” 3) Alternate version of #2- the child has procrastinated excessively and still refuses to return to his study place, even after the parent makes the aforementioned explanation and calmly waits momentarily. After taking a deep breath, the parent clearly explains the consequence that will be administered if the child does not begin doing his work, in a calm and concise manner. Before beginning the scenario, the consultant pointed out that he would model appropriately adjusting the level of autonomy support to the situation and in response to the child’s initial reaction. It was also explained that autonomy support is quite different from “permissive parenting”, which leads to a child lack of self-control, rather than autonomous self-regulation. In addition, it was explained that there is a tendency to become excessively controlling when the parent senses pressure or frustration (Grolnick, et al., 2002), thus the model would regulate his anger by taking a deep breath and remain optimally autonomy supportive.

In addition to the above examples, some of the following components of autonomy support were highlighted through scenarios: empathic statements; autonomy supportive response to a good grade (“Wow, that’s great, I noticed how much effort you put into it; I’m interested to hear what you’ve learned”); autonomy supportive and learning oriented response to a bad grade; mastery-oriented feedback; subtly point to the intrinsic value of the task; and a few instances in which the model recognizes and shows appreciation for child displays of intrinsic motivation or autonomy. Basically, the parents had an opportunity to practice most of the components of the inspirational style listed in the two quick reference sheets at the back of the Love for Learning Project: Reference Booklet for Parents (see Appendix B).

During the modeling, the parents often saw the positive models receive relational rewards related to the child’s immediate display of intrinsic motivation (e.g., a smile), while the negative models received negative responses (e.g., negative facial expression or sighs of boredom). This increased the likelihood that the parents would imitate the positive model, since people are more likely to imitate a model who experiences success or receives rewards (Schunk, 1999; Webster-Stratton, 1981).

Parents also received a sheet that highlights the observable features of intrinsic motivation and autonomy adapted from coding sheets used in previous studies (Froiland, 2003; Gutman & Sulzby, 2000). The parents began to recognize the signs of intrinsic motivation and autonomy as the consultant played the role of the child during role-plays. This likely was especially useful when both parents were present, so that the parent who was not in the role-play could watch the consultant display signs of autonomy and intrinsic motivation. It is possible that the parents were more likely to adhere to an

autonomy supportive style when they began to notice the child responding with autonomy or intrinsic motivation. Moreover, the parent who is aware of the signs of intrinsic motivation may react positively when the child is responsive to autonomy support, which could encourage the child to further display autonomy and intrinsic motivation.

In order to provide levity, the first role-play asked the parent to act like an absurdly controlling or laissez-faire parent (e.g., “I see, you did not turn in your homework, drop and do 79 push-ups”; or, “you want to stay home from school tomorrow, sure, let’s watch Gilligan’s island at 9 a.m.). This was intended to ease any sense of performance pressure (Webster-Stratton & Herbert, 1993). During and after the autonomy supportive role-plays, the consultant provided informational feedback and encouragement, especially when it was requested. In order to facilitate generalization, every parent (or couple) received a weekly homework assignment, which asked the parents to come back with at least one written instance in which they were able to successfully use an autonomy supportive style. After the family briefly shared a few of these instances at the next meeting, the consultant collected the written story, noting how it would be exciting to read.

The learning goals training began in the second half of the second session. Family therapists and parent trainers alike have found that the entire family responds to significant change in one member, and sometimes a great deal of sudden change can elicit resistance from the child, the parent, or the family as a whole (e.g., Minuchin & Fishman, 1981; Webster-Stratton & Herbert, 1993). Introducing the learning goals after

the parent and the child became adapted to the new communication style may have prevented unnecessary resistance or a sheer cognitive overload on the part of the parents.

During the last 5-10 minutes of each session, the parents had an opportunity to practice the autonomy supportive motivational style in a non-threatening and fun way. The consultant introduced one or two new educational games each session and highlighted for the parents which inspirational components were especially germane. The relevant inspirational components for each game were highlighted on the weekly Inspirational Motivational Style Vignettes and Record of Parent-Child Play (see Appendix D), which was handed out each week right before initiating the educational game. After about 5 minutes of playing the game in front of the consultant, he departed while expressing eagerness to hear about how the game(s) went. Often, the consultant would ask the families to create puzzles for him to solve the next week (see the Treatment Manual: Family Session Plans in Appendix E for a description of the different educational games that were played and how they were introduced within the context of particular sessions).

Just as with the autonomy supportive style, the consultant introduced learning goals by clearly and plainly defining the concept and the associated benefits. Again, the concepts were reiterated in the parent booklet for later reference. Also, performance-avoidance goals were clearly described, along with their negative effects. The key hand-out was the learning goals sheet (see Table 1), which is the form the child later used to fill out his/her learning goals. The first copy of this handout provided the parents with examples of learning goals for different subjects (see last page of Appendix B). Next, each parent received a learning goals sheet with three assignments already written in, but

no goals. The parents were asked to create learning goals, based on the simple reminder which was bold-faced at the bottom of the learning goals sheet (see Table 1). The consultant helped the parents determine if their learning goals followed the prototype closely enough. At the end of the session, the consultant handed out 4 copies of the learning goals sheets (one for each school night). These goals were collected the following week and reviewed for a rough measure of treatment integrity (described in the next section). Also, the consultant briefly reviewed the learning goals during a quick break. When any of the goals turned out to be performance goals (especially performance avoidance goals), the consultant gave informational feedback to the particular parent. Parents were asked to teach the child how to set learning goals in an autonomy supportive way. One modeling and role-playing sequence was devoted to helping the child set learning goals in an autonomy supportive way (instead of a controlling way).

Standardization of Treatment

Each family system is unique. For instance, each family may ask the consultant different questions about particular components of the autonomy supportive style practiced in role-plays. Nonetheless, the motivational enhancement package was standardized to a large degree by the use of a clear and specific plan for each session (see Appendix E). Minor adaptations to the session plans for parents who had limited reading or writing skills were also noted in the Family Session Plans (Appendix E), although no such adaptations were required with the parents in treatment group.

Table 1
The original learning goals sheet used in the study.

My New Learning Goals For Tonight

Homework assignments (fill in each assignment)

What I Hope to Learn

1)

2)

3)

How many homework assignments did you have today?

Progress Toward New Learning Goals (for each goal you made above, briefly write about one thing you became a little better at, one thing that you learned, or one thing you thought was interesting)

1)

2)

3)

Remember, a learning goal means that you try to understand something better, or become a little better at doing something. Your own learning goals will help you learn more and like learning more!

Families in the treatment group underwent Sessions 1 thru 7 in order, even if they missed a session. For example, if a family could not schedule a meeting during week 3, they received session 3 during the fourth week.

Only families that participated in at least 5 sessions over a ten-week period were to be included in the data analysis for the treatment group.

Data Sources and Treatment Evaluation

The treatment was evaluated in terms of a 2 (treatment versus control) x 2 (pre-treatment versus post-treatment) multivariate analysis of variance (MANOVA) for scores on four instruments. Because intrinsic motivation is primarily an internal experience, it seemed wise to use self-report measures of children's intrinsic motivation before and after treatment. Ryan and Connell's (1989) Academic Self-Regulation Questionnaire (SRQ-A) was used as a measure of children's growth in intrinsic motivation and autonomous self-regulation. The SRQ-A has the following four subscales, which correspond to the four levels of regulation in self-determination theory: external regulation scale (feeling that they engage in academic behaviors because they have to, want to obtain an extrinsic reward, or want to stay out of trouble); introjected regulation scale (engaging in academic behaviors to avoid guilt, impress others, or avoid feeling bad about oneself); identified regulation scale (participating in academic activities because one sees the value or has a learning goal, such as to understand the material); and finally, intrinsic regulation scale, which entails engaging in learning activities because one finds them enjoyable (or loves learning). In order to succinctly trace the growth of the children's autonomous self-regulation, this study measured changes in the Relative Autonomy Index (RAI) of the SRQ-A at pre- and post-treatment.

The Relative Autonomy Index is calculated with the following formula: $(2 \times \text{Intrinsic}) + (\text{Identified}) - (\text{Introjected}) - (2 \times \text{Extrinsic})$. In accordance with self-determination theory, the RAI rewards progressively more points to healthier forms of self-regulation. This order has been validated in a series of studies involving hundreds of third through sixth graders. For instance, Ryan and Connell (1989) found that the four variables are ordered in perfect simplex model: intrinsic items correlate positively and moderately with identified items, while showing no correlation with introjected items and a negative correlation with extrinsic items. Moreover, concurrent validity for the RAI has been demonstrated, with the following correlations with Harter's mastery motivation scale: $-.41$ ($p < .01$) with the extrinsic scale; $.04$ with the introjected scale; $.50$ ($p < .01$) with the identified scale; and $.54$ ($p < .01$) with the intrinsic scale. Likewise, teacher ratings of 403 students' motivation showed a negative correlation with the extrinsic scale, no correlation with the introjected scale, and a greater positive correlation with the intrinsic scale than the identified scale. A similar discovery was made when correlating Tero & Connell's Children's Academic Coping Inventory with the SRQ-A, such that denial was positively associated with the extrinsic scale and less positively associated with the introjected scale.

The developer of the Love for Learning Project also traced children's development with the Children's Academic Intrinsic Motivation Inventory (CAIMI), developed by Gottfried (1990). The CAIMI is adequately reliable with an alpha coefficient of $.83$ for the general scale. Test-retest reliability over a 2-month interval ranges from $.69$ to $.75$. In terms of criterion-related validity, general academic intrinsic motivation based on CAIMI scores is negatively correlated with academic anxiety in all

academic subjects (as measured by the Children's Academic Anxiety Inventory, the CAAI). CAIMI scores also showed moderate correlations with the following germane parts of Harter's intrinsic versus extrinsic orientation scale: general academic intrinsic motivation showed a strong relation with preference for challenge versus easy work ($r = .62$, at $p < .001$), a moderate relation with curiosity versus grades (i.e., an overemphasis on grades as a motivating factor) and mastery versus teacher dependence ($r = .41$ and $.35$, respectively, both at $p < .001$). In addition, the CAIMI general scale is associated with better school achievement and better grades.

There are two reasons for using a second measure of intrinsic motivation. First of all, the SRQ-A may be more sensitive to treatment because it includes autonomous forms of self-regulation that do not appear on the CAIMI. As mentioned earlier, children may show more autonomy before they display increments in pure intrinsic motivation. Secondly, although the SRQ-A may be more sensitive to change, the validity of the CAIMI is better established. The enhanced validity of the CAIMI may be especially useful in checking the concurrent validity of the Parent Questionnaire of Child Motivation to Learn (PQCML).

The PQCML (see Appendix F) was designed in order to see whether the current motivational package would improve parents' perception of children's intrinsic motivation to learn (including autonomous self-regulation and learning orientation). This scale was constructed according to the Likert method of attitude scale construction described in Mehrens & Lehman (1991). The items were influenced by the following: Deci & Ryan's theory of self-determination (in particular, identified and autonomous self-regulation), definitions of learning goals/mastery goals (e.g., Dweck 1988); the

author's conception of learning goal orientation as a subtype of an intrinsic goal/intrinsic motivational orientation; Gottfried's (2001) definition of academic intrinsic motivation; and Brophy's (1999) article which asks for more than a simply affective emphasis in the construct of motivation to learn. A synthesis of all of this leads to the author's definition of intrinsic motivation to learn, "cherishing learning". This definition focuses on a cognitive delight for learning. It also acknowledges that children may be at different levels of cherishing learning or may have a more similar experience to one who cherishes learning as they become more autonomous. One who cherishes learning is likely to have a learning orientation and set learning goals. Also, one who cherishes learning is more inclined to enjoy school learning, seek challenging and novel tasks, and have a mastery orientation as Gottfried (2001) theorizes. It is recognized that this scale is not a measure of the child's intrinsic motivation, but rather the parent's perception of the child's intrinsic motivation and statements or behaviors that are associated with intrinsic motivation.

The PQCML began with 41 items. All parents in both groups of the current study filled out the entire questionnaire. However, after the questionnaires were filled out at pre-treatment, the researcher calculated item-total correlations for the whole sample, and technically eliminated all items with less than a .30 correlation with the total score. After deciding which items made the cut, internal consistency reliability (i.e., Cronbach's coefficient alpha) was computed. Concurrent validity was tested by correlating the PQCML scores with the children's general scale scores on the CAIMI and SRQ-A. A mild correlation was expected, since children's CAIMI scores show a .25 correlation with teacher perception of child academic intrinsic motivation (Gottfried, 1990). On the other

hand, it is possible that the correlation between the PQCML and the SRQ-A would be slightly higher since both include autonomous self-regulation and intrinsic motivation to learn. Although only the reliable version of the scale was used for all further analyses, the entire scale was still administered at post-treatment for the sake of standardized protocol. Items that were discarded from analyses were simply ignored during score computations.

In order to assess the effects of the current motivational enhancement on students' homework anxiety and other emotions, Froiland's Inventory of Homework Feelings (FIHF) was administered to all treatment and control students before and after treatment (see Appendix G). The scale was refined and the reliability was established in the same way as the PQCML. The 21 scale items relate to symptoms and associated features of anxiety and depression in children, but are specific to homework. The reason for including some items that relate to depressive symptoms is twofold: 1) anxious and depressive symptoms cluster together in children (Achenbach, 1991); 2) many symptoms of anxiety in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (American Psychiatric Association, 2000) are also symptoms of depression in children (e.g., irritability, loss of concentration, fatigue). The reason for including items related to positive feelings about homework is due to the fact that Likert construction requires a mixture of positive and negative items, in order to avoid inducing a response set. The concurrent validity of this scale was measured by correlating pre-treatment scores with the CAIMI. A mild correlation was expected, since CAIMI scores are negatively related to academic anxiety and an intrinsic orientation in general is negatively related to anxiety and depressive symptoms (Gottfried, 1990; Kasser & Ryan, 1996).

Within the FIHF are four items that relate to perceived vigor (i.e., a strong sense of mental and physical vitality). Two of the items deal with somatic complaints (i.e., “my muscles get tight or I get headaches when I do my homework”; “my stomach hurts when I do my homework”). These items are included because children often convey emotional distress through somatic complaints (House, 1999). Moreover, the author is interested in the potential of reducing psychosomatic complaints through fostering intrinsic motivation, since one study found a significant negative relationship between intrinsic goals and somatic complaints in college students (Kasser & Ryan, 1996). Likewise, Kasser & Ryan (1996) also found that perceived vitality is positively correlated with intrinsic motivation. In order to assess the effects of the inspirational motivational style and learning goals (a subtype of intrinsic goals) on somatic complaints and vitality, a separate one-way ANOVA was conducted on the pre- to post-treatment difference scores for the four item Vigor subscale. The Vigor scale includes the two somatic items and two items related to perceived vitality (i.e., “I get tired while doing my homework”, and “I feel strong when I do my homework”). The Vigor scale fits well within the overall FIHF because muscle tension is a symptom of anxiety and an associated feature of depression (A.P.A., 2000). Likewise, headaches and stomach pain are associated features of both depression and anxiety disorders (A.P.A., 2000). The item dealing with getting tired addresses fatigue, which is a symptom of both depression and anxiety. Conversely, feeling strong is antithetical to fatigue.

Parent satisfaction with the motivational enhancement package was evaluated through a short consultation evaluation survey (see Appendix H) that measures the family’s perception of the effectiveness of the motivational enhancement, appreciation

for the sessions, and perceived consultant expertise and communication style. As in other home-based consultation studies (e.g., Greene, Kamps, Wyble, & Ellis, 1999), the satisfaction survey involves Likert scale questions that are specific to the particular treatment.

The treatment integrity/dosage for autonomy support involved a rough gauge. The consultant kept track of the number of sessions participated in, along with the weekly example of a positive implementation of autonomy support (see Appendix C). Also, at the top of the sheet which records the positive example of autonomy support, the parents had a space for filling in the time and day they played a related game with their child (see Appendix C). A space for a brief note about how the game went in terms of autonomy support and intrinsic motivation was also provided. For each week, attendance counted as two points, a positive example of autonomy support counted as one point, and a completed 10-minute game counted as one point (when the description of how the parents used the autonomy supportive components during the game was absent, only a half point was recorded). Thus, if one of the parents participated in 7 sessions, brought in 6 sheets (each with an example of how they used the autonomy supportive style), and played the educational game with their child during 5 out of 6 weeks, their treatment integrity/dosage (for the autonomy supportive treatment component) was 25/26 or 96%. Percentages were aggregated for all students in order to gain an idea of the degree to which the treatment group parents implemented the autonomy supportive style. The sessions were calculated as part of the dosage for the autonomy supportive style since the sessions focused on the autonomy supportive style much more than the learning goals. Also, even when the learning goals were taught, the focus was on teaching the parents to

use an autonomy supportive style when teaching their children the goal orientation. Such a rough measure was used not only to save time, but because it is known that modeling, role-playing, and corrective feedback tend to lead to relatively high levels of treatment implementation (e.g., Sterling-Turner, et al., 2001).

Treatment integrity/dosage for learning goals were measured by collecting the learning goals sheets weekly and determining whether each goal was a true learning goal. If a sheet for a particular day involved at least two pure learning goals and no performance-avoidance goals, it was considered properly completed and one point was recorded for that day's learning goals sheet. If the child only had one assignment for a particular day and he/she created one pure learning goal, a half point was recorded. In this way, children only received a full point for having both treatment integrity and at least a minimal dosage (i.e., two learning goals). The intended dosage was 4 learning goals sheets per week in the last 5 sessions, thus the denominator in the treatment integrity/dosage calculations was 20.

During the first few weeks, parents received informational feedback about the extent to which their children's goals sheets contained pure learning goals. Moreover, a positive model for a parent encouraging a child to create his or her own learning goal was provided in the 2nd and 3rd week, which likely enhanced treatment integrity. In addition, the learning goal treatment integrity/dosage percentages were aggregated for all of the students in the treatment group weekly and eventually for the whole study. These rough, yet efficient, measures of treatment integrity/dosage helped the consultant to determine if the two major treatment components were implemented faithfully and as often as intended by the consultant.

