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PREDICTING FREE TIME ACTIVITY INVOLVEMENT OF ADOLESCENTS: THE INFLUENCE OF ADOLESCENT MOTIVATION, ADOLESCENT INITIATIVE, AND PERCEPTIONS OF PARENTING

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ABSTRACT

Guided by Self-Determination Theory (SDT), the purpose of this study was to examine the influence of adolescent motivation, adolescent initiative, and perceptions of parenting practices on adolescent activity choices. The sample for this study was derived from three suburban high schools in eastern Massachusetts. All grade nine students attending these high schools were invited to participate in the study. Four hundred seven students (50.1% of all students) who assented to participation and received parental consent completed a study questionnaire, and 377 questionnaires from students were used in data analysis. Measures assessed adolescent motivation, adolescent initiative, perceptions of parent autonomy support of involvement (PASI), and perceptions of parent structure practices. Findings indicate the importance of the parenting environment on adolescent motivation, initiative, and structured activity involvement. The structure and rules that parents enact are most beneficial when they are highly involved and supportive of their child's autonomy in free time. This type of environment is linked to internal motivation styles, or the internalization of motivation styles, that are conducive to the development of initiative. High levels of PASI and parent structure can also help buoy initiative when adolescents exhibit more externalized motivation styles, and may help adolescents persist through activities until they become internalized. The development of initiative is a key developmental task of adolescence, and it is marked by sustained engagement and perseverance. Adolescents who exhibited high levels of initiative were more likely to be involved in structured activities. These experiences afford adolescents opportunities to exercise autonomy, demonstrate competence, support relatedness and provide challenges, which serve a preparatory function for adulthood. Furthermore, these experiences may reinforce internalized forms of motivation and initiative in adolescents.

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Chapter 1

INTRODUCTION

The potential of leisure and free time experiences to promote positive adolescent development is widely acknowledged (Carnegie Council on Adolescent Development, 1992; Eccles & Barber, 1999; Kleiber, 1999; Kleiber, Larson & Csikszentmihalyi, 1986; Mahoney & Stattin, 2000). Free time affords youth opportunities for involvement with community and civic institutions, experimentation with roles in various settings and social situations, development of interests, and socialization with competent peers and adults beyond school and home. All of these experiences are thought to promote positive youth development and aid in the transition to adulthood. Conversely, the context of free time is also linked with involvement in risk behaviors (i.e., substance use, teen pregnancy, violence, and other health compromising behaviors) that can be deleterious to development and may lead to problems beyond adolescence (Carnegie Council on Adolescent Development, 1992; Dryfoos, 1990).

Free time and leisure experiences comprise a large part of many adolescents' lives, with just around 40% of a child's waking hours spent in free time pursuits (Carnegie Council on Adolescent Development, 1992; Csikszentmihalyi & Larson, 1984; Larson & Verma, 1999). Beyond schools, leisure is considered "the social institution most closely associated with the world of adolescence" (Fine, Mortimer, & Roberts, 1990, p. 227). The importance of free time in youth development has been best captured by the Carnegie Council on Adolescent Development's (1992) assertion that free time is a matter of risk (for failure) and opportunity (for success). An understanding of the key processes that lead to risk or opportunity has led to the development of an

emerging body of literature that examines adolescent development within the context of free time.

More recently, the focus on the context of free time has examined the types of experiences available to adolescents. Recent research has focused on two specific activity types: structured and unstructured (Caldwell & Darling, 1999; Eccles & Barber, 1999; Larson, 2000; Mahoney & Stattin, 2000). Structured activities (sometimes called transitional activities) are those activities undertaken voluntarily and exist within a framework that offers constraints, rules, and goals (Larson, 2000; Larson & Kleiber, 1993; Mahoney & Stattin, 2000). These experiences are often under the supervision of adults, and involvement is often encouraged and supported by parents (Hutchinson, Baldwin, & Caldwell, 2003; Mahoney & Stattin, 2000). Furthermore, these experiences have been linked to academic achievement and lower levels of anti-social behavior, and promote competence, initiation, and socialization (Eccles & Barber, 1999; Larson, 2000; Mahoney, 2000). These experiences take the form of such typical experiences as sports, the arts (e.g., music and theatre), hobbies, and formal extracurricular experiences such as scouting, afterschool clubs and other organized experiences (Eccles & Barber, 1999; Larson, 2000; Mahoney & Stattin, 2000).

Unstructured activities are those activities that are largely unsupervised and without formalized organization (Larson, 2000; Mahoney & Stattin, 2000). These types of activities offer adolescents the freedom to experiment with roles, behaviors, and ideas that aid in shaping identity (Caldwell & Darling 1999; Kleiber, 1999). Unstructured experiences allow adolescents to exert personal control over their environments and become autonomous in their actions (Silbereisen, Noack, & Eyferth, 1986). These types of experiences can assist with the development of social negotiation skills and cooperative behaviors. Unfortunately, many problem behaviors are also associated with

unstructured experiences, and they are most often linked with detrimental problem behaviors (Mahoney & Stattin, 2000). Furthermore, Larson (2000) contends that most common forms of unstructured leisure activities do not adequately provide opportunities for adolescents to exercise concentration, face challenge, and exert effort over time. Structured activities offer experiences to develop these internal capacities, and adolescents that develop these capacities are theorized to transfer them to other environments (Larson, 2000; Larson & Kleiber, 1993). By understanding what leads to structured and unstructured activity participation, parents and youth development practitioners can aid youth to make healthy choices and develop the internal capacities needed for successful transition to adulthood.

Researchers on adolescent development recognize that contexts such as the family, school, and peer group play a large role in shaping the choices made in free time by adolescents. These researchers are largely responsible for a growing body of research that examines the role of parents in the development of skills and attributes that contribute to the development of healthy choices in free time (Csikszentmihalyi, Rathunde, & Whalen, 1993; Hutchinson, et al., 2003; Larson, Dworkin, & Gillman, 2001; Mahoney & Stattin, 2000).

Throughout childhood, parents are viewed as the predominant socialization agent of the child; they provide a belief system, instruction in cultural mores, and controlled access to structural and interpersonal experiences beyond the family (Collins, et al., 2000). In adolescence, the individual is gradually affected by and exposed to peer groups, social structures and belief systems beyond those experienced in childhood, and is left to negotiate many of these experiences without the direct supervision of a parent (Crockett & Crouter, 1995). The adolescent moves from a largely adult-controlled and structured environment to one where he or she is responsible for self-directed and

autonomous choices associated with adulthood (Crockett & Crouter, 1995). Even though parental supervision and authority gradually diminish through the period of adolescence, parents still play a key role in the lives of adolescents. The findings from research on parenting styles and practices during adolescence reveal the overwhelming importance of parents during this developmental period.

Parenting style is often conceptualized as a two-dimensional construct involving parental demandingness (control) and parental responsiveness (warmth; Maccoby & Martin, 1983). These two larger dimensions are subdivided, producing four categories of parenting that are: (a) authoritative, where parenting is highly demanding and highly responsive; (b) authoritarian, where parenting is highly demanding and low in responsiveness; (c) indulgent, sometimes referred to as permissive parenting, where parenting is low in demandingness and highly responsive; and (d) uninvolved, where parenting is low in demandingness and low in responsiveness (Baumrind, 1991; Maccoby & Martin, 1983).

There is a great deal of research on variations in parenting style and impact on adolescent well being. Parenting that is perceived to be highly responsive has been associated with adolescent well being (McFarlane, Belissimo, & Norman, 1995; Young, Miller, Norton & Hill, 1995), while parenting that is perceived as overly demanding has been positively correlated with depressed mood of adolescents (Greenberger & Chen, 1996). When parenting style is perceived to be both highly demanding and highly responsive (i.e., authoritative), positive associations with favorable adolescent behavior have been found (Fletcher, Darling, Steinberg, & Dornbusch, 1995). Children and adolescents whose parents are authoritative demonstrate significantly higher academic competence, lower depressive symptoms, and significantly lower levels of problem behavior when compared with children whose parents are not authoritative (Baumrind,

1991; Darling, 1999; Dornbusch, Ritter, Liederman, Roberts, & Fraleigh, 1987; Lamborn, Mounts, Steinberg, & Dornsbusch, 1991; Miller, Cowan, Cowan, & Hetherington, 1993; Weiss & Schwarz, 1996).

Parenting styles should not be confused with parenting practices (Darling & Steinberg, 1993). Whereas parenting style focuses on the general emotional climate within the home, parenting practices refer to specific, goal-directed behaviors that parents exhibit with their children (Fletcher, Elder, & Mekos, 2000). Common parenting practices relate to setting expectations around the use of free time, providing access to resources, encouraging involvement in certain activities, and managing peer relationships (Fletcher, Elder & Mekos, 2000; Mounts, 2001).

As they grow older, most adolescents face the expectation of self-directed behavior. Self-determination theory (SDT) is a conceptual framework "that highlights the importance of humans' inner resources for personality development and behavioral self-regulation" (Ryan & Deci, 2000, p. 68). SDT is concerned with the nature of motivation, and addresses the distinction between intrinsic and extrinsic motivation. Activities that are intrinsically motivated are those that are done for the inherent nature of the activity and do not require external reinforcement to assure involvement. By contrast, extrinsically motivated activities refer to those experiences where engagement is linked to some reward or consequence separate from the activity. According to Ryan & Deci, individuals who display a propensity toward intrinsic motivation are more likely to have experiences of greater autonomy. These individuals also exhibit more behavioral effectiveness, enhanced subjective well being, and better assimilation of the individual within that person’s social group. While intrinsic motivation is characteristic of self-determined behavior, similar characteristics may be found when examining individuals

who are able to internalize extrinsic motivation or self-regulate externally motivated activities.

Internalization is a process by which extrinsically motivated activities are regulated to the self through the support of the basic psychological needs of relatedness, competence, and autonomy (Deci & Ryan, 2000; Ryan & Deci, 2000). Internalization depends on the degree to which these three needs are supported, and variations of internalization are referred to as forms of regulation. Introjected regulation describes internalization based on the provision of relatedness. Doing a task to appease an esteemed other or to conform to some social norm are examples of introjected regulation. Identified regulation occurs when opportunities for competence and support of relatedness exist within a task that offers some provision for autonomy. Regulation through identification represents slightly more internalization than introjected regulation, as the goal of a task or activity is accepted as personally important. Exercise performed for fitness is good example of identified regulation. Integrated regulation represents the highest form of internalized regulation of extrinsically motivated activities. This type of regulation occurs when activities support ample opportunities for relatedness, competence, and autonomy. Integration occurs when motives for participation are fully ascribed to one's personal values and needs. Integrated regulation most resembles intrinsic motivation in its outcomes and experiential quality. However, integrated activities are motivated by outcomes, whereas intrinsic activities are motivated by inherent qualities of an activity. The development of internally regulated behavior is thought to have substantial bearing on development (Ryan & Deci, 2000). Internally motivated activities are thought to prepare adolescents for the roles and responsibilities of adulthood through tasks that develop self-direction, self-expression, and motivated involvement (Larson & Kleiber, 1993).

The nature of internal motivation is also thought to have a bearing on initiative taking, which is critical when examining the domain of free time (Hutchinson et al., 2002; Larson, 2000). Initiative "consists of the ability to be motivated from within to direct attention toward a challenging goal" (Larson, 2000, p. 170). Adolescents who are able to take initiative during free time are thought to possess the ability to plan and create enjoyable activities for themselves. Larson contended that initiative can be derived partly from adolescents' daily experiences through "sparks of excitement and absorption that occur in ordinary lives" (p. 171).

Hutchinson et al. (2002) found that parents were capable of promoting initiative in free time experiences to those adolescents who were amotivated or externally motivated. Parental involvement, in the form of parental knowledge, monitoring and control had a significant and positive effect for amotivated and externally motivated adolescents taking initiative in free time. The authors theorized that parents provided ‘an extra push’ for those adolescents who needed it most. Adolescents who demonstrated motivations consistent with internal regulation demonstrated marginal increases in initiative taking, which suggests that these individuals were largely responsible for their own initiative taking behavior.

Research in SDT is also concerned with the causes of human behavior to the extent that it tries to understand the conditions that optimize human development, performance, and well being (Ryan & Deci, 2000). Specifically, SDT research has focused on the social-contextual conditions that facilitate the processes of self-regulation and internal motivation. This line of research has examined the climate of classrooms, healthcare settings, and work environments to understand what elements are necessary to support the development of self-regulated and self-determined behavior. Researchers in SDT have also identified similarities in how parents support autonomy

and structure environments to facilitate the development of intrinsically motivated and internally regulated behaviors of children and college students.

Based on this research, Grolnick, Deci, and Ryan (1997) provided a conceptual model of parent involvement that promotes self-determined behavior. Grolnick et al. identified three central social-contextual dimensions associated with parenting that facilitate internalization. These dimensions are:

1) Autonomy Support – the provision of opportunities by parents to facilitate adolescent free choice in activities. This includes encouraging self-initiative, minimizing the use of controls, and acknowledging the feelings and perspective of others.
2) Structure – the provision of guidelines and constraints on behavior. This includes communicating expectations, rationale, consequences, and feedback.
3) Interpersonal Involvement – the parent's investment of time and resources in a child's activities. This includes taking interest in a child's activities and providing a warm and caring environment.

These three dimensions work in concert to promote the development of intrinsic and internalized behaviors.

According to SDT, intrinsic motivation is spontaneous and occurs in situations where the individual is relatively free of external controls. The provision of autonomy support creates an environment that is more conducive to intrinsic motivation, because it allows adolescents opportunities for choice, self-initiation, and volition. Structure from parents is needed for those activities that are positive in nature, but lack the innate desirability of more intrinsic forms of behavioral engagement. In other words, these activities, while positive in nature, are externally motivated and require parents to

structure environments to facilitate their internalization. Furthermore, these structured environments are more effective when parents demonstrate interest, provide resources, and show warmth and caring when interpersonally involved with their child.

Hutchinson, et al. (2003) used Grolnick et al.'s (1997) dimensions of parenting as a conceptual framework to study what practices parents used to structure, regulate, and support adolescent free time use. Parents were given in-depth interviews to describe and examine parenting practices related to structuring, regulating, and supporting their young adolescents' free time. Hutchinson et al. found that practices used by parents were mostly consistent in supporting the dimensions identified by Grolnick et al. They also noted that these practices extended from parent's global beliefs and expectations about the use of free time. Parents who provided information to children and explained their practices were guided by values around their own perceptions of priorities for their children, the benefits of specific activities, expectations related to socially acceptable and age-related behavior, and the level of trust they had for their children. These beliefs and expectations had a direct bearing on how parents facilitated autonomy support and structured environments.

To support autonomy, parents gave their adolescents opportunities for self-directed behavior or facilitated their adolescent's choice by allowing the child to make decisions about activities and friends in the free time context (Hutchinson, et al., 2003). Parents also encouraged self-management of these activities and allowed adolescents to structure and plan activities to encourage responsibility. Decisions to engage in autonomy supportive behavior were based in beliefs about increasing responsibility with age and parents trusting their adolescent's ability to make good decisions and choices.

The practices parents used to structure adolescent free time in Hutchinson et al.'s (2003) study were very consistent with those identified by Grolnick et al. (1997).

Structuring practices were most affected by beliefs and expectations parents had about the use of free time. Parents related instances where they communicated expectations, provided rationale for these expectations, explained consequences, and provided feedback to adolescents on how and with whom they spent free time. Hutchinson et al. also found that some parents had practices in place to assure involvement in activities that they deemed important or developmentally appropriate. Furthermore, parents reported using activities to control what and with whom their adolescent spends free time, and to redirect adolescents from spending large amounts of time in less desirable, unstructured activities. Hutchinson et al. also suggested that parents used monitoring practices within and outside the home to ensure that their adolescent engaged in safe and acceptable behavior. Practices indicative of interpersonal involvement were demonstrated by parents who made time to talk about and share activities with adolescents, and who were aware of their adolescent's interests provided and resources to support those interests, which is in keeping with Grolnick et al.'s (1997) conception of parenting that promotes self-determination.

The significance of Hutchinson et al.'s (2003) study is that it provides a conceptualization of how parent practices around autonomy support, structuring, and interpersonal involvement in free time are affected by parent's beliefs and expectations about the use of free time and the level of trust parent's place in their adolescent. Variations in parenting associated with facilitating intrinsic motivation and internalization may account for differences in self-determination and involvement in free time. A logical extension of this work would be to examine the influence of parenting on initiative-taking behavior in free time by adolescents. This larger model would provide support for Hutchinson et al. (2002) findings and link them to an outcome that reflects how parents promote positive youth development.

Statement of the Problem

Over 40% of an adolescent's waking hours are largely unstructured, unsupervised, free time, which creates a substantial opportunity for involvement in "risk" behaviors (Carnegie Council on Adolescent Development, 1992). Too often, adolescence has become a period where the threats to health and well being place young people at-risk for substantial impairment or disability (DiClemente, Hansen, & Ponton, 1996). Parental involvement during this period is a critical necessity for adolescents as they negotiate developmental tasks to adulthood. Parents who can assist their adolescent in becoming self-directed in free time experiences and support internalization of positive behaviors may assist in their child's development of interests and stave off involvement in risky behaviors.

Statement of Purpose

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time. Using free time as a context, the study attempted to unify many of the key findings from past studies of parent influence. Specifically, this model investigated the influence of parent behaviors on adolescent initiative in free time, the effect of child's self-determination as it relates to adolescent initiative in free time, and how initiative predicts structured and unstructured activity involvement. The model used self-determination theory to guide its framework and will use past research and theory to explain relationships among tested variables.

This model tested the work on parenting practices by Hutchinson, Baldwin, and Caldwell (2003) by examining how variations in parent support for autonomy, structure, and interpersonal involvement affect initiative taking behaviors in free time. It extended the work of Hutchinson et al. (2002) by exploring how variations in initiative affect

choices in free time. More specifically, this model examined the effect of low and high levels of initiative and involvement in structured and unstructured activities.

Hypotheses

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time (See Figure 1.1, page 15). The following hypotheses guided this examination:

Hypothesis 1:

Initiative and internalized forms of motivation will positively predict structured activity involvement, while externalized forms of motivation (introjected, external) and amotivation will negatively predict structured activity involvement.

Hypothesis 2:

Internalized forms of motivation will positively predict unstructured activity involvement, while initiative will negatively predict unstructured activity involvement.

Hypothesis 3:

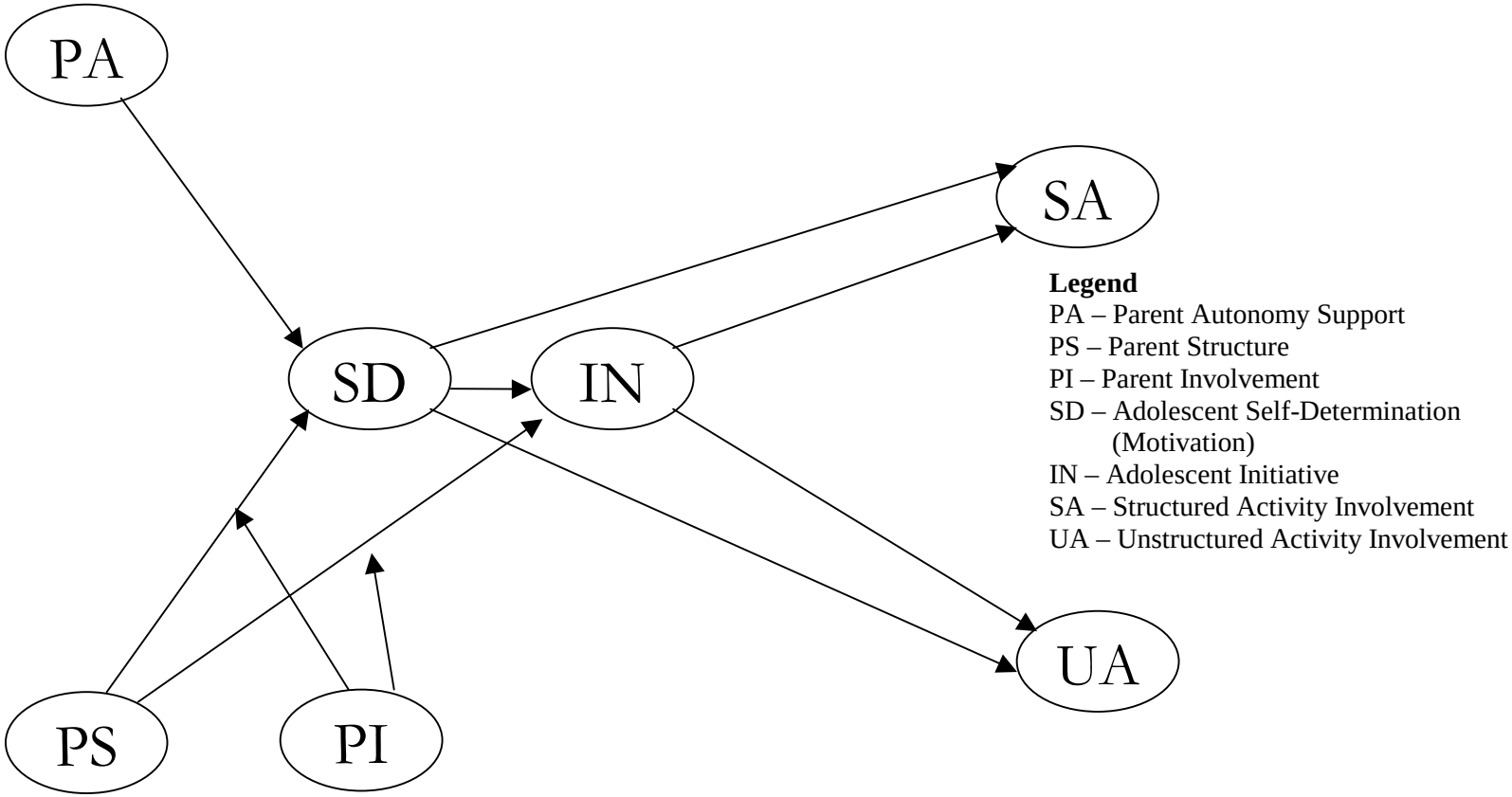
Adolescent motivation, parent autonomy support, parent structure and parent involvement predict adolescent initiative. Specifically, parent involvement moderates the effect of parent structuring on initiative. For example, parenting that was high in structure would more strongly predict initiative if parent involvement was also high. Parent autonomy support will also positively predict adolescent initiative, higher levels of parent autonomy support will predict higher levels of initiative. Finally, more internalized forms of motivation positively predict initiative, while externalized forms of motivation and amotivation negatively predict adolescent initiative.

Hypothesis 4:

Parent autonomy support, parent involvement and parent structure predict adolescent motivation. Specifically, parent autonomy support will positively predict internalized (intrinsic and identified) forms of motivation. Conversely, parent autonomy support will negatively predict externalized forms of motivation (introjected and external) and amotivation.

Parent involvement moderates the effect of parent structure on motivation. For example, parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent involvement was also high. Conversely, the effect of parent structure on more externalized (introjected and external) forms of motivation and amotivation would be diminished in the presence of high parent involvement.

Figure 1.1: Model of Influences on Adolescent Activity Involvement



Definitions

Adolescent: For the purposes of this study adolescents are defined as individuals enrolled in grade 9 (aged 13-15 years) at three suburban high schools in Eastern Massachusetts.

Amotivation – Refers to the state of lacking the attention to act (Ryan & Deci, 2000, p. 72). Amotivated behaviors are represented by inaction or action without intent, because there is no value to doing the activity—there are no extrinsic rewards or intrinsic value. Amotivation was measured using the Amotivation subscale from the Free Time Motivation Scale for Adolescents (FTMS-A, Baldwin & Caldwell, 2003).

External Motivation – Behaviors performed to meet some external demand or reward contingency (Ryan & Deci, 2000, p. 72). Externally motivated activities are perceived as being directed by others and out of the control of the individual. External Motivation was measured using the External Motivation subscale from the FTMS-A (Baldwin & Caldwell, 2003).

Identified Motivation – Represents engagement in behavior, because one identifies with the value of the behavior. Generally, identification occurs because the activity or behavior is important to the achievement of personal goals (Ryan & Deci, 2000). For the purposes of measurement, the Identified Motivation subscale from the FTMS-A measured this variable (Baldwin & Caldwell, 2003).

Initiative: Refers to the adolescent's ability to restructure a situation to create more enjoyable, interesting, or challenging forms of activity engagement. This construct will be measured through a scale developed by Hutchinson, et al. (2002).

Intrinsic Motivation – Ryan and Deci (2000) define intrinsic motivation as the "inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities to explore and to learn." (p. 70). Activities that are intrinsically motivated are those that are done for the inherent nature of the activity and do not require external reinforcement to assure involvement.

Introjected Motivation – Action performed to avoid anxiety and guilt related to accepted norms of behavior (Ryan & Deci, 2000). Measured by the introjected motivation subscale on the FTMS-A (Baldwin & Caldwell, 2003).

Parent: The mother of adolescents that are recruited to this study. The study specifically examined mother's parenting practices, as other researchers have in past studies (See Grolnick, et al. 2002).

Parent Autonomy Support: Refers to parent behaviors that support a child's autonomous behavior, such as allowing for choices and encouraging responsibility. Autonomy support will be measured using an adaptation of Robbins' (1994) perceptions of parent scale for college students.

Parent Involvement: Refers to the level of warmth, interest and investment of resources by parents to adolescents. Parent involvement will be measured using an adaptation of Robbins' (1994) perceptions of parent scale for college students.

Parent Structure: Refers to the rules, expectations, and monitoring practices parents use to structure an adolescent's free time. This will be measured using a researcher-developed index, which will be informed by Hutchinson, et al.'s (2003) qualitative study on parenting practices.

Structured Activities: Structured activities operate within a context that offers rules, challenges, and complexity found in everyday life. Examples of structured activities are sports, the arts, and hobbies (Larson, 2000).

Unstructured Activities: Refers to activities that have no formalized structure or organization. These activities typically include watching TV, playing videogames, and 'hanging out', among others (Larson, 2000).

Delimitations

This study was limited to ninth grade students at three high schools in eastern Massachusetts during the fall semester of 2003.

Limitations

This study was limited by the following factors:

1. Cross-sectional research – Data collection was accomplished through a one-time administration of a questionnaire. This one-time observation provides a limited understanding of the parent-child processes over time, because conclusions are based on observations made at only one time. Activities and parenting behavior may vary throughout the school year, and parent rules and behaviors may also depend on seasonal and situational influences.
2. Convenience sample – This study used a convenience sample of ninth grade students, which limited the generalizability of all findings to the sample in question. Regardless of size, the extent to which a convenience sample actually represents the entire population cannot be known.
3. Self-report data – The study relied solely on self-report measures from adolescents. Furthermore, the study relied on children's perspectives to assess parenting behaviors and rules around free time use. The validity of these data is subject to threats from selection biases, systematic response distortion, and monomethod bias.

Chapter 2

REVIEW OF THE LITERATURE

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time. Using free time as a context, the study attempted to unify many of the key findings from past studies of parent influence. Specifically, this model investigated the influence of parent behaviors on adolescent initiative in free time, the effect of child's self-determination as it relates to adolescent initiative in free time, and how initiative predicts structured and unstructured activity involvement. This review will examine literature related to this study under the following headings: (1) adolescent development; (2) leisure activity and adolescent development; (3) self-determination theory and adolescent development; (4) parenting and adolescent development; and (5) summary.

Adolescent Development

Adolescence is typically thought of as the bridge between childhood and adulthood. Biologically, it is the time where boys and girls morph through sexual development to become men and women. Beyond biological transformation a host of theories on development outline the cognitive (Piaget, 1972), moral (Gilligan, 1982; Kohlberg, 1969) and, ego developmental (Erikson, 1963) transitions that occur from birth through young adulthood. This provides some insight into how crucial this period is to the later success of humans.