CHAPTER III

FINDINGS

Scale Construction of the PQCML and FIHF

Item total correlations on the 41-item PQCML at pre-treatment revealed that 6 of the items (items 5, 16, 22, 23, 27, and 31) had a correlation of less than .3 with the total score (see Appendix F to view the original instrument). The original alpha reliability was .9520 ($n=30$). After purifying the instrument by dropping the weak items, the new internal consistency reliability is .9599. This strong internal consistency is in contrast to the CAIMI, which yielded an alpha of .8019 at pre-treatment (and between .80 and .83 in previous correlational studies). See Table 2 for the internal consistency reliabilities of each of the major instruments used in this study. The internal consistency scores for the SRQ-A scales were as follows: .7461 for the Extrinsic scale; .7130 for the Introjected scale; .6047 for the Identified scale; and .7878 for the Intrinsic scale. These internal consistency levels for the SRQ-A are consistent with the range of .62 to .82 in previous studies (Ryan & Connell, 1989). The overall internal consistency for the Relative Autonomy Index of the SRQ-A in the present study was .7322.

The PQCML demonstrated concurrent validity with the well established CAIMI, in that the correlation between the two scales was .485 ($p<.01$). Likewise, the PQCML showed a moderately positive correlation with Relative Autonomy Index of the SRQ-A ($r=.586$, $p<.01$). In addition, the modest correlation between the PQCML and the FIHF ($r=.462$, $p<.05$) suggests that children with high PQCML scores are more likely than

others to experience emotional health in the realm of homework. Overall, the PQCML showed moderate concurrent validity with the other scales (see Table 3).

Table 2

Internal Consistency Reliability Coefficients (Alpha) for each of the Major Instruments in the Love for Learning Project

Instruments				
N	PQCML	FIHF	CAIMI	RAI
30	.96	.90	.80	.73

Note. PQCML = Parent Questionnaire of Child Motivation to Learn. FIHF = Froiland's Inventory of Homework Feelings. CAIMI = Children's Academic Intrinsic Motivation Inventory. RAI = Relative Autonomy Index.

The 21-item FIHF originally had 4 items with item-total correlations below .3 (i.e., items 6, 14, 15, and 21). See Appendix G in order to view these items. Once these items were eliminated, alpha reliability rose from .8683 to .8967. Thus, both of the instruments constructed during this study showed very strong internal consistency reliability (see Table 2).

Table 3

Concurrent Validity of the PQCML: correlations with other motivation instruments.

	Instrument	
	CAIMI	RAI
PQCML	.49**	.59**

Note. N's =30 for each correlation. PQCML = Parent Questionnaire of Child Motivation to Learn. CAIMI = Children's Academic Intrinsic Motivation Inventory. RAI = Relative Autonomy Index of Academic Self-Regulation Questionnaire.

**p<.01

As shown in Table 4, the FIHF demonstrated criterion related validity, in that it showed a significant positive correlation with CAIMI scores ($r = .504, p < .01$). Likewise, the FIHF and the Relative Autonomy index of the SRQ-A showed a positive correlation ($r = .677, p < .01$). Whereas the CAIMI and SRQ-A have previously shown negative correlations with measures of academic anxiety (Gottfried, 1990; Ryan & Connell, 1989), here they show a moderate positive correlation with a broader measure of emotional health related to homework.

Table 4
Criterion-Related Validity of the FIHF: correlations with measures of intrinsic motivation.

	CAIMI	Instrument RAI	PQCML
FIHF	.50**	.68**	.46*

Note. N's = 30 for each correlation. FIHF = Froiland's Inventory of Homework Feelings. CAIMI = Children's Academic Intrinsic Motivation Inventory. RAI = Relative Autonomy Index. PQCML = Parent Questionnaire of Child Motivation to Learn.
 * $p < .05$. ** $p < .01$

A multivariate analysis of variance (MANOVA) of pre-treatment scores on the four instruments revealed no significant differences between the treatment and control groups at baseline ($F(4,25) = 1.867; p = .148$). In Table 5, one can see that the two groups had quite similar mean scores on the FIHF, CAIMI, and RAI. On the other hand, the PQCML score was notably higher for the control group. In accordance, a one-way ANOVA subsequent to the MANOVA indicated a significant difference between the two groups on pre-treatment PQCML scores ($F(1,28) = 5.22; p < .05$). But, since the overall MANOVA was not significant it is likely that this apparent difference is due to chance.

Nonetheless, one might conjecture that the parents in the control group had a slightly inflated view of their children's motivation to learn (i.e., although the control children had the same level of intrinsic motivation and emotional health as the treatment children, the control parents may have felt their children's motivation was higher), which could have predisposed them toward choosing to be in the control group. Namely, their higher estimate of their children's motivation may have convinced them that their children did not need the motivational enhancement program.

Stability

The PQCML and FIHF both showed good two-month stability ($r = .844, p < .01$; $r = .825, p < .01$). Stability reliability was measured by correlating the pre- and post-treatment scores on each instrument for the control group only. Although the n is small, the control group provided an appropriate test of stability because it did not receive any intervention. In addition, both of these new instruments demonstrated greater test-retest reliability than the RAI of the SRQ or the CAIMI (see Table 6).

Table 5
Pre-Treatment Means and Standard Deviations of Instrument Scores for the Treatment and Control Groups

Instrument	Treatment Group		Control Group	
	Mean	SD	Mean	SD
FIHF	52.40	13.72	52.47	12.41
CAIMI	63.27	9.38	64.40	9.40
PQCML	100.13	27.20	119.40	18.07
RAI	-21.40	15.17	-20.37	15.68

Note. FIHF = Froiland's Inventory of Homework Feelings. CAIMI = Children's Academic Intrinsic Motivation Inventory. PQCML = Parent Questionnaire of Child Motivation to Learn. RAI = Relative Autonomy Index. $N = 30$ (15 in each group).

Table 6
Test-Retest Reliability Coefficients for the Control Group

Instruments				
N	PQCML	FIHF	CAIMI	RAI
15	.844**	.825**	.803**	.792**

Note. PQCML = Parent Questionnaire of Child Motivation to Learn. FIHF = Froiland's Inventory of Homework Feelings. CAIMI = Children's Academic Intrinsic Motivation Inventory. RAI = Relative Autonomy Index.

**p<.01

Treatment Integrity/Dosage

The aggregated treatment integrity/dosage for both treatments combined is 56.9%. This suggests that the families received a moderate dosage and carried out the treatment with moderate fidelity. However, it is interesting to note that the treatment integrity/dosage for the autonomy supportive style was 76%. In contrast, the treatment integrity/dosage for the learning goals was 31.2%. This suggests that the children received a greater dose of the autonomy supportive style than the learning goals.

At the beginning of each session, the consultant collected the learning goal sheets and the inspirational motivational style in action sheets. Quite a few of the parents assertively mentioned a time during the week in which they used the inspirational style, yet they felt they did not have time to write down the scenario. Thus, in future studies it may be wise to ask the families for such instances, especially if none are listed on their sheet. Likewise, families often reported that they continued the educational game for well over half an hour. Also, they often invited other family members to play after the first 10 minutes or so. Moreover, many parents reported that they were using the inspirational style with their older and younger children as well. Thus, it is likely that

most of the children in the treatment group received a fairly strong dosage of the inspirational style.

Every parent demonstrated an understanding of the learning goals during session 2, in which the consultant asked the parents to create three learning goals based on a chimerical assignment sheet. In fact, most of the parents wrote three pure learning goals on the first try. Likewise, all of the parents successfully identified the performance approach goal and the two pure learning goals, when the consultant (playing the child) pretended to hand in a learning goals sheet to the parents. In addition, every parent in the treatment group either agreed or strongly agreed that they found the information about learning goals useful and that they would continue to encourage their child to use learning goals.

Why was a low treatment integrity/dosage obtained for learning goals? Many of the parents explained that their children found it easier to verbalize their learning goals, due to the fact that they were not fluent writers. In fact, one parent explained that it would take his child an hour to write out a full learning goals sheet (i.e., three assignments, three learning goals, and three evaluations of progress toward those goals). Three or four parents actually wrote many of the learning goals for the child after they verbalized them. Thus, the task was more labor intensive for most of the families than the consultant envisioned it (i.e., it was thought that one could jot down the assignments and goals within 3-5 minutes, and that the parents would only need to closely supervise the goal sheets on the first couple nights).

Another problem with the learning goal dosage was that many of the children did not receive two or more assignments, four nights per week. Thus, there were a number of

times that the consultant received learning goal sheets with one assignment and one learning goal. Likewise, families often turned in one or two sheets explaining that the child only had homework on two nights. Thus, families' treatment integrity/dosage scores were somewhat inhibited by the low frequency of homework assignments.

The treatment integrity data helped the consultant to see a flaw in his definition of learning goals. On the learning goals sheets, part of the reminder definition involved getting better at doing something. Thus, many of the children were writing that they wanted to get better at spelling, for instance. When the consultant asked children why they wanted to get better at spelling, some had trouble answering and some said so that they would do well and get a good grade. This meant that some of the children were inadvertently writing a performance-approach goal. The consultant then realized that this part of the definition needed to be improved, in order to help the children to create more pure learning goals or what the consultant coined *inspirational learning goals*. In reviewing the research on intrinsic goals, the consultant re-discovered the fact that Ryan & Koestner (1996) defined helping others as an intrinsic goal and found that this goal was associated with psychological health. Thus, the consultant revised this part of the learning goal reminder definition by saying "become better at doing something so that you can help others someday". In the sessions this refinement was qualified by pointing out that helping others could be as simple as learning to spell better so that others can better understand your short stories. Since this new definition would require printing an improved version of the learning goals sheets, the consultant also took this as an opportunity to improve the learning goals sheet in the following ways (see Appendix D): improved attractiveness of the sheets by placing a knight in the upper right hand corner

for boys and an airplane with a space to fill in one's name streaming behind for girls; copying the learning goals sheet on blue paper; changing the title to "My Inspirational Learning Goals For Today"; and further expanding the definition of inspirational learning goals to include discovering something interesting.

Consultee Satisfaction and Attrition

Consultee satisfaction was measured with the 10-item Parent Satisfaction Form for Motivational Consultation, which uses a one-to-five Likert scale (one indicating "strongly disagree" to five representing "strongly agree"). Total satisfaction scores ranged from 41 to 50 with an average of 46.2 (50 points possible). This suggests the following: parents considered the consultant to be warm and understanding of families; parents plan to continue to use both the inspirational style and the learning goals; parents found the role plays, Reference Booklet for Parents, and educational games to be helpful.

Although post-treatment only satisfaction surveys are rather subjective measures, the satisfaction of the parents is corroborated by the fact that the attrition rate for the treatment group was 0%. 12 of the 15 families completed 7 sessions in 7-8 weeks, while 3 of the families completed 6 sessions (in 6-9 weeks). This result is striking since reviews of the parent training literature have found that the average reported drop-out rate for parent training is around 30% (Assemany & McIntosh, 2002). Furthermore, Webster-Stratton's videotape modeling is known for the lowest drop-out rates (Assemany & McIntosh), yet her studies only consider a client as a drop-out if they miss more than half of the sessions in 10 weeks of parent training (Webster-Stratton, 1990). Thus, the drop-out rate and the attendance rate were remarkable in the current study.

Major Findings

A repeated measure multivariate analysis of variance (MANOVA) was conducted in order to compare the treatment and control groups. There was a significant main effect for Time (pre-treatment versus post-treatment), $F(4,25) = 4.84$, $p < .01$, but no Group (treatment versus control) effect, $F(4, 25) = .78$, $p = .548$. As predicted, the interaction between Group and Time was significant $F(4,25) = 5.10$, $p < .01$, effect size (ES) = .45. The effect size describes the proportion of the difference in the standard deviation between the treatment and control means. Thus, the treatment group out-gained the control group by roughly one-half of a standard deviation. Table 7 displays the means and standard deviations on all measures at pre- and post-treatment, which indicate that the treatment group out-gained the control group on all four measures.

Table 7
Means and Standard Deviations for Treatment and Control Groups on all Measures at Pre-Treatment and Post-Treatment.

Instrument	Treatment Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
FIHF	52.4 (13.7)	59.8 (11.7)	52.5 (12.4)	51.4 (12.9)
CAIMI	63.3 (9.4)	65.7 (6.4)	64.4 (9.4)	63.8 (7.6)
PQCML	100.1 (27.2)	123.3 (24.3)	119.4 (18.1)	116.2 (20.7)
RAI	-21.4 (15.2)	-8.0 (18.4)	-20.4 (15.7)	-17.7 (20.3)

Note. Means are followed by standard deviations in parentheses. FIHF = Froiland's Inventory of Homework Feelings. CAIMI = Children's Academic Intrinsic Motivation Inventory. PQCML = Parent Questionnaire of Child Motivation to Learn. RAI = Relative Autonomy Index. N = 30 (15 in each group).

Subsequent univariate tests revealed the dependent variables which accounted for the overall difference between the two groups. Time X Group interactions were significant on the following dependent variables: the PQCML, $F(1,28) = 15.52, p < .001$; FIHF, $F(1,28) = 8.639, p < .01$; and RAI, $F(1,28) = 3.47, p = .07$. There was no significant Time X Group interaction for the CAIMI scores, $F(1,28) = 1.5, p = .23$. See Figures 1 and 2 for a visual representation of the impressive gains on the PQCML and the FIHF, respectively.

In order to determine more precisely the ways in which the treatment group and control groups changed over time, the data file was split so that separate MANOVAs could be conducted. The MANOVA for the treatment group's pre- to post-treatment change was significant, $F(4,11) = 7.4, p < .004, ES = .729$. On the other hand, the control group did not change significantly from pre- to post-treatment, $F(4,11) = .42, p = .794$. Subsequent univariate analyses (tantamount to conducting paired sample t-tests for the treatment group only) revealed that the treatment group significantly improved on the RAI, $F(1,14) = 7.92, p = .014, ES = .361$. Likewise, the treatment group significantly improved on the FIHF over time, $F(1,14) = 12.03, p = .004, ES = .462$. The most impressive gain was on the PQCML, $F(1,14) = 14.71, p = .002, ES = .512$. On the other hand, the gain on the CAIMI was not significant, $F(1,14) = 1.45, p = .248, ES = .094$. These results indicate that the control group basically remained the same from pre- to post-treatment, while the treatment group made significant gains on three out of four measures.

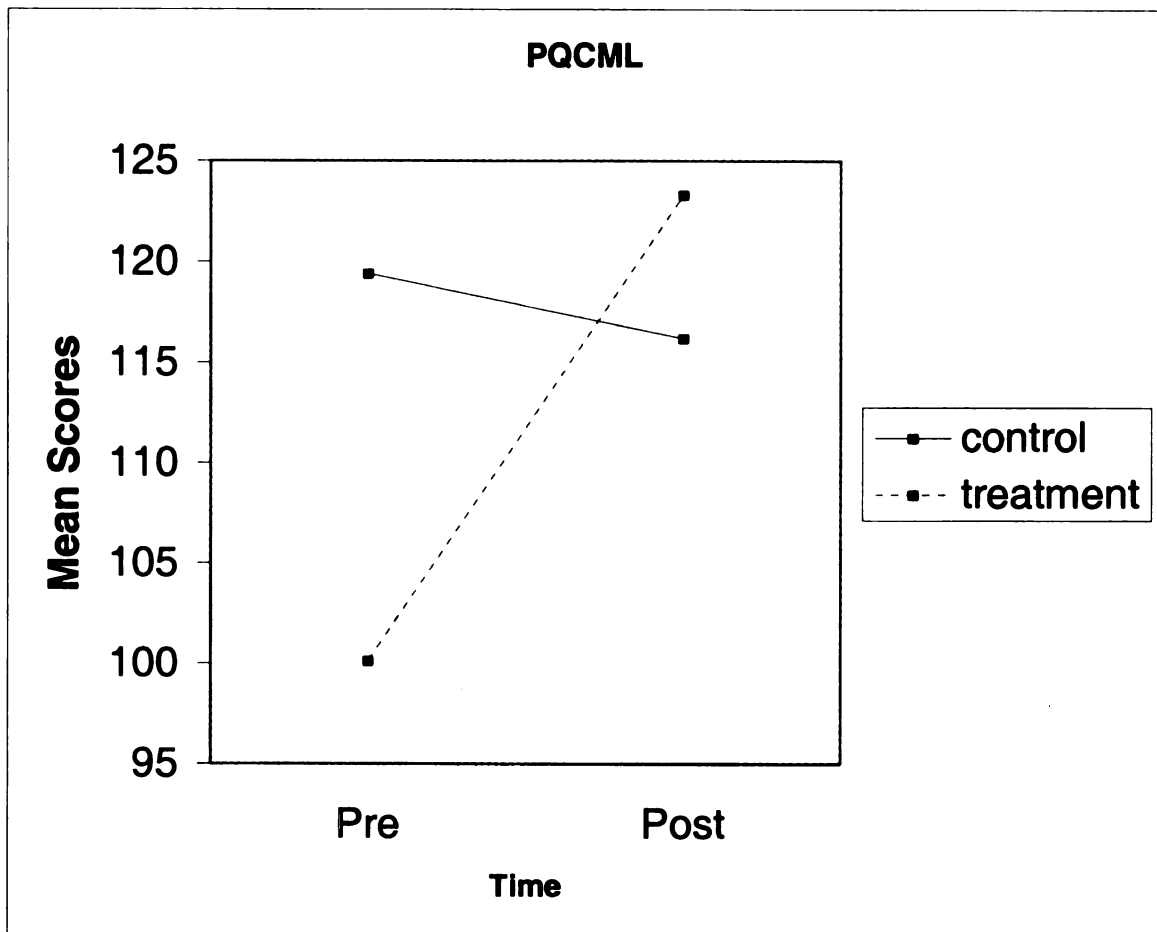


Figure 1. Mean Changes in Parent Questionnaire of Child Motivation to Learn (PQCML) Scores from Pre-Treatment to Post-Treatment for the Treatment and Control Groups.

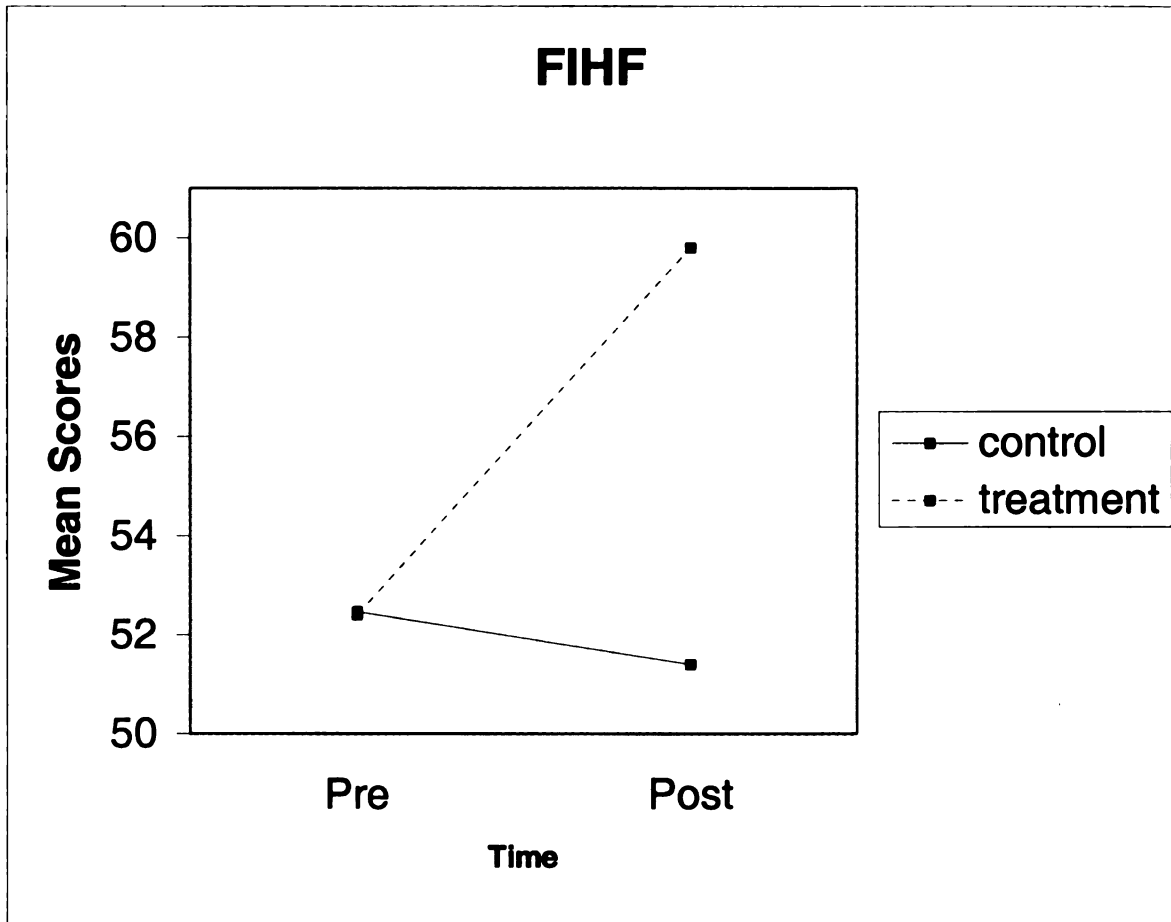


Figure 2. Mean Changes on Froiland's Inventory of Homework Feelings (FIHF) Scores from Pre-Treatment to Post-Treatment for the Treatment and Control Groups.

Relative Autonomy Index for Homework only: specific effect

Although the treatment group versus control group comparison for the RAI revealed marginal significance ($p = .07$), the author considered that the treatment may have had a more significant and potent effect on the homework portion of the SRQ-A. The SRQ-A is a four page instrument, which asks children why they do the following: homework (page one); classwork (page two); answer hard questions in class (page 3); try to do well in school (page 4). Since the Love for Learning Project focused on the home and homework, the most specific effect would be on children's autonomy related to homework. In order to test this possibility, a one-way ANOVA was conducted on the difference scores for the Homework Relative Autonomy Index (HRAI) of the SRQ-A (alpha reliability was .6112 at pre-treatment; test-retest reliability for control group was $r = .921$, $p < .001$). The ANOVA was significant, $F(1,28) = 5.07$, $p = .032$, $ES = .153$. This suggests that the home-based wellness enhancement had a more significant and potent ($ES = .153$, as opposed to .110) effect on children's autonomous self-regulation regarding homework than in the general academic domain.

Generalization to Other Domains on the SRQ-A

The author further analyzed the Relative Autonomy Index by computing it for the other three domains (i.e., "Why do I work on my classwork?", "Why do I try to answer hard questions in class?", "Why do I try to do well in school?"). One-way ANOVAs for the difference scores revealed that children in the treatment group gained more sense of autonomy related to classwork than the control group, $F(1,28) = 6.43$, $p = .017$. The treatment group gained 5.2 points on average, while the control group lost .467 points.

The internal consistency reliability for this subscale was fairly low, however ($\alpha = .4070$).

Unexpectedly, children in the treatment group had marginally significant smaller difference scores than the control group in the domain of answering hard questions in class, $F(1,28) = 3.98$, $p = .056$. The treatment group lost an average of 1.47 points, while the control group gained 2.47. This finding may well be spurious, since the internal consistency for this 8-item subscale was terribly low ($\alpha = .1844$). It is also worth pointing out that the treatment group alone did not show a significant reduction from pre-treatment, $F(1,14) = 1.05$, $p = .32$. Also, the control group's gain was marginally significant, $F(1,14) = 3.31$, $p = .09$. On the other hand, the control group clearly stayed the same from pre- to post-treatment on the remaining three domains (p-values between .480 and .878), while the treatment group showed the following significant gains: "Why do I do my homework?", $F(1,14) = 7.74$, $p = .015$; "Why do I work on my classwork?", $F(1,14) = 10.4$, $p < .006$; and "Why do I try to do well in school?", $F(1,14) = 5.79$, $p < .03$.

With regard to "Why do I try to do well in school?", the treatment group marginally significantly out-gained the control group, $F(1,28) = 4.02$, $p = .055$. The internal consistency for this subscale was .57 at pre-treatment.

A New and Improved Relative Autonomy Index?

Because the "Why do I try to answer hard questions in class?" subscale was so unreliable, the author created a new RAI by simply subtracting the hard questions component. This new scale showed improved overall scale internal consistency (i.e., $\alpha = .7520$, as opposed to .7320). This new scale called, NewRAI was then entered into a new overall treatment versus control group MANOVA for the difference scores on

each of the four instruments. The overall MANOVA was significant, $F(4,25) = 6.31, p = .001, ES = .50$. Of course, subsequent univariate tests were the same for the FIHF, CAIMI, and PQCML. However, NewRAI showed an impressive level of significance, $F(1,28) = 9.25, p = .005$. The treatment group gained 14.9 points on the NewRAI, while the control group gained an average of .23 points. See Figure 3 for a visual representation of the treatment group's superior improvement.

MANCOVA with Gender as the Covariate

An independent samples t-test revealed that there were significantly more boys in the treatment group than in the control group $t(28) = -2.8, p < .01$. Thus, a multivariate analysis of covariance was conducted (MANCOVA) in order to determine if gender (the covariate) significantly accounted for variance in the treatment outcome. The overall MANCOVA suggested that gender did not significantly affect the overall treatment outcome, $F(4,24) = .688, p = .61$. Also, the overall effect of the motivational treatment remained moderate, $F(4,24) = 5.43, p < .01, ES = .48$. However, with gender statistically controlled for the effects of the treatment on the CAIMI approached marginal significance, $F(1,27) = 2.8, p = .10$. A paired samples t-test for the four girls in the treatment group suggests that the girls made a marginally significant improvement on the CAIMI, $t(3) = 2.52, p = .09$, while a similar t-test showed that boys in the treatment group made non-significant gains, $t(10) = .60, p = .56$. A one-way ANOVA comparing the difference scores of the treatment and control girls indicated that there was no significant difference between groups $F(1,13) = 2.75, p = .12$. In sum, gender did not significantly moderate the treatment outcome.

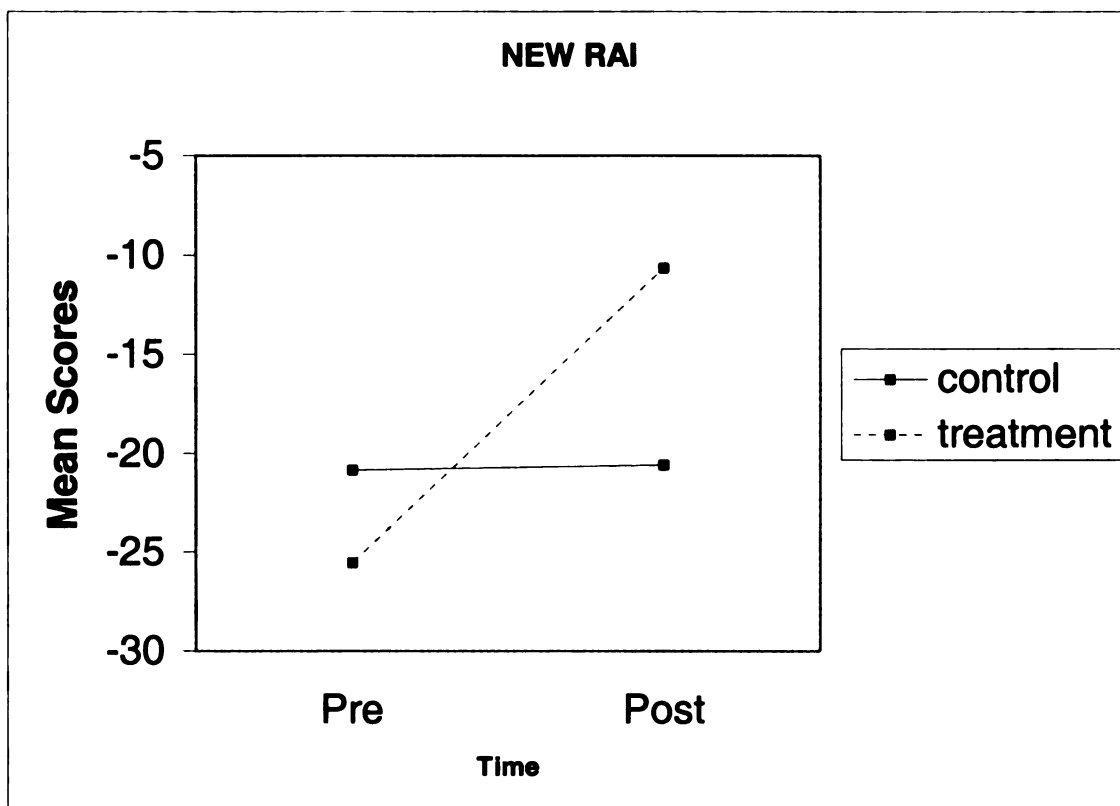


Figure 3. Mean Pre-Treatment to Post-treatment Changes on the New Relative Autonomy Index for the Treatment versus Control Group.

MANCOVA with Grade as the Covariate

In order to see if the treatment effect differed by grade level (4th versus 5th), a MANCOVA was conducted with grade as the covariate. The Time X Grade interaction was not significant, $F(4,24) = 1.3, p = .31$, suggesting that grade did not significantly account for variance in treatment response. When analyzing the treatment group only, a MANOVA indicated that 4th and 5th graders did not have significantly differential improvement on the four measures, $F(4,10) = .40, p = .81$. Also, with the entire data file split by grade, the treatment effect size was moderate for both fourth ($ES = .56$) and fifth graders ($ES = .46$).

Vigor

Within the FIHF are four items that are particularly related to perceived vigor (i.e., feeling full of mental and bodily strength). Due to the potential importance of a psychological wellness enhancement that improves perceived physical health and vitality, the Vigor subscale was created. A One-way ANOVA on the pre- to post-treatment difference scores for Vigor was significant, $F(1, 28) = 4.60, p < .04$. Thus, the treatment group (relative to the control) experienced a reduction in self-reported muscle tension/headaches, feeling tired during homework, and abdominal pain. On the other hand, the treatment group became more likely to say that they felt strong while doing their homework. The internal consistency reliability for the Vigor scale at pre-treatment was .6214.

CHAPTER IV

CONCLUSIONS AND DISCUSSION

This study provided an initial test for the effectiveness of the Love for Learning Project, which is a motivational wellness enhancement delivered through the social learning model of parent training. Parents were taught how to implement an autonomy supportive style of communication and how to help their children set learning goals. As predicted, children in the treatment group improved significantly more than those in the control group on two measures of intrinsic motivation (i.e., the RAI and the PQCML) and one measure of homework emotions (i.e., the FIHF). However, the treatment group did not significantly out-gain the control group on the CAIMI. As expected, the parents in the treatment group expressed high levels of satisfaction with the Love for Learning Project.

Before making specific conclusions, it is important to consider the limitations of the current study.

Limitations

The most notable limitation of this study was the failure to obtain enough participants interested in the treatment so that at least 30 families could be randomly assigned to either the treatment group or a wait-list control. The use of random assignment helps rule out threats to internal validity by increasing the likelihood that the two groups will not differ on any important variable besides the planned independent variable (Shavelson, 1996). When random assignment is not used, the treatment group and control group often differ significantly on pre-treatment measures. However, in the

current study a MANOVA at pre-treatment revealed that there was no significant difference between the two groups. Thus, it cannot be argued that a regression to the mean (i.e., high scores in a control group reducing and low scores in a treatment group rising spontaneously) accounted for the improvement of the treatment group and decline of the control group.

Because the groups were not randomly assigned, there is also a possibility that the control group may have experienced differential treatment outside of the study for reasons other than due to chance. For example, parents in the control group may have chosen not to join the control group because an after school activity started around the same time as the study. There is the possibility that such an activity could have impeded the development of the children's intrinsic motivation. However, developmental research suggests that the control group's slight decline in intrinsic motivation is normal when no intervention is used.

It is also worth noting that this study may be more sound than some published parent training studies that employed random assignment with less than 15 in each group. For instance, Eyberg (well-respected within clinical research), Boggs, & Algina (1995) published a clinical trial suggesting the efficacy of Parent-Child Interaction Therapy. Although participants were randomly assigned to either treatment or wait-list control, they ended up running the post-treatment comparisons with 10-13 in the treatment group (depending on the measure) and 6 in the control group. Although they found significance on most of their measures, the typical claims of pre-treatment equivalence based on randomization in this case are unfounded. Randomization is only thought to balance out differences after the number of participants is 30 or more. This is because the Central

Limit Theorem of probability suggests that the number of participants must be greater than 30 before one can assume that the distribution will approximate the normal curve (Devore, 1995). Nonetheless, one can argue that a selection effect may have influenced the results of the current study, whereas that argument cannot be made in studies that employ randomized assignment (Jaeger, 1993). For instance, it is possible that the parents in the treatment group felt their children needed more help and were thus more willing to practice and employ the inspirational style than the control parents would have been (although the pre-treatment MANOVA suggested that any differences between parents' views of their children's pre-existing motivation were due to chance). A future larger study of the Love for Learning Project's efficacy could better overcome the threat of selection effects by using randomized assignment, since any differences between groups would be due to chance rather than choice (Jaeger, 1993).

Another limitation of this study involves the measurement of treatment integrity. As mentioned in the results section, the overall aggregated treatment integrity/dosage was 56.9%. This moderate treatment integrity/dosage appears to fit fairly well with the moderate treatment effect size in this study ($ES = .45$, or $.5$ with the refined RAI). Yet, the gauge of treatment integrity in this study is rough. For instance, the treatment integrity/dosage for the inspirational motivational style was 76%. This means that most of families did the following most of the weeks: 1) participated in the IMS role plays each session, after witnessing a model of an IMS component (role-plays included either successfully displaying the use of the IMS component on the first try or successfully using the IMS component in a replay after corrective feedback); 2) articulated a time during the week in which they implemented the inspirational style successfully; 3)

described how they used the inspirational style during the educational game, which lasted at least 10 minutes outside of the session. However, this does not mean that the parents actually used the IMS on 76% of the occasions during the week in which they had an opportunity.

Other parent consultation studies have more diligently sought out treatment integrity data. For instance, Greene, Kamps, Wyble, & Ellis (1999) actually conducted 50-minute partial interval observations of the families in the home each visit; the only place off limits was the bathroom (Greene et al., 1999). This enabled them to trace the parents' direct implementation of the very skills they taught in the same sessions (e.g., contingent praise), while also witnessing declines in children's inappropriate behavior. Although this level of observation was briefly considered prior to the current study, it was deemed overly intrusive and time consuming. First of all, the families in the Greene et al. (1999) study were likely more desperate for help since their children presented with behavior problems (recall that the current study entailed a wellness enhancement, rather than selective intervention). Also, their study only involved four participating families (Greene et al., 1999), which may explain how they were able to devote so much time to observations. Nonetheless, as the Love for Learning Project further develops, it may be worthwhile to conduct ongoing observations in the home with a few families, which would provide a more in-depth and ecologically valid measure of treatment integrity.