Erikson (1963) called the developmental stage of adolescence the crisis of identity versus identity confusion. During this period, Erikson believed that adolescents must forge who they are and what they believe. It is also during this time that a variety of roles are examined and within these roles are associated situational and experiential shifts. It is not uncommon for this period to be one of experimentation. In fact,

experimentation can be thought of, as a healthy expression of one's self to find an identity. While experimentation is a normal and functional part of the search for identity, it can also lead to the initiation of health compromising behaviors and the negative effects associated with participation in these activities. However, failure to explore roles and associated mores and behaviors may lead to what is known as foreclosure (Marcia, 1980). Foreclosure is related to a premature formation of identity. Foreclosure is generally thought of as 'settling' on an identity without exploring. It is thought that those who have foreclosed will later be frustrated with whom they are and this will lead to problems in the next stage, intimacy and isolation. Another problem related to the search for identity is the constant search for self or diffusion (Marcia, 1980). People who have unfulfilling experiences and do not find an identity are thought to be in an unsettled state that will make it difficult to enter Erikson's next stage of ego development, intimacy versus isolation. Identity formation is about finding out who one is and being happy with how one defines one's self. Key to developing a healthy identity is the developmental task of individuation (Josselson, 1980).

Individuation is a task that reflects the individual and social processes related to identity development. Individuation is a process where an understanding of self in different contexts creates an individual view of whom one is. This process exposes the individual to groups of people and allows for key interpersonal transactions to occur that provide feedback and stimulus outside the self from which one can make meaning of who one is and where, relative to society, one stands (Josselson, 1980). Individuation explains the move from family based experiences to peer-based experiences. Adolescents are trying to establish autonomous and individual identities while receiving the support and feedback from a group of peers.

Individuation is marked by four related phases: (1) differentiation, (2) practice and experimentation, (3) rapprochement, and (4) consolidation of self. During the phase of

differentiation, adolescents begin to formulate their own views and beliefs. Differentiation occurs in early adolescence, where adolescents begin to recognize their beliefs and opinions are separate from their parents. The next phase of individuation is known as practice and experimentation, and usually occurs between 14 and 15 years old. During practice and experimentation, adolescents deny caution because they believe they are self-sufficient, and actively disagree with parents. The practice and experimentation phase also marks a shift from parents and family to the peer group and peer acceptance. A balance of reconciliation and acceptance of parental authority, while maintaining a level of autonomy not present before the practice and experimentation phase, mark the third phase, rapprochement. The final phase of individuation is known as the consolidation of self. This fourth phase is evident by the adolescent's expressed sense of identity, which allows adolescents to balance their needs for autonomy with their understanding of interdependence. At this point in identity development, adolescents acknowledge a need for parental support, while simultaneously exercising autonomy in life's daily activities. These ego development tasks occur in concert with the adolescent's entrance into a period of cognitive awakening (Josselson, 1980).

Piaget's (1972) cognitive developmental theory, like Erikson's psychological lifespan theory, paid special importance to the period from birth through adolescence. In fact, Piaget's theory posited that most, if not all of our cognitive development occurs before the age of 21. The theory does not cover the entire lifespan, as does Erikson's, therefore impediments to development play a significant role to one's cognitive development.

The primary cognitive transformation that occurs within adolescence is the move from concrete to formal operations. From the ages of 6-12 years, the concrete operations stage is marked by a period where primarily dogmatic, concrete thinking dominates the thought processes of most children. It is during adolescence that thought

processes move from the concrete to the abstract --ideas are not ‘black or white’, but varying shades of gray. This change is most visible in learning that occurs during that period. Schoolwork becomes more abstract for many adolescents as they progress into junior high and high school. Math (e.g., algebra, geometry, calculus), literature (e.g., hyperbole, allusion, sarcasm), and history (e.g., political and social ramifications of history) courses all become more abstract in approach and less about concrete observation of facts and instrumental phases of learning. The formal operations period is one where most adults of normal intelligence operate, and is viewed as necessary to handle the cognitive challenges facing humans in adulthood. Furthermore, it factors into identity development because cognition is thought, and internal thoughts dictate feelings, emotions, and perceptions of self.

The developmental literature demonstrates that human development is a complex process that involves negotiating individual level changes while being influenced and acting within different environments. A theory that integrates the developing self within coexisting environmental contexts is the Bio-ecological Model (Bronfenbrenner & Morris, 1998). The Bio-ecological Model posits that human development is influenced by individual, biopsychological characteristics interacting with multiple environmental systems. The bio-ecological model consists of four integral pieces: settings, processes, persons, and time. A review of how each fits within the bio-ecological, and affects development follows.

Individuals operate within and are influenced by four environmental systems or settings. The microsystem is the closest and most influential on one’s life development. It includes settings such as the family, school, and peer group. Roles associated with this system could be son/daughter, parent, teacher, and friend, among others. The next system is the mesosystem. The mesosystem refers to the interaction between two settings. This could include the interaction of home and school or communities and

families. The neighborhood, church, and work are good examples of mesosystem contexts. The exosystem is one of government social structures. Towns, school boards, and coalitions are good examples of exosystem structures. The final level in Bronfenbrenner's ecological model is the macrosystem. The macrosystem is defined by the cultural and overarching governmental (national) structures and is evident by the mores and laws associated with each. Bronfenbrenner (1979) modeled the theory in a series of concentric circles, inextricably linked, but bound to a level.

According to Bronfenbrenner and Morris (1998), human development is most significantly impacted through reciprocal interactions between the human organism and the microsystem or "most immediate external environment" (p. 996). These interactions are most effective when they occur regularly over extended periods of time. Bronfenbrenner and Morris identified these interactions as proximal processes. Development occurs through transactions between person and environment, where the person is an active player within an environment that is responsive and similarly impacted by the person engaged. A second proposition of the bio-ecological model states that power, form, content, and direction of proximal processes vary depending on the joint function of the characteristics of the developing person; of the settings or social environments in which they interact; the nature of the developmental outcomes under consideration; and the social continuities and changes that occur over an individual's life course and in the historical period in which that individual has lived (paraphrase of Proposition II on p. 996). In each case, the person plays a direct and indirect role in how proximal processes are (or are not) set into motion and impact human development.

Proximal processes depend, in large part, on person characteristics. The bio-ecological model specifies these characteristics as:

1) behavioral dispositions – internal characteristics that can promote and sustain (i.e., developmentally generative) or inhibit and prevent (i.e., developmentally disruptive) proximal processes from happening;
2) bioecological resources – characteristics that reflect abilities, knowledge, experiences, and skills required for proximal processes to effective during a stage of development; and
3) demand characteristics – characteristics that invite or discourage reactions from the social environment that advance or interrupt the function of proximal processes (Bronfenbrenner & Morris, 1998).

The bio-ecological model asserts that challenges to any of the person characteristics will stall proximal processes and impede development. These person qualities can also be ascribed to the microsystem as characteristics of parents, friends, teachers, and significant others who participate in an individual's everyday life.

According to Bronfenbrenner and Morris (1998), behavioral dispositions are the person characteristics most likely to impact an individual's future development. As stated above, proximal processes are set into motion and sustained or inhibited and prevented by one's behavioral dispositions. Dispositions that promote and sustain proximal processes are known as developmentally generative characteristics. Developmentally generative characteristics are exemplified by curiosity, self-initiation, responsiveness to initiatives by others, and deference of immediate gratification with a cognizance of long-term goals. Conversely, developmentally disruptive behaviors interfere with or prevent proximal processes. Developmentally disruptive behaviors range from impulsiveness and distractibility to apathy and withdrawal. Persons with developmentally generative characteristics find it easy to engage in proximal processes

that are progressively more complex and time demanding, whereas persons with developmentally disruptive characteristics find these processes difficult and unsettling.

Resource characteristics “constitute biopsychological liabilities and assets that influence the capacity of the individual to engage effectively in proximal processes” (p. 1011). Birth defects and chronic illness are but two examples of deficits in resource characteristics. These types of liabilities hamper an individual’s ability to become absorbed and maintain proximal processes, which results in developmental delays or foreclosure. These outcomes are in contrast to those experienced by persons with developmental assets—who succeed in progressively more complex interactions and may meet or exceed developmental markers because of these assets.

The last set of person characteristics, demand characteristics, is identified by its power to elicit or suppress responses from the social environment that aid or discourage assistance with proximal processes. Specifically, these characteristics are ‘social stimuli’ that demand action or inaction based upon their appeal to others. Happy versus fussy baby, attractive versus unattractive child, hyperactivity versus passivity are but some examples used by Bronfenbrenner and Morris (1998) to illustrate how these characteristics influence proximal processes. Persons who exhibit characteristics that are more socially desirable often receive the attention and assistance needed to negotiate proximal processes, whereas those exhibiting less socially desirable characteristics are not engaged or well supported.

Time, the fourth and final defining property of the bio-ecological model has already been mentioned throughout the discussion of proximal processes and person characteristics. The conduit by which development occurs, proximal processes, involve progressively more complex, reciprocal interactions between persons and proximal environments that occur on a “fairly regular basis” (p. 1019). Similar to how settings are conceptualized, Bronfenbrenner and Morris place time in a nested model ranging from

micro to macro. Microtime refers to continuity versus discontinuity within ongoing occurrences of the proximal process. Discontinuity during proximal processes could be the result of disruption or other reasons for premature conclusion of proximal processes. These instances occur within the moment. Mesotime refers to the interval of these occurrences across broader time intervals, such as days and weeks. Proximal processes progress over time, mesotime is the duration over which proximal processes occur. Macrotime is reflective of the individual's life course and the historical period in which an individual has lived (p. 996). Macrotime reflects the culmination of multiple processes as they occur over the lifespan and they are impacted by broader influences (historical instances) over time.

A bio-ecological approach to development is one that pays attention to human development within social contexts. This model provides clear implications for investigating proximal processes as they occur in the daily lives of adolescents. Interventions and opportunities for engagement are thought to have greater impact at more proximal levels (micro and mesosystems), and these are thought to assist or guide macro level changes. It would seem then, that understanding impacts by proximal levels in an ecological system would enhance an understanding of how best to impact individuals in positive ways. Furthermore, this approach may be especially invaluable when trying to understand adolescent development in the context of free time.

Leisure Activity and Adolescent Development

As a child moves into adolescence, leisure, recreation and play provide experiences that assist in the transition to adulthood. Adolescence is typically marked by major changes in physical, social, emotional, and identity development. Leisure and recreation experiences are seen as providing ways in which adolescents learn to cope and adapt during this time period.

In a review of the literature examining how contexts of leisure experiences

promote development, Larson (1994) proposed that the leisure experience is a vehicle for social and personal integration. Leisure experiences promote social integration by providing a connection to the community and a pro-social set of norms. Based on the literature, the author noted that those involved in contexts which promote leisure experiences (e.g., arts, hobbies, youth organizations) engage in less delinquency. Larson clarified that individuals involved in these programs are, for the most, already socially integrated and that they maintain this pattern through social reinforcement and the controlling nature of these experiences. Larson (1994) noted in addition to social integration, contexts which promote leisure experience may lead to personal integration. The author pointed out that the potential for the development of self-concept and self-esteem lies within these experiences (Larson, 1994).

Research aimed at the leisure experience's effect on personal development has identified that self-concept and self-esteem may be enhanced through leisure involvement. Leisure is seen as allowing individuals the ability of introspection, promotes individual expression, and develops social supports.

During adolescence, leisure provides the opportunity for emotional development through self-discovery and self-expression. A number of leisure-related roles in the institutional setting of school (such as clubs, sports, etc.) provide adolescents with continual evaluation and feedback. In addition, informal leisure roles receive regular feedback through 'peer review' process of selection. This feedback helps adolescents in the process of identity formation (Kelly, 1983). According to Kelly (1983) many of the characteristics around which identities are based are developed through leisure--leadership, humor, physical strength, and skill. It is the variety of leisure for youth that provides the opportunity to try out both abilities and identities.

Leisure plays an important role in social development by providing an opportunity for the development of friendships and intimate relationships. Friendship patterns, which

tend to be established first in neighborhood playgroups during middle childhood, move farther and farther away from direct parental control (Caissy, 1994). Leisure settings are often the space for this friendship-- a sharing of music, reading, games, and communication in a setting apart from the larger groups (Kelly, 1983).

Leisure and recreation have also been linked to the maintenance of health by developing social support and coping mechanisms. Based on a review of the literature, Coleman and Iso-Ahola (1993) theorized that the nature of leisure is such that it promotes health by reducing stress through social support and developing coping processes. The authors argued that the social nature of many leisure activities act as a springboard for developing social support. These people provide the companionship and support that buffer the effects of stressful situations that could potentially lead to poor physical and mental health (Coleman & Iso-Ahola, 1993). Inherent characteristics in the leisure experiences such as perceived freedom, perceived control, perceived competence, and intrinsic motivation are seen as building blocks in the development of self-determination. The authors based this notion on research which found that people who display a sense of self-determination are less likely to suffer from illness (Coleman & Iso-Ahola, 1993).

Contexts that promote leisure and recreation may provide the adolescent with appropriate role models outside the sphere of the family. While the early stages of forming integrated identity are fostered within the family, the exploration of identity during adolescence is achieved by questioning who one is and where one fits outside the family (Ianni, 1989). Since parents and teachers are often caught up in giving exhortations to achieve, adolescents often identify with adults they respect in activities freely chosen during leisure (Ianni, 1989). Sport coaches, for example, are often a key influence during adolescence (Kleiber & Kelly, 1980). Leisure programs can be seen as potentially developing relationships with these types of role models and providing a

guide for pro-social behavior.

It has been theorized that quality recreation programs contribute to mental health and learning appropriate behaviors through improving “resilience” of individuals (Witt, Crompton, & Baker, 1995). These programs help participants develop appropriate coping and functioning mechanisms to provide protection against the impact of both internal and external risk factors. The leisure context is central to several tasks of social development in early adolescents including the establishment of intimacy, peer acceptance, cohort identification, self-definition, and independence.

Another way that leisure and recreation experiences may add to the development of adolescents is through the use of “transitional activities” (Kleiber, Larson & Csikszentmihalyi, 1986). Kleiber et al. (1986) suggested that many adolescents engage in two distinct types of leisure and recreation. One type is labeled “relaxed leisure” , these experiences are intrinsically motivating, but require low concentration and are low in challenge (Kleiber et al., 1986). These types of activities include socializing, relaxing, watching television, and listening to music. The other set of leisure activities are known as “transitional activities;” activities which “offer freedom and intrinsic motivation within highly structured systems of participation, systems that require discipline and engage an adolescent in a world of symbols and knowledge outside the self” (Kleiber, et al., 1986, p. 175). Among adolescents, constructive recreation and play have been linked to success in school and can help develop formal operational skills such as appreciation of structure, logistics, and strategy (Caissy, 1994; Clark, 1988). Larson & Kleiber (1993) specifically identify transitional activities as adding to the development of self-direction, self-expression and motivated involvement. These types of activities are theorized as laying the foundation for experiencing enjoyment in more obligatory adult activities; adolescents who are able to find enjoyment in these types of activities are believed to have the ability to find enjoyment throughout life (Kleiber et al., 1986).

Larson and Kleiber (1993) suggested that transitional or structured activities (sometimes called involved or serious leisure) are crucial in the development of attentional capabilities and the awareness of what is needed to foster deep concentration and voluntary attention. Voluntary attention is a notion that the adolescent is aware of what it takes to be involved with an activity. The decisions and choices one must enact to participate in a given structured activity facilitate one's voluntary choice to attend to a given activity. This is in keeping with Silbereisen et al.'s (1986) perspective that leisure allows 'action in context', and that when an adolescent is actively involved in determining their choices, they are more likely to engage in healthier lifestyles and free time pursuits.

Kleiber et al. (1993) also examined the social meanings of leisure to adolescents. Leisure was seen as enjoyable, relaxing, and desirable to the sample from this study. The most enjoyable activity identified was socializing with friends. This is nothing new to this area. Fine, Mortimer, and Roberts (1990) identified the peer group and cliques to be strong forces in the lives of adolescents, even though this relationship wanes through adolescence. Developmentally, this process is in keeping with the individuation component of identity development.

Transitional activities offer the individual experiences of self-determination or perception of choice. These experiences have been thought to foster individuation. Another benefit related to identity formation is that a role is prescribed with the experience. Now one is a musician, an artist, a chess player, an athlete, and so on. Relaxed leisure fails to provide these specific identities and therefore is limited in its developmental benefits. Furthermore, it is believed that serious involvement in these activities precludes adolescents from substance abuse and other health compromising behaviors, because these risky behaviors jeopardize long-term involvement and goal achievement (Larson, 2000; Larson & Kleiber, 1993). From a cognitive perspective, one

could argue that these activities develop attentional capabilities at a time when it is most needed. Activities such as hobbies, sports, instrument playing and formally organized groups (e.g., scouting) support the development of abstract thought and require an attentional capacity that is in line with this period of development. Moreover, these activities support identity development, because they allow experimentation with roles, symbols, and objects that are outside the self.

Kivel (1998) in a selected review of the literature suggested that these types of activities are beneficial to identity development in three ways:

1) they allow for specific roles to occur in different contexts;
2) they bridge the gap between childhood play and more adult obligatory activities;
3) they allow the opportunity to embed identity within an activity.

This final idea is important because it gives some practical guidance for developing experiences where some developmental benefit can occur. By embedding roles within experiences (i.e., group leader, planning, member of a team) the youth benefits from the expectations associated with that role and might foster identity through being involved with a role that might not be regularly offered or available.

In keeping with this idea, an examination of Shaw et al.'s (1995) exploratory study of leisure, gender, and identity development is warranted. Shaw et al. found that females benefited in identity formation from sports and physical activities. Shaw et al. suggested that this might be due to the idea this was a role outside of traditional gender roles and thus added dimensions to these females' identities. In the same study, results showed a slightly negative non-significant result for males in this study. The authors posited that this might be due, in part, to the idea that these activities might have been considered compulsory and accepted as an expectation of gender.

While freely chosen, self-determined activities tend to be highly touted for their

developmental benefits, these activities are also suggested because they can also occur in highly structured settings that reflect pro-social or conventional values (Mahoney & Stattin, 2000). Highly structured activities are socially complex in that they balance peer cooperation, support from family, and guidance from unrelated adults in most cases. Beyond structure, these types of opportunities may facilitate parental monitoring practices and trust by increasing parental knowledge of where the adolescent is, what that adolescent is doing and with whom during free time (Mahoney & Stattin, 2000). However, benefits of leisure in free time may also be reaped in unstructured free time.

For many adolescents, the freedom of unstructured free time provides a place for experimentation with social roles, behaviors, and ideas, which assist in the transition to adulthood (Caldwell & Darling, 1999). These opportunities can occur within unsupervised social contexts where adolescents learn to exert personal control over their environments and become autonomous in their actions (Silbereisen et al., 1986). Furthermore, these types of experiences can assist with the development of social negotiation skills and cooperative behaviors.

Unstructured free time can be troublesome given certain conditions. Caldwell and Darling's (1999) ecological analysis of free time and unstructured leisure showed that increased time in unstructured leisure, low levels of perceived parental monitoring and associating with deviant peers predicted substance use by teenagers. Involvement in unstructured activities may also have an adverse affect on parental monitoring practices and parent-adolescent relationships (Mahoney & Stattin, 2000). As previously mentioned, parents typically know the whereabouts of adolescents involved in structured free time experiences, because these activities are frequently institutionalized and supervised. Unstructured free time, by its very name, connotes a lack of supervision and institutionalization. Frequently, the nature of these activities is only known to the group of involved peers, and parents are unaware of what, where or with whom their

child spent time doing these activities. Regular participation in these types of activities by adolescents may undermine parent knowledge and trust, and strain parent-adolescent relationships. Parents may avoid some of the troubles associated with these experiences by engaging in parenting behaviors that assist youth in making healthy decisions in free time by fostering an adolescent's ability to take initiative in creating enjoyable, interesting and challenging experiences for themselves.

Summary: Leisure Activity and Adolescent Development

During adolescence, leisure activities provide a context from which adolescents can negotiate and master the developmental tasks they face on the way to adulthood. Leisure activities offer experiences for socialization, individuation, and identity development. Structured activity experiences connect adolescents to positive adult role models, and provide a place for adolescents to learn and master experiences. Long-term involvement in structured activities is theorized to aid in the transition to adulthood, because adolescents learn to endure in their involvement and assimilate the goals of these activities to form a coherent sense of self. Unstructured activities can also be beneficial in that they provide experiences for adolescents to operate and be successful in situations where adult control is low. However, frequent exposure to unstructured activities combined with the influences of a deviant peer group, can lead to high-risk behavior (i.e., substance use, early sexual behavior) and peril. Parents who are aware of these risks can influence time use and prevent the rise of serious risk involvement.

Self-Determination Theory and Adolescent Development

Self-determination theory (SDT) is a theory of human motivation that focuses on the development and functioning of personality within social contexts (Deci & Ryan, 1985). SDT examines the degree to which behavior is volitional and the social contextual influences that affect motivations for behavioral engagement. The theory posits that optimal human functioning is dependent on

the satisfaction of the basic psychological needs of competence, autonomy, and relatedness. Social-contextual variations account for differences in achievement of these needs, which in turn determines motivation.

Motivation is concerned with "…energy, direction, persistence, and equifinality—all aspects of activation and intention" (Ryan & Deci, 2000, p. 69). In SDT, motivation is partitioned into two major categories, intrinsic and extrinsic. Ryan and Deci referred to intrinsic motivation as authentic, because the inherent appeal of these activities allows the self to endorse these types of motivation. Activities that are intrinsic in nature are viewed as interesting and exciting, while offering opportunities for challenge and creativity. By their nature, intrinsically motivated activities are internal to the self. Conversely, externally motivated activities are performed for reasons external to the activity, and are generally lacking in appeal when compared to those activities done for intrinsic reasons. This is not to say that extrinsically motivated activities are unnecessary or detrimental. To the contrary, many of the necessary, obligatory activities of life are done for extrinsic reasons. In these cases, individuals learn to internally regulate extrinsic motivations in order to function and live successfully among others. While not intrinsic in nature, internally regulated, extrinsic activities offer individuals opportunities for self-determined behaviors.

Intrinsic Motivation

Ryan and Deci (2000) stated, "Perhaps no single phenomenon reflects the positive potential of human nature as much as intrinsic motivation, the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities to explore and to learn" (p. 70). Intrinsic motivation fulfills natural inclinations for perceived freedom and control, mastery, spontaneous interest, and exploration. It is linked to positive cognitive and social

development, and offers the potential for lifelong enjoyment (Ryan & Deci, 2000). Individuals that exhibit high levels of intrinsic motivation are said to be self-determined, because they exhibit volition in action. While the potential for self-determined behavior exists in all people, it is heavily dependent on supportive conditions found in the social-contextual environment.

Variations in the social-contextual environment and the effect on intrinsic motivation are explained by the SDT sub-theory, cognitive evaluation theory (CET; Deci & Ryan, 1985). CET recognizes that there are social-contextual factors that can facilitate or undermine intrinsic motivation. According to CET, intrinsic motivation will thrive if opportunities for autonomy, competence, and relatedness are present within a social-contextual environment.

Autonomy

From its earliest beginnings, self-determination theory (SDT) suggested that self-determined activities were exemplified best in those activities that were natural, spontaneous, and freely chosen (Deci, 1975). This underlying tenet of SDT underscores the importance of autonomy or self-determination to intrinsic motivation. Early studies demonstrated that rewards and extrinsic motivators tend to undermine self-determination while events such as choice tend to enhance it (Deci & Ryan, 1985). In a review of the research literature on self-determination, Deci and Ryan (2000) noted that external motivators such as deadlines, threats, evaluations, and surveillance produced detrimental effects to intrinsic motivation. In contrast to these findings, the authors also noted that several other studies showed that the provisions of choice, self-direction, and acknowledgement of feelings supported intrinsic motivation and were linked to positive outcomes. Studies in schools and workplaces found that autonomy support, as opposed to controlling behavior, yielded greater intrinsic motivation,

increased satisfaction, desire for challenge, and curiosity (Deci & Ryan, 2000). Environments marked by controlling approaches were linked to a loss of initiative and less effective learning--especially in situations where conceptual, creative processing was required (Deci & Ryan, 2000; Ryan & Deci, 2000).

Deci and Ryan (2000) indicated that autonomy is a required element of intrinsic motivation. Intrinsic motivation is, by its, nature self-determined and the hindrance or denial of this element in social-contextual environments limits or eliminates the ability for one to act in volition.

Competence

While autonomy is a necessary element of intrinsic motivation, Deci and Ryan (2000) stated that competence is necessary for motivation in general. Like autonomy, several studies demonstrate that the need for competence plays an integral role in the facilitation of intrinsic motivation (Deci & Ryan, 2000; Ryan & Deci, 2000). Studies of feedback demonstrated that negative feedback on performance decreased motivation when compared to no feedback. Deci and Ryan identified negative performance and feelings of ineffectiveness as hindrances to feelings of competence and detriments to the facilitation of intrinsic motivation. By contrast, events that provided positive performance feedback were linked to enhanced intrinsic motivation and feelings of competence. However, Ryan and Deci (2000) noted that feelings of competence cannot enhance intrinsic motivation unless accompanied by a sense of autonomy.

Experiences that allow for competent performance enhance motivation and continued performance. Similarly, social-contextual environments that offer opportunities for autonomy and competence are optimal for the facilitation of intrinsic motivation. Events that meet these two needs are enough to induce intrinsic motivation.

Relatedness

In some cases, a need for relatedness or relational support from others may play a role in the facilitation of intrinsic motivation. The need for relatedness is not always necessary for an intrinsically motivating experience, however, studies reveal that its presence may lead to the maintenance of intrinsic motivation (Deci & Ryan, 2000). This is especially true in cases where social interaction is an inherent part of an event. Studies of children's learning revealed that intrinsic motivation was lower in settings where attempts at social interaction were ignored. SDT postulates that intrinsic motivation thrives in contexts where warmth, caring and a sense of secure relatedness are present. In other words, contexts that evoke feelings of confidence and acceptance are more likely to support feelings of intrinsic motivation. Interactions with people that are cold and disinterested lead to lower levels of intrinsic motivation and decreases in behavior that would otherwise be considered self-determined. Relational support is seen as a 'backdrop' or distal influence on the facilitation of intrinsic motivation. It does not always have the direct or proximal influence of autonomy and competence, but its presence enhances and maintains intrinsic motivation (Deci & Ryan, 2000; Ryan & Deci, 2000).

Extrinsic Motivation

As previously mentioned, SDT is concerned with understanding the reasons for human motivation. Intrinsic motivation is identified as optimal arousal, and contexts that facilitate intrinsic motivation are conducive to heightened human performance (Ryan & Deci, 2000). However, many activities are pursued for motives beyond those that exist in the activity, and Ryan and Deci identified these events as externally motivated activities. External motives are the bases for many of the daily activities in which humans are engaged.

These activities are generally not inherently appealing, which means that humans must find ways to internally regulate their behavior to accomplish these tasks. Unlike intrinsic motivation, extrinsic motivation can vary extremely in its relative autonomy.

Organismic integration theory (OIT, Ryan & Deci, 2000), another subtheory of SDT, explains different variations of extrinsic motivation, and how these variations of extrinsic motivation are internally regulated. Furthermore, OIT identifies the social-contextual environments that support or stifle the internalization and integration of the varying forms of external motivation.

Internal Regulation of Extrinsic Motivation

Internalization is a process by which individuals 'take in' externally based behavioral regulations and integrate them into personal attributes, values, and regulatory styles (Ryan & Deci, 2000). Some examples of internalized behaviors are efforts to lose weight, do homework, or participate in an activity because it will teach skills that can be used to achieve a goal. Behaviors can be placed upon a continuum of internalization that defines to what degree these behaviors have been internalized and the level of autonomy one experiences within each form of regulation (Grolnick, Ryan, & Deci, 1997). At one end of the continuum is amotivation, which is the state of lacking the intention to act (Ryan & Deci, 2000). Amotivated behaviors are represented by inaction or action without intent, because there is no value to doing the activity—there are no extrinsic or intrinsic rewards. External regulation represents activities motivated by purely external reasons. Externally regulated activities lack personal identification or choice on behalf of the individual. Slightly more internalized, introjected regulation occurs when externally imposed regulations have been accepted but not integrated with the self. Introjected regulation is best represented in situations where a person believes

that their involvement is necessary to appease the will of others such as authority figures and loved ones.