A less drastic addition in treatment integrity measures can be gleaned from the work of Eyberg et al. (1995). In the first session, the therapist teaches parents how to use behavioral and non-directive play therapist skills. In subsequent sessions, the parent practices those skills in the playroom, while observations (5 minutes) of parent

implementation and key child behaviors are made through a one-way mirror. Then, the observations cease and the therapist begins to coach the parent through a bug-in-the ear microphone. As with the Greene et al. (1999) study, these observations help to insure and document that the parent is able to implement the skills taught in the sessions. While the consultant in the current study felt that the parents displayed a good grasp of the IMS during the role plays, the parents' live use of the skills was not scientifically observed. In a future study, the author hopes to collect baseline data of the parents' inspirational versus controlling and passive behavior during an educational game. Then, a similar observation would be made in the last session (during a verisimilar game or the same game). This would enable the author to document the parents' improved ability to implement the IMS components.

A final limitation has to do with the exact mechanisms of the treatment effect. Most scientific treatment programs fail to address this question, since it requires programmatic testing of the therapeutic mediators and moderators (Hughes, 2000; Kazdin, 2000). Indeed, Lochman (2000) has pointed out that it is best to first find out what works, then in future replicative studies determine how it works and for whom. In the case of the Love for Learning Project, this first study suggests that it does work. Yet, an understanding of the impact of each therapeutic ingredient would enable the researcher to understand the extent to which each ingredient is essential. For instance, treatment integrity was 76% for the IMS and 31% for the learning goals. While this may mean that most of the salubrious effect was accounted for by the parent's use of the IMS, it is possible that the learning goals are so potent that they were responsible for most of the children's motivational growth. On the other hand, the therapeutic relationship with the

consultant may have been a major factor in producing the treatment effect, since some have suggested that the therapeutic relationship (i.e., consultant conveys warmth and empathy and expectation for success is created) is often as important as the therapy/intervention itself (Quintana & Atkinson, 2002).

In larger future studies, the mediators of the treatment effect may be determined by randomly assigning one group to a learning goals only treatment group, another to IMS only, another to a control, another to the full Love for Learning Project and yet another to friendly discussion sessions with a consultant. If the whole program is essential, one would expect that the gains of those in the full Love for Learning Project would be the greatest (i.e., significantly larger than each of the other four groups). One would also expect that the three componential groups would show statistically greater gains than the control group. Moreover, any statistically significant differences between the three componential groups might reveal which component of the overall treatment is the most effective.

If the funding for such a large study is not available, one could randomly assign participants to either the full Love for Learning Project or a placebo intervention group. This would help to address the possibility that the parents and children in the current study's control group may have shown non-significant declines on the measures because they were more aware of motivation after filling out the surveys at pre-treatment, yet had no new ways of promoting it. However, the control group in the current study followed the normal developmental pattern for intrinsic motivation, suggesting that the control group did not experience any adverse treatment.

Any great line of intervention research must also address moderators of the treatment effect (Hughes, 2000). For instance, Carol Webster-Stratton has gone to great lengths to figure out which families do not respond to her videotape modeling program for families with conduct problem children. Through numerous studies, she has discovered that a non-response to treatment is moderated by the following factors: maternal depression; marital communication problems; low income; and single parenthood (e.g., Webster-Stratton, 1990; Webster-Stratton, 1994). This finding provided an impetus for her to create ADVANCE, an addendum to videotape modeling, which helps to address the moderators by teaching marital communication and coping skills (Webster-Stratton, 1994). As it turns out, ADVANCE led to additional gains in terms of parent treatment integrity (e.g., using praise) as well as better child social problem solving skills.

Currently, no moderators of the Love for Learning Project have been identified, partly due to the statistical limitations of a modest sample size. For instance, one child with attention-deficit/hyperactivity disorder (ADHD) did not respond to the current motivational enhancement (i.e., stayed exactly the same on PQCML, gained four points on the FIHF, lost 3 points on the CAIMI, and gained 7 points on the RAI), yet there were not enough children with ADHD in the study to determine if their response to treatment was significantly different than that of other children. Anecdotally, the author suspects that the child may have needed additional treatment for ADHD before being able to fully benefit from the Love for Learning Project. For example, he found it hard to concentrate on writing the learning goals, thus wrote very few. On the other hand, his parents said that he liked the IMS and they even overheard him using the style when trying to

encourage a friend of his. Future studies may reveal that psychological disorders such as ADHD are indeed moderators of the treatment effect. In that case, effective adaptations to the motivational enhancement program would have to be made in order to extend the treatment to that population.

Possible Refinement of the Relative Autonomy Index

Ryan & Connell (1989) validated the Relative Autonomy Index in a series of correlational studies, suggesting that self-determination theory is correct in ranking the level of autonomous self-regulation and associated psychological health (i.e, intrinsic regulation, identified regulation, introjected regulation and extrinsic regulation, in descending order). However, they never described any statistical analysis of the four behavioral domains the scale addresses (e.g., “Why do I do my homework”). They only reported that the four behavioral domains were chosen after surveying elementary school teachers. These four domains were thought to be “central for academic performance and could be reasonably expected to have varied motivational sources” (Ryan & Connell, 1989, p.751). Yet, they never reported internal consistency reliabilities for the four domains, nor did they correlate individual domains with other scales when doing concurrent validity checks. Moreover, subsequent published articles that have used the SRQ-A in correlational studies have not analyzed the individual domains (Grolnick & Ryan, 1989; Grolnick, Ryan, & Deci, 1991; Grolnick, Kurowski, Dunlap, & Hevey, 2000; Miserandino, 1996). This is surprising since Grolnick’s studies were looking at the relationship between parental autonomy support and children’s autonomous self-regulation. Since stronger effects are most often found in the immediate environment, one might expect greater correlations between the “Why do I do my homework” portion

of the RAI and measures of parental autonomy support than with the entire RAI. In other words, it seems likely that parental autonomy support would most readily serve as a greater “motivational source” for children’s autonomy during homework.

In the present study, parents in the treatment group were taught to use an autonomy supportive style of communication and children learned how to set learning goals for homework assignments. Children in the treatment group showed a marginally significant greater gain than the control group in academic perceived autonomous self-regulation (i.e., $p < .07$). However, the author considered that the home-based wellness enhancement may have had the most specific effect on the immediate environment. In accordance, a one-way ANOVA on the difference scores revealed that children in the treatment group, in comparison to the control group, gained significantly more perceived autonomy related to homework than children in the control group ($p < .03$).

The author then wanted to see the extent to which the treatment generalized to the children’s perceptions of autonomous self-regulation in the other three domains. Children in the treatment group showed a significantly greater amelioration, qua autonomous self-regulation, than children in the control group in the “Why do I work on my classwork?” domain. They also showed a marginally significantly greater improvement on the “Why do I try to do well in school?” domain.

On the other hand, children in the control group appeared to have gained more autonomous self-regulation than the treatment group in the “Why do I try to answer hard questions in class?” domain. *Prima facie*, this looks like a minor case of iatrogenicity. However, this subscale was unreliable for the 30 participants at pre-treatment. Due to this lack of reliability, the author examined the effects of the treatment on RAI scores

without this portion of the scale. This refined RAI led to a higher level of internal consistency. Moreover, an overall treatment versus control group MANOVA revealed a stronger effect size when the new RAI was used (i.e., jumped from .45 to .50). Subsequent univariate analysis revealed that the treatment group showed very significant improvements in overall autonomous self-regulation in comparison to the control group ($p < .005$).

This treatment study suggests that the RAI may need to be refined by eliminating the “Why do I try to answer hard questions in class” domain. The domain’s lack of reliability in this study suggests that it may be worthwhile for the authors of the aforementioned correlational studies to re-examine their data and see if the internal consistency coefficients are also low for the hard questions domain of the RAI in their larger studies. With improved internal consistency, they may find that the correlations between the RAI and measures of parental autonomy support, as well as measures of psychological health, are stronger without the hard questions in class domain. They may also find that parental autonomy support has a more notable correlation with the homework portion of the RAI than with other portions.

Also, if others are considering the use of the RAI in treatment studies, they may want to be forewarned that the hard questions scale shows signs of being unreliable and insensitive to a home-based treatment.

Potential Developmental Significance of CAIMI Scores

In the current study, children in the treatment group did not make statistically significant gains on the CAIMI. However, the treatment group did gain an average of 2.47 points, while the control group lost .60 points. In a longitudinal study involving 96

children, Gottfried et al. (2001) found that CAIMI scores tend to decline by about a half point a year (a loss of .87 points between 4th and 5th grade). See Figure 4 for a graphic comparison of the treatment and control groups with the normal developmental trend. On the 90-point scale, a half-point decline suggests that the average child loses .5% of his/her intrinsic motivation to learn each year. In this study, the children in the treatment group made a 2.7% gain in intrinsic motivation. Since the negative effects of a controlling and extrinsic reward based environment in most schools (Lepper et al., 1997; Gottfried et al., 2001) only leads to a .5 point decline per year on CAIMI scores, it is not totally surprising that an autonomy supportive and intrinsically oriented home-based treatment would only lead to a 2.5 point gain in 7 weeks. The problem, of course is a lack of statistical power in the current study. A future larger treatment study (with more degrees of freedom) will increase the likelihood that a statistically significant effect will be found. With 94 degrees of freedom, Gottfried et al. (2001), found a statistically significant decline in academic intrinsic motivation ($p < .05$), but the effect size was only .06. Comparably, the effect size was .05 when comparing the change in academic intrinsic motivation of the treatment versus control groups in the present study. Moreover, the treatment group's gain from pre- to post-treatment had an effect size of .094. This effect size may be better for comparison's sake, since longitudinal studies do not employ a control group. Either way, the 8-week positive treatment effect size for CAIMI scores was roughly equivalent to the effect size for the typical developmental regression that takes place in an entire year. Therefore, a larger replicative study is needed, in order to see if the potentially developmentally significant effect of the Love for Learning Project on CAIMI scores is verified with statistical significance.

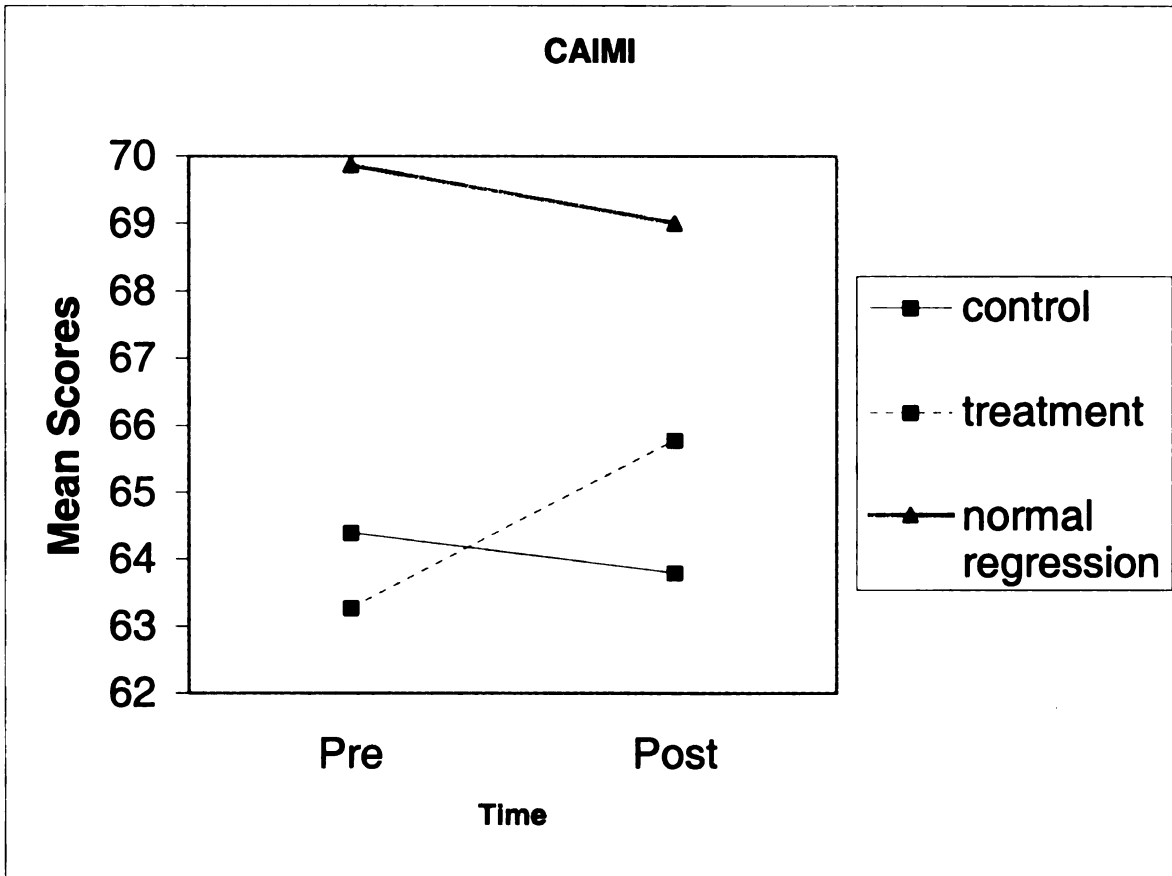


Figure 4. Mean Changes in the Treatment and Control Group from Pre-Treatment to Post-treatment, in Comparison with the Developmental Trend for Fourth-Graders.

Relevance to Dweck's Learning Goals

In numerous studies Dweck and others (e.g., Dweck & Leggett, 1988) have found that learning goals are associated with many positive learning and motivational outcomes. Her definition of learning goals emphasizes a desire to increase competence. Dweck contrasts learning goals with performance goals which involve attempting to gain a positive evaluation of one's performance. In applying her conception of learning goals in the current treatment study, the consultant used this parsimonious definition of learning goals. Thus, in much of the study children were taught that wanting to become better at something (e.g., math computation) was a learning goal. However, it became apparent that a couple of children were focused on becoming better at something in order to please their parents, teachers, or gain rewards. Thus, they may have had a proximal learning goal, but it was really in the service of a salient performance approach goal, or even a salient performance avoidance goal (e.g., "I want to become better at spelling so I don't get in trouble for not learning my words").

In an effort to purify the learning goals, the author revised the reminder on the learning goal sheet and reminded children that inspirational learning goals include becoming better at skill areas so that one can help others someday or in some way. This led to improved learning goals, such as, "how to spell words better, so I can write stories that others can understand". Including an identified or intrinsic reason for wanting to gain competence is a specification that will continue to be used in future studies of the Love for Learning Project, since it insures that the goal is more of an intrinsic learning goal. For this reason, the refined goal sheet (see Appendix I) will be used in future studies rather than the original. If children say that they want to understand how people

live in South America, there is no need for specifying why (although it would not hurt). This is because such a goal is truly a task-oriented goal, focusing on the inherent value of the assignment. However, one can increase the motivational purity of a competence goal by specifying that the reason is for personal growth or for empowering one to better help others, since both of these are considered intrinsic goals (Kasser & Ryan, 1996; Schmuck et al., 1999). These goals are considered intrinsic in that they have inherent worth rather than being dependent on others' evaluations (Kasser & Ryan, 1996).

While the improved competence goals were more intrinsic than the disguised performance goals, Jere Brophy and Evelyn Oka have pointed out that learning in order to help others may itself be considered an instrumental goal (personal communication, May 22nd, 2003). Thus, it may be better to say that Dweck's (1988) learning goals can become more intrinsic (not purely intrinsic) by stipulating that one wants to become better at a learning task in order to use the knowledge or skill to help others. Namely, one could consider such a goal an identified goal (see the Introduction for a discussion of identified self-regulation in relation to intrinsic motivation), which is more intrinsic than a performance goal. In this study, the identified learning goals may have enabled children to see the usefulness of learning.

Renewed Sense of Vitality and Reduced Psychosomatic Symptoms

The major finding in regards to the FIHF was that the children in the treatment group experienced a significant gain in self-reported emotional health. However, it is worth noting that they also experienced a specific reduction in self-reported somatic complaints and a gain in vitality. This finding extends the previous findings concerning the relationship between intrinsic goals and vigor. Namely, Kasser & Ryan's (1996)

correlational study found that college students who emphasized intrinsic goals (such as relatedness to others, helping others, becoming more healthy, and growing as a person) were less likely than normal to report physical symptoms and more likely to have a strong sense of vitality. These results were replicated among German college students (Schumck, et al., 1999). The current treatment study suggests that children's sense of vigor increases as their intrinsic motivation increases (partly through setting intrinsic learning goals). Also, the current study specifically suggests that children report less muscle tension, headaches, and stomach pain, when parents use an autonomy supportive style to promote intrinsic motivation. This finding supports Williams et al. (2000) suggestion that an autonomy supportive family environment will reduce physical symptoms in family members.

Utility of the PQCML and FIHF

The Parent Questionnaire of Child Motivation to Learn (PQCML) and Froiland's Inventory of Homework Feelings (FIHF) both showed signs of being sound measurement devices. First of all, both instruments demonstrated excellent internal consistency. Moreover, moderately significant positive correlations between the PQCML and the two established motivational instruments (i.e., the SRQ-A and the CAIMI), suggest that the PQCML has good concurrent validity.

On the other hand, the concurrent validity of the FIHF was not tested in the current study, because no other instruments dealing directly with emotional health were included. In future studies, concurrent validity could be examined by including well-established measures such as the Depression, Anxiety, and Somatization subscales of the Behavior Assessment System for Children- Self-Report of Personality (BASC-SRP). It is

expected that the FIHF would show a small to moderate significant negative correlation with each of these subscales. In the same vein, it would be interesting to see if children in the treatment group would improve on the BASC subscales, since the BASC involves a more general look at emotional status than the FIHF. The use of another such measure would also enable another test of the criterion-related validity of the PQCML (recall that the PQCML and the FIHF were significantly correlated).

The FIHF showed promise, qua criterion-related validity. Since intrinsic motivation to learn has repeatedly shown negative correlations with measures of anxiety and depressive symptoms, one would expect a sound measure of emotional health to correlate significantly with established measures of intrinsic motivation. Indeed, the FIHF was significantly positively correlated with the SRQ-A and the CAIMI.

In terms of test-retest reliability, both the PQCML and the FIHF scores were quite stable for the control group. Also, the members of the control group did show non-significant reductions on both measures, which is to be expected based on developmental research. Namely, intrinsic motivation to learn and the emotional experience of school both tend to decline gradually over the course of the school years (Lepper et al., 1997; Sansone & Morgan, 1992). In a 2-month interval, one would expect a very small decline on such measures when no treatment is present. In the future, it will be important for the PQCML and FIHF to demonstrate stability in a larger sample, noting that significant declines (with very small effect sizes) may take place over longer intervals.

The facts that the PQCML and FIHF were stable for the control group and able to detect statistically significant gains in a 15-member treatment group suggest that both instruments are treatment sensitive. Hopefully, both instruments will be used in

replications of the current study as well as other psychosocial treatment studies in order to get an idea of the range of treatments that have an effect on the instruments. Although these instruments were designed primarily to examine children's responses to motivational interventions, they may also prove to be useful in measuring children's responses to school-related behavioral interventions. That is to say that a developmentally sound behavioral intervention will not only increase appropriate behaviors (e.g., do homework) but also increase or maintain intrinsic motivation and positive emotions (Hughes, 2000). Conversely, it is worth finding out whether the PQCML and FIHF are significantly positively correlated with positive school-related behaviors (e.g., attendance, homework completion, homework scores, homework creativity, displays of persistence in the classroom).

The current findings indicate that the PQCML and FIHF are promising instruments for measuring responses to a motivational wellness enhancement. The author hopes to publish these scales, so that they will be available to psychologists internationally. However, it is first necessary to do a large correlational study (ideally with a simple random sample or stratified random sample) in order to see if the strong internal consistency, stability, concurrent validity, and criterion-related validity are replicated. Moreover, it is important to further test the concurrent validity of the FIHF by including other, more well-established measures, such as the emotional scales of the BASC-SR. Likewise, the ecological validity of the measures could be tested by correlating scores with germane behavioral observations or scholastic criteria at pre-treatment in another treatment study. Then, one could further test the validity by seeing

if elevations on the PQCML and FIHF are accompanied by elevations in positive academic behaviors.

Major Effects of the Love for Learning Project

In general, the motivational wellness enhancement moderately improved the parents' and children's perceptions of the children's intrinsic motivation to learn and emotional health during homework. Specifically, the treatment group (in comparison to the control group) displayed a significant increase on the PQCML, FIHF, and the RAI of the SRQ-A. This indicates that the parents in the treatment group felt that their children showed a marked improvement in intrinsic motivation to learn, including the following: more signs of persistence in the face of challenge; more self-encouraging verbalizations; more self-initiation of homework, a greater focus on understanding the material; more value placed on school; more focus on mastery; more task endogeny; more positive emotions and fewer negative emotions displayed. See Figure 1 for a pictorial representation of the effects of the motivational enhancement on PQCML scores.

In addition, the children in the treatment group made significant gains on the FIHF, which indicates that the children reported experiencing fewer depressive and anxious symptoms during homework. Moreover, the children in the treatment group gained more positive emotions toward homework and reported fewer somatic symptoms. See Figure 2 for a visual representation of this salubrious effect.

Children in the treatment group also gained a greater perception of autonomous self-regulation than the children in the control group (see Figure 3). This is an important result since one of the major treatment components entailed an autonomy supportive motivating style on the part of the parents. Moreover, autonomous self-regulation and

intrinsic motivation are associated with numerous indexes of academic strength and motivational health. For example, intrinsic motivation and autonomous self-regulation are associated with better grades and achievement scores (Gottfried, 1990), more creativity (Grolnick et al, 2002), more cognitive and behavioral persistence on challenging tasks, better school attendance (Vallerand & Bissonnette, 1992), better long-term memory for school material (Conti et al., 1995), less Machiavellianism and narcissism (McHoskey, 1999), greater internalization of prosocial values (Battistich, Solomon, Kim, Watson, & Schaps, 1995; Battistich, Solomon, Watson, & Schaps, 1997), better behavior (Grolnick & Ryan, 1989), fewer depressive symptoms (Boggiano & Barret, 1992; McClure, Rogeness, & Thompson, 1997; Kasser & Ryan, 1996) and less anxiety (Ryan & Connell, 1989). The current study only examined one aspect of these beneficial side effects (i.e., emotional health). In future studies, it will be worthwhile to see if the Love for Learning Project also leads to gains in some of these other associated areas, especially those which are most directly related to academic performance (e.g., creativity, long-term memory, grades). If the Love for Learning Project is to reach many schools, it may be necessary to show a direct link between this motivational wellness enhancement and academic performance. Currently, one can only say that the link is very likely, since intrinsic motivation to learn is empirically linked (i.e., through correlations and short-run laboratory experiments) to the aforementioned academic strengths. Some parents and education leaders may want to know if the Love for Learning Project itself leads to these academic strengths.

SUMMARY

This study found that the Love for Learning Project was moderately effective in enhancing the following: parents' perceptions of their children's intrinsic motivation to learn; children's perceived autonomy during homework and classwork; and perceived emotional health during homework. It is hoped that this is the beginning in a series of programmatic studies that lead to a thorough understanding of the Love for Learning Project's efficacy, essential ingredients, and moderators. In order for this to happen, a follow-up study may randomly assign a large number of families to five groups (i.e., intrinsic learning goals only; inspirational motivational style only; full Love for Learning Project; discussion with consultant only; or no-intervention control). With the larger number of families, one would likely be able to determine if certain factors (e.g., maternal depression, marital discord, child ADHD) moderated the treatment effect. An understanding of the essential treatment components and the moderators could lead to refinements or addendums to the motivational wellness enhancement for children who otherwise might not respond well. Likewise, a closer look at treatment integrity (through systematic observations of families) could help the developer understand why certain parents have trouble implementing the IMS and learning goals assistance.

Through examining treatment integrity, the developer already refined the learning goals sheets by making the reminder more explicitly focused on identified or intrinsic goals. In particular, children were told that a learning goal includes wanting to become better at something for the purpose of helping others. This has important implications for Dweck's research on learning goals, since some children actually appeared to be writing pure learning goals when they said they wanted to become better in a skill area.

However, when asked why they wanted to become better, some of the children in the current study gave performance reasons. Using Kasser & Ryan's (1996) intrinsic goal definitions helped the developer to refine the learning goals sheet by stipulating that the desire for competence must be in the service of others or for personal growth.

In a related finding, the current study suggests that setting intrinsic goals and experiencing a more autonomy supportive parental style led to a greater sense of vitality, fewer self-reported headaches, less self-reported muscle tension, and less self-reported stomach pain in children. This is an important extension of Kasser & Ryan's work, since they found a positive association between intrinsic goals and vitality among college students in the U.S.A. and Germany (Kasser & Ryan, 1996; Shmuck et al., 1999). Likewise, they found a negative correlation between intrinsic goals and somatic complaints. The current study suggests that we can improve children's vigor through teaching them to set intrinsic goals and using an autonomy supportive style.

This initial test of the Love for Learning Project's effectiveness also makes an important contribution to the area of motivational measurement. The PQCML and the FIHF showed promise as reliable and valid instruments that are sensitive to a motivational wellness enhancement. Larger studies will enable us to see if the strong internal consistency and stability are replicated. Also, the criterion-related validity of the PQCML and concurrent validity of the FIHF could be tested by correlating scores with other measures such as the Anxiety, Depression, and Somatic complaint scales of the BASC-SR. In addition, such a general measure would help to see if the Love for Learning Project's treatment effect generalizes beyond the domains of homework and school.

Another potential contribution to motivational assessment has to do with the RAI. Although Ryan & Connell (1989) describe the four behavioral domains as important, they never tested the internal consistency of the separate domains, nor did they or other published users of the scale correlate the domain scores with important variables (e.g., correlate parental autonomy support with child homework autonomy). The current study found that the Love for Learning Project led to statistically significant gains on the homework and classwork domains of the RAI. Furthermore, when the unreliable hard questions domain was eliminated from the total RAI, the treatment group much more significantly out-gained the control group ($p < .005$). This suggests that previous correlational studies for the SRQ-A may need to be reexamined in order to see if the internal consistency was low for the hard questions domain. If so, this domain should be eliminated from the scale in both future correlational studies and treatment studies, since it is likely to reduce important correlations and spuriously attenuate treatment effects.

Overall, this motivational wellness enhancement made a good debut, leading to a marked increase in three out of four measures of children's motivational health. Also, the parents found the sessions to be very helpful and plan to continue to use the IMS and learning goals. This high level of parental satisfaction may explain why the attrition rate was 0%, much lower than the 28% average found in the parent consultation literature. The Love for Learning Project is worthy of continued programmatic study, since it shows promise for empowering parents to foster a precious motivational resource within their children. In order to convince many school administrators that the families in their schools could benefit from the Love for Learning Project, it will be necessary to demonstrate that the motivational enhancement package has direct impact on academic

variables that are associated with intrinsic motivation to learn (i.e., deeper understanding of material, better long-term memory, creativity, classroom engagement, and attendance).

APPENDIX A

The Love for Learning Project

You have the opportunity to develop your *inspirational motivational style*, which is designed to help your 4th or 5th grade child to love learning even more than he or she already does. Also, your participation in this study could help advance research in the area of developing child motivation by helping the developer find out whether this particular motivational enhancement program is effective. Research suggests that the associated benefits with high levels of intrinsic motivation to learn are the following: increased long-term memory, increased conceptual understanding, increased enjoyment of learning, increased persistence in the face of challenging material, less anxiety during learning activities, less boredom, fewer negative feelings, more creativity, and better grades. The purpose of this study is to see if children's motivation to learn can be significantly enhanced with the help of their family and if such an increase in intrinsic motivation to learn (what I call *a love for learning*) leads to reduced academic anxiety and improved homework performance.

Benefits

In addition to the possible increases in your child's love for learning, the developer will either donate \$20 to your child's school or provide you with a \$20 gift certificate to a local bookstore after completion of the seventh session. Families that simply fill out the questionnaires will receive a \$5 gift certificate or \$5 donation to their school, after completing the questionnaires the second time. Families with 4th or 5th grade children will be accommodated on a first come, first serve basis. A maximum of 40 families will participate in the seven sessions, and a maximum of another 40 families will simply fill out the questionnaires.

Format

In 7 30-minute sessions, you can learn how to apply an *inspirational motivational style* and how to help your child set learning goals in a way that may increase his or her appreciation of homework, school, and learning in general. The sessions are designed to be informational, useful, and fun for you and your child. If you are not able to participate in the sessions, you and your child could help advance motivational research by briefly filling out a couple of questionnaires before and after the study.

Where?

In order to save you time and childcare costs, the 7 sessions (one per week) will take place in your home or at another location you prefer. Families that only fill out surveys will receive them in the mail (in a self-addressed, postage paid envelope).

How to Get Involved

Simply call John Froiland, Doctoral Candidate or his wife Denice at 333-8286 or e-mail at froilan1@msu.edu, or fill out the information below and mail in the provided envelope. The program will most likely begin either in the second or third week of January. The form below is merely a statement of interest in the study. Families that are interested will receive the consent form at a later date, as long as space permits.

Name_____Child'sName_____

_____Child'sGrade_____

Phone#_____AlternatePhone#_____Best Time to

Reach You_____

Best Day(s)/Time(s) to Meet with you and your child_____

____I would like to participate in the 7 sessions to enhance my child's love for learning

____I would be willing only to have my child and I fill out a couple of questionnaires (e.g., child academic motivation inventory), to help further motivational research

If you are not interested feel free to discard this form.

Note: This flyer is shown in actual size. However, it was printed on goldenrod paper. Also, a border of three-dimensional pencils surrounded the actual handout.

APPENDIX B

The Love for Learning Project Reference Booklet for Parents

John M. Froiland

Michigan State University

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I would like to thank the parents of fourth-graders that previewed an earlier version of this booklet and gave me helpful and encouraging feedback.

This booklet is dedicated to my wife and our baby (Elijah Andrew) who is on the way! Moreover, this booklet is dedicated to the motivational health and optimal learning of children.

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About the project developer: John Froiland is a Doctoral Candidate in School

Psychology at Michigan State University. Under the supervision of school psychologists in the Greater Lansing area, John has consulted with teachers about children's attention, behavior, emotional, and motivational struggles. For example, when John created a motivational intervention for a child with ADHD, the teacher liked it so much that she asked him to adapt it for the whole classroom as a motivational enhancement. In a different school, a child increased his enjoyment of mathematics and math assignment scores with the help of a motivational program. John has also taught an educational psychology class for future elementary, middle school, and high school teachers at MSU's extension site in Troy, MI for the last two summers. He has served as an assistant instructor for the same class on the East Lansing campus for the past three years. Also, John taught a Child Development class at Jackson Community College. John is especially interested in helping families to increase their children's love for learning.

In a recent study with parents and their children, John found that children often respond immediately to an *inspirational motivational style* during a learning task. When parents used the motivational style you will have the opportunity to practice, children usually responded immediately with visible signs of a love for learning (see "Visible Signs of Your Child's Growing Love for Learning" at the back of this booklet). For instance, children were much more likely to figure out how to solve a problem on their own, smile at their parents, continue working on the task, and say things like "I like this" or "I know I can figure this out".

In the sessions, you will have the opportunity to develop your *inspirational motivational style*. You will also learn how to teach your child to set *learning goals* in a

way that may further inspire his or her learning. In this booklet, I will explain what an inspirational motivational style is along with its benefits. Then, some examples of the style will be given. Later, learning goals and the benefits of creating them will be described. Also, examples of learning goals will be provided. In the back of the booklet are a few quick reference tables that you may find useful in inspiring your child to love learning more than he or she already does.

What is an inspirational motivational style?

When a parent or teacher uses an inspirational motivational style, they help a child see the value in doing a learning-related activity and help the child feel understood. A parent who uses an inspirational style can communicate the same information as another parent, yet get a much better response. For instance, let's say that a fourth-grader named Molly does not want to do her math homework because she would rather play with her friend. Yet, her mother knows that it is 7p.m. and the homework will probably not get done if she plays with her friend. A parent using one motivational style might say with a loud and upset voice, "You better get in your room and do your homework right **now**, or you'll be in **big** trouble." Molly may very well go to the room and begin working, but studies suggest she will likely experience one of the following: nervousness, resentment that she has to do the task, boredom, a desire to just get the task done without really giving it her best shot, and only a shallow understanding for what she learned. Also, she may show even less interest in her math homework in the future.

On the other hand, what if Molly's mom calmly and with warm confidence looked Molly in the eye and said, "I know you want to play with your friend, but your

math homework is very important. What is your assignment about?" While Molly explains her homework, mom listens closely. After Molly explains that they are working a multiplication word problems, the mom suggests that understanding those type of word problems could help her learn to figure out all sorts of interesting problems in real life. For instance, maybe she could figure out how many allowance periods it will take her to save up for the new doll she really wants or for the trip to the pizza arcade with the friend she likes to play with. Molly sees the enthusiasm mom's eye and agrees that she can spend time with her friend on the weekend or during recess at school. Numerous studies suggest that Molly will be much more inspired to learn in this situation. For instance, she is likely to enjoy her math assignment more, remember more of the material a week later, have a deeper understanding of the concepts, and face challenging homework problems with more effort, creative thinking and patience. Over time, many interactions like this will make it likely that Molly will develop an interest in math that will benefit her for many years to come.

I believe that parents are the experts when it comes to understanding their child, and each parent will develop his or her own inspirational style a little differently. So let's consider a much different example. Let's say that Ronny comes home smiling because he scored an A on his book report. His mom and dad, like most parents, are glad and congratulate him. This is great. But, the inspirational motivational style takes their responses a step further. Mom says, "Wow, I'm so glad, and I noticed how you really got into that book and worked hard on your report. You're really gaining a passion for reading detective stories." Then, dad says, with an interested look, "If you want, I'd like to hear a little about the story you read." Both parents were glad Ronny received an A,

but they also showed Ronny that they were quite interested in what he learned and in his increasing passion for learning.

These are just two examples of an inspirational style in learning situations. Many other ways to express an inspirational style in the above situations could have been mentioned. Also, there are components of an inspirational style that were not covered in the two scenarios. For a quick reference sheet that breaks down an inspirational style into clear components, please refer to “The Inspirational Motivational Style Components” in the back of this booklet.

It should be clear from the “The Inspirational Motivational Style Components” sheet that this style is quite fine-tuned yet offers a great deal of flexibility for each parent. Also, it avoids two less healthy extremes that most motivators have struggled with at one point or another: passivity and over-control. Some parents and teachers hope to let students blossom by letting them do almost whatever they want and having few expectations. This is called permissiveness or passivity. It often leads to children who lack self-discipline in their learning efforts. Other motivators **only** use commands, rewards, threats and punishment to motivate children. This overly controlling style often leads to children doing the work without much inspiration. In contrast, motivators who use an inspirational style maintain high expectations, develop a better learning-related relationship, and inspire their children to reach their potential. These motivators still use rewards (especially specific and genuine praise) for good work and, if necessary, warn their children about consequences for not doing their work, but they also help children to understand the rewards that learning itself provides (e.g., learning leads to greater

understanding of how things work; helps people to pursue their dreams; strengthens the mind; helps us to solve problems in real life, etc.).

Learning Goals: What they are and the benefits they may bring your child

When children set learning goals, they are aiming to increase their knowledge, skill, or understanding. While this may sound simple, it seems that very few children are focused on learning goals when they do schoolwork. For instance, one study found that low achieving elementary school students usually worried more about finishing their work on time than about understanding what they were studying. High achieving students were less worried about getting done on time, but even they could not explain what they were learning from the assignments. Another study interviewed 49 elementary school students about what they thought about when they did schoolwork. It found that 45 students were worried about getting the answers right, 2 only cared about finishing the work on time, and **only 2** expressed that they were trying to understand the learning topic.