Moving farther down the continuum of internalization, identified regulation is the first level of the continuum where behaviors are integrated with the self (Ryan & Deci, 2000). In this situation, the person identifies with the value of the behavior, because it is important to the achievement of personal goals. The most autonomous form of internally regulated, extrinsic motivation is integrated regulation. Integrated regulation occurs when identified regulations are fully assimilated to the self and are congruent with the one's values, needs, and beliefs. Integrated regulation is fully internalized behavior and it closely resembles intrinsic motivation in terms of actions and qualities of experience; however, it is still considered extrinsic in nature because the reasons for behavioral engagement are to attain outcomes beyond those that are inherent to the activity or activities in question (Ryan & Deci, 2000). Intrinsic motivation marks the other end of the continuum, and it is referred to as intrinsic regulation. Intrinsically regulated behavior represents the highest level of internal motivation with high degrees of self-determination and autonomy. Behaviors that are intrinsically regulated are inherently enjoyable and interesting.

Variations in internal regulation have shown to derive differences in experiences and outcomes (Ryan & Deci, 2000). Ryan and Deci noted that individuals who report externally regulated behavior in activities have consistently demonstrated lower levels of interest, value, and effort for achievement when compared to those who report internal regulation for the same activities. Furthermore, these variations are consistent with the continuum of internalization because increases in degrees of interest, value and effort for achievement are evident when comparing the different regulatory styles along the six points in the continuum (Deci & Ryan, 2000; Ryan & Deci, 2000).

Evidence suggests that the ability to internally regulate extrinsic motivated behavior increases over the course of human development (Ryan & Deci, 2000). The changes in this ability are in line with changes in cognitive and ego development. This suggests that adolescence is a critical point in life where one learns to internally regulate the necessary, but not always intrinsically motivating aspects of adult life over the course of this period. OIT identifies the basic psychological needs of relatedness, competence, and autonomy as critical pieces in the process of internalizing extrinsically motivated behavior.

Deci and Ryan (2000) noted that many people internalize and regulate extrinsically motivated behavior through the social group. Extrinsically motivated activities are usually performed in response to prompting, modeling, or to fulfill some need to attach or relate to valued significant others. OIT suggests that relatedness or the need to belong or connect with others is central to the development of internal regulation. Internalization is thought to thrive in conditions where acceptance and interest of valued others exist, and provides a natural entry to the initiation of extrinsically motivated behavior.

Ryan, Stiller, and Lynch (1994) demonstrated that children realized internalization more fully when they felt that parents and teachers were caring and interested in learning. In this example, higher levels of internalization were linked to higher levels of effort to achieve and academic achievement. Ryan, et al. theorized that children felt who felt more securely connected to their parents and teachers performed better because they felt supported and cared for by their teachers. At the very least, support for relatedness facilitates an introjected regulation of extrinsic motivation, which can be further internalized when opportunities to demonstrate competence and exercise autonomy are present within an activity.

Competence has its most significant bearing on internalization when opportunities for mastery exist in activities valued by relevant social groups (Ryan & Deci, 2000). OIT posits identified regulation occurs when supports for competence and social relatedness are present in activities. By contrast, performance failure in these experiences may only lead to external, or at best, introjected regulations.

Support for relatedness, competence, and autonomy must be present for extrinsically motivated activities to become integrated. Ryan and Deci (2000) explained that integration of extrinsic motivation requires individuals to understand meaning and synthesize or integrate that meaning with their own values and goals. Opportunities to express autonomy allow for personal meaning to develop within these situations, because the individual feels volitional in their action, rather than prompted or expected to act. Integrated regulation represents intrinsic motivation most closely, because each is facilitated by the same elements. However, the motives for integrated regulation are driven by the fact that the person values that activity and ascribes those values to his or her belief system, whereas intrinsically motivated activities are done only for the sake of the activity.

Reviews of studies that examine internalization reveal that integration and internalization were consistently promoted when activities supported relatedness, competence, and autonomy (Deci & Ryan, 2000; Ryan & Deci, 2000). Furthermore, there has been consistent support of the need for autonomy throughout these studies. When environments were more controlling, levels of internalization were lower than those situations where autonomy was supported. Ryan and Deci feel that the provision and support of all three basic psychological needs is important to the integration of culturally valued activities. Taking this

notion a step further, Larson and Kleiber's (1993) notion of transitional activities seem to promote internalization as outlined by Deci and Ryan (1985) in OIT. Transitional activities, as defined by Larson and Kleiber, are those activities that actively engage adolescents in a world of symbols and meanings outside the self. These activities allow for self-determination and prepare adolescents for later adult roles. A logical extension of this observation suggests that these types of activities depend largely on intrinsic qualities or their internalization. In fact, it could be argued that if transitional activities failed to be internalized, their proposed effect on development would be largely diminished. This notion is especially relevant to parents, teachers, program leaders, and others who might supervise and oversee these experiences. Individuals charged with developing or supporting the environments in which these activities occur should make provisions and support the needs for relatedness, competence, and autonomy to ensure that these experiences benefit the developing adolescent.

Initiative

In a recent conceptual paper, Larson (2000) advocated the study of initiative as an outcome of positive youth development. The concept of initiative is related strongly to the ideas of autonomous action in SDT (Larson, 2000). According to Larson, initiative is the ability to demonstrate internal motivation while directing attention and effort toward a challenging goal. Larson saw the development of initiative as essential to the development of such attributes as creativity, civic engagement, leadership, and altruism. Initiative is indicative of developmentally generative dispositions (Bronfenbrenner & Morris, 1998), which promote positive developmental processes. Initiative is theorized to develop in contexts that promote intrinsic motivation and concerted engagement in the environment over a sustained period of time. Structured voluntary activities like

sports, the arts, and youth organizations are identified as being contexts that provide activities that foster initiative.

Larson (2000) identified intrinsically motivating events as most beneficial to the development of initiative, because they offer the experience of agency or feeling that "…thoughts and actions originate from the self" (p. 172). Concerted engagement in the environment entails directed attention to the task at hand in a context that offers rules, challenges, and complexity found in everyday life. The third element, the temporal arc, is a sustained period of activity engagement marked by enduring effort toward goal achievement that might present setbacks, challenges, and rethinking strategies. When considering these three qualities, initiative is best demonstrated by the individual who starts activities based on interest and sticks to them through difficult times (Larson, 2000).

The concept of initiative is an extension of the earlier work on transitional activities covered in this chapter. The potential of free time to offer positive developmental benefits lies within structured activity experiences. These experiences afford adolescents opportunities to exercise autonomy, demonstrate competence, support relatedness and provide challenges, which serve a preparatory function for adulthood. While separate from self-determination, initiative is closely related to this construct, and is directly influenced by one's ability to be internally or intrinsically regulated. By Larson's (2000) description, it would seem that extrinsically regulated individuals would show low levels of initiative, while those who are internally motivated would demonstrate higher levels of initiative. Facilitating an environment to support the development of internalization would also seem conducive to the development of initiative.

Summary: Self-Determination Theory and Adolescent Development

Self-determination theory (SDT) is concerned with understanding human motivation and the contexts that influence motivation. Two major types of motivation, intrinsic and extrinsic motivation, are identified by SDT. Activities that are intrinsically motivated are those that are done for the inherent nature of the activity and do not require external reinforcement to assure involvement. By contrast, extrinsically motivated activities refer to those experiences where engagement is linked to some reward or consequence separate from the activity. Individuals who display a propensity toward intrinsic motivation are more likely to have experiences of greater autonomy. These individuals also exhibit more behavioral effectiveness, enhanced subjective well being, and better assimilation of the individual within that person's social group.

Intrinsic motivation is derived from activities and experiences that have the appeal of challenge, novelty, creativity, and aesthetic pleasure. According to cognitive evaluation theory (CET), intrinsic motivation is likely to be developed in social-contextual environments that present experiences for autonomy, competence, and relatedness. Contexts that deny these basic psychological needs hinder or deny intrinsic motivation. From an adolescent development perspective, experiences that meet these basic psychological needs would also offer possibilities for addressing the major developmental task of identity development by presenting opportunities to demonstrate competence in autonomy supportive environments where social support is present.

While intrinsic motivation is identified as conducive to optimal human performance, extrinsic motivation can be internalized to the point where outcomes and benefits are similar to those experienced through intrinsic activities. This phenomenon is known as internalization, and is explained by

organismic integration theory (OIT). OIT proposes that extrinsic motives are internalized based on the presence or support of relatedness, competence, and autonomy. Support for all three of these needs leads to integration of extrinsically motivated activities, and these experiences are similar to those of intrinsically motivated activities. The contexts that support intrinsic and internal regulation are also conducive to adolescent development and preparation for adulthood. Specifically, these contexts provide for opportunities for the development of initiative, which is marked by intrinsically motivated, sustained engagement over time.

Parenting and Adolescent Development

Parents have long been recognized as having a significant role in the socialization and developmental processes of children and adolescents (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). Following a 20-year review of the literature, Collins et al. (2000) identified several areas of focus in parenting research. Recent research on parenting has focused on temperamental characteristics of parents, studies of risk and resiliency, and studies of parent influence with contextual variations. A great deal of research on parenting during this time has focused on parenting styles, practices, and behaviors and their influence on key adolescent developmental outcomes (Collins, et al., 2000). The focus of the current study is to understand a model of parent influence, as well as the antecedents and consequences of parental influence on adolescent initiative in free time. Research in self-determination theory has examined how parents impact the facilitation of internalization, and has provided a model from which to examine their impact in this process in this current investigation. A review of the research on parenting practices and self-determination follows.

Parenting and Self-Determination Theory

Grolnick, Deci, and Ryan (1997) provided a framework to explain how parents can facilitate internalization and promote self-determined behavior. Developmentally, internalization is important to participation in structured or transitional activities that prepare adolescents for adult roles. Participation in these types of activities provides adolescents opportunities for autonomous behavior and facilitates identity development and individuation.

As stated previously, intrinsic and internal regulation require the support of the basic psychological needs of relatedness, competence, and autonomy. Ryan and Deci (2000) suggested that contexts that promote these three needs would be successful in facilitating internally regulated behavior and its related outcomes. Grolnick, Deci, and Ryan (1997) identified three dimensions of parenting that impact internal regulation: interpersonal involvement, structure, and autonomy support.

Interpersonal involvement refers to how parents provide resources to their children. Being interpersonally involved includes spending time with children, demonstrating interests in children's activities, supplying resources to assist children's needs, and interacting with children in a warm and caring manner. Interpersonal involvement is closely related to the parenting style concepts of acceptance and warmth, and is posited to share many of the same outcomes (Grolnick, Weiss, McKenzie, & Wrightman, 1996). From an SDT perspective, parents who develop a climate of interpersonal involvement allow for the provision of relatedness to children. The process of internalization is theorized to begin with the support for relatedness (Ryan & Deci, 2000). People start many activities, because they are attempting to appease or interact with someone whom they hold in esteem or value. A climate of warmth and caring provides youth the opportunity to learn parents' values while feeling valued.

Structure refers to the specification of guidelines and constraints on behavior (Grolnick et al., 1997). This involves communicating expectations, providing rationale for expectations, explaining and being consistent with applying consequences, and providing informational feedback. Grolnick et al. (1997) stated that, "structure refers to information about the relation between behaviors and outcomes" (p. 148). Parents may provide structure in a variety of ways. Structure is a complex parenting phenomenon under Grolnick et al.'s framework. It has been closely identified with monitoring behavior of parents (Grolnick, et al., 1996). It also seems to be a method of guiding activity engagement and directing children to activities that are not far beyond their grasp (Grolnick, et al., 1997). In other words, parents structure or alter activities by changing rules, adapting challenge levels, and monitoring behaviors during an activity. In this sense, structure facilitates competence by optimizing one's ability to perform.

What makes structure an even more complex phenomenon is its interplay with the provision of autonomy support. Grolnick, et al. (1997) asserted that structure could be supplied in a controlling or autonomy supportive manner. Structuring behavior becomes controlling in a case where a parent closely monitors a child and applies pressure on a child to perform, as opposed to casually observing and providing positive feedback on performance. Autonomy support is evident in practices that encourage self-initiative, minimize the use of controls on behavior, and acknowledge how one feels and perceives things. As would be expected, this dimension of parenting supports the third basic psychological need identified by Ryan and Deci (2000), the need for autonomy.

Grolnick et al. (1997) provided empirical support for the parenting framework through a review of the research. The authors reviewed studies that measured impacts of the three dimensions on children's performance and behavior in school. Findings were consistently positive for children whose parents provided an environment of involvement, structure, and autonomy support. In one study, parent involvement was

linked to teacher-rated competence and adjustment, school grades, achievement, and lower reports of problem behavior in school. Other studies reported that interpersonal involvement was related to greater internalization with respect to school-related activities, and with their sense of well being. Structure was related to children's reports of understanding how to control their success and failures in school, and autonomy. All studies cited by Grolnick et al. showed that children from autonomy supportive homes reported higher levels of internalization as evidenced by reports of autonomous self-regulated behavior, higher ratings of teacher competence, higher perceived competence, better classroom adjustment, and greater understanding of how school outcomes were achieved. Beyond these efforts, studies have examined the antecedents and consequences of maternal autonomy support on adolescent task performance (Grolnick, et al., 2002), and the effect of parenting on adolescent free time use (Caldwell & Darling, 1999).

Antecedents and Consequences of Autonomy Support

Grolnick, Gurland, DeCourcey, and Jacob (2002) examined the contextual and individual differences on maternal autonomy support of creative homework tasks. The researchers were interested in understanding the effects of ego involvement on mother's style of interacting with their children on creative homework assignments. Furthermore, the authors reported being interested in how variations of interaction attributed to ego involvement caused changes in task performance. Two environmental conditions were tested to examine these relationships.

In one condition, parents were placed in a high-pressure situation, which involved an evaluation by performance standards, and parent responsibility for the assigned tasks. The second condition was a low-pressure condition, which did not emphasize any restrictions, expectations, or controls. Two tasks were assigned, a poem writing task and a mapping task, and each task was assigned two separate groups of conditions.

Results demonstrated that the high-pressure situation for the poem task caused parents to be more controlling with their behavior. The increase in control also negatively affected the parent-child interaction under this task. The map task demonstrated slightly different results. Results were dependent on how parents behaved with regard to autonomy support. Parents that demonstrated controlling personalities used more controlling behavior than any of the three groups tested in this study. Conversely, parents that demonstrated autonomy supporting behavior in the map task remained invulnerable to the high-pressure condition. Furthermore, autonomy supportive mothers in the high-pressure situation demonstrated slightly higher, but not significant, levels of autonomy support when compared to autonomy supportive parents in the no treatment condition.

Grolnick et al., (2002) concluded that understanding the context in which parents operate is valuable to understanding variations in parenting behavior. Variables that influence parent behavior like stress and feelings of control might provide a better understanding of how parent's provision of autonomy support and the support of other needs for internalization are affected and, in turn, affect outcomes related to their children's ability to internalize behavior.

Parenting, Self-Determination, and Adolescent Free Time

Hutchinson, Caldwell, and Baldwin (2002) examined how parental involvement in an adolescent's free time influences that adolescent's ability to take initiative in free time. Parent involvement measures included measures of parental knowledge, parental monitoring through child disclosure, and parental control over free time involvement. In addition to adolescent initiative in free time, adolescent self-determination was measured to gauge the effect of parent involvement on initiative taking by adolescents with different levels of reported self-determination.

This study found that parents were capable of promoting initiative in free time

experiences to amotivated or externally motivated adolescents. Parental involvement had a significant and positive effect for amotivated and externally motivated adolescents taking initiative in free time. For these cases, it appeared that parents were able to facilitate their adolescent's initiative by being more involved and providing what these individuals needed to stay on task.

Another interesting finding was for adolescents who reported internally regulated motivations. These individuals saw marginal increases in initiative taking, which the authors suggest indicate that they were largely responsible for their own initiative taking behavior. Lastly, the authors note that parental control had a direct positive effect on adolescents who were amotivated and externally motivated. These findings are in contrast to much of the parenting style literature, and the authors feel that the measure might be conflated with parent structuring of free time, which would be hypothesized to facilitate initiative taking behavior. The authors recommend further investigation of the processes by which parenting affect initiation. They also recommend further elaboration of all three measures used to gauge parent involvement.

In an effort to understand how parenting practices affected adolescent free time use, Hutchinson, Baldwin, and Caldwell (2003) examined parenting practices using Grolnick, Deci, and Ryan's dimensions of parenting as a conceptual framework. The study was guided by three research questions focused on:

(1) Rules and expectations of parents - the communication of rules and expectations, and the enforcement of these guidelines;

(2) Provision of resources - the amount of time and resources parents provided, the decision making process around their provision, and their role in planning and coordinating their child's free time activities; and

(3) The impact of parenting practices - the specific parenting practices that facilitate adolescent choices and decision-making.

Hutchinson et al. (2003) chose to focus on specific parenting practices rather than styles, because practices focus on the specific actions of parents. They felt that this would provide more clarity to conceptualizing parental involvement and influence. Fletcher, Elder, and Mekos (2000) described parenting practices as specific, goal-oriented behaviors in which parents engage children. Hutchinson et al. identified several parenting practices and ascribed these practices to the different dimensions of parenting identified by Grolnick, Ryan, and Deci (1997).

Hutchinson et al. used a qualitative, case study design to explore the aforementioned research questions. The research focused on seventeen parent adolescent dyads with children between the ages of 12 and 14 years. Results showed that parents reported a number of practices used to structure, regulate, and support their adolescent's use of free time. Furthermore, the results also reported reasons for variations in parenting practices by identifying from where practices extended.

The study found that practices extended from parent's global beliefs and expectations about the use of free time. Many parents explained that their practices were guided by values around their own perceptions of priorities for their children. Specifically, parents concerned themselves with the benefits, social acceptability, and age-appropriateness of certain activities. Parents also intimated that many of their practices were based on the level of trust they had for their children. These beliefs and expectations had a direct bearing on how parents facilitated autonomy support and structured environments for their children around the use of free time.

Hutchinson et al. found clear support for autonomy among many of the parents interviewed for this study. Autonomy was supported by the provision of opportunities for self-directed behavior and decision-making in free time. Parents relayed many instances where adolescents were left to plan and structure activities. Many of the practices in which parents engaged grew out of beliefs about increasing responsibility

with age and parents trusting their adolescent's ability to make good decisions and choices.

Parents structured much of their adolescent's free time based on the beliefs and expectations they had about the use of free time. Parents identified structuring practices such as communicating expectations, providing rationale for expectations, explaining consequences, and providing feedback to adolescents on how and with whom they spent free time. Parents also structured free time to assure involvement in activities that they valued or felt were age appropriate. Often times, parents structured activities to control exposure to negative peers and to monitor their child's behavior outside of the home. In these instances, parents used structure and control together to ensure the safe and acceptable use of free time.

Interpersonal involvement was evident through experiences where parents made time to talk about and share activities with their adolescent, were aware of their adolescent's interests, and provided resources to support those interests. Practices from all three parenting domains were found in many of the activities identified by parents, which supported Grolnick et al.'s (1997) conception of parenting that promotes self-determination. Parents found ways to facilitate all three basic needs through their actions and efforts.

Chapter Summary

Adolescence is a crucial developmental period that bridges the gap between childhood and adulthood. This life stage is marked by a gradual shift from a largely adult-controlled world to one where the adolescent realizes his or her identity and begins to exercise a level of autonomy. Leisure and recreation experiences are in abundance during this period, and provide a context for negotiating developmental tasks associated with this period. Leisure and recreation may also offer opportunities for the development of self-determination and initiative taking during free time, particularly in structured

activities. Self-determination and initiative taking behaviors have been shown to thrive in environments that structure opportunities for competence and grant autonomy in climate of warmth and caring. Parents that develop such an environment, increase their child's odds of developing self-determination and initiative taking during free time.

While much is known about the potential benefits associated with structured and unstructured activity involvement, there is relatively little research that examines the influence of parenting practices in this process. The importance of this study lies in its examination of how parenting practices influence structured activity involvement, and how these practices vary based on adolescent initiative and self-determination. Much of the work-to-date in the self-determination literature examines outcomes related to educational experiences (Grolnick et al., 1997; Ryan et al., 1994). Over 60% of a youth's waking hours are spent in free time, yet this context is largely overlooked in the self-determination literature--specifically, Grolnick et al.'s model of the parenting environment that facilitates internalization. The current study applies what is known and theorized about supporting internalization, and applies it to the context of free time. Furthermore, this study offers an empirical test of Larson's conceptualization of initiative. Little empirical research has used initiative as a variable in analysis, and this study has included it as a key intermediate outcome in the prediction of structured activity involvement. This study provided an opportunity to how adolescent initiative affects structured and unstructured activity choices. While the study is particular to the parenting environment, findings from this study are also useful to practitioners in youth development settings who wish to involve youth in structured activity experiences and positively impact youth.

Chapter 3

METHODS AND PROCEDURES

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time. Using free time as a context, the study attempted to unify many of the key findings from past studies of parent influence. Specifically, this model investigated the influence of parent behaviors on adolescent initiative in free time, the effect of child's self-determination as it relates to adolescent initiative in free time, and how initiative predicts structured and unstructured activity involvement. The procedures used to conduct this study are presented in the following sections: (a) the sample, (b) instrumentation, (c) study design and procedures, and (d) analysis of data.

The Sample

The sample for this study was derived from three suburban high schools in eastern Massachusetts. All grade nine students (aged 13-15 years) attending these high schools were invited to participate in the study. Ninth graders were selected for two reasons:

(1) the majority of students in ninth grade are still dependent on their parents for structure around free time—they cannot legally drive or work outside of the home;
(2) while still dependent on parents, ninth graders are also high schoolers and are often times left with an abundance of free time and opportunities to engage in behaviors of their own choice, with or without adult supervision (Carnegie Council on Adolescent Development, 1992).

The three school districts from which the sample was drawn were selected based on the researcher's familiarity with each district, and each district's willingness to

participate in the proposed study. The three schools differ somewhat in terms of composition. For the purposes of this study, the schools will be referred to as School 'A', School 'B', and School 'C'. Table 3.1 summarizes the school size, size of the eighth grade class from 2002-03, racial composition of the school district, number of students on reduced or free lunch in the district, and differences in academic achievement between the three towns (MADOE, 2004). Eighth grade data from the previous year is presented, because it reflects comparison information on the ninth graders sampled for this study.

Table 3.1: Selected Demographic Statistics for Towns A, B, and C

Demographic Variable	**School A**	**School B**	**School C**
High School Size (2002-03)*	1311	699	912
Number of 8th grade students in School District (2002-03) *	386	228	323
Racial Composition of Students in School District (2002-03)*			
% White	94.1	92.4	84.1
% African-American	2.1	2.7	12.6
% Hispanic	2.9	2.6	2.0
% Asian	0.5	1.0	1.1
% Native American	0.5	1.3	.2
% Eligible for free or reduced price lunch in School District (2002-03)*	14.7	3.4	37.0
% that passed 8th grade MCAS Math Test (2002-03)*	37.8	55.0	21.0
% that passed 8th grade MCAS Science and Technology (2002-03)*	37.6	39.0	17.0

* Massachusetts Department of Education (2004)

As illustrated in Table 3.1, the schools selected for this study are different on a number of reported socio-demographic information. Schools A and B are more racially homogenized and have fewer students receiving free or reduced lunch when compared to School C. Schools A and B also have more students passing the MCAS Math test

and MCAS Science and Technology tests than those students attending School C. There were enough differences between the three schools to warrant an examination of differences among the schools prior to testing of the proposed model.

Instrumentation

This study used self-report questionnaires from adolescents to test the stated study hypotheses and conceptual model. Following is the description of the adolescent questionnaire with the constructs measured.

Ninth Grade Student Questionnaire

The ninth grade student questionnaire was designed to measure demographic variables, child's self-determination in free time; child's perceptions of parent's autonomy support, interpersonal involvement, parent structure; and child's initiative in free time. A review of these measures follows. Appendix A contains a copy of the questionnaire.

Demographic Information

This set of variables was used to describe the adolescents in terms of sex, age, family structure, racial composition, language, mother's level of education and reduced lunch status (proxies for socio-economic status), and school performance. These items were also used to examine differences between students from the three schools to determine if the samples could be combined, or controlled for in analyses. The first 11 questions of the ninth grade questionnaire represent all of the demographic and background questions presented to the adolescents in the study.

Scaled Measures

For the Ninth Grade Questionnaire, scaled measures included Parent's Autonomy Support, Parent Interpersonal Involvement, Parent Structuring, Free Time Motivation Scale for Adolescents (FTMS-A), and Adolescent Initiative in Free Time. When possible, measures with established reliability and validity were used. In those

cases where an established measure did not exist, the researcher developed a measure to capture the phenomenon under study. For this reason, researcher developed measures were reviewed for face validity by the researcher's thesis committee and were pilot-tested prior to conducting the study. All measures were tested for reliability using Cronbach's alpha for measures of internal consistency. Scaled measures used to test the hypotheses and model are listed in Tables 3.2-3.6.

Perceptions of Parent Measures

The Perceptions of Parent (POPs) measures, developed by Robbins (1994) and augmented with questions reflecting practices around free time use, were designed to include all parenting situations. Parent questions are framed for two parents, Parent 1 and Parent 2 for which there are seven choices of parents. While the study examined mother's parenting practices only, participants were asked about two parents, to avoid raising any awareness about the child's background. Choices of parents included mother, father, grandmother, grandfather, stepmother, stepfather, and other parent. Each section was headed with the following instructions: "Please answer the following questions about <u>one</u> of your parents. Parents can be a mother, a father, a grandmother, a grandfather, a stepparent or another adult that lives with you and is responsible for you. For this section we will call this parent, PARENT1." This type of approach was suggested by several teachers who were concerned about youth from non-traditional backgrounds feeling uncomfortable with answering the parent questions.

Perceptions of Parent's Autonomy Support

The scale presented in Table 3.2 was an adaptation of Robbins' (1994) Perceptions of Parenting: Autonomy Support Scale used with adolescents. The scale was augmented with questions around autonomy supportive practices in the free time context. Adolescents were asked how true each statement was on a 7 point scale with 1 being "Not at all true," 4 being "Somewhat true," and 7 being "Very true."

Table 3.2: The Perceptions of Parent's Autonomy Support Scale

Item #	Item Text
15A.	PARENT1 seems to know how I feel about things.
15B.	PARENT1 tries to tell me how to run my life. (R)
15E.	PARENT1, whenever possible, allows me to choose what to do.
15H.	PARENT1 listens to my opinion or perspective when I have a problem.
15K.	PARENT1 allows me to decide things for myself.
15N.	PARENT1 insists upon my doing things her or his way.(R)
15Q.	PARENT1 is usually willing to consider things from my point of view.
15S.	PARENT1 puts time and energy into helping me.
15V.	PARENT1 encourages me to take responsibility for planning and organizing the things I do in my free time.*
15Y.	PARENT1 trusts I will make good decisions about how I spend my free time.*
15Z.	PARENT1 encourages me to explore and try out different free time activities.*
15AA.	PARENT1 understands why I like to do the activities I participate in during my free time.*
15DD.	PARENT1 helps me take responsibility for planning and organizing the things I do in my free time.*
15GG.	PARENT1, whenever possible, allows me to decide what to do in my free time.*
15HH.	PARENT1 gives me the right amount of freedom to do what I like in my free time.*
15II.	If there is something I'd like to do in my free time, PARENT1 does her or his best to help me do it.*
15KK.	PARENT1 never considers things from my point of view when it comes to my free time activities.* (R)

* Researcher-developed questions reflecting the autonomy supportive practices in the context of free time
(R) Item was reverse-coded for analysis

Perceptions of Parent's Interpersonal Involvement

Measures for perceptions of parent's interpersonal involvement were adapted from Robbins' (1994) Perceptions of Parents Scale for College Students: Involvement Subscale. The adaptations to this scale reflect the addition of practices specific to the context of free time, and were made to be consistent with the format of other questions found in the Ninth Grade Survey. Table 3.3. contains the questions used to measure perceptions of parent's interpersonal involvement.