The fact that few children are focused on learning when doing schoolwork is upsetting, because they are missing out on the many benefits of having learning goals. Children with learning goals tend to enjoy the following benefits: they view high effort as a strategy for pursuing mastery, rather than as a sign of being “slow”; they are more likely to learn from their mistakes; emotional energy is channeled into the learning process, rather than distracting them from learning; challenging tasks are sought and enjoyed, rather than avoided for fear of failure.

Learning goals are very different from *performance goals*. Performance goals have to do with focusing on getting a good evaluation (performance-approach goals) or avoiding a bad evaluation (performance-avoidance goals). Performance-avoidance goals (e.g., “I don’t want to get this answer wrong”) decrease a child’s love for learning and lead to anxiety. Learning to set learning goals will help a child to avoid the negative focus that performance-avoidance goals give. Performance-approach goals (e.g., “I want to get an A on my social studies test on the Midwest”), on the other hand, can improve a child’s school performance. However, if the performance-approach goal becomes more important than a learning goal (e.g., understand more about what makes the Midwest a distinctive region), the child may begin to lose appreciation for learning about the Midwest and have only shallow understanding and poor long-term memory for what he or she learned. Performance-approach goals are likely to have the best effect on learning, when they are combined with learning goals.

As mentioned earlier, learning goals tend to have many benefits (e.g., increase a child’s interest in learning). However, many of the studies about learning goals were done without the child actually creating his or her own learning goals. When people write down or clearly state their own goals, they are more likely to carry them out. Thus, in the sessions you will learn how to help your child create and write his or her own learning goals. As a quick reference, an example of a completed learning goals sheet is provided in the back of this booklet (see “My Learning Goals for Tonight”).

How do I help my child set learning goals?

This will be covered in detail in the sessions, but here are some of the basic tips:

- 1) Remember that a learning goal involves the child focusing on increasing knowledge, skill, or understanding for the subject (there is a reminder for the child in boldface on “My Learning Goals for Tonight”)
- 2) Explain what learning goals are and how they differ from other goals like “I want to get this done” or “I want to get them all right”. If you and your child use performance-approach goals (e.g., “I want to get them all right”), feel free to keep those goals, but be sure that your child learns to set learning goals as well. Remember, learning goals and performance approach goals can be a healthy combination.
- 3) Use an inspirational motivational style (see The Inspirational Motivational Style Components) when teaching your child to set learning goals. Warmly and clearly explain how the learning goals will help him or her to learn more and enjoy learning more. Do not worry about spelling or grammar when the child writes learning goals.
- 4) After explaining what learning goals are for the first time, show the child how to set learning goals for his/her homework for that night. Answer any questions your child might have, then let your child fill out a fresh learning goals sheet in his/her own words.
- 5) Look over each goal with your child and compliment him/her on any learning goal that is an actual learning goal. If one of the goals is not really a learning goal, ask your child if the goal fits with the boldface reminder on the learning goals sheet. For example, “Your goal is to get all your math problems right. That’s good, but what do you want to learn, understand, or get better at.” Be patient, this may be a new way of thinking for your child (it is even for most adults!). Remember to show your child that you look at mistakes as opportunities to learn, rather than as failures or signs of ability deficiencies.
- 6) Once your child has made a learning goal for each assignment, encourage him or her in your own way as you let him or her start the assignments.
- 7) Please collect the learning goals sheet each night so that you can give all five of them to the developer at the beginning of each new weekly session.
- 8) Remind your child to set learning goals each night before starting the homework. Show enthusiasm when you mention the learning goals or remind your child that they will help him/her learn more and find it more interesting.
- 9) Help your child see if he or she is setting actual learning goals for the first few nights, or until he/she seems to really grasp the idea. Once your child becomes skilled at setting

learning goals, you can just check them when you collect them and compliment him/her on the ones that were clearly learning goals.

- 10) Each week the developer will collect the learning goals sheets at the beginning of the session and give you 5 new sheets to give your child.

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The Inspirational Motivational Style Components

- Emphasize reasons for doing homework that have to do with learning goals (e.g., “Molly, reading this history chapter could help you understand how Michigan became the interesting state that it is today)
- Offer hints or subtle cues only when your child appears stuck (this gives needed help, while still allowing your child to solve problems independently)
- Acknowledge your child’s point of view or feelings (may include returning a smile, providing a nod of understanding, paraphrasing what your child said with a sincere voice, or saying that you understand why they are upset)
- Reflect what your child says and feels by briefly and sincerely repeating what he or she said in your own words (e.g., Ronny says with an upset voice, “that test stunk” and his mom reflects by saying, “so you didn’t like the test”). As a friend of mine says, this helps to charge a child’s battery so that he or she will be more ready to listen to the parents’ encouragement or requests.
- Warm silence and active listening are almost golden! Sometimes children feel rejuvenated simply by telling their parents about the challenges they face with homework and school. Also, warm parent attention can often do wonders for a child’s inspiration to learn.
- You may even want to play with your child for 5 minutes during a study break, letting him or her lead, while you give warm attention and reflect what he or she says.
- Let your child see your enthusiasm for what he/she is learning
- Take time to explain how well they did at a learning task, in terms of the motivation to learn they showed, the effort they put in, and the growth toward mastery they are making
- Teach your child that mistakes on homework or classwork are tools for learning (stepping stones, not stumbling blocks)
- Give informational replies to your child’s questions
- Once in awhile, try a little humor when your child seems worried about school/homework

More Inspirational Motivational Style Components

- Use parables, analogies, or metaphors to help make your child aware of ways to improve or find more meaning in the present schoolwork-related situation (e.g., “every time you study you make your mind stronger, because your mind is like a muscle, it gets stronger with exercise”)
- Give a specific compliment to your child when he or she shows signs of creativity or unique expressions in his/her writing or ideas (e.g., I like the way you explained the science concept in your own words!)
- Try taking a deep breath before telling the child what to do when you feel frustrated or upset
- If your child refuses to do homework and pointing to the value or beauty of the assignment does not work, calmly explain to the child the consequence that will occur if they do not do what you say. Then, wait 5-10 seconds for your child’s response (this gives the child a chance to think about the wise response)
- Whenever you ask questions about schoolwork, wait quietly for your child to respond even it takes 10 seconds.
- When you use rewards, help your child to remember that the real reward is learning itself!
- When your child seems motivationally drained, explain to your child how you keep yourself interested in your work or hobbies (e.g., you remember that what you are doing helps other people; likewise, your child’s growing knowledge may help others someday), you remind yourself of how your challenges can lead to personal growth, the ability to help others, or you remind yourself of the interesting things about a task. This will help your child’s love for learning. Try not to mention things like, “I remind myself that I can make a lot of money” or “I say to myself, if I don’t exercise I won’t look as good”.
- If your child complains about a subject being boring, explain that you understand this feeling, but then suggest the beautiful aspects of the topic (e.g., “math is a wonderful language that helps people to figure out how things work, for example, if I can multiply 10X12, I can figure out how much furniture I can fit in the living room”; or “did you know that scientists used math to figure out how the planets revolve around the sun?”).

Visible Signs of Your Child's Growing Love for Learning During the Educational Game.

1. Resumes or continues work independently
2. May stop you from doing the work for him/her (e.g., "I can do this")
3. Problem solving on his/her own (e.g., saying, "Hmm, what should I do next")
4. Making his or her own decision about next move to make
5. Initiates task related move/statement
6. Eliciting parent's help as a consultant by asking strategy based questions (e.g., Do you think it is back far enough?)
7. Any very brief digression or pause that seems to refresh or motivate the child (e.g., saying "I know I can do this, patting him/herself on the back, or taking a deep breath)
8. Other task-oriented actions that appear clearly self-determined
9. Enjoyment (visible positive emotions while focusing on task, such as smiling or saying, "I like this")
10. Persistence (i.e., continues to keep trying even when the assignment is hard)
11. Jokes about task without complaining
12. Expressing feelings or opinions without complaining or negative affect (e.g., "This is tricky!")
13. Other expressions of appreciating the task

Things you will start to see less of

1. Signs of boredom (e.g. staring at the ceiling, sulking, asking when he/ she can quit)
2. Complaining about task or sighing
3. Giving up, quitting, or malingering
4. Putting head on the table
5. Other actions or vocalizations that express disliking for the task
6. Trying to get you to do the work or asking you for the answers
7. Asking you for hints without trying for awhile
8. Getting angry at you for not letting him/her figure things out for him/herself, not paying attention to him/her, or for rushing him/her
9. Other actions that express over-dependency

My New Learning Goals For Tonight: Example Sheet

Non-learning goals are in parentheses

Homework assignments (fill in each assignment)

What I Hope to Learn

1) Read Social Studies Chapter about the Caribbean

I want to understand what it might be like to live on one of those islands today
(I want to remember what I read so I get an A on the test)

2) Math computation sheets

I want to become a little better at multiplying
(I want to get done in 15 minutes so I can watch the hockey game)

3) Book report

I will be able to share my story with my teacher
(My teacher won't be upset with me if I write well)

How many homework assignments did you have today? 3

Progress Toward New Learning Goals (for each goal you made above, briefly write about one thing you became a little better at, one thing that you learned, or one thing you thought was interesting)

1) I feel like I got a little taste for how people live in the city and country parts of the Caribbean islands

2) I got some good practice.

3) I can share my story now. I realize that I understand a lot about this book.

Remember, a learning goal means that you try to understand something better, or become a little better at doing something. Your own learning goals will help you learn more and like learning more.

APPENDIX C

Role Plays for Family Sessions in the Love for Learning Project

Role Plays for Session 1: (Feel Free to Create Your Own Responses)

Role Play #1 I will play the role of the parent and you play the role of the child.

You come home excited telling your parent about a good score on a test:

Situation 1a When the parent doesn't seem very interested, you: angrily raise your voice and say, "don't you even care that I got an A on my test" OR your look a little sad for a second.

Situation 1b When the parent tells you that if you keep it up, you get to go to the Steakhouse, you seem excited, but you feel a little nervous about whether you'll be able to earn the prize.

Situation 1c When the parent uses an inspirational style, You make a big smile and say, "okay"!

Situation 1d Reverse Roles. Now you only play the role of the inspirational parent.

Role Play #2 I will play the role of the parent and you play the role of the child.

The parent asks how you did on your social studies project, and you feel bad about not doing as well as you wanted to, so you don't answer right away

Situation 2a When your parent rushes you for an answer, you get upset, look away, and say, "I didn't do well".

Situation 2b Your parent is patient. After about 5-10 seconds, you say openly "I thought I did well, but the teacher took off a lot of points". You then feel encouraged by the way your parent shows understanding and explains how to learn from mistakes.

Situation 2c Reverse Roles Now you play only the role of the inspirational parent.

Role Plays for Session 3: (Feel Free to Create Your Own Responses)

Role Play #1 I play the role of a parent and you play the role of a child. I notice you have been bored with homework lately or sometimes put things off until the last minute. I try to motivate you in either a controlling or inspirational way:

Situation 1a When your parent pressures you, you frown and yell, “okay”. Or, you go ahead and get back to your homework but feel stressed because your under a lot of pressure.

Situation 1b. After your parent empathically lets you know that he notices your struggling motivationally, he waits patiently for 5 seconds before you respond. You answer, “yeah, I’m tired of it”. Then, you begin to feel somewhat relieved as you realize that your parent has overcome the same motivational obstacles and believes you can too.

Situation 1c. Reverse roles. You are the Inspirational parent. You notice I’ve been bored with homework lately and.....use 5 second pause, acknowledgement of feelings and motivational modeling

Role Play #2. You play the role of your child. I play the role of parent. When I collect your learning goals sheet on Tuesday night, only two goals were filled out, even though you had three assignments. Also, one of the goals was a performance-approach goal. Just get a feel for the three different styles- respond naturally.

Situation 2a. Passive parenting

Situation 2b- Controlling parenting

Situation 2c. IMS

Situation 2d. Reverse roles. You are the inspirational parent. Help me to improve my learning goals sheet in an Inspirational way (point out good learning goal and how it will help me; how performance-approach goals could be a helpful secondary goal; and encourage me to fill out all my goals in the future because they will help me learn more and get into math more).

Role Plays for Session 4: (Feel Free to Create Your Own Responses)

Role play #1. You play the role of a child. I play a parent. You have a social studies project that is due tomorrow, but you are only half way done.

Nonetheless, you are procrastinating. Your parent notices and really wants you to get started within the next few minutes.

Situation 1a. Controlling parent- respond as either angry or quietly nervous

Situation 1b. Inspirational parent

Situation 1c. Reverse roles. You are the parent who uses an IMS.

Role play #2 (alternate version of Role play #1). You play the child again. Even though I encouraged you to focus on the interesting parts of your social studies project, you loudly refuse to begin doing your project. As a parent, I'm worried that you won't get the project done.

Situation 1a. After the parent talks about how you can grow through doing the project you say, "no way, I don't wanna do that project" with an angry voice.

When the parent shows empathy yet firmly states the consequences, you agree to go ahead and do your work.

Situation 1b. Reverse roles. You are the parent. Explain the benefits of doing the project. When the child responds negatively, take a deep breath, acknowledge his feelings, then explain the consequence that will occur if he does not begin doing his work.

Role Play for Session #5- Some examples of things you could say to help your child focus on the beauty of learning for different assignments or subjects:

Spelling test- “more people will be able to understand and appreciate what you write, when you know how to spell words correctly; also, spell-check often makes mistakes if you don’t misspell the word just like the computer expects”

Math computation- “you will be able to figure out things like how to stay within your budget, or how big of dresser can fit on the wall in your room; when you become quicker at multiplying it becomes almost automatic so that you can use the rest of your mental energy for other things like holding a conversation, or thinking more deeply about how solve a problem. Music is mathematical and even the orbits of the solar system are figured out with math”.

Word problems- “word problems help to develop your problem solving skills. People that know how to solve big problems (e.g., detectives, doctors, managers, leaders) first learned how to solve homework problems!”

Science- “if you understand how things work, you can invent ways to protect or improve things (e.g., medical doctors use biology and chemistry to help patients; marine biologists use understanding of sea creatures and plants to figure out how to best protect them from pollution and thrive; chemists help create medicines; people that design buildings know geometry and basic physics; geologists/earth scientists/environmental scientists figure out how the earth works and then help design systems that work with the earths patterns (e.g., canals, sewer systems, conservation areas). Science helps you to see the wonders of humans and everything else in the universe.”

Social studies- “the more you learn about other people, the more you understand them, the more you understand them, the more you’ll be able to help them, win their trust, see their hidden qualities and talents, and avoid their harmful behaviors (e.g., tricks, scams, etc.).”

History- “history helps you learn about people’s past mistakes and wise behaviors so that you can learn what works and what did not work, without making all the same mistakes. Also, history helps you to understand how why people find certain things very important.

English/grammar- “the better you get at this the more people you will be able to convince of your ideas; the more you understand the English language the more you will understand books, newspapers, websites, and manuals (e.g., car manuals, computer manuals).”

Role Plays for Session 6: (Feel Free to Create Your Own Responses)

Role play #1- You play the role of a child, I play the role of a parent. I had a stressful day and feel a little tired and crabby. I know you have a big social studies test tomorrow, and I'm surprised to find you sitting on the couch watching television at 7 p.m, especially considering that you did not get home from an after school activity until dinner time.

Situation 1a- Controlling- When I question you, you say, "I'm watching this movie, all my friends are watching it tonight". My response frustrates you.

Situation 1b- Inspirational- First answer, "about a half hour". When I remind you of the importance of the test you say, "I really want to watch this show, all my friends are going to see it". When I show understanding and come up with a solution, you feel better yet say, "But, I don't feel like studying". You are encouraged by the farming analogy and almost see studying in a new light.

Situation 1c- Reverse roles (you may want to acknowledge my feelings, use patience, and use a motivational analogy).

APPENDIX D

Inspirational Motivational Style Vignettes and Record of Parent-Child Play

Inspirational Motivational Style in action

Please use this form to record one example in which you used a component of IMS and found that your child responded with visible signs of a love for learning (see Visible Signs of Your Child's Growing Love for Learning for some examples) **or** you felt that you did a good job of applying IMS. Remember, even if your child does not show immediate reactions to your IMS, his/her love for learning is growing like a seed underground.

Date:

Time:

Briefly describe the situation, what you did, and how the child responded:

Parent-Child Play during Educational Game

Please play the game introduced during the session with your child for approximately 10 minutes. This provides you with the opportunity to practice the IMS (see The Inspirational Motivational Style Components quick reference sheet in your booklet), while having fun with your child. Here are the IMS components that you may find especially relevant during this weeks game: use subtle hints if child appears stuck; reflect the child's emotions and statements; active listening and warm silence, giving the child time to think of solutions; genuine and specific compliments when your child shows creativity or comes up with an interesting idea or displays a determined effort.

Date:

Time (of start and finish):

Game:

How did it go?

Note: The IMS components were updated each week depending on the game(s) that were introduced in the particular session.

APPENDIX E

Treatment Manual: Family Session Plans for the Great Love for Learning Project

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Family Session Plans for the Great Love for Learning Project

Session 1 (10-15 extra minutes for pre-enhancement assessment)

Brief introductions: thank the family (both parent and child) for participating and explain that I believe that the Love for Learning Project will be exciting and useful for both the parents and the child. Ask if they could fill out the questionnaires before I explain the Love for Learning Project to them.

Pre-enhancement measurement: give the parent the Parent Questionnaire of Child Motivation to Learn (PQCML); give the child the Academic Self-Regulation Questionnaire (SRQ-A; 32 items), the Children's Academic Intrinsic Motivation Inventory (CAIMI-18 item general scale only), and Froiland's Inventory of Homework Feelings (FIHF; 21 items). The regular session can begin once the parent finishes the PQCML. The child will continue to fill out the questionnaires and only needs to actively join this session in the last 5 minutes or so.

Explain the purpose of the Love for Learning Project: I designed the Love for Learning Project because numerous studies have shown that most children lose their passion for learning as the school years progress and begin to only study in order to stay out of trouble, get good grades, impress their peers, or avoid feelings of guilt or fears of failure. This loss of a love for learning leads to more academic anxiety and tension, more boredom, and more apathy. On the other hand, preserving a love for learning leads to more long-term memory, creativity, better grades, more enjoyment and appreciation for school, better school attendance, better self-control and a deeper conceptual understanding.

Brief expectation building

I believe the Love for Learning Project will help your child find great meaning in his/her classes and this passion for knowledge will help your child reach his/her highest potential. I have noticed that many of the greatest people in our society had a love for what they studied or did. Cite **one** example that the family will likely admire or identify with to some degree in terms of culture, ethnicity, religion, and maybe gender of the child. Here are some examples: Dr. Jonas Salk loved finding ways to use medicine to bring healing to people, so that he persistently and passionately studied medicine and worked until he found the cure for polio; as a teenager, Malcom X wrote out every definition in the dictionary from aardvark to zebra. **These sessions will help your child's love for learning increase so that he or she can also reach his/her potential and find the path meaningful.**

Synopsis of Enhancement Package

There are two ways of helping your child to love learning that I will show you in these sessions. The first is what I call an *inspirational motivational style*. This is a communication style that I have studied for the past three years and have found that children respond to it with the healthiest forms of motivation. The other major tool that I will share with you is teaching you how to teach your child to set learning goals. Studies have shown that less than 1% of children set authentic learning goals. Thus, learning to set these goals will give your child an advantage in school. Both the inspirational motivational style and the learning goals are clearly explained in this booklet (hand the parents the Love for Learning Project: Reference Book for Parents). You can use the

booklet to refer to anytime you want. In the back you will find a quick reference sheets that are especially useful.

So as not to give you too much information at once, I'll introduce you to IMS today. Next week we'll begin to look at learning goals, though you can feel free to read about them ahead of time if you want.

Introduction to *IMS*

An inspirational motivational style involves helping your child to see the value and even beauty in learning, while also helping your child to feel that you love and understand him or her and see the unique potential of your child has a learner. This style avoids the pitfalls that many motivators step into: passivity/permissiveness and controllingness. Numerous studies have shown that parents that use the components of what I call an inspirational motivational style have children that love learning more. Each parent can creatively develop his or her own IMS and you may find that you already have a rather inspirational style. I believe that the sessions will help you to further enhance your style and lead to further enhancement of your child's motivation to learn. **Let's look at the components of IMS in the booklet.** Have the parent read briefly and ask questions about any of them (note: read aloud only if the parent(s) may have reading difficulty).

Introduce role plays: I'm going to help you develop your own IMS through interesting role plays. The reason I will use role plays is that numerous educational, business, and psychological studies suggest that people learn new techniques the best when they actually get to see someone else do it then practice it themselves during role plays. The other advantage of role plays is that it will help you to see the IMS versus

other motivating styles from your child's perspective. This is important as there is a sign at the 4-H Garden that says if we want to teach our children the best way sometimes we have to become like them.

Pick one or two key role plays that capture essential components of IMS (see Role Plays for Family Sessions, for the parent scripts for parents with adequate reading skills):

1a) Passive response to a good grade: I ask the parent to pretend she came home with an good score on her test in _____(parent chooses). I respond by half-listening (no eye contact) and saying "that's nice" while continuing to read the paper. Ask, "how does that feel?" 1b) Wow that's great, but you better keep it up for the rest of the quarter so that we take you to the Texas Steakhouse for getting an A in the class (note: it is okay to reward a child based on their performance, but this alone leaves a high pressure focus and does not allow child to enjoy today's success). 1c) "Wow that's great, like I said if you get an A for the rest of the quarter we'll take you to the Texas Steakhouse. More importantly, I want you to know that I've noticed how much effort you put into studying. This knowledge your learning will help to make your mind stronger. Later tonight, I'd like to hear about what you learned throughout the last chapter you studied." Point out how I used three components of IMS (noticing effort, using an motivational metaphor, and encouraging the child to focus on learning). After briefly playing the model in each role, let the parent be herself and you become the fourth-grade child (show excitement about parents interest). The parent only plays IMS role (rehearses success). Prophesize to the parent about child responses- now, we're looking at the ideal response, but it may take your child awhile to get used to your new style. Also, it is important to remember

that the IMS is the most effective style even if you do not see immediate visible results.

Studies have shown that this way of communicating brings long-term benefits.

2) Scenario: the parent wonders how her child did on the social studies project; the child feels bad about not doing as well as he would have liked so he hesitates to answer. 2a)

The parent asks the child “how did you do on your social studies project?”. The child hesitates. In less than 2 seconds the parent says, “well, how did you do, did you get a good score?” The child now feeling pressure gets upset and says “I didn’t do well, while looking away from the parent”. 2b) The parent asks, the child hesitates, and the parent waits patiently for 5-10 seconds. The child responds by saying, “I thought I did well, but the teacher took off a lot of points”. The parent then responds by acknowledging the child’s feelings “I know sometimes it doesn’t feel good when you don’t do as well as you thought”, but remember that you can always learn from your mistakes. We all make mistakes, but the person who is humble enough to learn from them is the real winner!

Point out how this role play used three components of IMS (i.e., 5-10 second wait, acknowledging feelings, and stepping stones). 2bb) the parent uses a similar IMS response to the child, while the consultant responds favorably.

Congratulate parent(s) on excellent participation in role plays.

Ask parent(s) to read the Parent Booklet this week and refer to the *Inspirational Motivational Style Components* and to try using them during the week. At the beginning of the next session, I’ll collect the **Inspirational Motivational Style in Action** sheet and ask you how you liked the Parent Booklet.

Homework assignment (**hand-out** the Inspirational Motivational Style in Action sheet): write down one time during the week in which you used an IMS component and

your child seemed to respond positively (describe which component you used, such as actively and warmly listened to the child), the situation, and how your child responded-remembering that IMS shows the greatest results over time). Also, on the lower half of the sheet write down the time and date that you played the educational game together and how it went.

Explain that we will end each session with a short game and then ideally the parent and child will continue the game for 10 or more minutes later in the week if they have time. Ask the parent to record the day and time they play the game on the same sheet as the IMS vignette. Also, explain that the game is great way to practice IMS in a fun setting. Point out the most relevant components for today's game (i.e., subtle hints if child appears stuck; reflect the child's emotions and statements; active listening and warm silence, giving the child time to think of something; genuine and specific compliments when your child shows creativity or comes up with an interesting idea or displays a determined effort).

Ask parent to get the child, if the child is not in the room. Most children will want to stay to watch all the role-plays, thus they will already be present.

The game for session 1 is Ben Franklin's REBUS (Krueger, 2002). Explain how you use numbers, letters, and words to indicate other words or parts of words. Show a page of examples and have the family answer (e.g., I see a dog; you stepped on my shoe; my cat loves fish; I understand; crossroad; reading between the lines). Compliment them and ask them to continue to play for at least 10 minutes later in the week. Now you and your child write your own REBUS sentences and if you get really into it write a one paragraph story (three or so sentences) in REBUS form and let another family member

figure it out. I'd like to try your REBUS sentences next week if you don't mind!

Remember to have fun!

Session 2

Collect IMS vignette/family play sheet. Read vignette quickly and ask how they liked IMS so far. Ask if I can read their REBUS sentences/story or how it went.

Ask how the parent liked the “Love for Learning Project: Reference Book for Parents”. Do you have any questions?

Introduce Learning goals versus performance-avoidance and performance-approach goals

Now I'll introduce you to learning goals. Remember, you can read about them more in the booklet. Learning goals are simple to set, but most children and adults do not set them. This is because it requires a new way of thinking. When I asked children in a nearby school to set learning goals, most of them wrote things like, “I want to get all the answers right” or “I want to get an A”. These are not learning goals, they are performance goals. A learning goal focuses you on actually learning what you are reading about, while a performance goal tends to make you think more about what happens when you turn your book report in. “What will the teacher think, we'll he/she like it?” “Will I get a good grade?” “Will Suzy do better than me?” “I'll get in trouble if I don't do well” “it would be embarrassing to get less than a perfect score” “I want to show everyone that I'm smart”. Numerous studies have shown that children are more nervous, more likely to give up in the face of challenge, and retain less of what they study when these type of goals dominate their thoughts.

There are two types of performance goals, performance approach and performance avoidance. Performance avoidance goals are the most harmful to a child. Though few children would write these down, they guide the thoughts of so many

children. Performance avoidance goals involve worrying about failing, trying to avoid embarrassment, trying not to look stupid, trying to stay out of trouble etc. These goals are not healthy for the child emotionally or academically. Then, there are performance-approach goals, which involve trying to get a reward or a good score. These are more healthy than performance-avoidance goals, but they too can lead to feelings of being under pressure, being sad when the goals are not met, losing concentration on what the child is learning at the moment, less long-term memory of what the child learned ,etc. Studies have now shown that the only way performance-approach goals can be healthy is if they are accompanied by learning goals. If a child wants to get an A, but hates math, the quarter will be sheer emotional torture. But, if the child begins to see the beauty in math or the usefulness of it, and wants to learn math, his desire to get an A can actually work with his desire to learn math.

As you can see on the learning goals example sheet (point to the My New Learning Goals for Tonight: Example sheet in the Reference Booklet for Parents), I bold-faced a simple definition of learning goals as a reminder for him/her. “A learning goal means that you try to understand something more or become a little better at doing something”. Simply put, a learning goal involves wanting to learn the topic.

“Take a minute to look at the examples on the Example sheet”.

Now, hand the parent the Imaginary Homework List and a blank copy of My New Learning Goals for Tonight. Ask the parent to fill out the sheet (including assignments) as if they were the child. When the parent is finished specifically compliment him/her on any goal that is an actual learning goal. If one of the goals is performance approach/avoidance, ask how the goal fits with the boldface definition on

the sheet. If a goal is performance approach goal, point out how it would make a good secondary goal. Remember to be patient (use IMS with parents in general). If necessary, clearly explain how one or more of the goals is not a learning goal. Ask the parent to write a revised goal for any of the goals that were not learning goals. Use specific compliments on any revised goals that are learning goals (note: if the parent has trouble reading or writing, do this all orally and write down the goals they state).

Tell the parent that they will actually do this with their child's real homework assignments the first time they introduce learning goals to their child. Namely, they will model how to set learning goals by showing how to fill out a blank sheet for that day's homework assignments, then, giving the child a fresh sheet and letting him/her fill it out in his/her own words.

Have parents practice teaching me to set learning goals for my classes (refer to "How Do I Help My Child Set Learning Goals" section in Parent Booklet). Remember to teach parents to use IMS during this. Ask parent to briefly tell me about learning goals and how they will help. Then, they show me how to fill out the learning goals sheet (here, just have them show me the sheet they just filled out). Next, they give me a fresh learning goals sheet and ask me to try to set the learning goals, while they warmly pay attention and answer any questions I have. Next, they use specific praise to compliment me on actual learning goals. Also, according to step 5 of "How Do I Help My Child Set Learning Goals" they ask the child how any non-learning goals line up with the bold face definition on My Learning Goals for Tonight. Note: Intentionally make one learning goal a performance goal so that the parent gets a chance to give corrective feedback (and

to make sure they notice the non-learning goal). Encourage the parent for displays of IMS.

Give parents 5 learning goals sheets and ask them to teach the child how to use learning goals the first couple nights and collect learning goals each night to hand back to me at beginning of next session. Remind parents to use IMS while teaching their child to set learning goals (point to the “How do I Help My Child Set Learning Goals?” section of the Love for Learning Project Reference Booklet for Parents).

Last five minutes- Spaghetti and Marshmallow tower is the family educational play for the day. Parent gets the child. Pull out package of long spaghetti and mini-marshmallows. Demonstrate how spaghetti can be placed in marshmallows. Ask them to work on building a tower together. Germane IMS: **reflect child’s emotions and statements; help child when stuck; use humor; look at mistakes as stepping stones; have fun!**

Remind parent to fill out the IMS sheet this week and record how many times they play and for how long. Encourage them to play more than once during the week, seeing if they can surpass previous tower heights.

Imaginary Homework List

- Spelling list- prepare for spelling test on Friday

- Social studies- read about what is going on in South America in the Lansing State

Journal and write one page about what you discover (worth 15 points).

- Science class- read chapter about the weather and answer the questions at the end of the chapter (each question is worth one point).

Session 3

After greeting family, collect learning goals sheets and review. If the goals are actual learning goals, provide compliments. If some of the goals are performance-avoidance or performance approach goals, provide informational/corrective feedback.

Collect Inspirational Motivational Style in Action and Parent-Child Play.

Discuss the vignette and the play. Compliment the parent(s) for implementing the style and doing the play. Ask just how high their spaghetti tower became. Otherwise, encourage them reminding them of the psychological and educational benefits of IMS and the games.

IMS role play: *motivational modeling*- Scenario: Your child has been bored with homework lately or sometimes procrastinates (puts it off until the last minute). You go up to your child and say: 1a) Controlling (consultant plays the role of the parent)- “You know what I’ve noticed how lazy you’ve been about school lately, you better pull it together quickly or your not going to get that present you want for your birthday.” Discuss (elicit notions of the motivationally harmful aspects of over-control, such as the child may be nervous or angry while trying to do the homework now; point out that it was good that the parent noticed that the child was motivationally drained, which shows the parent is sensitive to the child, also, just like when the child is mentally stuck, the best time to offer motivational help is when the child really needs it).

1b) Motivational model: “Sarah, I’ve noticed that you haven’t seemed excited about school lately” (gentle and sincere tone, eye contact)? Wait 5-10 seconds for a response. Sarah says, “yeah I’m tired of it”. Reflect and acknowledge feelings by saying, “I know how you feel, I get tired of what I do sometimes too. But, I keep myself

going by reminding myself that what I do can help other people (motivational modeling). Did you know that everything you're learning could one day help you to help someone else?". Discuss (point out how I used 5-10 second pause, acknowledgement and reflection of feelings, and motivational modeling).

1c) Switch roles (the parent now plays the IMS parent using something positive they do to motivate themselves for some activity or they can just emphasize pointing to the interesting things about what the child can learn).

Love for Learning Goals Role play- When you went to collect Tuesday nights learning goals sheet from your child, only two goals were filled out, even though your child had three assignments (hand out Practice Sheet for Session 3, a learning goals sheet with a chimerical assignment and goals). Also, one of the goals was a performance-approach goal.

2a) Passive: pretend you don't notice and never mention it to the child; 2b) controlling: "you were supposed to fill out one goal for each assignment, what's the problem? To top it off, one of your goals isn't even a real learning goal." 2c) Sarah, I noticed you didn't write a learning goal for your math assignment (pause). Your learning goals will help you to get a deeper understanding of what you study and find it more cool. The goal you wrote here is really good (i.e., the learning goal), that type of goal helps you to really get into what you study. This goal here (i.e., the performance-approach goal) is good, but it would be better if you wrote it as a secondary goal. Show parent how to write a secondary goal into My Learning Goals for Tonight. Getting a good grade is a performance-approach goal and it will work for you better if you focus the most on

learning the topic, then a little on getting the good grade. 2d) Reverse Roles. Parent now plays the role of an IMS parent.

Introduce the equations game by handing out the Equations sheet. Play the role of an IMS consultant, by making hints if the family appears stuck or asks for help. Note: these equations are tricky, so the parent will be given a copy of the answers for play later doing the week (Equations: Key for Parents). In this way, the parent is empowered to play the role of an IMS consultant. Parents can hint by giving out some of the words (e.g., 7 Days in the W; 60 Minutes in an H). If child struggles with an equation for more than 2 minutes the parent can give the answer and acknowledge how challenging/tough the equation was.

Session 4

After greeting family, collect learning goals sheets and review. If the goals are actual learning goals, provide compliments. If some of the goals are performance-avoidance or performance approach goals, provide informational/corrective feedback.

Collect Inspirational Motivational Style in Action and Parent-Child Play.

Discuss the vignette and the play. Compliment the parent(s) for implementing the style and doing the play. Ask how the equations game went and if I can see the sheet. Ask if they created any equations for me to figure out. Otherwise, encourage them, reminding them of the psychological and educational benefits of IMS and the games.

The right IMS for the situation- these two role plays build on each other. The first one involves providing an explanation when the parent has to ask the child to begin working on a social studies project, since it is due tomorrow and only halfway done. In role play 1a, the **controlling** parent says that he better see his son sitting at his desk in 10 seconds, “or else”. In contrast, the **IMS** parent (in role play 1b) clearly explains why he wants his son to start working on his social studies project soon, also reminding the child of the features of the project that are interesting and the skill that he might develop. In role play 1c the parent now plays the **IMS** parent.

It is explained that the above will often work, however, there are times when the child does not respond immediately to IMS; at times you must adjust the level of autonomy support to the situation and in response to the child’s initial reaction. When necessary, the parent may need to let the child know that a consequence will occur if the child does not begin doing what he or she has been told within a short time span. This next role play shows how to deliver an urgent request/command in an inspirational way.

Remember, IMS is quite different from “permissive parenting”, which leads to a child lack of self-control, rather than self-discipline. In addition, it is explained that there is a tendency to become excessively controlling, when the parent senses pressure or frustration, thus the model will regulate his anger by taking a deep breath and remain optimally inspirational when the child does not initially respond.

Role play 2a (alternate version of role play 1)- the child, who has procrastinated excessively, still refuses to return to his study place, even after the parent makes the aforementioned explanation and calmly waits for momentarily. After taking a deep breath, the parent clearly explains the consequence that will be administered if he does not begin doing his work, in a calm and concise manner. Role play 2b- reverse roles, the parent now practices an IMS response. Discuss the two role plays briefly (e.g., how taking a deep breath helps one to stay level-headed and inspirational, whereas it is normal to get upset when the child is defiant).