Table 3.3: The Perceptions of Parent's Interpersonal Involvement Scale

Item #	Item Text
15C.	PARENT1 finds time to talk with me.
15D.	PARENT1 accepts me and likes me as I am.
15G.	PARENT1 clearly conveys his or her love for me.
15I.	PARENT1 spends a lot of time with me.
15J.	PARENT1 makes me feel special.
15L.	PARENT1 often seems too busy to be involved with me. (R)
15M.	PARENT1 is often disapproving and not accepting of me. (R)
15O.	PARENT1 is not very involved with my concerns. (R)
15P.	PARENT1 is typically not too happy to see me. (R)
15R.	PARENT1 puts time and energy into helping me.
15T.	PARENT1 seems disappointed in me a lot. (R)
15W.	PARENT1 provides the resources necessary for me to do the things he or she thinks are good for me in my free time.*
15X.	PARENT1 gets involved in the activities I participate in so that she or he can support me (e.g., coaching and volunteering).*
15BB.	PARENT1 provides the resources I need to help me develop the skills I need to do my free time activities.*
15CC.	PARENT1 and I enjoy doing things together in our free time.*
15EE.	PARENT1 and I share common interests in our free time.*
15FF.	PARENT1 spends a lot of his or her time supporting my free time activities (e.g., driving me to places and staying at practice sessions).*
15JJ.	I enjoy spending time with PARENT1 during my free time.*

* Researcher-developed questions reflecting the parent interpersonal involvement in the context of free time
(R) Item was reverse-coded for analysis

Perceptions of Parent's Structure

The researcher developed a measure of parent structuring practices (See Table 3.4). This measure was based on Grolnick, Deci, and Ryan's (1997) conceptualization of parental structuring practices that provide guidelines and constraints on behavior. The parenting practices measure was also developed with the findings of Hutchinson et al. (2003) in mind. Hutchinson et al. noted that parents engaged in structuring activities when they communicated expectations, provided rationale for these expectations, explained consequences, and provided feedback to adolescents on how and with whom they spent free time. Hutchinson et al. also suggested that parents used monitoring practices within and outside the home to ensure that their adolescent engaged in safe and acceptable behavior.

Table 3.4: The Perceptions of Parent's Structure Scale

Item #	Item Text
16A.	I need to have PARENT1's permission to stay out late on a weekday evening.
16B.	I need to ask PARENT1 before I can decide with my friends what I will do on a Saturday evening.
16C.	If I have been out very late at night, PARENT1 requires me to tell her where I was and with whom.
16D.	I need to 'check-in' with PARENT1 throughout the day if I am out of the house on a Saturday.
16E.	PARENT1 sometimes 'pushes' me to do things that she thinks will help me in the future.
16F.	PARENT1 clearly states activities of which she approves and does not approve to me.
16G.	PARENT1 requires me to tell her with whom I'll be spending my free time.
16H.	PARENT1 encourages me to be involved in activities that she feels are important.
16I.	PARENT1 lets me choose my activities as long as I finish what she asks me to do.
16J.	PARENT1 monitors how I spend my free time.
16K.	PARENT1 sets a time when I am expected home
16L.	PARENT1 monitors when I come home from my free time activities.
16M.	PARENT1 finds out if other parents are present at the parties I go to.
16N.	PARENT1 supervises the parties I have at home.

Child's Self-Determination in Free Time

Child's self-determination in free time was assessed through Baldwin and Caldwell's (2003) Free Time Motivation Scale for Adolescents (FTMS-A). The scale measures five forms of motivation (intrinsic, identified, introjected, external, and amotivation) identified by Deci and Ryan's (2000) self-determination theory. Prior to this study, the FTMS-A, this scale was tested with an adolescent population and found to be appropriate to use with a young adolescent population (ages 12-15). All five motivation subscales were measured on a 5-point scale with choices that include: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. The motivation subscales along with measures of reliability reported by Baldwin and Caldwell follows in Table 3.5.

Table 3.5: The FTMS-A Scale and Subscales

Stem Statement: I do what I do in my free time because…
Free Time Motivation Scale Items **Amotivation Statements (α=.70)** 13a. I don't know why I do my free time activities, and I don't really care 13f. I don't know, nothing much interests me. 13k. I don't know, I have never really thought about it. 13p. I don't know, but it does not matter because I don't do much of anything.
External Motivation Statements (α=.79) 13b. I would get in trouble if I don't. 13g. I am supposed to. 13l. That is the rule in my house. 13q. So others won't get mad at me. 13u. My parents expect me to.
Introjected Motivation Statements (α=.69) 13c. I want people to think that I am good at what I do. 13h. I will feel badly about myself if I don't. 13m. I want to impress my friends. 13r. I want people to like me. 13v. I want to earn rewards, medals, trophies, or certificates
Identified Motivation Statements (α=.67) 13d. I want to understand how things work. 13i. What I do is important to me. 13n. I develop skills that I can use later in life. 13s. The activities help me develop into the person I want to become.
Intrinsic Motivation Statements (α=.72) 13e. I want to have fun. 13j. I enjoy what I do. 13o. I like what I do. 13w. I want to.

Adolescent Initiative in Free Time

Measures of adolescent initiative in free time were adapted from Hutchinson, Caldwell, and Baldwin's (2002) investigation on parental impacts on adolescent initiative taking. Based on a review of Larson's (2000) conceptual presentation of adolescent initiative and adapting questions from Hutchinson et al.'s study, the researcher created a 7-item scale to measure the concept of adolescent initiative in free time. Each statement was measured along a 5-point scale with values of strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree (Table 3.6).

Table 3.6: **The Adolescent Initiative Scale**

Item #	Item Text
14A.	I can overcome things that get in the way of doing what I want to do.
14.B.	I am easily distracted and tend to stop and start things as my interest shifts. (R)
14C.	If I don't do well at first in an activity, I'll keep trying to do better.
14D.	I give up easily if things don't go my way. (R)
14E.	I tend to try things where I know I can be successful. (R)
14F.	When I start something, I am able to focus on it for long periods of time.
14G.	There are too many things that get in the way of doing what I want to do. (R)
14H.	When I start something, I stick with it.

(R) Item was reverse-coded for analysis

Structured and Unstructured Activity Involvement

Structured and unstructured activity participation was assessed through a researcher-developed inventory of common structured and unstructured activities. Structured activities included playing organized sports, instruments, hobbies, and membership in organized groups (e.g., scouting, extracurricular clubs). Unstructured activities included watching television and videos, playing videogames, reading magazines and books, listening to music, hanging out at malls or other people's homes, and internet use for chatting, gaming, or e-mail. For each activity, participants were asked to indicate the number of hours a week that they participated in these activities.

This was measured on a 7-point scale with responses being none, Less than 1 hour, 1-2 hours, 3-4 hours, 5-6 hours, 7-8 hours, and 9 or more hours.

Study Design and Procedures

Pilot Testing

Prior to data collection at the high school locations, the ninth grade questionnaires were pilot-tested. The goal of the pilot test was to verify how well the questionnaire was understood and the amount of time it took to complete each questionnaire. For the pilot test, grade nine students were recruited from an afterschool program outside of the communities where the study schools existed. Active informed consent from parents was sought for all adolescents that assented to the study. The pilot test had 20 participants. Children were asked to rate their ability to understand the questionnaire and identify questions that presented problems to the reader. No significant revisions to the instrument were necessary, but administration notes were compiled and used for teacher training in subsequent data collection activities (Appendix B).

Study Recruitment and Data Collection Procedures

Students were recruited through three suburban high schools in eastern Massachusetts. Prior to the administration of the questionnaire, a letter describing the study was sent home with a parent permission form (Appendix C). These materials served as informed consent documents for the study with the permission form serving as an acknowledgement of informed consent for the parent. A statement of youth assent was also contained within the informed consent document to verify that the adolescent was a willing participant in the study (Appendix C). The informed consent was explicit and described the rights of the parents and students willing to enroll in the study. The study required that all participants return a permission form with signatures for consent

by the parent and assent by the students. Those not complying with this requirement were excluded from the study. At all sites, students not receiving active informed consent from parents were offered time to study or work on homework during the administration period. Informed consent and youth assent documents can be found in Appendix C. Approval from the Penn State Office of Human Protections and the three school districts was sought prior to study recruitment (Appendix D).

Working with three different school districts presented its own host of challenges, and necessitated variations to administering the questionnaire. Training and access to staff and students was different for each school district, and was largely dictated by the school administrators at each site. Schools B and C identified a teacher as the point of contact, whereas School A insisted on a using school administrator. A description of how each site proceeded with data collection follows.

School B was the first site to grant access to this study. Teachers serving as questionnaire administrators were given an overview of the questionnaire and reviewed the administrator notes for the survey. Ninth grade students were recruited from a required social studies class. For all classes, the researcher provided an overview of the study and reviewed the informed consent process with the students. School B had 12 classes where the questionnaire was administered. The researcher directly administered questionnaires to 7 of the 12 classes, while a trained teacher administered questionnaires to the other five classes.

School A was the second site to grant access to this study. A school administrator was provided training on the informed consent process and the administration of the questionnaire. This administrator was then responsible for overseeing the training of teachers. This was the only site where the researcher was not allowed to directly train the questionnaire administrators. Informed consent and

questionnaires were entirely administered by teachers serving as study hall monitors for the ninth grade.

School C was the final site to participate in the study. The researcher trained the health education teacher at School A on informed consent procedures and questionnaire administration. As with School C, the researcher did not directly administer the informed consent or questionnaire to any of the ninth grade students.

At all sites, the Ninth Grade Questionnaire was self-administered and completed in a classroom period. At the beginning of class, students received a questionnaire packet with assent forms. Following a brief explanation and a reminder of their rights as study participants, students were told to begin the questionnaire. Student questionnaires took about 30 minutes to complete. Students were encouraged to ask questions and received individual consultation by the researcher or classroom teacher when questions arose.

Analysis of Data

Upon submission, each questionnaire was reviewed for completeness, and any notable variations from the data collection form were noted in a data analysis log kept by the researcher. When data collection was complete, the data were entered into an SPSS system file using SPSS data entry software *(SPSS Data Entry Builder 3.0)*. A data entry program was prepared that utilized range and logic checks to flag potential problems on the initial data entry pass. In addition, all entries were verified through a second data verification pass. Data analysis was conducted using SPSS version 10.0.

The analysis of the quantitative data proceeded from univariate through bivariate to multivariate procedures, in keeping with the complexity of the phenomenon under study. At the univariate level, the analysis focused on descriptive statistics summarizing the information obtained. These included frequencies and distributional summaries for categorical and ordinal levels of measurement, and parametric descriptive statistics

(such as the mean and standard deviation) for interval and ratio levels of measurement. Prior to analyses, all variables used to create scales were analyzed for missing data using SPSS 10.0's Missing Values Analysis function. All variables had missing data less than or equal to one percent. All scales also had acceptable reliability (i.e., .70 or higher), and scaled variables were calculated if they had two items or fewer with missing data. Scores from scales were not calculated for participants that had more than two items with missing data.

Simple bivariate analyses were used to explore the relationship between and among background variables, and to identify interrelationships between variables in the study. Interrelated variables were controlled for in multivariate analyses used in model testing. More specifically, before any data from the three schools were combined, data for the three schools were examined for differences in the demographic variables as well as the measures used to test the proposed model of parent influence.

Hierarchical regression analyses were conducted to test the proposed model of parent influence on adolescent initiative in free time. The analysis strategy was a series of multiple regression equations guided by the stated hypotheses. In all, there were five variations of the tested model based on the five forms of motivation measured. For each model, hierarchical analyses were conducted to examine the predictors of intermediate outcomes (e.g., adolescent motivation, initiative) as well as the outcome variables, structured and unstructured activity involvement.

Chapter 4

RESULTS

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time. Using free time as a context, the study attempted to unify many of the key findings from past studies of parent influence. Specifically, this model investigated the influence of parent behaviors on adolescent initiative in free time, the effect of adolescent's self-determination as it relates to initiative in free time, and how initiative predicts structured and unstructured activity involvement.

This chapter begins with a description of the study sample on the key variables. A presentation of the descriptive statistics for each tool of measurement is then given. The chapter continues with an examination of the results of the data analyses presented in reference to the study hypotheses.

Demographic Description of the Sample

Data were collected at Schools A, B, and C during the Fall Semester of 2003. All three schools are suburban schools in eastern Massachusetts. Table 4.1 provides information on school size, percentage of youth receiving informed consent for the study, and the number and percentage of cases used in analysis. Approximately half (n=407) of the all of the ninth graders in the sample were recruited to the study. This number, however, varied considerably by school. School B had an overall parent consent rate of 79.9% followed by school C with a consent rate of 63.3%. School A was considerably lower than the other two schools in consent form return with only 28.2% of parents consenting to the study. The differences were probably attributable to the differences in administration procedures in each school.

While the principal investigator was active in training and administration of the study instrument at all schools, School A was the only school that relied on a school administrator as the primary contact for the principal investigator. This may have played a role in how classroom teachers assisted the study by reminding students and keeping track of the percentage of students returning consent and assent forms for the study. Schools B and C had lead teachers as points of contact for the study and each person was extremely interested in assisting the study's principal investigator with recruitment. For all schools, there was a 100% student assent rate.

Questionnaires from 377 students were used in data analysis. Questionnaires were omitted from analysis if students indicated that they did not live with their mother or if response patterns indicated that students did not complete the questionnaire in earnest. Examples of omitted questionnaires were those where students formed types of patterns (e.g., zigzagged down the page), answered the same response for all items, or responded to open-ended questions with profanity or lewd comments. The sample used for analysis was nearly 59% female, and 377 questionnaires or 93% of all questionnaires collected from the three schools were used in analysis. In all three schools, females outnumbered males in receiving informed consent and inclusion into the final analyses.

Table 4.1: School Size, Percentage of Cases Recruited to the Study and Percentage Used in Analyses

Population Information	School Name			
	Total	**School A**	**School B**	**School C**
Total Ninth Grade Population	**812**	**387**	**174**	**251**
Total Ninth Grade Males % of Total	401 (49.4%)	191 (49.4%)	85 (48.9%)	125 (49.8%)
Total Ninth Grade Females % of Total	411 (50.6%)	196 (50.6%)	89 (51.1%)	126 (50.2%)
Number Participating in Study % of Total Ninth Grade Population	**407 (50.1%)**	**109 (28.2%)**	**139 (79.9%)**	**159 (63.3%)**
Total Males % of Participants	171 (42.0%)	42 (38.5%)	66 (47.5%)	63 (39.6%)
Total Females % of Participants	236 (57.9%)	67 (61.5%)	73 (52.5%)	96 (60.4%)
Number of Cases in Analysis % of Total Ninth Grade Population	**377 (46.4%)**	**98 (25.3%)**	**132 (75.9%)**	**147 (58.6%)**
Total Males % of Cases in Analysis	155 (41.1%)	37 (37.8%)	61 (46.2%)	57 (38.8%)
Total Females % of Cases in Analysis	222 (58.9%)	61 (62.2%)	71 (53.8%)	90 (61.2%)

Table 4.2 displays the demographic information for each school and for the total sample. Where applicable, analysis of variance (AOV) and chi-square analyses were performed to analyze differences between the three school groups prior to combining the three schools for hypothesis testing.

Descriptive statistics for the entire sample show that the participants on average were 14 years old, had a mean GPA of 3.06, and 67% were currently residing with both parents as opposed to step-parents, single parents, or some other parental situation. The sample was largely homogeneous, as just over 86% of the sample was white. Approximately thirteen percent of the total sample used in analyses reported receiving reduced lunch, and 58.4% reported mothers having more than a high school education.

School C was significantly different from Schools A and B on a number of variables. It was more heterogeneous by ethnicity than School A (Chi square=8.187, df=1, p=.007) and School B (Chi square= 13.118, df=1, p=.001); students reported higher levels of single mothers than School A (Chi square= 13.208, df=3, p = .004) and School B (Chi Square=16.384, df=3, p=.001); had higher levels of free or reduced lunch than School A (Chi Square=13.371, df=1, p <.001) and School B (Chi square=16.787, df=1, p < .001); and had a lower percentage of parents who received more than a high school education than School A (Chi square= 18.646, df=3, p < .001) and School B (Chi square= 21.133, df=3, p < .001) and had younger students than School A (F=5.259, p=.006, mean diff= .17).

Table 4.2 Descriptive Statistics for Sample
(*Superscript indicates differences between schools*)

	Total (N=377)	School A (n=98)	School B (n=132)	School C (n=147)
Age				
Mean in Years	14.19	14.32 [2,3]	14.15 [1]	14.14 [1]
(SD)	(.45)	(.51)	(.44)	(.41)
Grade Point Average (GPA)				
Mean GPA	3.06	3.19	2.95	3.08
(SD)	(.80)	(.72)	(.76)	(.88)
Race/Ethnicity				
Racial Minority/Biracial	51	9 [3]	10 [3]	32 [1,2]
% of Cases	(13.5%)	(9.2%)	(7.6%)	(21.8%)
White	326	89	122	115
% of Cases	(86.5%)	(90.8%)	(92.4%)	(78.2%)
Parent Custody				
Reside with Both	252	73 [3]	97 [3]	82 [1,2]
% of Cases	(66.8%)	(74.5%)	(73.5%)	(55.8%)
Joint Custody	20	6	9	5
% of Cases	(5.3%)	(6.1%)	(6.8%)	(3.4%)
Mother and Stepfather	30	5	9	16
% of Cases	(8.0%)	(5.1%)	(6.8%)	(10.9%)
Single Mother	75	14	17	44
% of Cases	(19.9%)	(14.3%)	(12.9%)	(29.9%)
Receive Reduced Lunch				
Yes	50	7 [3]	9 [3]	32 [1,2]
% of Cases	(13.4%)	(7.1%)	(7.1%)	(23.1%)
No	322	91	118	115
% of Cases	(86.6%)	(92.9%)	(92.9%)	(76.9%)
Level of Mother's Education				
Unknown*	40	10	15	15
% of Cases	(10.6%)	(10.2%)	(11.4%)	(10.2%)
High School or Less	117	21 [3]	30 [3]	66 [1,2]
% of Cases	(31.0%)	(21.4%)	(22.7%)	(44.9%)
Beyond High School	220	67	87	66
% of Cases	(58.4%)	(68.4%)	(65.9%)	(44.9%)

* Omitted from Chi-Square Analysis
[1] Indicates significant difference ($p < .05$) with School A on this measure
[2] Indicates significant difference ($p < .05$) with School B on this measure
[3] Indicates significant difference ($p < .05$) with School C on this measure

Measures and Transformation of Variables

Structured and Unstructured Activity Involvement

Structured and unstructured activity involvement was assessed through a researcher-developed inventory of common structured and unstructured activities. Structured activities included playing or managing organized sports, playing instruments in a school band or outside of school, participating in hobbies, and participating in organized groups (e.g., scouting, extracurricular clubs). Unstructured activities included watching television and videos, playing videogames, reading magazines and books, listening to music, hanging out at malls or other people's homes, and internet use for chatting, gaming, or e-mail. A separate question on working for money was asked, but not included as a measure of activity involvement. Each activity was measured on a 7 point scale with responses being none (0), less than 1 hour (1), 1-2 hours (2), 3-4 hours (3), 5-6 hours (4), 7-8 hours (5), and 9 or more hours (6). As part of the orientation to the word 'free time' students were provided the following definition in the questionnaire:

> "Free time means things you do outside of school. These can include after-school activities like sports or clubs, and activities like 4-H, music, spending time with friends, reading, and watching TV."

This definition was reiterated before questionnaires were distributed to the students to ensure that all students were familiar with this definition.

Tables 4.3.1 – 4.3.4 show the levels of participation in the measured structured and unstructured activities for the entire sample, by school, and by gender. When examining structured activities for the whole sample, participants reported highest involvement in exercising and working out (mean=2.78), hobbies (mean=2.26), and school-based sports (mean= 2.25). Mean scores for these activities indicated that youth in the sample averaged between 3 and 6 hours of involvement per week for these activities. On average, participants reported 1-2 hours a week in school sports participation (mean=1.00). All other structured activities averaged less than an hour a

week. On average, listening to music (mean=3.73), hanging out at home (mean=3.66), watching television and videos (mean=3.53), and internet use (mean=3.37) eclipsed any measured structured activity with participants reporting an average of 5-6 hours of involvement for each. Equaling or similar to the highest unstructured activity involvement were hanging out at the mall (mean=3.66) and free time reading (mean=2.06). For the entire sample, playing video games (mean=1.55) averaged between 1-4 hours a week.

Gender and School Differences on Activity Involvement

Tables 4.3.1 – 4.3.4 also show the results of analyses for differences between males and females, and among schools on all activity measures. Analysis of Variance testing was used to determine differences between gender and among schools. Where applicable, Scheffe's tests were used to determine post hoc differences between schools. A review of the differences between genders followed by a review of school differences follows.

As would be expected, males and females significantly differed on many of the activities measured by the study questionnaire. When compared to females, males reported higher levels of out of school instrument playing ($F=10.388$, $p=.001$) hobby participation ($F=4.510$, $p=.034$), and video game playing ($F=145.28$, $p<.001$). When compared to males, females spent more time in organized clubs ($F=4.251$, $p=.040$), using the internet ($F=22.950$, $p < .001$), listening to music ($F=43.23$, $p < .001$), and hanging out at malls ($F=11.27$ $p=.001$).

Consistent with the results for the total sample on structured activity involvement, both males and females indicate highest involvement in exercising and working out, school sports and hobbies. When looking at unstructured activity involvement, males and females differ slightly in those activities where they report their highest involvement. Males report watching television and videos (mean=3.60), hanging out at home

(mean=3.45), listening to music (mean=3.00), internet use (mean=2.86), and playing video games as their most frequently engaged unstructured activities. Females report listening to music (mean=4.23), hanging out at home (mean=3.82), internet use (mean=3.73), watching television and videos (mean=3.47), and hanging out at the mall (mean=2.68) as the unstructured activities in which they have the most involvement.

As with demographic comparisons, schools were compared for differences on all measures used in the study. Significant main effects for school were found on measures of instrument playing outside of school ($F=4.968$, $p=.007$), free time reading ($F=3.027$, $p=.050$), listening to music ($F=4.472$, $p=.012$), and hanging out at the mall ($F=8.713$, $p < .001$). These main effects are attributed to differences that students in School B had with either Schools A and C students on these measures. School B students had significantly lower mean scores than School A students on measures of instrument playing outside of school (mean difference=.31, $p=.041$) and free time reading (mean difference=.49, $p=.033$). School B students had significantly lower mean scores than School C students (mean difference=.70, $p=.004$) and marginally significant differences with School A students (mean difference=.53, $p=.076$) on measures of listening to music. Finally, School B students had significantly lower mean scores than both Schools A (mean difference=.65, $p=.006$) and C (mean difference=.77, $p <.001$) students on measures of hanging out at the mall.

Table 4.3.1 Structured Activity Involvement by School and Gender
(Participation in Exercise, School and Organized Sports, and School Band)

Variable	Total Sample			Schools									Main Effects	
				School A			School B			School C				
Total Mean by Gender	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p
Total Exercise/Workout	2.78	1.85	377	2.70	1.69	98	3.04	1.90	132	2.61	1.89	147	2.092	n.s.
Males	2.99	1.98	155	2.92	1.96	37	3.36	1.95	61	2.63	1.99	57	2.807	n.s.
Females	2.64	1.74	222	2.57	1.50	61	2.76	1.82	71	2.59	1.84	90		
Total School Sports	2.25	2.37	377	2.17	2.23	98	2.50	2.52	132	2.08	2.32	147	.919	n.s.
Males	2.47	2.49	155	2.08	2.37	37	2.66	2.57	61	2.53	2.48	57	1.307	n.s.
Females	2.10	2.28	222	2.23	2.16	61	2.37	2.49	71	1.80	2.19	90		
Total Organized Sports	1.00	1.61	377	1.22	1.85	98	1.08	1.53	132	.78	1.48	147	2.224	n.s.
Males	.97	1.60	155	1.27	1.82	37	.89	1.40	61	.88	1.66	57	.050	n.s.
Females	1.01	1.62	222	1.20	1.88	61	1.24	1.63	71	.71	1.37	90		
Total Team Manager	.16	.74	377	.21	.82	98	.10	.41	132	.18	.90	147	.594	n.s.
Males	.12	.63	155	.16	.60	37	.10	.44	61	.12	.80	57	.523	n.s.
Females	.18	.81	222	.25	.92	61	.10	.38	71	.21	.97	90		
Total School Band	.41	1.29	377	.32	.99	98	.39	1.25	132	.49	1.50	147	.186	n.s.
Males	.48	1.35	155	.59	1.32	37	.51	1.42	61	.39	1.32	57	1.399	n.s.
Females	.36	1.25	222	.15	.68	61	.30	1.07	71	.49	1.50	90		

Table 4.3.2 Structured Activity Involvement by School and Gender
(Play Instrument Outside of School, Participation in School and Other Organized Clubs, and Hobbies)

Variable Total Mean by Gender	Total Sample			Schools									Main Effects	
				School A			School B			School C				
	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p
Total Instrument	.66	1.30	377	.93[2]	1.66	98	.50[1]	1.10	132	.62	1.17	147	4.968	.007
Males	.86	1.56	155	1.49	2.16	37	.80	1.40	61	.53	1.12	57	10.388	.001
Females	.51	1.06	222	.59	1.16	61	.24	.66	71	.68	1.21	90		
Total School Club	.50	1.14	377	.44	.95	98	.40	.90	132	.63	1.42	147	1.702	n.s.
Males	.43	1.12	155	.22	.67	37	.39	1.02	61	.60	1.41	57	1.390	n.s.
Females	.55	1.16	222	.57	1.07	61	.41	.79	71	..66	1.43	90		
Total Organized Club	.86	1.15	377	.96	1.21	98	.79	.98	132	.87	1.26	147	.409	n.s.
Males	.72	1.17	155	.76	1.28	37	.66	1.00	61	.75	1.27	57	4.251	.040
Females	.97	1.14	222	1.08	1.16	61	.90	.96	71	.94	1.25	90		
Total Hobbies	2.26	1.78	377	2.14	1.79	98	2.23	1.97	132	2.36	1.59	147	.207	n.s.
Males	2.46	1.95	155	2.65	2.18	37	2.41	1.96	61	2.40	1.82	57	4.510	.034
Females	2.12	1.64	222	1.84	1.45	61	2.08	1.98	71	2.33	1.44	90		

[1] Indicates significant difference ($p < .05$) with School A on this measure
[2] Indicates significant difference ($p < .05$) with School B on this measure
[3] Indicates significant difference ($p < .05$) with School C on this measure

Table 4.3.3 Unstructured Activity Involvement by School and Gender
(Free Time Reading, Watching TV and Video, Video Games, Internet Use, Listening to Music)

Variable Total Mean by Gender	Total Sample			Schools									Main Effects	
				School A			School B			School C				
	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p
Total Free Time Reading	2.06	1.41	377	2.39[2]	1.42	98	1.90[1]	1.47	132	1.99	1.32	147	3.027	.050
Males	1.81	1.44	155	2.08	1.55	37	1.67	1.47	61	1.77	1.34	57	8.264	.004
Females	2.24	1.36	222	2.57	1.31	61	2.10	1.46	71	2.13	1.30	90		
Total Watch TV and Videos	3.53	1.58	377	3.30	1.49	98	3.58	1.61	132	3.63	1.62	147	1.620	n.s.
Males	3.60	1.67	155	3.30	1.60	37	3.54	1.63	61	3.86	1.74	57	.369	n.s.
Females	3.47	1.53	222	3.30	1.43	61	3.61	1.61	71	3.49	1.62	90		
Total Play Video Games	1.55	1.68	377	1.48	1.74	98	1.56	1.70	132	1.60	1.62	147	.477	n.s.
Males	2.63	1.72	155	2.54	1.71	37	2.62	1.69	61	2.70	1.77	57	145.28	.000
Females	.80	1.16	222	.84	1.43	61	.65	1.04	71	.90	1.04	90		
Total Internet Use	3.37	1.82	377	3.70	1.71	98	3.39	1.93	132	3.13	1.76	147	2.293	n.s.
Males	2.86	1.70	155	3.08	1.46	37	2.70	1.82	61	2.88	1.71	57	22.950	.000
Females	3.73	1.82	222	4.08	1.75	61	3.99	1.83	71	3.29	1.79	90		
Total Listening to Music	3.73	1.85	377	3.85[2]	1.88	98	3.32[1,3]	1.93	132	4.01[2]	1.70	147	4.472	.012
Males	3.00	1.87	155	2.97	1.89	37	2.66	1.93	61	3.39	1.73	57	43.23	.000
Females	4.23	1.67	222	4.38	1.67	61	3.89	1.74	71	4.41	1.57	90		

[1] Indicates significant difference ($p < .05$) with School A on this measure
[2] Indicates significant difference ($p < .05$) with School B on this measure
[3] Indicates significant difference ($p < .05$) with School C on this measure

Table 4.3.4 Unstructured Activity Involvement by School and Gender (Hangout at Mall, Hangout at Home, and Work for Money)

Variable	Total Sample			Schools									Main Effects	
				School A			School B			School C				
Total Mean by Gender	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p
Total Hangout at Mall	2.42	1.56	377	2.60 [2]	1.46	98	1.95[1,3]	1.39	132	2.72 [2]	1.71	147	8.713	.000
Males	2.05	1.56	155	2.46	1.59	37	1.57	1.26	61	2.30	1.72	57	11.27	.001
Females	2.68	1.53	222	2.69	1.37	61	2.28	1.42	71	2.99	1.66	90		
Total Hangout Home	3.66	1.57	377	3.71	1.35	98	3.55	1.58	132	3.73	1.68	147	.625	n.s.
Males	3.45	1.59	155	3.84	1.38	37	3.20	1.47	61	3.46	1.79	57	3.300	.070
Females	3.82	1.54	222	3.64	1.34	61	3.85	1.63	71	3.91	1.59	90		
Total Work for Money	2.04	1.81	377	2.14	1.72	98	1.87	1.77	132	2.12	1.90	147	1.048	n.s.
Males	1.83	1.84	155	2.22	1.93	37	1.43	1.59	61	2.00	1.97	57	2.437	n.s.
Females	2.18	1.77	222	2.10	1.59	61	2.25	1.84	71	2.19	1.85	90		

[1] Indicates significant difference ($p < .05$) with School A on this measure
[2] Indicates significant difference ($p < .05$) with School B on this measure
[3] Indicates significant difference ($p < .05$) with School C on this measure

Perceptions of Parents Measures

The current study used an adaptation of Robbins' (1994) Perceptions of Parent scales (POPS) to measure parenting practices and their influence on adolescent self-determination, initiative, and free choices. Three subscales of POPS measured autonomy support, involvement, and structure.

Parent Autonomy Support

Table 4.4.1 presents the descriptive statistics for the total autonomy support scale. The total scale contained 18 items, which were measured on a seven point scale that ranged from 1=not at all true to 7=very true. In the analysis, 4 items were reversed coded. Reliability analysis for internal consistency on the autonomy support scale indicated a total alpha score of .93. The scores for the total scales ranged from 1.5 to 7 with a mean score 5.2 for the study participants. Higher scores are indicative of more autonomy support from parents. Reverse-coded items are indicated by using a superscript R.

Table 4.4.1 Descriptive Statistics for Measures of Parent's Autonomy Support (n=377)

Number and Item	Mean	SD	α if deleted
15A. PARENT1 seems to know how I feel about things.	4.92	1.64	.93
15B. PARENT1 tries to tell me how to run my life.[R]	4.89	1.74	.93
15E. PARENT1, whenever possible, allows me to choose what to do.	5.40	1.57	.93
15H. PARENT1 listens to my opinion or perspective when I have a problem.	5.35	1.76	.93
15K. PARENT1 allows me to decide things for myself.	5.29	1.53	.93
15N. PARENT1 insists upon my doing things her or his way.[R]	5.21	1.76	.93
15Q. PARENT1 is usually willing to consider things from my point of view.	4.92	1.63	.93
15S. PARENT1 helps me to choose my own direction.	5.22	1.60	.92
15U. PARENT1 is not very sensitive to many of my needs.[R]	5.68	1.62	.93
15V. PARENT1 encourages me to take responsibility for planning and organizing the things I do in my free time.	5.34	1.70	.93
15Y. PARENT1 trusts I will make good decisions about how I spend my free time.	5.46	1.75	.92
15Z. PARENT1 encourages me to explore and try out different free time activities.	5.10	1.65	.93
15AA. PARENT1 understands why I like to do the activities I participate in during my free time.	5.34	1.74	.93
15DD. PARENT1 helps me take responsibility for planning and organizing the things I do in my free time.	4.73	1.81	.93
15GG. PARENT1, whenever possible, allows me to decide what to do in my free time.	5.30	1.70	.93
15HH. PARENT1 gives me the right amount of freedom to do what I like in my free time.	5.35	1.70	.93
15II. If there is something I'd like to do in my free time, PARENT1 does her or his best to help me do it.	5.23	1.66	.92
15KK. PARENT1 never considers things from my point of view when it comes to my free time activities.[R]	5.70	1.84	.93
Scale Statistics	**5.24**	**1.14**	**.93**

[R] Item was reverse coded

Parent Involvement

Table 4.4.2 presents the descriptive statistics for the 18- item parent involvement scale. This scale was measured on a 7 item scale that ranged from 1=not at all true to 7=very true. In the analysis, 4 items were reversed coded. A mean score was calculated using the score from each of the 18 items in the scale. The scores for parent involvement ranged from 1.1 to 7 with a mean score of 5.35. Higher scores are indicative of high parent involvement. Reliability for internal consistency for this scale indicates a total alpha score of .94.

Table 4.4.2 Descriptive Statistics for Measures of Parent Involvement (n=377)

Number and Item	Mean	SD	α if deleted
15C. PARENT1 finds time to talk with me.	4.86	1.81	.94
15D. PARENT1 accepts me and likes me as I am.	5.90	1.50	.94
15G. PARENT1 clearly conveys his or her love for me.	5.91	1.52	.94
15I. PARENT1 spends a lot of time with me.	4.96	1.76	.93
15J. PARENT1 makes me feel special.	5.08	1.68	.93
15L. PARENT1 often seems too busy to be involved with me. [R]	5.52	1.63	.94
15M. PARENT1 is often disapproving and not accepting of me. [R]	5.97	1.52	.94
15O. PARENT1 is not very involved with my concerns. [R]	5.70	1.72	.94
15P. PARENT1 is typically not too happy to see me. [R]	6.29	1.37	.94
15R. PARENT1 puts time and energy into helping me.	5.29	1.63	.93
15T. PARENT1 seems disappointed in me a lot. [R]	5.72	1.67	.94
15W. PARENT1 provides the resources necessary for me to do the things he or she thinks are good for me in my free time.	5.14	1.76	.94
15X. PARENT1 gets involved in the activities I participate in so that she or he can support me (e.g., coaching and volunteering).	3.98	2.12	.94
15BB. PARENT1 provides the resources I need to help me develop the skills I need to do my free time activities.	5.20	1.69	.94
15CC. PARENT1 and I enjoy doing things together in our free time.	4.83	1.85	.93
15EE. PARENT1 and I share common interests in our free time.	4.16	1.90	.94
15FF. PARENT1 spends a lot of his or her time supporting my free time activities (e.g., driving me to places and staying at practice sessions).	5.09	1.92	.94
15JJ. I enjoy spending time with PARENT1 during my free time.	4.84	1.81	.93
Scale Statistics	**5.35**	**1.18**	**.94**

[R] Item was reverse coded

Parent Structure

Table 4.4.3 presents the descriptive statistics for the parent structure scale. Each of the 14 items was measured on a 5 point scale that ranged from 1=almost never to 5=almost always. A mean score was calculated using the score from each of the 14 items in the scale. The scores for parent structure ranged from 1 to 5 with a mean score of 3.65 for the study participants. As with the other POPs scales, higher scores indicate higher levels of parent structure. Reliability for internal consistency yielded a total alpha score of .89 for this scale.

Table 4.4.3 Descriptive Statistics for Measures of Parent Structure (n=377)

Number and Item	Mean	SD	α if deleted
16A. I need to have PARENT1's permission to stay out late on a weekday evening.	4.28	1.14	.88
16B. I need to ask PARENT1 before I can decide with my friends what I will do on a Saturday evening.	3.99	1.25	.88
16C. If I have been out very late at night, PARENT1 requires me to tell her where I was and with whom.	4.33	1.05	.88
16D. I need to 'check-in' with PARENT1 throughout the day if I am out of the house on a Saturday.	3.57	1.38	.89
16E. PARENT1 sometimes 'pushes' me to do things that she thinks will help me in the future.	3.06	1.23	.89
16F. PARENT1 clearly states activities of which she approves and does not approve to me.	3.36	1.38	.89
16G. PARENT1 requires me to tell her with whom I'll be spending my free time.	3.97	1.18	.88
16H. PARENT1 encourages me to be involved in activities that she feels are important.	3.29	1.26	.89
16I. PARENT1 lets me choose my activities as long as I finish what she asks me to do.	3.99	1.11	.89
16J. PARENT1 monitors how I spend my free time.	2.90	1.31	.88
16K. PARENT1 sets a time when I am expected home	3.81	1.24	.88
16L. PARENT1 monitors when I come home from my free time activities.	3.24	1.40	.88
16M. PARENT1 finds out if other parents are present at the parties I go to.	3.76	1.39	.88
16N. PARENT1 supervises the parties I have at home.	3.47	1.43	.88
Scale Statistics	**3.65**	**.82**	**.89**

Adolescent Initiative

Adolescent initiative was measured using an adaptation of an initiative scale used by Hutchinson et al. (2002). Table 4.5 presents the descriptive statistics for measures of adolescent initiative. The initial adolescent initiative scale contained 8 items that were measured on a 5 point scale with 1=strongly disagree and 5=strongly agree. Internal consistency analysis for reliability indicated that the overall reliability of

the scale could be improved from .64 to .75 with the elimination of two items 14a and 14e. These items were eliminated and the final scale used six items to measure adolescent initiative. In the analysis two items were reverse coded. A mean score was calculated using the score from each of the 6 items in the scale. The scores for adolescent initiative ranged between 1.67 and 5.00 with a mean score of 3.64 for the study participants. Higher scores are indicative of higher levels of adolescent initiative.

Table 4.5.1 Descriptive Statistics for Measures of Adolescent Initiative (n=377)

Number and Item	Mean	SD	α if deleted
14A. I can overcome things that get in the way of doing what I want to do.	3.38	.97	.71*
14B. I am easily distracted and tend to stop and start things as my interest shifts. [R]	2.99	1.14	.61
14C. If I don't do well at first in an activity, I'll keep trying to do better.	3.80	.92	.68
14D. I give up easily if things don't go my way. [R]	3.96	1.00	.57
14E. I tend to try things where I know I can be successful.	3.68	.86	.72*
14F. When I start something, I am able to focus on it for long periods of time.	3.39	1.08	.59
14G. There are too many things that get in the way of doing what I want to do. [R]	3.39	1.02	.62
14H. When I start something, I stick with it.	3.62	.94	.58
Scale Statistics	**3.64**	**.82**	**.75***

[R] Item was reverse coded
* Total inter-item reliability for scale omits items 14a and 14e

Free Time Motivation for Adolescents Scale and Subscales

The Free Time Motivation for Adolescent Scale (Baldwin & Caldwell, 2003) consists of five subscales (intrinsic, identified, introjected, external, and amotivation) that measure different types of Free Time Motivation. Following are five subsections that present the measurement and descriptive statistics for each of the five subscales.

Intrinsic Motivation

Intrinsic motivation was measured by four items on a five-point scale ranging from 1=strongly disagree to 5=strongly agree. Table 4.6.1 presents the descriptive statistics for measures of intrinsic motivation. A mean score was calculated using the score from each of the 4 items in the scale. For study participants, the scores for intrinsic motivation ranged from 1.00 to 5.00 with a mean score of 4.41. Higher scores are indicative of higher levels of intrinsic motivation. Reliability analysis on this subscale indicated a Cronbach's alpha score of .77. No subtractions to this subscale were made because this is an established measurement of intrinsic motivation in free time.

Table 4.6.1 Descriptive Statistics for Measures of Intrinsic Motivation (n=377)

Number and Item ***Stem: I do what I do in my free time because…***	**Mean**	**SD**	**α if deleted**
13E. I want to have fun	4.47	.69	.80
13J. I enjoy what I do.	4.41	.70	.67
13O. I like what I do.	4.33	.70	.66
13W. I want to.	4.42	.76	.71
Subscale Statistics	**4.41**	**.55**	**.77**

Identified Motivation

Identified motivation was measured by four items on a five-point scale ranging from 1=strongly disagree to 5=strongly agree. Table 4.6.2 presents the descriptive statistics for measures of identified motivation. A mean score was calculated using the score from each of the 4 items in the scale. For study participants, the scores for identified motivation ranged from 1.00 to 5.00 with a mean score of 3.54. Higher scores are indicative of higher levels of identified motivation. Reliability analysis on this subscale indicated a Cronbach's alpha score of .75.

Table 4.6.2 Descriptive Statistics for Measures of Identified Motivation (n=377)

Number and Item ***Stem: I do what I do in my free time because…***	**Mean**	**SD**	**α if deleted**
13C. I want to understand how things work.	3.07	1.14	.75
13I. What I do is important to me.	4.05	.89	.72
13N. I develop the skills that I can use later in life.	3.47	1.05	.66
13S. The activities help me develop into the person I want to become.	3.58	1.11	.62
Subscale Statistics	**3.54**	**.79**	**.75**

Introjected Motivation

Introjected motivation was measured by five items on a five-point scale ranging from 1=strongly disagree to 5=strongly agree. Table 4.6.3 presents the descriptive statistics for measures of introjected motivation. A mean score was calculated using the score from each of the 4 items in the scale. For study participants, the scores for introjected motivation ranged from 1.00 to 4.40 with a mean score of 2.47. Higher scores are indicative of higher levels of introjected motivation. Reliability analysis on this subscale indicated a Cronbach's alpha score of .71.

Table 4.6.3 Descriptive Statistics for Measures of Introjected Motivation (n=377)

Number and Item ***Stem: I do what I do in my free time because…***	**Mean**	**SD**	**α if deleted**
13B. I want people to think that I am good at what I do.	2.92	1.13	.65
13H. I will feel badly about myself if I don't.	2.16	1.08	.70
13M. I want to impress my friends.	2.05	1.03	.63
13R. I want people to like me.	2.31	1.14	.62
13V. I want to earn rewards, medals, trophies, and certificates.	2.91	1.31	.68
Subscale Statistics	**2.47**	**.77**	**.71**

External Motivation

External motivation was measured by five items on a five-point scale ranging from 1=strongly disagree to 5=strongly agree. Table 4.6.4 presents the descriptive statistics for measures of external motivation. A mean score was calculated using the score from each of the 4 items in the scale. For study participants, the scores for external motivation ranged from 1.00 to 5.00 with a mean score of 1.96. Higher scores are indicative of higher levels of external motivation. Reliability analysis on this subscale indicated a Cronbach's alpha score of .77.

Table 4.6.4 Descriptive Statistics for Measures of External Motivation (n=377)

Number and Item ***Stem: I do what I do in my free time because…***	**Mean**	**SD**	**α if deleted**
13A. I would get into trouble if I don't.	1.97	1.07	.77
13H. I am supposed to.	2.16	1.08	.71
13L. That is the rule in my house.	1.81	.84	.70
13Q. So others won't get mad at me.	1.69	.87	.72
13U. My parents expect me to.	2.30	1.08	.71
Subscale Statistics	**1.96**	**.70**	**.77**

Amotivation

Amotivation was measured by four items on a five-point scale ranging from 1=strongly disagree to 5=strongly agree. Table 4.6.5 presents the descriptive statistics for measures of amotivation. A mean score was calculated using the score from each of the 4 items in the scale. For study participants, the scores for amotivation ranged from 1.00 to 5.00 with a mean score of 2.22. Higher scores are indicative of higher levels of amotivation. Reliability analysis on this subscale indicated a Cronbach's alpha score of .74.

Table 4.6.5 Descriptive Statistics for Measures of Amotivation

Number and Item ***Stem: I do what I do in my free time because…***	**Mean**	**SD**	**α if deleted**
13D. I don't know why I do my free time activities, and I don't really care.	2.29	1.18	.71
13F. I don't know, nothing much interests me.	2.01	1.05	.68
13K. I don't know, I have never really thought about it.	2.68	1.07	.67
13P. I don't know, but it doesn't matter because I don't do much of anything.	1.91	1.08	.64
Subscale Statistics	**2.22**	**.82**	**.74**

Bivariate Correlations among the Study Variables

Table 4.7 displays the bivariate correlations among the study variables. As seen in this table, the correlation between the parent autonomy support scale and the parent involvement scale is very high (r=.891), indicating a possible conceptual overlap. This issue is addressed in the section following Table 4.7. Other correlations posed no threats to testing the proposed model of parent influence.

Table 4.7 Bivariate Correlations among the Study Variables (n=377)

Variables	AUT SUP	PAR INV	PAR STRUC	INTRS MOT	IDENT MOT	INTRJ MOT	EXTR MOT	AMOT	INIT	STR ACT	UNS ACT
Autonomy Support Pearson Corr.	1.00										
Parent Involvement Pearson Corr.	.891**	1.00									
Parent Structure Pearson Corr.	.286**	.410**	1.00								
Intrinsic Motivation Pearson Corr.	.352**	.349**	.168**	1.00							
Identified Motivation Pearson Corr.	.293**	.339**	.335**	.406**	1.00						
Introjected Mot. Pearson Corr.	.044	.123*	.213**	.072	.523 **	1.00					
External Motivation Pearson Corr.	-.186 **	-.130*	.118 *	-.211 **	.228**	.593 **	1.00				
Amotivation Pearson Corr.,	-.345 **	-.373**	-.280 **	-.362**	-.398**	-.037 **	.231 **	1.00			
Initiative Pearson Corr.	.396 **	.386**	.234 **	.400 **	.403**	.101 *	-.128 **	-.548**	1.00		
Structured Activities Pearson Corr.	.189**	.249**	.247 **	.319 **	.361 **	.212 **	.044	-.356**	.360**	1.00	
Unstructured Act. Pearson Corr.	-.074	-.090	.015	.154 **	.037	-.008	.076	.117*	.118*	.105*	1.00

* $p \leq .05$ (2-tailed)
** $p \leq .01$ (2-tailed)

Revising the Model and Restating Study Hypotheses

This study proposed four hypotheses to test the model of activity involvement. An examination of the bivariate correlations among the study reveals that parent autonomy support and parent involvement are highly correlated (r=.89). This suggests that measures of parent autonomy support and involvement are measuring the same concept. Concerns about multicollinearity within the proposed model of parent influence forced a reconsideration of the original study hypotheses. Revisions are based on the theoretical considerations, and properties of the measures used as variables within the model of parent influence.

The original hypotheses on the effects of parent autonomy support, interpersonal involvement, and parent structure on motivation and initiative were based on Grolnick, Deci and Ryan's (1997) contention that autonomy support does not facilitate internalization alone. Rather, parents and other socialization agents, "must provide the structures that are to be internalized and they must have the type of positive relatedness or involvement that leaves the child willing to engage in these structures" (p. 147). As a result, the effect of autonomy support on adolescent motivation and initiative and the effect of the interaction of parent structure and parent involvement on adolescent motivation and initiative were described separately within Hypotheses 3 and 4, respectively. However, data analysis found that parent autonomy support and parent involvement were highly correlated and posed measurement problems based on multicollinearity between parent autonomy support and interpersonal involvement.

To avoid issues with multicollinearity, the principal investigator reviewed the literature to see if any support existed for combining parent autonomy support and parent involvement. While the two constructs are conceptually separate and have been measured as separate in past studies, each has been found to interact with structure to positively impact internalized forms of motivation (Grolnick, Deci & Ryan, 1997). As with interpersonal involvement, Grolnick et al. suggest that structure can be enacted with variation in autonomy support. Specifically, they state,

> …structure can be provided in either an autonomy supportive manner or a controlling manner. Language that pressures children and close surveillance to ensure compliance make the structure controlling, but simply conveying information in a reasoned and empathetic way allows the structure to provide guidance while at the same time supporting autonomy. (p.148)

Furthermore, Grolnick et al. provide some examples where the presence of autonomy support increased internalization within specific structures, as well as variations in autonomy support (i.e., supportive versus no supportive practices) being predictive of variations in internalization. More explicitly, supportive conditions were linked to greater internalization through reports of higher enjoyment, freedom, and importance attached to an activity, whereas unsupportive conditions showed negative correlations with the same self reported measures. Making a case for measuring the interaction of parent autonomy support and parent structure seems to be justified given the findings from these studies. Combining parent autonomy support and interpersonal involvement is based on two other considerations.

First, autonomy support and interpersonal involvement share similar affective components. Grolnick et al. use language suggesting that these two concepts are connected by their very nature. In describing parent autonomy support, Grolnick et al. use words like reasoning and empathy as interpersonal skills needed to enact supportive behaviors with adolescents. Taking this a step further, it is not unreasonable to suggest that parent autonomy support and parent involvement are loosely connected, and combining the two concepts based on similar affective orientations seems justified. Secondly, the effect of each gets at the core of internalization of extrinsically motivated behaviors.

As stated in the literature review, internalization can be achieved if the needs for competence and relatedness are met. The provision of autonomy support is thought to meet the need of competence, because an individual is being supported in ways that he or she can face challenges and situations knowing that he or she can rely on someone to assist them if needed. Interpersonal involvement fulfills the need for relatedness. Internalization is thought to thrive in conditions where acceptance and interest of valued

others exist, and provides a natural entry to the initiation of extrinsically motivated behavior. While the autonomy support and interpersonal involvement are unique in their contribution to internalization, it is well acknowledged that when each is present, evidence of internalization is abundant (Grolnick et al., 1997). Therefore the two constructs were combined, and hypotheses were revised based on the combination of the two variables. Following are the original hypotheses followed by the revised hypotheses.

Original Study Hypotheses

Hypothesis 1:

Initiative and internalized forms of motivation (intrinsic and identified) will positively predict structured activity involvement, while externalized forms of motivation (introjected and external) and amotivation will negatively predict structured activity involvement.

Hypothesis 2:

Internalized forms of motivation will positively predict unstructured activity involvement, while initiative will negatively predict unstructured activity involvement.

Hypothesis 3:

Adolescent motivation, PASI, parent structure and parent involvement predict adolescent initiative. Specifically, parent involvement moderates the effect of parent structuring on initiative. For example, parenting that was high in structure would more strongly predict initiative if parent involvement was also high. Parent autonomy support will also positively predict adolescent initiative, higher levels of parent autonomy support will predict higher levels of initiative. Finally, more internalized forms of motivation positively predict initiative, while externalized forms of motivation and amotivation negatively predict adolescent initiative.

Hypothesis 4:

PASI, parent involvement and parent structure predict adolescent motivation. Specifically, Parent Autonomy Support will positively predict internalized (intrinsic and identified) forms of motivation. Conversely, Parent Autonomy Support will negatively predict externalized forms of motivation (introjected and external) and amotivation. Parent involvement moderates the effect of parent structure on motivation. For example, parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent involvement was also high. Conversely, the effect of parent structure on more externalized (introjected and external) forms of motivation and amotivation would be diminished in the presence of high parent involvement.

Revised Study Hypotheses

Revised study hypotheses reflect the combination of the parent autonomy support and parent involvement items.

Hypothesis 1:

Initiative and internalized forms of motivation (intrinsic and identified) will positively predict structured activity involvement, while externalized forms of motivation (introjected and external) and amotivation will negatively predict structured activity involvement.

Hypothesis 2:

Internalized forms of motivation will positively predict unstructured activity involvement, while initiative will negatively predict unstructured activity involvement.

Hypothesis 3:

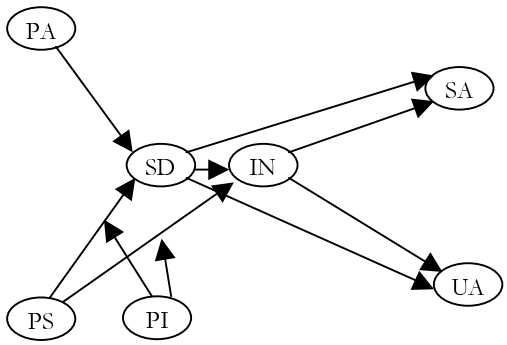
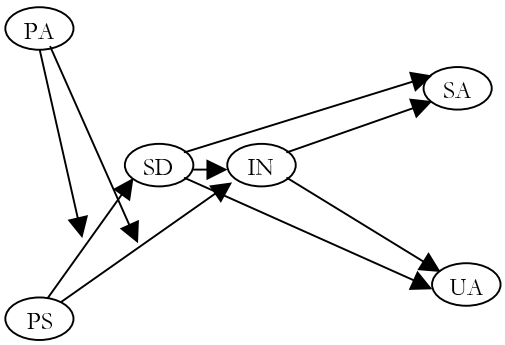
Adolescent motivation, PASI and PS predict adolescent initiative. Specifically, more internalized forms of motivation (intrinsic and identified) positively predict initiative, while externalized forms of motivation (introjected and external) and amotivation negatively predict adolescent initiative. Parents affect initiative, because PASI moderates the effect of PS on initiative. Specifically, parenting that was high in structure would more strongly predict initiative if PASI was also high.

Hypothesis 4:

Parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on adolescent motivation. Specifically, parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent autonomy support and involvement was also high. Conversely, the effect of PS on more externalized (introjected and external) forms of motivation and amotivation would be diminished in the presence of high PASI.

Figure 4.0 shows the originally proposed and revised models of parent influence.

Figure 4.0: Original and Revised Models of Activity Involvement

Original Model Predicting Activity Involvement	**Revised Model Predicting Activity Involvement**
	
Legend PA – Parent Autonomy Support PS – Parent Structure PI – Parent Involvement SD – Adolescent Self-Determination (Motivation) IN – Adolescent Initiative SA – Structured Activity Involvement UA – Unstructured Activity Involvement	**Legend** PA – Parent Autonomy Support and Involvement PS – Parent Structure SD – Adolescent Self-Determination (Motivation) IN – Adolescent Initiative SA – Structured Activity Involvement UA – Unstructured Activity Involvement

Measurement Properties: Parent Autonomy Support and Involvement

To construct the parent autonomy support and involvement (PASI) variable, the principal investigator took the original autonomy support items and added six items concerning free time involvement and resource provision. Free time items from the parent involvement scale were selected because the study is concerned with parenting practices within the context of free time. Items 15X, 15CC and 15EE were added as free time involvement items, while 15W, 15BB, and 15FF were added as free time resource support. The PASI scale was now a 24 item, seven-point scale where 1= not at all true and 7= very true. Table 4.8 presents the descriptive statistics for measures of parent autonomy support and involvement. In the analysis, four items were reverse coded these items are indicated on Table 4.8 through a superscript R. A mean

score was calculated using the score from each of the 24 items in the scale. The scores for PASI ranged from 1.54 to 7 with a mean score of 5.14. Higher scores for this combined scale reflect higher parent autonomy support and involvement. Reliability analyses for this scale indicate a total alpha score of .95.

Bivariate Correlations among the Study Variables under the Revised Model

Table 4.9 displays the bivariate correlations among the study variables with the newly created variable, parent autonomy support and involvement (PASI). As seen in this table, no correlations are above .60 and there are no measurement concerns with the variables under the revised model.