Handouts: hand out the 5 new My New Learning Goals for Tonight sheets and thank the family for their continued participation and encourage them in terms of reaping a motivational harvest; hand out Inspirational Motivational Style in Action and Record of Parent-Child Play (point out once again that the sheet lists the IMS components that are particularly relevant to the educational game).

Palindromes- explain that today’s game involves creating Palindromes, which are words that are spelled the same from left to right or vice versa. The literal Greek meaning of the word Palindrome is running back again. Tell the child to picture Palindromes as word boomerangs! Pass out the handout and ask the parent and child to write down as many palindromes as possible. Tell them that they can be words, names or

even sentences. Give the following examples: radar, dad, Hannah, and the humorous sentence that some say Adam said to Eve, ““Madam, I’m Adam.”” (Krueger, 2002, p.20). Also, provide the family with a second option in case they want to take a break from palindromes. Joke-athon- Take turns telling each other clean jokes and/or write down some of your favorite jokes or create your own joke(s). Tell the family that they might find themselves able to create some more palindromes after laughing, because humor enhances cognitive flexibility. Share my Seinfeld-Calculus example: in college I found that I was less likely to get stuck on Calculus problems after laughing for a half hour at the Seinfeld comedy show.

If the family has trouble generating jokes during the session, model good humor by sharing a couple of jokes of your own. Share two or three clean jokes that you can deliver with confidence and an expectation for laughter. This not only models joke creation, but it brings in the therapeutic benefits of laughter, including cognitive flexibility. In order to build expectation, tell the family that laughter also increases the endorphins and neurotransmitters (e.g., anandamine) which are the same pain relievers released in the body during good exercise (e.g., runner’s high). Moreover, 3 minutes of hearty laughter is equal to 10 minutes of strenuous rowing in terms of cardiovascular workout. Just a full smile makes a person’s brain waves move in the directions associated with happiness. Now you see I have given you information that enhances the likelihood that you will have love for creating funny jokes!

Session 5

After greeting the family, collect learning goals sheets and review. If the goals are actual learning goals, provide compliments. If some of the goals are performance-avoidance or performance approach goals, provide informational/corrective feedback. If learning goals or goal sheets are missing, ask about barriers to completing the goals. If necessary role play problem situations, otherwise problem-solve in general.

Collect *Inspirational Motivational Style in Action and Parent-Child Play*.

Discuss the vignette and the play. Compliment the parent(s) for implementing the style and doing the play. Ask if I can see the palindromes they generated. Read each one to show that you value what they generated. Also, ask if they would like to show me or tell me the jokes they created. Encourage them reminding them of the psychological and educational benefits of IMS and the games.

Focusing on the beauty/meaningfulness of learning role plays- This role play gives you practice in actually explaining what your child may find interesting in different topics/assignments. Model by passing out a sheet (see Role Play for Session #5) that describes many of the basic subjects and common sub-tasks and what one can say to support a focus on the beauty in that subject. “I’m going to give you some examples of how to focus on the beauty of learning with various subjects and tasks that most children deal with. Although you may already know all of these examples, thinking about them will help you to come up with them more quickly when talking to your child.” Read each example aloud as the parent reads along. Also, discuss alternative ways of stating how to focus on the beauty or meaningfulness of each one.

Ask the parent which subject his or her child struggles with the most. Then enact a role play in which the parent uses the related script/improvised variation of the script, after you say you're bored in the area the child struggles with. For example, if the parent says the child struggles with math the most: Start the role play by saying, "Mom (dad) I'm bored with math computation, I don't see the purpose in it". The parent then uses the Role play sheet as a stimulus for how to respond. Try two or three different subjects, noting that almost any child could focus on the beauty more, even in subjects he or she excels at.

Handouts: hand out the 5 new My New Learning Goals for Tonight sheets and thank the family for their continued participation and encourage them in terms of reaping a motivational harvest; hand out Inspirational Motivational Style in Action and Record of Parent-Child Play (point out that the sheet once again lists the IMS components that are particularly relevant to today's educational game).

Introduce the "Do a 360" game (Sher, 2002). Ask the parent and child to stand back-to-back, lock elbows (if they would like to), and turn clockwise at a very **slow** pace. Then, simply ask them to take turns describing the beautiful things they see. Ask them to accentuate the positive and an attitude of gratitude. For instance, the mother might say, "I see the big blue couch that we all sit in together". Next, the daughter may say, "I see a picture of me and my brother playing on the swing set". If the family wants more of a challenge, they can take turns describing objects without actually saying what they are. Then, the other would guess or ask for more clues. This game will actually be completed during the session. Of course, the consultant can encourage the family to try the game in the backyard or elsewhere if they ever want to.

The second game for today, involves filling out creativity circles. Pass out sheets of 8.5 x 11 paper that have 6 rows of circles containing four in each row. Then, explain that the objective is to creatively fill out the circle sheet together, with the child as the leader and the parent as the inspirational consultant. Provide a few example sheets that highlight various patterns and objects derived from the circles. Circles can be filled out individually, in clusters, or in one grand design. Give the parent and child an extra circle sheet in case they want to fill out more than one. Invite them to share their circles in the next session.

Session 6

After greeting the family, collect learning goals sheets and review. If the goals are actual learning goals, provide compliments. If some of the goals are performance-avoidance or performance approach goals, provide informational/corrective feedback. If learning goals or goal sheets are missing, ask about barriers to completing the goals. If necessary role play problem situations, otherwise problem-solve in general.

Collect *Inspirational Motivational Style in Action and Parent-Child Play*.

Discuss the vignette and the play. Compliment the parent(s) for implementing the style and doing the play. Ask if I can see the creativity circles they created. Make specific compliments on any of the circles or conglomerations of circles that you find intriguing, creative, or novel. Encourage them reminding them of the psychological and educational benefits of IMS and the games.

The way you say it- In this scenario the parent had a stressful day and feels a little tired and crabby. The parent knows the child has a big social studies test tomorrow, and is surprised to find the child laying on the couch watching television at 7 p.m, especially considering that the child did not get home from an after school activity until dinner time. As you know, the permissive parent would either not notice or just ignore the situation, hoping the child would grow on his or her own. This role play will contrast the inspirational style with the controlling style, since both parents want to actively influence the child to study.

Controlling- walks in the room without thinking and asks, “Aren’t you supposed to be studying for your big social studies test?” (controlling question- parent already knows the answer and expects certain response). The child says, “I’m watching this

movie, all my friends are watching it tonight”. The parent says, “I don’t care what your friends are doing (disregards something important to the child), get up there and start studying right now, I don’t want you to blow it tomorrow (performance avoidance orientation).”

Discuss this scenario (e.g., could parent identify with this one), then point out the three most controlling components (i.e., controlling question, disregarding and disparaging child’s point of view, and encouraging a performance avoidance orientation.

Now model the inspirational consultant: Wait until advertisement, so that the television is less mesmerizing to the child. Then, say “How much time have you taken to study for your social studies test tomorrow?” The child answers, “about a half hour”. You say, “I remember that you told me that this is an important test that covers a lot of things you’ve learned this quarter”. The child agrees, but says, “I really want to watch this show, all my friends are going to see it”. You say, “this show sounds important to you, but social studies is also important because it enables us to understand why people act the way they do and how to improve society.” Pause. “I’ll tell you what, if you want, you can record the movie so that you can watch it tomorrow. I know you would prefer to watch the show now, but the people that become great in this life are those who face their challenges head on. “But, I don’t feel like studying”. I know how you feel, but life is just like farming. The farmers can only expect to harvest the fruit and grains in the fall if they sowed fruit and grain seeds in the spring. It would be easier for the farmers to relax and watch television or just go for hayrides, but the wise farmers remind themselves of the harvest they want and then they go out and plant the seeds. Also, the farmers can help themselves enjoy what they are doing now by focusing on the fresh air, the beauty of

the sky, and good exercise they get. In the same way, you can focus on the beauty of the way people get along, and appreciate the good mental exercise that you get while studying. So you can consider your studying tonight as seed time, and look for the harvest later.” Point out that I used acknowledgement of feelings, patience, and the farming analogy. The farming analogy can help the child reframe his/her view of homework from performance avoidance to performance approach and learning goals.

Reverse roles.

Handouts: hand out the 5 new My New Learning Goals for Tonight sheets and thank the family for their continued participation and encourage them in terms of reaping a motivational harvest; hand out Inspirational Motivational Style in Action and Record of Parent-Child Play (point out that the sheet once again list the IMS components that are particularly relevant to the educational game).

Introduce *Joy Juicer Words* (Sher, 2002). This game is simple but fun. Also, it helps to practice one’s vocabulary. Ask the parent(s) and child to simply take turns uttering joyful words. Any word that makes you feel happy is good whether it is a synonym for joy or not. See how long you can go and also see how long you can go without laughing! Ask the family to try it again later in the week, especially if they need an energizer.

Introduce *Same but Different* (Krueger, 2002), as a game to play throughout the week. Ask the parent to translate the titles of famous books, movies, and television shows into similar (often silly) words. Then, the child tries to generate the actual title. Here are some examples that you can ask the family as a whole to solve: “The Three Little Pigs” ⇒ “The Trio of Small Porkers”; “Beauty and the Beast” ⇒ “Lovely and the

Monster”; “Who Wants to Be a Millionaire?”⇒ “Who Wants to Become Very Rich?”; “The Bachelor” ⇒ “The Single Dude”. The IMS components that are most germane are using hints/suggestions when the child appears stuck or asks for help, Almost Golden Silence; reflection of the child’s words and emotions; and encouraging effort and creativity. After awhile, the child can create some of these disguised titles and see if the parent can solve them.

Session 7 (Last Session)

Bring in the mirror with a smile. If the family asks just say, “it’s a part of one of today’s games, I bet you’ll enjoy it”.

After greeting the family, collect learning goals sheets and review. If the goals are actual learning goals, provide compliments. If some of the goals are performance-avoidance or performance approach goals, provide informational/corrective feedback. Thank the family for doing the learning goals and remind them that they will help the child love learning for a life time and this experience prepared him/her for making similar intrinsic goals for work and other areas of life. Intrinsic goals in general lead to better performance, more creativity, and more happiness.

Collect *Inspirational Motivational Style in Action and Parent-Child Play*.

Discuss the vignette and the play. Compliment the parent(s) for implementing the style and doing the play.

Explain that there are no more role plays, just real life use of the inspirational style during the game for today. In the mirror game, the key is warm attention, reflection, complimenting the child for effort, encouraging the child by expressing that you believe he/she can do it, showing an appreciation for challenge, and an attitude that you and your child can learn from mistakes. Set the mirror up on the floor and place a sheet of paper on a clipboard. Ask the parent to go first, trying to draw the first half of the alphabet. Then, they switch (give the child a fresh sheet of paper). Ask them to switch again and finish the alphabet. As the consultant, encourage an atmosphere a levity and warmth (e.g., encourage both parent and child in a lighthearted way). If this goes quickly, ask them both to help each other with the letters they struggled with. Model a resilient

attitude, looking at mistakes as information that points to how to improve. For example, point out how you can often use your mistakes as clues about which way to go.

Thank the parent(s) and the child for their participation in this project.

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APPENDIX F

The Parent Questionnaire of Child Motivation to Learn

Please read the following items and circle your answer according to the following scale:

SA = Strongly Agree

A= Agree

N= Neutral

D= Disagree

SD= Strongly Disagree

1. My child likes doing homework

SA A N D SD

2. My child often gets bored with homework

SA A N D SD

3. My child seeks out challenging learning tasks.

SA A N D SD

4. My child set his or her own learning goals.

SA A N D SD

5. My child worries about getting good grades or scores.

SA A N D SD

6. My child gets frustrated when the homework assignment is hard.

SA A N D SD

7. My child likes to read on the weekend.

SA A N D SD

8. My child smiles or looks happy when talking about schoolwork or homework.

SA A N D SD

9. My child sees the value in learning.

SA A N D SD

10. My child complains about doing homework.

SA A N D SD

11. My child works hard at mastering homework assignments.

SA A N D SD

12. My child is very interested in most school subjects.

SA A N D SD

13. My child thinks school is very important.

SA A N D SD

14. My child focuses on understanding his or her homework readings.

SA A N D SD

15. My child rushes through his or her homework, just to get it done quickly.

SA A N D SD

16. My child worries about competing with peers on tests.

SA A N D SD

17. My child likes to practice his or her developing skills.

SA A N D SD

18. My child prefers easy homework.

SA A N D SD

19. My child says things about learning like “I like this” or “this is neat”.

SA A N D SD

20. My child says things about learning like “I hate this” or “this is a waste of time”.

SA A N D SD

21. My child asks me to give him/her the answer to tough homework questions.

SA A N D SD

22. My child asks for helpful suggestions/clues when the homework assignment is very hard.

SA A N D SD

23. My child often gets excited when telling me about what he or she learned.

SA A N D SD

24. My child enjoys learning new things.

SA A N D SD

25. My child wants to stay home from school sometimes.

SA A N D SD

26. My child procrastinates when assignments are due.

SA A N D SD

27. My child likes to share what he or she learned in school.

SA A N D SD

28. My child “goes the extra mile” on assignments because he/she is very dedicated to gaining knowledge.

SA A N D SD

29. My child will often start studying on his/her own.

SA A N D SD

30. My child frowns while studying or when reminded about homework.

SA A N D SD

31. My child likes to play games (e.g., on the computer or with friends or family) that are learning-oriented.

SA A N D SD

32. My child often chooses to engage in learning tasks beyond school and homework.

SA A N D SD

33. My child really gets “into” his/her homework.

SA A N D SD

34. My child works hard at mastering new concepts or skills

SA A N D SD

35. My child loses interest in his/her homework after a few minutes

SA A N D SD

36. When reminded about homework, my child says things like “do I have to?”

SA A N D SD

37. My child finds ways to help him or her self become more interested in routine learning tasks.

SA A N D SD

38. My child will take the extra time to understand something more deeply

SA A N D SD

39. My child seems nervous about homework.

SA A N D SD

40. My child says things like, "I'll figure this out" or "I can do this" when faced with a challenging homework/learning problem.

SA A N D SD

41. Rather than getting upset with mistakes on school-related tasks, my child likes to learn from his/her mistakes

SA A N D SD

Note: The following empirically inconsistent items (i.e., item-total correlation with $r < .3$) were not considered in the pre- and post-treatment comparisons: 5, 16, 22, 23, 27, and 31.

APPENDIX G

Froiland's Inventory of Homework Feelings

Instructions: Read each sentence carefully and decide if you feel that way *not at all*, *very little*, *a little*, *much*, or *very much*. Circle the answer that is the most true for you.

1. I feel good while I work on my homework.

Not at all Very little A little Much Very much

2. My muscles get tight or I get headaches when I do my homework

Not at all Very little A little Much Very much

3. I feel happy when I do my homework

Not at all Very little A little Much Very much

4. I get upset when my parents ask me to do my homework.

Not at all Very little A little Much Very much

5. It feels like time flies by when I do my homework because I have fun.

Not at all Very little A little Much Very much

6. I worry that my parents will be upset if I make mistakes on my homework.

Not at all Very little A little Much Very much

7. When I have trouble with a homework problem, I get upset.

Not at all Very little A little Much Very much

8. When I have trouble with a homework problem, I stay calm.

Not at all Very little A little Much Very much

9. I worry that I will not be able to finish my homework as quickly as I want to.

Not at all Very little A little Much Very much

10. I feel upset when it's time to do my homework.

Not at all Very little A little Much Very much

11. I have trouble concentrating on my homework.

Not at all Very little A little Much Very much

12. I know how to help myself feel good when I do my homework.

Not at all Very little A little Much Very much

13. I get tired while doing my homework

Not at all Very little A little Much Very much

14. My stomach hurts when I do my homework.

Not at all Very little A little Much Very much

15. I feel better about my homework after talking to my parents

Not at all Very little A little Much Very much

16. I worry that my answers will be wrong.

Not at all Very little A little Much Very much

17. I feel sure that I will do well on my homework.

Not at all Very little A little Much Very much

18. I have trouble sitting still when I do my homework.

Not at all Very little A little Much Very much

19. I feel strong when I do my homework.

Not at all Very little A little Much Very much

20. I worry that my teacher will find a lot of mistakes in my homework

Not at all Very little A little Much Very much

21. I feel happy when my parents talk to me about my homework.

Not at all Very little A little Much Very much

Note: The following empirically inconsistent (item-total correlations with $r < .3$) items were not considered in the analysis of pre- and post-treatment differences: 6, 14, 15, 21.

APPENDIX H

Parent Satisfaction Form for Motivational Consultation

Please read the following items and circle your answer according to the following scale:

SA = Strongly Agree

A= Agree

N= Neutral

D= Disagree

SD= Strongly Disagree

1. The information about learning goals was helpful to me.

SA A N D SD

2. The information about motivating style was helpful to me.

SA A N D SD

3. The role-plays made me feel more confident about motivating my child to learn.

SA A N D SD

4. My child and I enjoyed the game at the end of each session.

SA A N D SD

5. I found the Motivation Booklet to be a useful reference.

SA A N D SD

6. I will continue to encourage my child to use learning goals.

SA A N D SD

7. I plan to continue to use the motivational style.

SA A N D SD

8. The consultant was warm.

SA A N D SD

9. The consultant was organized.

SA A N D SD

10. The consultant seemed to understand families.

SA A N D SD

APPENDIX I

Name: _____

My Inspirational Learning Goals For Today

Homework assignments (fill in assignments)

What I Hope to Learn (learning goal)

1)

2)

3)

How many homework assignments did you have today? _____

Progress Toward New Learning Goals (for each goal you made above, briefly write about one thing you became a little better at, one thing that you learned, or one thing you thought was interesting)

1)

2)

3)

An inspirational learning goal means you try to understand something more, become better at doing something so that you can help others someday, or discover something interesting. Creating your own learning goals will help you learn more and find more joy in gaining knowledge!

Note. This goal sheet was printed on blue paper and included a knight in the corner for boys and an airplane with the name streaming behind for girls.

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