Table 4.8.1 Descriptive Statistics for Measures of PASI (n=377)

Number and Item	Mean	SD	α if deleted
15A. PARENT1 seems to know how I feel about things.	4.92	1.64	.94
15B. PARENT1 tries to tell me how to run my life.[R]	4.89	1.74	.95
15E. PARENT1, whenever possible, allows me to choose what to do.	5.40	1.57	.95
15H. PARENT1 listens to my opinion or perspective when I have a problem.	5.35	1.76	.94
15K. PARENT1 allows me to decide things for myself.	5.29	1.53	.95
15N. PARENT1 insists upon my doing things her or his way.[R]	5.21	1.76	.95
15Q. PARENT1 is usually willing to consider things from my point of view.	4.92	1.63	.95
15S. PARENT1 helps me to choose my own direction.	5.22	1.60	.94
15U. PARENT1 is not very sensitive to many of my needs.[R]	5.68	1.62	.95
15V. PARENT1 encourages me to take responsibility for planning and organizing the things I do in my free time.	5.34	1.70	.95
15W. PARENT1 provides the resources necessary for me to do the things he or she thinks are good for me in my free time.	5.14	1.76	.95
15X. PARENT1 gets involved in the activities I participate in so that she or he can support me (e.g., coaching and volunteering).	3.98	2.12	.95
15Y. PARENT1 trusts I will make good decisions about how I spend my free time.	5.46	1.75	.94
15Z. PARENT1 encourages me to explore and try out different free time activities.	5.10	1.65	.95
15AA. PARENT1 understands why I like to do the activities I participate in during my free time.	5.34	1.74	.94
15BB. PARENT1 provides the resources I need to help me develop the skills I need to do my free time activities.	5.20	1.69	.94
15CC. PARENT1 and I enjoy doing things together in our free time.	4.83	1.85	.94
15DD. PARENT1 helps me take responsibility for planning and organizing the things I do in my free time.	4.73	1.81	.94
15EE. PARENT1 and I share common interests in our free time.	4.16	1.90	.94
15FF. PARENT1 spends a lot of his or her time supporting my free time activities (e.g., driving me to places and staying at practice sessions).	5.09	1.92	.95
15GG. PARENT1, whenever possible, allows me to decide what to do in my free time.	5.30	1.70	.95
15HH. PARENT1 gives me the right amount of freedom to do what I like in my free time.	5.35	1.70	.95
15II. If there is something I'd like to do in my free time, PARENT1 does her or his best to help me do it.	5.23	1.66	.94
15KK. PARENT1 never considers things from my point of view when it comes to my free time activities.[R]	5.70	1.84	.95
Scale Statistics	**5.14**	**1.16**	**.95**

[R] Item was reverse coded

Table 4.9 Bivariate Correlations among the Study Variables under the Revised Model (n=377)

Variables	PASI	PAR STRUC	INTRS MOT	IDENT MOT	INTRJ MOT	EXTR MOT	AMOT	INIT	STR ACT	UNS ACT
Par. Aut Sup & Inv Pearson Corr.	1.00									
Parent Structure Pearson Corr.	.348**	1.00								
Intrinsic Motivation Pearson Corr.	.366**	.168**	1.00							
Identified Motivation Pearson Corr.	.338**	.335**	.406**	1.00						
Introjected Mot. Pearson Corr.	.088	.213**	.072	.523 **	1.00					
External Motivation Pearson Corr.	-.171**	.118 *	-.211 **	.228**	.593 **	1.00				
Amotivation Pearson Corr.,	-.367 **	-.280 **	-.362**	-.398**	-.037 **	.231 **	1.00			
Initiative Pearson Corr.	.407**	.234 **	.400 **	.403**	.101 *	-.128 **	-.548**	1.00		
Structured Activities Pearson Corr.	.215**	.247 **	.319 **	.361 **	.212 **	.044	-.356**	.360**	1.00	
Unstructured Act. Pearson Corr.	-.078	.015	.154 **	.037	-.008	.076	.117*	.118*	.105*	1.00

* $p \leq .05$ (2-tailed)
** $p \leq .01$ (2-tailed)

Gender and School Differences on Study Measures

Tables 4.10.1 and 4.10.2 show the results of analyses for differences between males and females, and among schools on all study measures. Analysis of Variance testing was used to determine differences between gender and among schools. Where applicable, Scheffe's tests were used to determine post hoc differences between schools. A review of the differences between genders followed by a review of school differences follows.

Gender Differences on Study Measures

There were a number of significant ($p < .05$) and marginally significant differences ($p < .10$) between males and females on the measures used to test study hypotheses. Significant main effects were found for gender on measures of unstructured activity involvement and adolescent initiative. When compared to males, females had significantly higher mean scores on unstructured activity involvement ($F=4.23$, $p=.04$), and significantly lower mean scores for adolescent initiative ($F=11.52$, $p=.001$). Marginally statistically significant main effects were found for gender on measures of structured activity involvement and parent structure. When compared to females, males had higher mean scores for measures of structured activity involvement ($F=2.96$, $p=.09$), and lower mean scores for parent structure ($F=3.42$, $p=.07$).

School Differences on Study Measures

Significant main effects for school were found on measures of adolescent initiative ($F= 6.45$, $p=.002$), intrinsic motivation ($F=3.67$, $p=.03$), identified motivation ($F=6.31$, $p=.002$), and introjected motivation ($F=3.15$, $p=.04$). Post hoc analyses were conducted using Scheffe's tests for differences among the three schools. For adolescent initiative, significant mean score differences (mean difference=.25, $p=.013$) were between Schools A and C with School C having a higher mean score for adolescent initiative than School A. School C and School B had significant differences on measures of intrinsic (mean difference=.16, $p=.046$) and identified motivation (mean difference=.31, $p=.004$). In each

case, School C students had higher mean scores than School B students on measures of intrinsic and identified motivation. Finally, there was a marginally significant difference between students from Schools A and B on the measure of introjected motivation (mean difference=.24, p=.074) with School A having higher mean scores than School B for this measure.

Table 4.10.1 School and Gender Differences on Structured and Unstructured Activity Participation, Autonomy Support and Involvement, Parent Structure and Adolescent Initiative

Variable	Total Sample			Schools									Main Effects		School by Gender	
				School A			School B			School C						
Total Mean by Gender	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p	F	P
Total Structured Activities	1.21	.68	377	1.23	.65	98	1.23	.62	132	1.18	.75	147	.35	n.s.	.389	. n.s.
Males	1.28	.72	155	1.35	.73	37	1.31	.65	61	1.20	.79	57	2.96	.09		
Females	1.16	.65	222	1.16	.59	61	1.15	.59	71	1.16	.73	90				
Total Unstructured Activities	2.90	.96	377	3.00	.96	98	2.75	.96	132	2.97	.94	147	2.55	n.s.	.520	n.s.
Males	2.77	1.02	155	2.90	1.02	37	2.57	.98	61	2.91	1.03	57	4.23	.04		
Females	3.00	.90	222	3.07	.92	61	2.91	.92	71	3.02	.89	90				
Total Autonomy Support and Involvement	5.14	1.16	377	5.15	.95	98	5.09	1.16	132	5.18	1.28	147	.205	n.s.	.103	n.s.
Males	5.13	1.03	155	5.18	.87	37	5.05	.96	61	5.19	1.20	57	.00	n.s.		
Females	5.15	1.24	222	5.13	1.00	61	5.13	1.32	71	5.17	1.34	90				
Total Parent Structure	3.64	.82	377	3.75	.75	98	3.62	.74	132	3.60	.92	147	.87	n.s.	.149	n.s.
Males	3.55	.80	155	3.61	.81	37	3.54	.71	61	3.53	.89	57	3.42	.07		
Females	3.71	.83	222	3.84	.71	61	3.68	.76	71	3.64	.94	90				
Total Initiative	3.52[3]	.68	377	3.40	.62	98	3.47	.66	132	3.66[1]	.71	147	6.45	.002	2.911	n.s.
Males	3.67	.66	155	3.54	.63	37	3.54	.68	61	3.93	.71	57	11.52	.001		
Females	3.43	.67	222	3.32	.60	61	3.44	.65	71	3.66	.71	90				

Table 4.10.2 Intrinsic Motivation, Identified Motivation, Introjected Motivation, External Motivation, Amotivation.

Variable	Total Sample			Schools									Main Effects		School by Gender	
				School A			School B			School C						
Total Mean by Gender	Mean	sd	n	Mean	sd	n	Mean	sd	n	Mean	sd	n	F	p	F	p
Total Intrinsic Motivation	4.41	.55	377	4.40	.55	98	4.34[3]	.56	132	4.51[2]	.54	147	3.67	.03	.246	n.s.
Males	4.42	.57	155	4.40	.55	37	4.35	.62	61	4.51	.52	57	.45	n.s.		
Females	4.40	.53	222	4.30	.51	61	4.34	.53	71	4.51	.55	90				
Total Identified Motivation	3.54	.79	377	3.55	.74	98	3.38[3]	.78	132	3.69[2]	.82	147	6.31	.002	2.068	n.s.
Males	3.51	.79	155	3.51	.76	37	3.25	.78	61	3.78	.75	57	.36	n.s.		
Females	3.51	.79	222	3.58	.73	61	3.48	.77	71	3.63	.86	90				
Total Introjected Motivation	2.47	.77	377	2.58	.73	98	2.35	.78	132	2.50	.78	147	3.15	.04	.519	n.s.
Males	2.52	.78	155	2.65	.67	37	2.35	.75	61	2.62	.86	57	1.64	n.s.		
Females	2.43	.76	222	2.54	.76	61	2.34	.82	71	2.42	.72	90				
Total External Motivation	1.96	.70	377	2.04	.67	98	1.86	.67	132	1.98	.75	147	1.87	n.s.	4.669	.010
Males	1.99	.70	155	1.86	.60	37	1.91	.69	61	2.15	.73	57	.189	n.s.		
Females	1.93	.71	222	2.15	.70	61	1.81	.65	71	1.87	.74	90				
Total Amotivation	2.22	.82	377	2.17	.76	98	2.27	.87	132	2.21	.80	147	.66	n.s.	.595	n.s.
Males	2.20	.80	155	2.06	.63	37	2.31	.87	61	2.18	.81	57	.41	n.s.		
Females	2.24	.83	222	2.24	.83	61	2.24	.88	71	2.21	.80	90				

[1] Indicates significant difference ($p < .05$) with School A on this measure
[2] Indicates significant difference ($p < .05$) with School B on this measure
[3] Indicates significant difference ($p < .05$) with School C on this measure

Results of Hypothesis Testing

Hierarchical regression analyses were conducted to test the proposed model of parent influence on adolescent initiative in free time. The analysis strategy was a series of multiple regression equations guided by the revised hypotheses. Separate hierarchical analyses were conducted to examine the predictors of intermediate outcomes (e.g., adolescent motivation, initiative) as well as the outcome variables, structured and unstructured activity involvement. In each analysis, the principal investigator controlled for gender and school because of differences found between males and females and among the schools on demographic and study variables. School was dummy coded into two dummy variables (School A and School B) to reflect the three school levels.

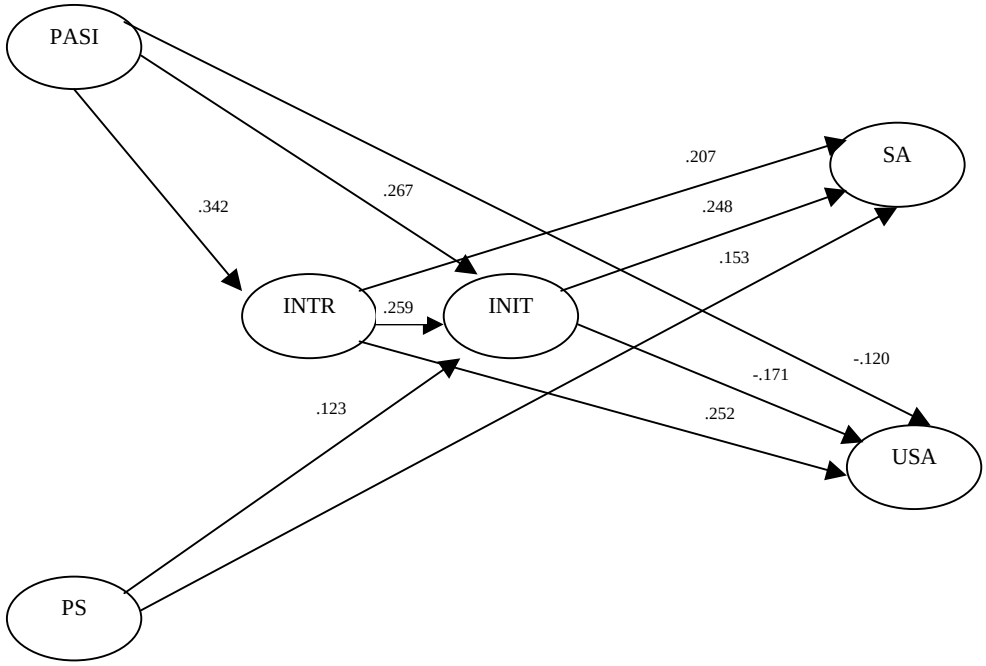
School and gender were entered first into each of the regression equations to remove the effects of school and gender. Thus, in each model summary, school and gender have been added to the first block of analysis for each of the analyses that test the stated hypotheses. Differences among schools and between genders do not impact the discussion of relations among variables of interest, therefore any significant effects related to schools and gender will not be discussed or modeled in the presentation of results.

Analyses are presented in order of hypotheses. Based on the five different motivation types, five separate tests of each hypothesis were conducted. The literature has several ways of using motivation as a construct (Baldwin & Caldwell, 2003). One way is to treat each type of motivation separately, as is done here. Doing this provides a basic test of each form of motivation and allows a detailed examination of how each type combines with the other variables of interest in the study. This method is appropriate for this study because it was hypothesized that influence of parent structure, PASI, and initiative would be different based on the type of motivation measured.

Intrinsic Motivation

Before specific hypotheses are addressed, the overall model predicting structured and unstructured activity for each motivation type will be presented. Figure 4.11 presents the final results for the path diagram that models the effect of parent variables, intrinsic motivation, and initiative on structured or unstructured activity participation. Tables 4.11.1 through 4.14.2 provide the results of this series of regression analyses, and are discussed in relation to the tests of hypotheses.

Figure 4.11:
General Model of Activity Involvement with Adolescent Intrinsic Motivation



Overall, intrinsic motivation (β=.250, p <.001), initiative (β=.258, p <.001), and PS (β=.153, p =.002) positively predicted structured activity involvement. The Adjusted R-square for structured activity was .188. Unstructured activity was positively predicted by intrinsic motivation (β=.248, p < .001) and negatively predicted by PASI (β= -.120, p =.040) and initiative (β= -.171, p < .001). These three variables combine to explain 7.4% of the variance in unstructured activity involvement.

Initiative was regressed on PASI, PS, and intrinsic motivation, and was positively predicted by all three (β= .267, $p < .001$; β= .123, $p = .009$; β= .259, $p < .001$, respectively). These variables combine to explain 28.3% of the variance in initiative. Intrinsic motivation was predicted solely by PASI (β= .342, $p < .001$, Adj. R^2=.145).

Hypothesis 1

Specific to this test, Hypothesis 1 stated that initiative and intrinsic motivation would positively predict structured activity involvement. Table 4.11.1 presents the model summary for the five models entered for hypothesis testing for structured activity participation. According to this analysis (Table 4.11.1), adolescent initiative, adolescent intrinsic motivation, and parent structure all positively and significantly predicted structured activity involvement (R^2=.201). This means that higher levels of initiative, adolescent intrinsic motivation, and, to a lesser extent, parent structure predicted higher levels of structured activity involvement by adolescents. Of the three predictors, initiative contributed the most to the prediction of structured activity involvement. Hypothesis 1 is partially supported by these results.

Table 4.11.1 Model Summary of Effects of Initiative, Intrinsic Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.008	.000	.6806	.008	1.056 (3,373)	.368
2[b]	.139	.130	.6350	.131	56.502 (1,372)	.000
3[c]	.180	.168	.6207	.040	18.250 (1,371)	.000
4[d]	.201	.188	.6134	.021	9.875 (1,370)	.002
5[e]	.201	.186	.6142	.000	.101 (1,369)	.751

a Predictors: (Constant), Gender, School A, School B

b Predictors: (Constant), Gender, School A, School B, Initiative

c Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation

d Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation, Parent Structure

e Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation, Parent Structure, PASI

Table 4.11.2 Effects of Initiative, Intrinsic Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.071		17.576	.000
	School A	5.561E-02	.089	.036	.627	.531
	School B	3.776E-02	.082	.026	.462	.645
	Gender	-.117	.071	-.085	-1.636	.103
2	(Constant)	-.174	.201		-.867	.387
	School A	.150	.084	.096	1.785	.075
	School B	.115	.077	.081	1.493	.136
	Gender	-2.51E-02	.068	-.018	-.370	.711
	Initiative	.374	.050	.372	7.517	.000
3	(Constant)	-1.085	.290		-3.743	.000
	School A	.173	.082	.111	2.104	.036
	School B	.142	.076	.100	1.882	.061
	Gender	-3.79E-02	.066	-.027	-.572	.568
	Initiative	.287	.053	.285	5.429	.000
	Intrinsic Motivation	.275	.064	.220	4.272	.000
4	(Constant)	-1.313	.295		-4.443	.000
	School A	.141	.082	.091	1.721	.086
	School B	.127	.075	.089	1.701	.090
	Gender	-6.71E-02	.066	-.049	-1.014	.311
	Initiative	.250	.054	.248	4.664	.000
	Intrinsic Motivation	.258	.064	.207	4.039	.000
	Parent Structure	.127	.041	.153	3.142	.002
5	(Constant)	-1.312	.296		-4.435	.000
	School A	.142	.082	.091	1.731	.084
	School B	.128	.075	.090	1.709	.088
	Gender	-6.62E-02	.066	-.048	-.998	.319
	Initiative	.254	.056	.253	4.570	.000
	Intrinsic Motivation	.263	.066	.211	3.998	.000
	Parent Structure	.131	.042	.158	3.114	.002
	PASI	-1.02E-02	.032	-.017	-.318	.751

a. Dependent Variable: Structured Activity Involvement

Hypothesis 2

Hypothesis 2 posits that intrinsic motivation would positively predict unstructured activity involvement while initiative would negatively predict unstructured activity involvement. In terms of testing Hypothesis 2, adolescent intrinsic motivation positively and significantly predicts unstructured activity involvement (Table 4.12.1). Initiative and, to a lesser extent, PASI, were negatively and significantly predictive of unstructured activity involvement (Table 4.12.1). Higher levels of initiative and PASI predict lower levels of unstructured activity involvement. These three variables combine to explain 7.4% of the variance in unstructured activity involvement. These analyses provide some support for Hypothesis 2.

Table 4.12.1 Model Summary of Effects of Initiative, Intrinsic Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.026	.018	.9479	.026	3.283 (3,373)	.021
2[b]	.037	.027	.9436	.011	4.436 (1,372)	.036
3[c]	.081	.068	.9233	.043	17.537 (1,371)	.000
4[d]	.081	.066	.9244	.000	.079 (1,370)	.779
5[e]	.091	.074	.9204	.010	4.243 (1,369)	.040

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Intrinsic Motivation, Parent Structure, PASI

Table 4.12.2 Effects of Initiative, Intrinsic Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.846	.099		28.715	.000
	School A	2.750E-02	.124	.013	.222	.824
	School B	-.209	.114	-.104	-1.836	.067
	Gender	.210	.100	.108	2.109	.036
2	(Constant)	3.440	.298		11.524	.000
	School A	-1.16E-02	.124	-.005	-.093	.926
	School B	-.241	.114	-.120	-2.109	.036
	Gender	.172	.101	.088	1.704	.089
	Initiative	-.156	.074	-.110	-2.106	.036
3	(Constant)	2.111	.431		4.896	.000
	School A	2.206E-02	.122	.010	.181	.857
	School B	-.202	.112	-.101	-1.794	.074
	Gender	.153	.099	.079	1.550	.122
	Initiative	-.283	.079	-.201	-3.609	.000
	Intrinsic Motivation	.401	.096	.229	4.188	.000
4	(Constant)	2.080	.445		4.672	.000
	School A	1.775E-02	.123	.008	.144	.885
	School B	-.204	.113	-.102	-1.806	.072
	Gender	.149	.100	.077	1.494	.136
	Initiative	-.288	.081	-.204	-3.577	.000
	Intrinsic Motivation	.399	.096	.227	4.143	.000
	Parent Structure	1.718E-02	.061	.015	.281	.779
5	(Constant)	2.086	.443		4.704	.000
	School A	2.896E-02	.123	.013	.236	.814
	School B	-.196	.112	-.098	-1.743	.082
	Gender	.157	.099	.081	1.584	.114
	Initiative	-.242	.083	-.171	-2.901	.004
	Intrinsic Motivation	.446	.098	.254	4.525	.000
	Parent Structure	5.085E-02	.063	.044	.807	.420
	PASI	-9.91E-02	.048	-.120	-2.060	.040

a. Dependent Variable: Unstructured Activity Involvement

Hypothesis 3

Hypothesis 3 posits the effects of PASI, PS, and intrinsic motivation on initiative. Specific to these tests, Hypothesis 3 states that more internalized forms of motivation would positively and significantly predict initiative. Hypothesis 3 also stated that the effect of parent structure would be moderated by PASI. That is, the strength of parent structure to positively predict initiative would be enhanced by the presence of high PASI. Table 4.13.1 presents the model summary for the analyses.

As seen in Table 4.13.2, higher levels of PASI, adolescent intrinsic motivation, and, to a lesser extent, parent structure predict higher levels of initiative (R^2=.294). These analyses provide some support for Hypothesis 3, because initiative was positively and significantly predicted by the most internalized form (i.e., intrinsic) of adolescent motivation. Hypothesis 3 cannot be totally supported; because the addition of the interaction term did not significantly contribute the amount of explained variance in initiative (Table 4.13.2). In other words, PASI does not moderate the influence of parent structure on initiative.

Table 4.13.1 Model Summary for the Effects of Intrinsic Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.057	.050	.6603	.057	7.555 (3,373)	.000
2[b]	.199	.191	.6094	.142	65.922 (1,372)	.000
3[c]	.238	.228	.5951	.039	19.030 (1,371)	.000
4[d]	.294	.283	.5736	.056	29.288 (1,370)	.000
5[e]	.294	.281	.5744	.000	.005 (1,369)	.945

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Intrinsic Motivation
c Predictors: (Constant), Gender, School A, School B, Intrinsic Motivation, Parent Structure
d Predictors: (Constant), Gender, School A, School B, Intrinsic Motivation, Parent Structure,PASI
e Predictors: (Constant), Gender, School A, School B, Intrinsic Motivation, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.13.2 Effects of Intrinsic Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.807	.069		55.137	.000
	School A	-.251	.086	-.163	-2.914	.004
	School B	-.206	.079	-.145	-2.600	.010
	Gender	-.245	.069	-.178	-3.539	.000
2	(Constant)	1.667	.271		6.147	.000
	School A	-.173	.080	-.112	-2.167	.031
	School B	-.128	.074	-.091	-1.739	.083
	Gender	-.230	.064	-.168	-3.601	.000
	Intrinsic Motivation	.473	.058	.381	8.119	.000
3	(Constant)	1.287	.279		4.615	.000
	School A	-.207	.079	-.134	-2.635	.009
	School B	-.142	.072	-.100	-1.964	.050
	Gender	-.258	.063	-.187	-4.100	.000
	Intrinsic Motivation	.427	.058	.344	7.390	.000
	Parent Structure	.167	.038	.202	4.362	.000
4	(Constant)	1.183	.269		4.393	.000
	School A	-.209	.076	-.136	-2.767	.006
	School B	-.144	.070	-.101	-2.068	.039
	Gender	-.252	.061	-.183	-4.162	.000
	Intrinsic Motivation	.322	.059	.259	5.456	.000
	Parent Structure	.102	.039	.123	2.623	.009
	PASI	.156	.029	.267	5.412	.000
5	(Constant)	1.156	.483		2.391	.017
	School A	-.210	.076	-.136	-2.763	.006
	School B	-.144	.070	-.102	-2.066	.040
	Gender	-.252	.061	-.183	-4.154	.000
	Intrinsic Motivation	.322	.059	.259	5.440	.000
	Parent Structure	.110	.125	.133	.884	.377
	PASI	.163	.095	.278	1.718	.087
	Interaction Term PASI x Parent Structure	-1.75E-03	.025	-.017	-.069	.945

a. Dependent Variable: Initiative

Hypothesis 4

Hypothesis 4 stated that parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specific to this test,

parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent autonomy support and involvement was also high. To test this hypothesis, control, independent variables, and the interaction term of parent structure and PASI were entered hierarchically in the regression analysis. Table 4.14.1 displays the model summary for this set of analyses. The fourth block of analysis (Table 4.14.2), which includes the interaction of PASI and parent structure on intrinsic motivation, tests Hypothesis 4. Because this interaction is not significant, Hypothesis 4 cannot be accepted. In this model, intrinsic motivation is solely predicted by PASI (R^2=.157).

Table 4.14.1 Model Summary for the effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Intrinsic Motivation while Controlling for School and Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.022	.014	.5416	.022	2.812 (3, 373)	.039
2[b]	.054	.044	.5334	.032	12.533 (1, 372)	.000
3[c]	.157	.145	.5044	.103	45.153 (1, 371)	.000
4[d]	.158	.145	.5045	.002	.711 (1, 370)	.400

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Parent Structure
c Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI
d Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.14.2 Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Intrinsic Motivation while Controlling for School and Gender

Coefficients[a]

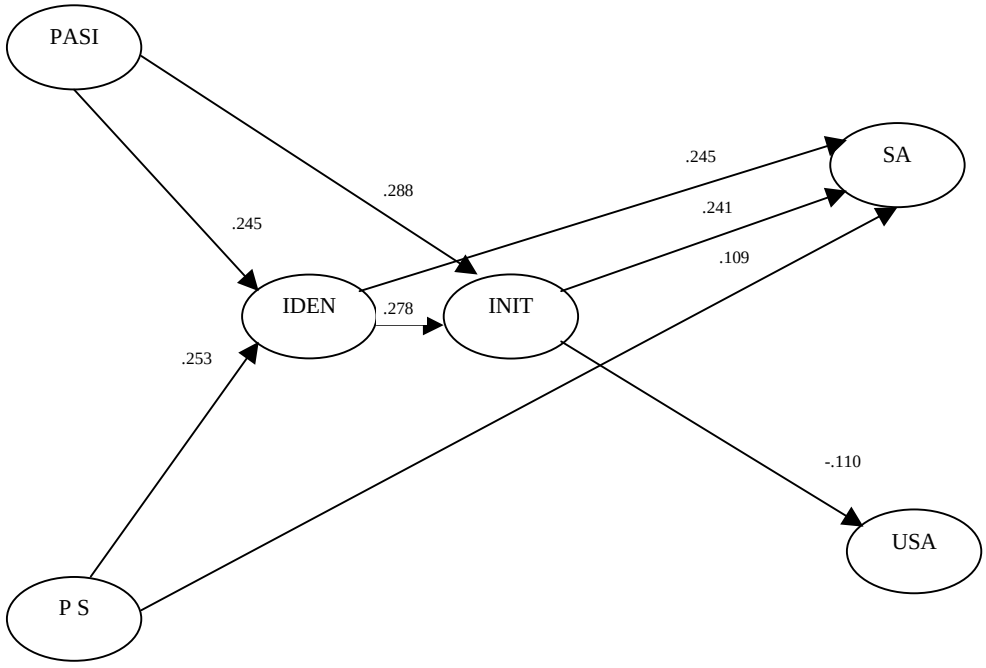
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.524	.057		79.885	.000
	School A	-.164	.071	-.132	-2.319	.021
	School B	-.165	.065	-.144	-2.530	.012
	Gender	-3.14E-02	.057	-.028	-.552	.581
2	(Constant)	4.105	.131		31.343	.000
	School A	-.182	.070	-.147	-2.615	.009
	School B	-.169	.064	-.148	-2.634	.009
	Gender	-4.97E-02	.056	-.045	-.884	.377
	Parent Structure	.120	.034	.180	3.540	.000
3	(Constant)	3.553	.149		23.916	.000
	School A	-.165	.066	-.133	-2.503	.013
	School B	-.153	.061	-.134	-2.517	.012
	Gender	-3.86E-02	.053	-.035	-.726	.468
	Parent Structure	3.944E-02	.034	.059	1.155	.249
	PASI	.161	.024	.342	6.720	.000
4	(Constant)	3.250	.389		8.345	.000
	School A	-.167	.066	-.135	-2.534	.012
	School B	-.155	.061	-.136	-2.555	.011
	Gender	-3.78E-02	.053	-.034	-.711	.478
	Parent Structure	.127	.109	.191	1.162	.246
	PASI	.227	.082	.483	2.765	.006
	Interaction Term PASI x Parent Structure	-1.87E-02	.022	-.227	-.843	.400

a. Dependent Variable: Intrinsic Motivation

Identified Motivation

Figure 4.15 presents the final results for the path diagram that models the effect of parent variables, identified motivation, and initiative on structured or unstructured activity participation. Tables 4.15.1 through 4.18.2 provide the results of this series of regression analyses, and are discussed in relation to the tests of hypotheses.

Figure 4.15:
General Model of Activity Involvement with Adolescent Identified Motivation



Overall, identified motivation (β=.245, p <.001), initiative (β=.241, p <.001), and PS (β=.109, p = .030) positively predicted structured activity involvement. The Adjusted R-square for structured activity was .198. Unstructured activity was negatively predicted by initiative (β= -.110, p = .036). Initiative explains 2.7% of the variance in unstructured activity involvement.

Initiative was regressed on PASI, PS, and identified motivation, and is positively predicted by PASI and identified motivation (β= .288, p < .001; β= .278, p < .001, respectively). These variables combine to explain 28.8% of the variance in initiative.

Intrinsic motivation is predicted by both PASI and PS (β= .245, p < .001, (β= .253, p < .001, respectively) with an adjusted R^2 of .184.

Hypothesis 1

Specific to this test, Hypothesis 1 stated that initiative and identified motivation would positively predict structured activity involvement. Table 4.15.1 presents the model summary for the five models entered for hypothesis testing for structured activity participation. According to this analysis (Table 4.15.2), adolescent initiative, adolescent identified motivation, and parent structure all positively and significantly predicted structured activity involvement (R^2=.211). This means that higher levels of initiative, adolescent identified motivation, and, to a lesser extent, parent structure predicted higher levels of structured activity involvement by adolescents. Hypothesis 1 is partially supported by these results.

Table 4.15.1 Model Summary of Effects of Initiative, Identified Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.008	.000	.6806	.008	1.056 (3,373)	.368
2[b]	.139	.130	.6350	.131	56.502 (1,372)	.000
3[c]	.201	.190	.6127	.061	28.510 (1,371)	.000
4[d]	.211	.198	.6096	.010	4.764 (1,370)	.030
5[e]	.211	.196	.6104	.000	.001 (1,369)	.982

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation, Parent Structure, PASI

Table 4.15.2 Effects of Initiative, Identified Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.071		17.576	.000
	School A	5.561E-02	.089	.036	.627	.531
	School B	3.776E-02	.082	.026	.462	.645
	Gender	-.117	.071	-.085	-1.636	.103
2	(Constant)	-.174	.201		-.867	.387
	School A	.150	.084	.096	1.785	.075
	School B	.115	.077	.081	1.493	.136
	Gender	-2.51E-02	.068	-.018	-.370	.711
	Initiative	.374	.050	.372	7.517	.000
3	(Constant)	-.605	.210		-2.881	.004
	School A	.153	.081	.099	1.895	.059
	School B	.164	.075	.115	2.196	.029
	Gender	-6.33E-02	.066	-.046	-.962	.337
	Initiative	.260	.053	.259	4.953	.000
	Identified Motivation	.236	.044	.275	5.339	.000
4	(Constant)	-.759	.221		-3.443	.001
	School A	.131	.081	.085	1.616	.107
	School B	.149	.075	.105	1.998	.046
	Gender	-8.04E-02	.066	-.058	-1.219	.224
	Initiative	.243	.053	.241	4.585	.000
	Identified Motivation	.210	.046	.245	4.600	.000
	Parent Structure	9.089E-02	.042	.109	2.183	.030
5	(Constant)	-.758	.225		-3.377	.001
	School A	.131	.081	.085	1.614	.107
	School B	.149	.075	.105	1.995	.047
	Gender	-8.03E-02	.066	-.058	-1.216	.225
	Initiative	.243	.056	.242	4.377	.000
	Identified Motivation	.210	.046	.245	4.551	.000
	Parent Structure	9.111E-02	.043	.110	2.126	.034
	PASI	-7.14E-04	.031	-.001	-.023	.982

a. Dependent Variable: Structured Activity Involvement

Hypothesis 2

Hypothesis 2 posits that identified motivation would positively predict unstructured activity involvement while initiative would negatively predict unstructured activity involvement. In terms of testing Hypothesis 2, adolescent identified motivation does not significantly unstructured activity involvement (Table 4.16.1). Initiative, alone, was found to be negatively and significantly predictive of unstructured activity involvement (Table 4.16.2). Higher levels of initiative predicted lower levels of unstructured activity involvement (R^2=.037). While the effect of initiative on unstructured activity involvement supports Hypothesis 2, identified motivation does not act as stated. Therefore, Hypothesis 2 is not supported.

Table 4.16.1 Model Summary of Effects of Initiative, Identified Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.026	.018	.9479	.026	3.283 (3,373)	.021
2[b]	.037	.027	.9436	.011	4.436 (1,372)	.036
3[c]	.042	.029	.9427	.004	1.677 (1,371)	.196
4[d]	.042	.026	.9439	.000	.086 (1,370)	.770
5[e]	.045	.027	.9434	.004	1.427 (1,369)	.233

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Identified Motivation, Parent Structure, PASI

Table 4.16.2 Effects of Initiative, Identified Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.846	.099		28.715	.000
	School A	2.750E-02	.124	.013	.222	.824
	School B	-.209	.114	-.104	-1.836	.067
	Gender	.210	.100	.108	2.109	.036
2	(Constant)	3.440	.298		11.524	.000
	School A	-1.16E-02	.124	-.005	-.093	.926
	School B	-.241	.114	-.120	-2.109	.036
	Gender	.172	.101	.088	1.704	.089
	Initiative	-.156	.074	-.110	-2.106	.036
3	(Constant)	3.279	.323		10.152	.000
	School A	-1.02E-02	.124	-.005	-.082	.934
	School B	-.223	.115	-.111	-1.934	.054
	Gender	.157	.101	.081	1.555	.121
	Initiative	-.198	.081	-.140	-2.452	.015
	Identified Motivation	8.810E-02	.068	.073	1.295	.196
4	(Constant)	3.247	.341		9.507	.000
	School A	-1.48E-02	.125	-.007	-.118	.906
	School B	-.226	.116	-.113	-1.951	.052
	Gender	.154	.102	.079	1.507	.133
	Initiative	-.202	.082	-.143	-2.465	.014
	Identified Motivation	8.264E-02	.071	.069	1.170	.243
	Parent Structure	1.887E-02	.064	.016	.293	.770
5	(Constant)	3.322	.347		9.572	.000
	School A	-1.01E-02	.125	-.005	-.080	.936
	School B	-.221	.116	-.111	-1.911	.057
	Gender	.158	.102	.082	1.552	.121
	Initiative	-.171	.086	-.121	-1.998	.046
	Identified Motivation	9.468E-02	.071	.079	1.328	.185
	Parent Structure	3.711E-02	.066	.032	.560	.576
	PASI	-5.79E-02	.048	-.070	-1.194	.233

a. Dependent Variable: Unstructured Activity Involvement

Hypothesis 3

Hypothesis 3 posits the effects of PASI, PS, and identified motivation on initiative. Specific to these tests, Hypothesis 3 states that more internalized forms of motivation (i.e., intrinsic and identified) would positively and significantly predict initiative. Hypothesis 3 also stated that the effect of parent structure on initiative would be moderated by PASI. That is, the strength of parent structure to positively predict initiative would be enhanced by the presence of high PASI. Table 4.17.1 presents the model summary for the analyses.

As seen in Table 4.17.2, higher levels of PASI and identified motivation predicted higher levels of initiative (R^2=.299). These analyses provide some support for Hypothesis 3, because initiative was positively and significantly predicted by identified motivation. Hypothesis 3 cannot be totally supported; because the addition of the interaction term did not significantly contribute the amount of explained variance in initiative (Table 4.17.2). In other words, PASI does not moderate the influence of parent structure on initiative.

Table 4.17.1 Model Summary for the Effects of Identified Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.057	.050	.6603	.057	7.555 (3,373)	.000
2[b]	.213	.204	.6043	.155	73.339 (1,372)	.000
3[c]	.231	.221	.5979	.018	8.911 (1,371)	.003
4[d]	.299	.288	.5715	.068	36.106 (1,370)	.000
5[e]	.299	.286	.5723	.000	.006 (1,369)	.940

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Ident. Motivation
c Predictors: (Constant), Gender, School A, School B, Ident. Motivation, Parent Structure
d Predictors: (Constant), Gender, School A, School B, Ident. Motivation, Parent Structure, PASI
e Predictors: (Constant), Gender, School A, School B, Ident. Motivation, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.17.2 Effects of Identified Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.807	.069		55.137	.000
	School A	-.251	.086	-.163	-2.914	.004
	School B	-.206	.079	-.145	-2.600	.010
	Gender	-.245	.069	-.178	-3.539	.000
2	(Constant)	2.557	.159		16.084	.000
	School A	-.204	.079	-.132	-2.586	.010
	School B	-.101	.074	-.071	-1.369	.172
	Gender	-.260	.063	-.189	-4.099	.000
	Identified Motivation	.341	.040	.400	8.564	.000
3	(Constant)	2.292	.181		12.687	.000
	School A	-.229	.079	-.148	-2.913	.004
	School B	-.118	.073	-.083	-1.618	.106
	Gender	-.277	.063	-.201	-4.389	.000
	Identified Motivation	.298	.042	.350	7.112	.000
	Parent Structure	.120	.040	.146	2.985	.003
4	(Constant)	1.870	.186		10.028	.000
	School A	-.222	.075	-.144	-2.961	.003
	School B	-.121	.070	-.085	-1.734	.084
	Gender	-.265	.060	-.193	-4.404	.000
	Identified Motivation	.237	.041	.278	5.723	.000
	Parent Structure	5.669E-02	.040	.069	1.417	.157
	PASI	.168	.028	.288	6.009	.000
5	(Constant)	1.839	.446		4.122	.000
	School A	-.223	.075	-.144	-2.957	.003
	School B	-.121	.070	-.086	-1.733	.084
	Gender	-.265	.060	-.193	-4.396	.000
	Identified Motivation	.237	.041	.277	5.707	.000
	Parent Structure	6.556E-02	.125	.079	.524	.600
	PASI	.175	.094	.300	1.866	.063
	Interaction Term PASI x Parent Structure	-1.88E-03	.025	-.018	-.075	.940

a. Dependent Variable: Initiative

Hypothesis 4

Hypothesis 4 stated that parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specific to this test, parenting that was high in structure would more strongly predict identified motivation if parent autonomy support and involvement was also high. To test this hypothesis, control, independent variables, and the interaction term of parent structure and PASI were entered hierarchically in the regression analysis. Table 4.18.1 displays the model summary for this set of analyses. The fourth block of analysis (Table 4.18.2), which includes the interaction of PASI and parent structure on intrinsic motivation, tests Hypothesis 4. Because this interaction is not significant, Hypothesis 4 cannot be accepted. In this model, PASI and PS predict identified motivation, and each contributed similarly to the prediction of identified motivation (R^2=.195).

Table 4.18.1 Model Summary for the Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Identified Motivation while Controlling for School and Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.029	.022	.7850	.029	3.761 (3,373)	.011
2[b]	.143	.134	.7387	.113	49.239 (1,372)	.000
3[c]	.195	.184	.7167	.053	24.206 (1,371)	.000
4[d]	.197	.184	.7171	.001	.622 (1,370)	.431

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Parent Structure
c Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI
d Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.18.2 Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Identified Motivation while Controlling for School and Gender

Coefficients[a]

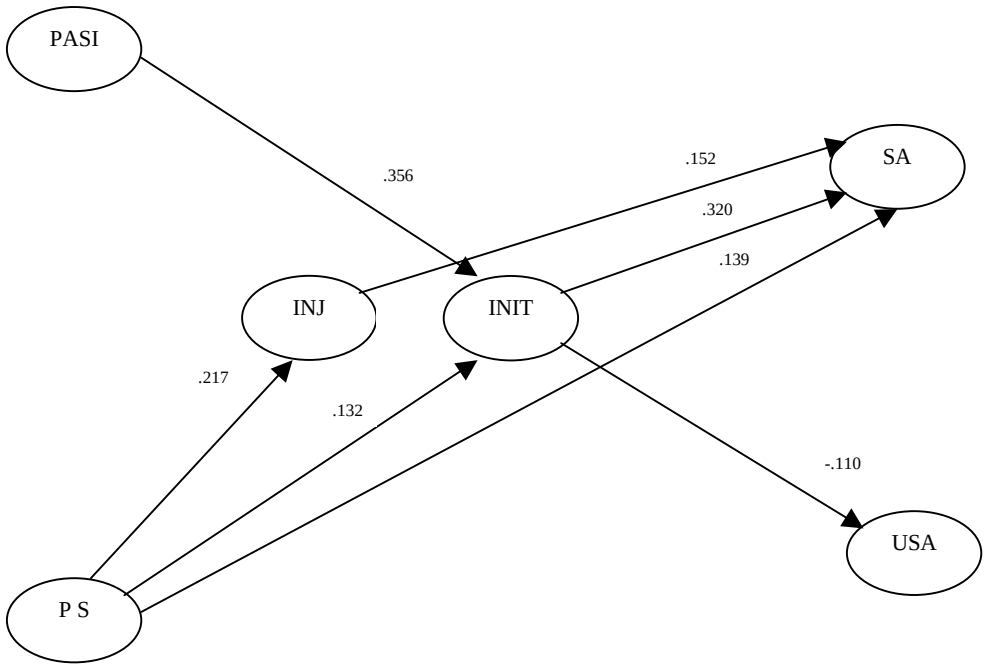
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.661	.082		44.595	.000
	School A	-.136	.102	-.076	-1.333	.183
	School B	-.309	.094	-.186	-3.274	.001
	Gender	4.327E-02	.082	.027	.525	.600
2	(Constant)	2.509	.181		13.836	.000
	School A	-.188	.097	-.104	-1.943	.053
	School B	-.320	.089	-.193	-3.609	.000
	Gender	-7.04E-03	.078	-.004	-.090	.928
	Parent Structure	.329	.047	.339	7.017	.000
3	(Constant)	1.935	.211		9.166	.000
	School A	-.170	.094	-.094	-1.810	.071
	School B	-.304	.086	-.183	-3.522	.000
	Gender	4.516E-03	.076	.003	.060	.952
	Parent Structure	.245	.049	.253	5.052	.000
	PASI	.168	.034	.245	4.920	.000
4	(Constant)	1.532	.553		2.768	.006
	School A	-.173	.094	-.096	-1.839	.067
	School B	-.307	.086	-.185	-3.555	.000
	Gender	5.569E-03	.076	.003	.074	.941
	Parent Structure	.362	.156	.373	2.326	.021
	PASI	.256	.117	.374	2.188	.029
	Interaction Term PASI x Parent Structure	-2.48E-02	.031	-.208	-.789	.431

a. Dependent Variable: Identified Motivation

Introjected Motivation

Figure 4.19 presents the final results for the path diagram that models the effect of parent variables, introjected motivation, and initiative on structured or unstructured activity participation. Tables 4.19.1 through 4.22.2 provide the results of this series of regression analyses, and are discussed in relation to the tests of hypotheses.

Figure 4.19:
General Model of Activity Involvement with Adolescent Introjected Motivation



Overall, structured activity was positively predicted by introjected motivation (β=.152, p =.002), initiative (β=.320, p <.001), and PS (β=.139, p = .006). The Adjusted R-square for structured activity was .174. Unstructured activity was negatively predicted by initiative (β= -.110, p = .036). Initiative explains 2.7% of the variance in unstructured activity involvement. Initiative was regressed on PASI, PS, and introjected motivation, and is positively predicted by PASI and PS (β= .356, p < .001; β= .132, p = .008, respectively). These variables combine to explain 22.6% of the variance in initiative.

Introjected motivation is predicted solely by PS (β= .217, p < .001) with an adjusted R^2 of .056.

Hypothesis 1

Specific to this test, Hypothesis 1 stated that introjected motivation would negatively predict structured activity involvement, while initiative would positively predict structured activity involvement. Table 4.19.1 presents the model summary for the five models entered for hypothesis testing for structured activity participation. According to analyses, adolescent initiative, adolescent introjected motivation, and parent structure all positively and significantly predicted structured activity involvement (R^2= .187). This means that higher levels of adolescent initiative, introjected motivation, and to a lesser extent parent structure, predicted higher levels of structured activity involvement by adolescents. Of the three predictors, initiative contributed the most to the prediction of structured activity involvement. While the effect of initiative on structured activity involvement is consistent with Hypothesis 1, the effect of introjected motivation is contrary to this hypothesis. Therefore, Hypothesis 1 is rejected in this test.

Table 4.19.1 Model Summary of Effects of Initiative, Introjected Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.008	.000	.6806	.008	1.056 (3,373)	.368
2[b]	.139	.130	.6350	.131	56.502 (1,372)	.000
3[c]	.170	.159	.6242	.031	13.928 (1,371)	.000
4[d]	.187	.174	.6187	.017	7.675 (1,370)	.006
5[e]	.188	.173	.6192	.001	.391 (1,369)	.532

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation, Parent Structure

e Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation, Parent Structure, PASI

Table 4.19.2 Effects of Initiative, Introjected Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.071		17.576	.000
	School A	5.561E-02	.089	.036	.627	.531
	School B	3.776E-02	.082	.026	.462	.645
	Gender	-.117	.071	-.085	-1.636	.103
2	(Constant)	-.174	.201		-.867	.387
	School A	.150	.084	.096	1.785	.075
	School B	.115	.077	.081	1.493	.136
	Gender	-2.51E-02	.068	-.018	-.370	.711
	Initiative	.374	.050	.372	7.517	.000
3	(Constant)	-.514	.217		-2.363	.019
	School A	.132	.082	.085	1.596	.111
	School B	.136	.076	.096	1.796	.073
	Gender	-1.23E-02	.067	-.009	-.184	.854
	Initiative	.357	.049	.356	7.270	.000
	Introjected Motivation	.158	.042	.179	3.732	.000
4	(Constant)	-.720	.228		-3.157	.002
	School A	.107	.082	.069	1.297	.195
	School B	.121	.075	.085	1.605	.109
	Gender	-4.13E-02	.067	-.030	-.617	.538
	Initiative	.321	.050	.320	6.374	.000
	Introjected Motivation	.134	.043	.152	3.132	.002
	Parent Structure	.115	.042	.139	2.770	.006
5	(Constant)	-.750	.233		-3.215	.001
	School A	.105	.082	.068	1.280	.201
	School B	.120	.075	.085	1.596	.111
	Gender	-4.33E-02	.067	-.031	-.645	.519
	Initiative	.309	.054	.308	5.727	.000
	Introjected Motivation	.134	.043	.152	3.131	.002
	Parent Structure	.108	.043	.130	2.501	.013
	PASI	1.969E-02	.031	.034	.625	.532

a. Dependent Variable: Structured Activity Involvement

Hypothesis 2

Hypothesis 2 stated that initiative would negatively predict unstructured activity involvement. Introjected motivation was not hypothesized to have an effect on unstructured activity involvement. When testing Hypothesis 2, adolescent initiative, alone, was found to be negatively and significantly predictive of unstructured activity involvement (Table 4.20.2). Higher levels of initiative predicted lower levels of unstructured activity involvement (R^2=.037). The effect of initiative on unstructured activity involvement supports Hypothesis 2.

Table 4.20.1 Model Summary of Effects of Initiative, Introjected Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.026	.018	.9479	.026	3.283 (3,373)	.021
2[b]	.037	.027	.9436	.011	4.436 (1,372)	.036
3[c]	.037	.024	.9449	.000	.010 (1,371)	.921
4[d]	.038	.023	.9456	.001	.430 (1,370)	.512
5[e]	.041	.023	.9455	.003	1.030 (1,369)	.311

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Introjected Motivation, Parent Structure, PASI

Table 4.20.2 Effects of Initiative, Introjected Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.846	.099		28.715	.000
	School A	2.750E-02	.124	.013	.222	.824
	School B	-.209	.114	-.104	-1.836	.067
	Gender	.210	.100	.108	2.109	.036
2	(Constant)	3.440	.298		11.524	.000
	School A	-1.16E-02	.124	-.005	-.093	.926
	School B	-.241	.114	-.120	-2.109	.036
	Gender	.172	.101	.088	1.704	.089
	Initiative	-.156	.074	-.110	-2.106	.036
3	(Constant)	3.453	.329		10.493	.000
	School A	-1.09E-02	.125	-.005	-.087	.931
	School B	-.242	.115	-.121	-2.108	.036
	Gender	.171	.101	.088	1.695	.091
	Initiative	-.155	.074	-.110	-2.085	.038
	Introjected Motivation	-6.36E-03	.064	-.005	-.099	.921
4	(Constant)	3.379	.348		9.699	.000
	School A	-1.99E-02	.126	-.009	-.158	.874
	School B	-.248	.115	-.124	-2.148	.032
	Gender	.161	.102	.083	1.570	.117
	Initiative	-.168	.077	-.119	-2.182	.030
	Introjected Motivation	-1.50E-02	.065	-.012	-.229	.819
	Parent Structure	4.170E-02	.064	.036	.656	.512
5	(Constant)	3.455	.356		9.694	.000
	School A	-1.66E-02	.126	-.008	-.132	.895
	School B	-.246	.115	-.123	-2.135	.033
	Gender	.166	.102	.085	1.616	.107
	Initiative	-.138	.082	-.098	-1.677	.094
	Introjected Motivation	-1.51E-02	.065	-.012	-.231	.817
	Parent Structure	5.956E-02	.066	.051	.903	.367
	PASI	-4.88E-02	.048	-.059	-1.015	.311

a. Dependent Variable: Unstructured Activity Involvement

Hypothesis 3

Hypothesis 3 posits the effects of PASI, PS, and introjected motivation on initiative. Specific to these tests, Hypothesis 3 states that more externalized forms of motivation (i.e., introjected and external) would negatively and significantly predict initiative. Hypothesis 3 also stated that the effect of parent structure on initiative would be moderated by PASI. That is, the strength of parent structure to positively predict initiative would be enhanced by the presence of high PASI. Table 4.21.1 presents the model summary for the analyses.

As seen in Table 4.21.2, higher levels of PASI, and, to a lesser extent, PS predicted higher levels of initiative. These analyses do not support Hypothesis 3, because initiative was not predicted by introjected motivation. Furthermore, the addition of the interaction term did not account for the effect it was purported to have on initiative (Table 4.21.2). In other words, PASI does not moderate the influence of parent structure on initiative. Instead PASI and PS contribute together in the positive prediction of initiative (R^2=.238).

Table 4.21.1 Model Summary for the Effects of Introjected Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.057	.050	.6603	.057	7.555 (3,373)	.000
2[b]	.065	.055	.6583	.008	3.188 (1,372)	.075
3[c]	.127	.115	.6370	.062	26.340 (1,371)	.000
4[d]	.238	.226	.5959	.111	53.907 (1,370)	.000
5[e]	.238	.224	.5967	.000	.059 (1,369)	.808

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Introj. Motivation
c Predictors: (Constant), Gender, School A, School B, Introj. Motivation, Parent Structure
d Predictors: (Constant), Gender, School A, School B, Introj. Motivation, Parent Structure, PASI
e Predictors: (Constant), Gender, School A, School B, Introj. Motivation, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.21.2 Effects of Introjected Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.807	.069		55.137	.000
	School A	-.251	.086	-.163	-2.914	.004
	School B	-.206	.079	-.145	-2.600	.010
	Gender	-.245	.069	-.178	-3.539	.000
2	(Constant)	3.604	.133		27.112	.000
	School A	-.258	.086	-.167	-2.999	.003
	School B	-.194	.079	-.137	-2.440	.015
	Gender	-.237	.069	-.172	-3.418	.001
	Introjected Motivation	7.918E-02	.044	.090	1.785	.075
3	(Constant)	2.985	.176		16.943	.000
	School A	-.287	.083	-.186	-3.439	.001
	School B	-.209	.077	-.147	-2.718	.007
	Gender	-.275	.067	-.200	-4.072	.000
	Introjected Motivation	3.012E-02	.044	.034	.685	.494
	Parent Structure	.212	.041	.257	5.132	.000
4	(Constant)	2.279	.191		11.941	.000
	School A	-.264	.078	-.171	-3.386	.001
	School B	-.189	.072	-.133	-2.621	.009
	Gender	-.261	.063	-.190	-4.131	.000
	Introjected Motivation	2.692E-02	.041	.031	.654	.513
	Parent Structure	.109	.041	.132	2.655	.008
	PASI	.208	.028	.356	7.342	.000
5	(Constant)	2.177	.462		4.708	.000
	School A	-.265	.078	-.172	-3.388	.001
	School B	-.190	.072	-.134	-2.627	.009
	Gender	-.261	.063	-.190	-4.123	.000
	Introjected Motivation	2.609E-02	.041	.030	.631	.528
	Parent Structure	.140	.131	.169	1.068	.286
	PASI	.231	.098	.395	2.364	.019
	Interaction Term PASI x Parent Structure	-6.40E-03	.026	-.063	-.243	.808

a. Dependent Variable: Initiative

Hypothesis 4

Hypothesis 4 stated that parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specific to this analysis, Hypothesis 4 stated that the effect of parent structure on introjected motivation would be diminished in the presence of high PASI. To test this hypothesis, control, independent variables, and the interaction term of parent structure and PASI were entered hierarchically in the regression analysis. Table 4.22.1 displays the model summary for this set of analyses. The fourth block of analysis (Table 4.22.2), which includes the interaction of PASI and parent structure on intrinsic motivation, tests Hypothesis 4. Because this interaction is not significant, Hypothesis 4 cannot be accepted. In this model, introjected motivation is predicted by PS alone (R^2=.066).

Table 4.22.1 Model Summary for the Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Introjected Motivation while Controlling for School and Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.019	.012	.7686	.019	2.471 (3,373)	.062
2[b]	.066	.056	.7512	.046	18.460 (1, 372)	.000
3[c]	.066	.053	.7522	.000	.042 (1,371)	.838
4[d]	.072	.057	.7507	.006	2.520 (1,370)	.113

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Parent Structure
c Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI
d Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.22.2 Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Introjected Motivation while Controlling for School and Gender

Coefficients[a]

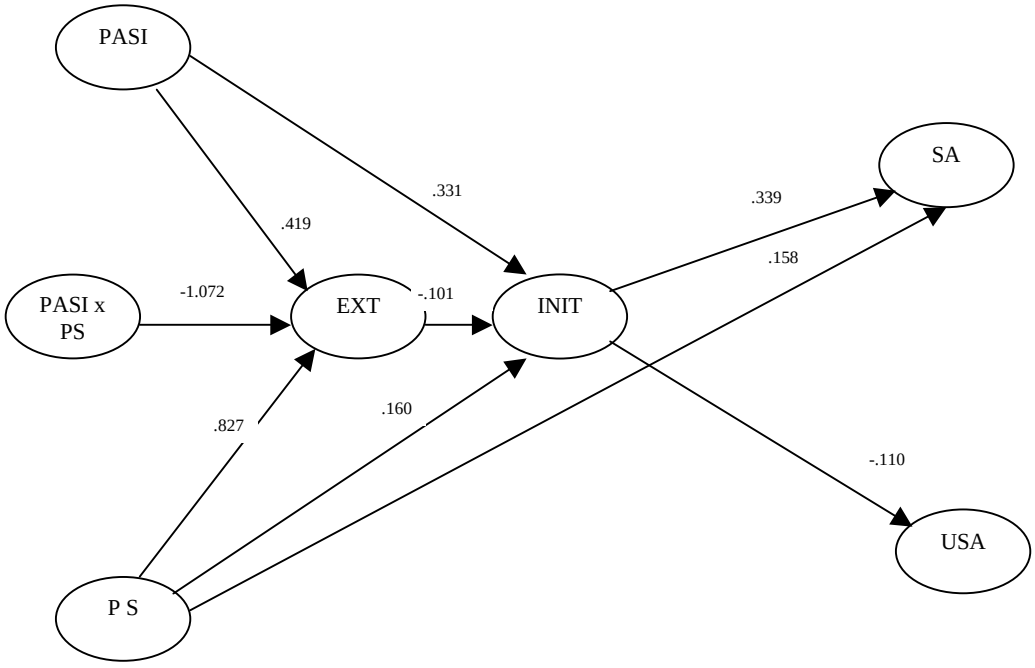
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.564	.080		31.900	.000
	School A	8.681E-02	.100	.049	.866	.387
	School B	-.157	.092	-.097	-1.705	.089
	Gender	-.108	.081	-.069	-1.333	.183
2	(Constant)	1.847	.184		10.014	.000
	School A	5.491E-02	.098	.031	.559	.577
	School B	-.165	.090	-.102	-1.824	.069
	Gender	-.139	.079	-.089	-1.754	.080
	Parent Structure	.205	.048	.217	4.296	.000
3	(Constant)	1.822	.222		8.222	.000
	School A	5.570E-02	.098	.032	.566	.572
	School B	-.164	.090	-.101	-1.812	.071
	Gender	-.138	.079	-.088	-1.745	.082
	Parent Structure	.201	.051	.213	3.948	.000
	PASI	7.311E-03	.036	.011	.205	.838
4	(Constant)	.972	.579		1.677	.094
	School A	4.943E-02	.098	.028	.503	.615
	School B	-.171	.090	-.106	-1.893	.059
	Gender	-.136	.079	-.087	-1.720	.086
	Parent Structure	.447	.163	.473	2.743	.006
	PASI	.193	.122	.290	1.578	.115
	Interaction Term PASI x Parent Structure	-5.23E-02	.033	-.449	-1.587	.113

a. Dependent Variable: Introjected Motivation

External Motivation

Figure 4.23 presents the final results for the path diagram that models the effect of parent variables, external motivation, and initiative on structured or unstructured activity participation. Tables 4.23.1 through 4.26.2 provide the results of this series of regression analyses, and are discussed in relation to the tests of hypotheses.

Figure 4.23:
General Model of Activity Involvement with Adolescent External Motivation



Overall, initiative (β=.339, p <.001), and PS (β=.158, p = .002) positively predicted structured activity involvement. The Adjusted R-square for structured activity was .157. Unstructured activity was negatively predicted by initiative (β= -.110, p = .036). Initiative explains 2.7% of the variance in unstructured activity involvement. Initiative was regressed on PASI, PS, and external motivation, and is positively predicted by PASI and PS (β= .331, p < .001; β= .160, p = .001, respectively), and negatively predicted by external motivation (β= -.101, p = .033). These variables combine to explain 23.4% of the variance in initiative. External motivation is predicted by the interaction of PASI and

PS, PASI and PS (β=-1.072, p < .001, β= .419, p = .020, β= .827, p < .001, respectively) with an adjusted R^2 of .102.

Hypothesis 1

Specific to this test, Hypothesis 1 stated that external motivation would negatively predict structured activity involvement, while initiative would positively predict structured activity involvement. Table 4.23.1 presents the model summary for the five models entered for hypothesis testing for structured activity participation. According to analyses, adolescent initiative and parent structure positively and significantly predicted structured activity involvement (R^2= .170). This means that higher levels of adolescent initiative, and, to a lesser extent, parent structure predicted higher levels of structured activity involvement by adolescents. The effect of initiative on structured activity involvement is consistent with Hypothesis 1. External motivation had no bearing on structured activity involvement, which is contrary to Hypothesis 1. Hypothesis 1 is rejected on the basis of this latter finding.

Table 4.23.1 Model Summary of Effects of Initiative, External Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.008	.000	.6806	.008	1.056 (3,373)	.368
2[b]	.139	.130	.6350	.131	56.502 (1,372)	.000
3[c]	.148	.136	.6326	.009	3.769 (1,371)	.053
4[d]	.170	.157	.6251	.022	9.930 (1,370)	.002
5[e]	.172	.156	.6253	.002	.783 (1,369)	.377

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation, Parent Structure, PASI

Table 4.23.2 Effects of Initiative, External Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.071		17.576	.000
	School A	5.561E-02	.089	.036	.627	.531
	School B	3.776E-02	.082	.026	.462	.645
	Gender	-.117	.071	-.085	-1.636	.103
2	(Constant)	-.174	.201		-.867	.387
	School A	.150	.084	.096	1.785	.075
	School B	.115	.077	.081	1.493	.136
	Gender	-2.51E-02	.068	-.018	-.370	.711
	Initiative	.374	.050	.372	7.517	.000
3	(Constant)	-.413	.235		-1.758	.080
	School A	.147	.083	.095	1.767	.078
	School B	.129	.077	.091	1.680	.094
	Gender	-1.51E-02	.068	-.011	-.222	.824
	Initiative	.388	.050	.386	7.745	.000
	External Motivation	9.162E-02	.047	.095	1.941	.053
4	(Constant)	-.642	.243		-2.639	.009
	School A	.116	.083	.075	1.402	.162
	School B	.112	.076	.078	1.464	.144
	Gender	-4.87E-02	.068	-.035	-.719	.473
	Initiative	.340	.052	.339	6.573	.000
	External Motivation	6.683E-02	.047	.069	1.413	.158
	Parent Structure	.132	.042	.158	3.151	.002
5	(Constant)	-.704	.253		-2.780	.006
	School A	.115	.083	.074	1.379	.169
	School B	.112	.076	.079	1.470	.142
	Gender	-5.05E-02	.068	-.037	-.745	.457
	Initiative	.325	.055	.323	5.916	.000
	External Motivation	7.459E-02	.048	.077	1.550	.122
	Parent Structure	.120	.044	.144	2.741	.006
	PASI	2.862E-02	.032	.049	.885	.377

a. Dependent Variable: Structured Activity Involvement

Hypothesis 2

Hypothesis 2 stated that initiative would negatively predict unstructured activity involvement. External motivation was not hypothesized to have an effect on unstructured activity involvement. When testing Hypothesis 2, adolescent initiative, alone, was found to be negatively and significantly predictive of unstructured activity involvement (Table 4.24.2). Higher levels of initiative predicted lower levels of unstructured activity involvement (R^2=.037). The effect of initiative on unstructured activity involvement supports Hypothesis 2.

Table 4.24.1 Model Summary of Effects of Initiative, External Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.026	.018	.9479	.026	3.283 (3,373)	.021
2[b]	.037	.027	.9436	.011	4.436 (1,372)	.036
3[c]	.040	.027	.9434	.003	1.178 (1,371)	.278
4[d]	.041	.025	.9444	.001	.202 (1,370)	.654
5[e]	.043	.024	.9447	.002	.720 (1,369)	.397

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation
d Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, External Motivation, Parent Structure, PASI

Table 4.24.2 Effects of Initiative External Motivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.846	.099		28.715	.000
	School A	2.750E-02	.124	.013	.222	.824
	School B	-.209	.114	-.104	-1.836	.067
	Gender	.210	.100	.108	2.109	.036
2	(Constant)	3.440	.298		11.524	.000
	School A	-1.16E-02	.124	-.005	-.093	.926
	School B	-.241	.114	-.120	-2.109	.036
	Gender	.172	.101	.088	1.704	.089
	Initiative	-.156	.074	-.110	-2.106	.036
3	(Constant)	3.240	.350		9.253	.000
	School A	-1.34E-02	.124	-.006	-.107	.914
	School B	-.229	.115	-.114	-1.994	.047
	Gender	.180	.101	.093	1.783	.075
	Initiative	-.144	.075	-.102	-1.930	.054
	External Motivation	7.639E-02	.070	.056	1.086	.278
4	(Constant)	3.191	.367		8.687	.000
	School A	-2.00E-02	.125	-.009	-.160	.873
	School B	-.233	.115	-.116	-2.020	.044
	Gender	.173	.102	.089	1.688	.092
	Initiative	-.155	.078	-.109	-1.975	.049
	External Motivation	7.105E-02	.071	.052	.995	.321
	Parent Structure	2.834E-02	.063	.024	.449	.654
5	(Constant)	3.282	.383		8.575	.000
	School A	-1.74E-02	.126	-.008	-.138	.890
	School B	-.234	.115	-.117	-2.025	.044
	Gender	.175	.102	.090	1.712	.088
	Initiative	-.131	.083	-.093	-1.586	.114
	External Motivation	5.980E-02	.073	.044	.823	.411
	Parent Structure	4.513E-02	.066	.039	.682	.496
	PASI	-4.15E-02	.049	-.050	-.848	.397

a. Dependent Variable: Unstructured Activity Involvement

Hypothesis 3

Hypothesis 3 identifies the effects of PASI, PS, and external motivation on initiative. Specific to these tests, Hypothesis 3 states that more externalized forms of motivation (i.e., introjected and external) would negatively and significantly predict initiative. Hypothesis 3 also stated that the effect of parent structure on initiative would be moderated by PASI. That is, the strength of parent structure to positively predict initiative would be enhanced by the presence of high PASI. Table 4.25.1 presents the model summary for the analyses.

As seen in Table 4.25.2, higher levels of PASI, and, to a lesser extent, PS predicted higher levels of initiative, while external motivation is negatively predictive of initiative (R^2=.247). The addition of the interaction term did not account for the effect it was purported to have on initiative (Table 4.25.2). In other words, PASI does not moderate the influence of parent structure on initiative. Based on these findings, Hypothesis 3 is not fully supported and cannot be accepted.

Table 4.25.1 Model Summary for the Effects of External Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.057	.050	.6603	.057	7.555 (3,373)	.000
2[b]	.077	.067	.6543	.019	7.786 (1,372)	.006
3[c]	.156	.144	.6266	.079	34.721 (1,371)	.000
4[d]	.247	.234	.5926	.091	44.730 (1,370)	.000
5[e]	.248	.234	.5930	.001	.542 (1,369)	.462

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, External Motivation
c Predictors: (Constant), Gender, School A, School B, External Motivation, Parent Structure
d Predictors: (Constant), Gender, School A, School B, External Motivation, Parent Structure, PASI
e Predictors: (Constant), Gender, School A, School B, External Motivation, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.25.2 Model Summary for the Effects of External Motivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.807	.069		55.137	.000
	School A	-.251	.086	-.163	-2.914	.004
	School B	-.206	.079	-.145	-2.600	.010
	Gender	-.245	.069	-.178	-3.539	.000
2	(Constant)	4.080	.119		34.159	.000
	School A	-.243	.085	-.157	-2.842	.005
	School B	-.223	.079	-.158	-2.832	.005
	Gender	-.255	.069	-.186	-3.708	.000
	External Motivation	-.135	.048	-.140	-2.790	.006
3	(Constant)	3.320	.172		19.271	.000
	School A	-.277	.082	-.180	-3.384	.001
	School B	-.236	.076	-.166	-3.121	.002
	Gender	-.294	.066	-.214	-4.435	.000
	External Motivation	-.168	.047	-.174	-3.599	.000
	Parent Structure	.236	.040	.285	5.892	.000
4	(Constant)	2.539	.200		12.665	.000
	School A	-.260	.078	-.168	-3.350	.001
	School B	-.207	.072	-.146	-2.894	.004
	Gender	-.274	.063	-.199	-4.372	.000
	External Motivation	-9.71E-02	.045	-.101	-2.142	.033
	Parent Structure	.132	.041	.160	3.225	.001
	PASI	.194	.029	.331	6.688	.000
5	(Constant)	2.236	.458		4.884	.000
	School A	-.262	.078	-.170	-3.373	.001
	School B	-.211	.072	-.149	-2.937	.004
	Gender	-.274	.063	-.199	-4.366	.000
	External Motivation	-.104	.046	-.108	-2.244	.025
	Parent Structure	.225	.133	.272	1.694	.091
	PASI	.262	.097	.449	2.692	.007
	Interaction Term PASI x Parent Structure	-1.95E-02	.027	-.192	-.736	.462

a. Dependent Variable: Initiative

Hypothesis 4

Hypothesis 4 stated that parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specific to this analysis, Hypothesis 4 stated that the effect of parent structure on external motivation would be diminished in the presence of high PASI. To test this hypothesis, control, independent variables, and the interaction term of parent structure and PASI were entered hierarchically in the regression analysis. Table 4.26.1 displays the model summary for this set of analyses. The fourth block of analysis (Table 4.26.2), which includes the interaction of PASI and parent structure on intrinsic motivation tests Hypothesis 4. Consistent with Hypothesis 1, high PASI did diminish the effect of high structure. External motivation was highest when parent structure was high and PASI was low (see Figure 4.26). Youth whose parent provided high PASI were consistently stable in levels of extrinsic motivation across level of parent structure. Compared to high structure with low PASI, external motivation dropped .72 points when high structure was in the presence of high PASI. This represents a 27.2 percent drop in external motivation. Based on these findings, Hypothesis 4 is supported.

Table 4.26.1 Model Summary for Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on External Motivation while Controlling for School and Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.013	.006	.7013	.013	1.698 (3,373)	.167
2[b]	.028	.017	.6972	.014	5.418 (1,372)	.020
3[c]	.080	.068	.6789	.053	21.305 (1,371)	.000
4[d]	.116	.102	.6664	.036	15.050 (1,370)	.000

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Parent Structure
c Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI
d Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.26.2 Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on External Motivation while Controlling for School and Gender

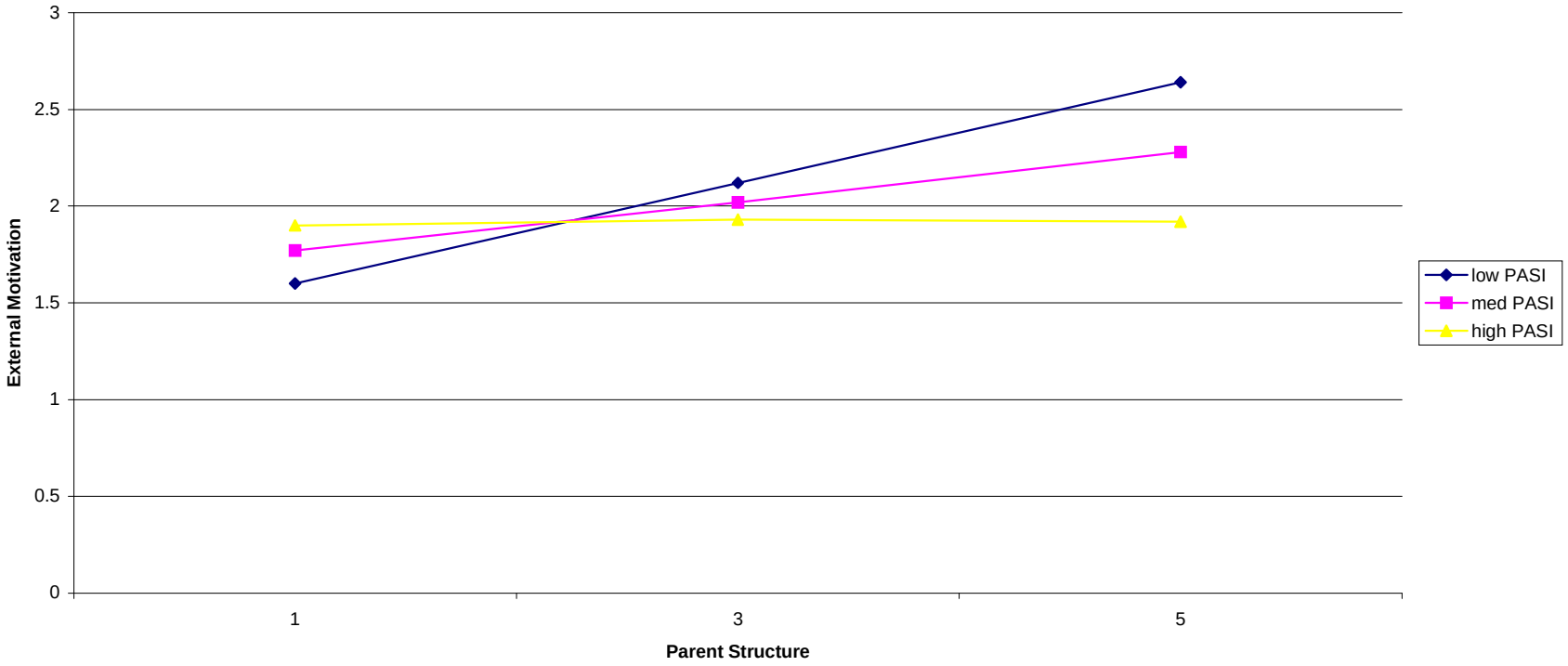
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.027	.073		27.634	.000
	School A	6.128E-02	.091	.038	.670	.503
	School B	-.127	.084	-.086	-1.503	.134
	Gender	-7.22E-02	.074	-.051	-.981	.327
2	(Constant)	1.666	.171		9.733	.000
	School A	4.524E-02	.091	.028	.496	.620
	School B	-.130	.084	-.089	-1.555	.121
	Gender	-8.80E-02	.074	-.062	-1.197	.232
	Parent Structure	.103	.044	.120	2.328	.020
3	(Constant)	2.176	.200		10.881	.000
	School A	2.931E-02	.089	.018	.330	.742
	School B	-.145	.082	-.099	-1.779	.076
	Gender	-9.82E-02	.072	-.069	-1.372	.171
	Parent Structure	.177	.046	.206	3.855	.000
	PASI	-.149	.032	-.245	-4.616	.000
4	(Constant)	.332	.514		.645	.519
	School A	1.572E-02	.087	.010	.180	.857
	School B	-.161	.080	-.109	-2.005	.046
	Gender	-9.34E-02	.070	-.065	-1.329	.185
	Parent Structure	.710	.145	.827	4.912	.000
	PASI	.254	.109	.419	2.340	.020
	Interaction Term PASI x Parent Structure	-.113	.029	-1.072	-3.879	.000

a. Dependent Variable: External Motivation

Figure 4.26 demonstrates the effect of the interaction of parent structure and PASI on external motivation.

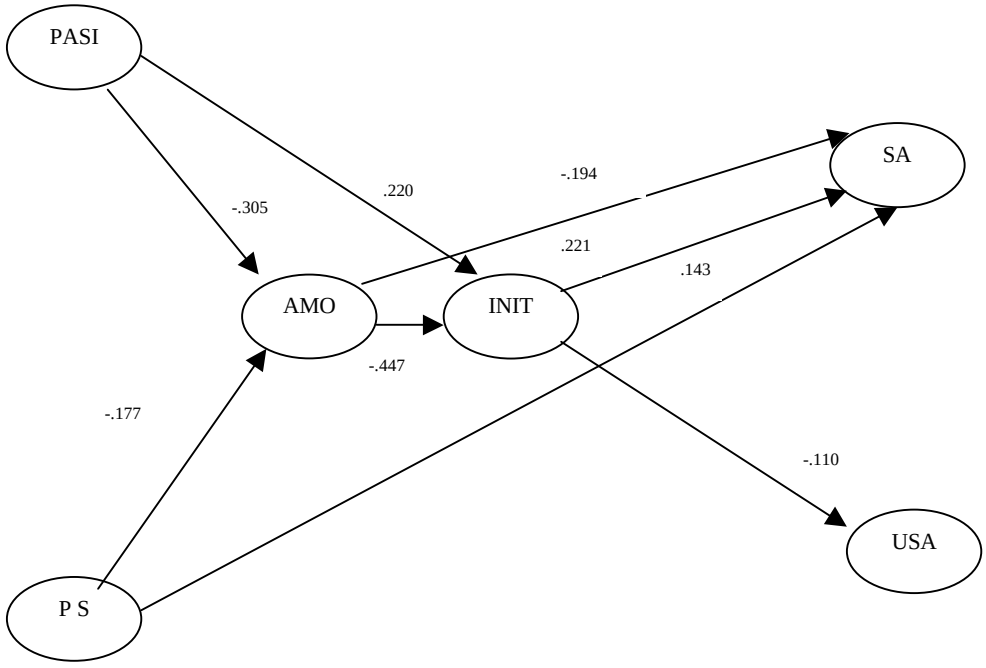
Figure 4.26: The Interactive Effect of Parent Structure and Parent Autonomy Support and Involvement on External Motivation



Amotivation

Figure 4.27 presents the final results for the path diagram that models the effect of parent variables, amotivation, and initiative on structured or unstructured activity participation. Tables 4.27.1 through 4.30.2 provide the results of this series of regression analyses, and are discussed in relation to the tests of hypotheses.

Figure 4.27:
General Model of Activity Involvement with Adolescent Amotivation



Overall, structured activity was positively predicted by initiative (β=.221, p <.001), and PS (β=.158, p = .004), and negatively predicted by amotivation (β=-.194, p =.001) The Adjusted R-square for structured activity was .178. Unstructured activity was negatively predicted by initiative (β= -.110, p = .036). Initiative explains 2.7% of the variance in unstructured activity involvement. Initiative was regressed on PASI, PS, and amotivation, and is positively predicted by PASI (β= .220, p < .001) and negatively predicted by amotivation (β= -.447, p < .001). These variables combine to explain

39.5% of the variance in initiative. PASI and PS (β=-.305, p < .001, β= -.177, p = .001, respectively) negatively predicted amotivation with an adjusted R^2 of .153.

Hypothesis 1

Specific to this test, Hypothesis 1 stated that amotivation would negatively predict structured activity involvement, while initiative would positively predict structured activity involvement. Table 4.27.1 presents the model summary for the five models entered for hypothesis testing for structured activity participation. According to analyses, adolescent initiative and parent structure positively and significantly predicted structured activity involvement. This means that higher levels of adolescent initiative, and, to a lesser extent, parent structure predicted higher levels of structured activity involvement by adolescents. In keeping with Hypothesis 1, amotivation was negatively predictive of structured activity involvement. R^2 for effect of the three predictor variables on structured activity involvement was .191. Based on these findings, Hypothesis 1 is supported.

Table 4.27.1 Model Summary of Effects of Initiative, Amotivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.008	.000	.6806	.008	1.056 (3,373)	.368
2[b]	.139	.130	.6350	.131	56.502 (1,372)	.000
3[c]	.173	.161	.6233	.033	14.989 (1, 371)	.000
4[d]	.191	.178	.6173	.018	8.253 (1,370)	.004
5[e]	.191	.175	.6182	.000	.022 (1,369)	.883

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation, Parent Structure, PASI

Table 4.27.2 Effects of Initiative, Amotivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Structured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.071		17.576	.000
	School A	5.561E-02	.089	.036	.627	.531
	School B	3.776E-02	.082	.026	.462	.645
	Gender	-.117	.071	-.085	-1.636	.103
2	(Constant)	-.174	.201		-.867	.387
	School A	.150	.084	.096	1.785	.075
	School B	.115	.077	.081	1.493	.136
	Gender	-2.51E-02	.068	-.018	-.370	.711
	Initiative	.374	.050	.372	7.517	.000
3	(Constant)	.716	.303		2.363	.019
	School A	.110	.083	.071	1.325	.186
	School B	.100	.076	.070	1.327	.185
	Gender	-4.86E-02	.067	-.035	-.727	.468
	Initiative	.246	.059	.245	4.173	.000
	Amotivation	-.184	.048	-.221	-3.872	.000
4	(Constant)	.342	.327		1.047	.296
	School A	8.629E-02	.082	.056	1.046	.296
	School B	8.987E-02	.075	.063	1.198	.232
	Gender	-7.35E-02	.067	-.053	-1.102	.271
	Initiative	.222	.059	.221	3.768	.000
	Amotivation	-.162	.048	-.194	-3.383	.001
	Parent Structure	.118	.041	.143	2.873	.004
5	(Constant)	.330	.338		.976	.330
	School A	8.616E-02	.083	.056	1.043	.297
	School B	8.980E-02	.075	.063	1.195	.233
	Gender	-7.39E-02	.067	-.053	-1.105	.270
	Initiative	.220	.061	.219	3.610	.000
	Amotivation	-.161	.048	-.193	-3.324	.001
	Parent Structure	.117	.043	.141	2.742	.006
	PASI	4.667E-03	.032	.008	.147	.883

a. Dependent Variable: Structured Activity Involvement

Hypothesis 2

Hypothesis 2 stated that initiative would negatively predict unstructured activity involvement. Amotivation was not hypothesized to have an effect on unstructured activity involvement. When testing Hypothesis 2, adolescent initiative, alone, was found to be negatively and significantly predictive of unstructured activity involvement (Table 4.28.2). Higher levels of initiative predicted lower levels of unstructured activity involvement (R^2=.037). The effect of initiative on unstructured activity involvement supports Hypothesis 2.

Table 4.28.1 Effects of Initiative, Amotivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.026	.018	.9479	.026	3.283 (3,373)	.021
2[b]	.037	.027	.9436	.011	4.436 (1,372)	.036
3[c]	.042	.030	.9423	.005	2.020 (1,371)	.156
4[d]	.044	.029	.9426	.002	.758 (1,370)	.385
5[e]	.046	.028	.9431	.002	.654 (1,369)	.419

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Initiative
c Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation
d Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation, Parent Structure
e Predictors: (Constant), Gender, School A, School B, Initiative, Amotivation, Parent Structure, PASI

Table 4.28.2 Regression Coefficients for the Effects of Initiative, Amotivation, Parent Structure, and Parent Autonomy Support and Involvement (PASI) on Unstructured Activity Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.846	.099		28.715	.000
	School A	2.750E-02	.124	.013	.222	.824
	School B	-.209	.114	-.104	-1.836	.067
	Gender	.210	.100	.108	2.109	.036
2	(Constant)	3.440	.298		11.524	.000
	School A	-1.16E-02	.124	-.005	-.093	.926
	School B	-.241	.114	-.120	-2.109	.036
	Gender	.172	.101	.088	1.704	.089
	Initiative	-.156	.074	-.110	-2.106	.036
3	(Constant)	2.946	.458		6.436	.000
	School A	1.044E-02	.125	.005	.083	.934
	School B	-.233	.114	-.116	-2.039	.042
	Gender	.185	.101	.095	1.828	.068
	Initiative	-8.48E-02	.089	-.060	-.951	.342
	Amotivation	.102	.072	.087	1.421	.156
4	(Constant)	2.773	.499		5.557	.000
	School A	-4.41E-04	.126	.000	-.004	.997
	School B	-.238	.115	-.119	-2.078	.038
	Gender	.173	.102	.089	1.699	.090
	Initiative	-9.59E-02	.090	-.068	-1.063	.288
	Amotivation	.113	.073	.096	1.545	.123
	Parent Structure	5.480E-02	.063	.047	.870	.385
5	(Constant)	2.877	.516		5.580	.000
	School A	6.773E-04	.126	.000	.005	.996
	School B	-.237	.115	-.119	-2.071	.039
	Gender	.176	.102	.091	1.728	.085
	Initiative	-7.73E-02	.093	-.055	-.831	.407
	Amotivation	.104	.074	.089	1.415	.158
	Parent Structure	6.792E-02	.065	.058	1.044	.297
	PASI	-3.92E-02	.048	-.047	-.809	.419

a. Dependent Variable: Unstructured Activity Involvement

Hypothesis 3

Hypothesis 3 identifies the effects of PASI, PS, and amotivation on initiative. Specific to these tests, Hypothesis 3 states that amotivation would negatively and significantly predict initiative. Hypothesis 3 also stated that the effect of parent structure on initiative would be moderated by PASI. That is, the strength of parent structure to positively predict initiative would be enhanced by the presence of high PASI. Table 4.29.1 presents the model summary for the analyses.

As seen in Table 4.29.2, PASI was positively predictive of initiative, while amotivation was negatively predictive of initiative (R^2=.405). The addition of the interaction term did not account for the effect it was purported to have on initiative (Table 4.29.2). In other words, PASI does not moderate the influence of parent structure on initiative. Based on these findings, Hypothesis 3 is not fully supported and cannot be accepted.

Table 4.29.1 Model Summary for the Effects of Amotivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1[a]	.057	.050	.6603	.057	7.555 (3,373)	.000
2[b]	.353	.346	.5477	.296	170.167 (1,372)	.000
3[c]	.366	.357	.5429	.013	7.500 (1,371)	.006
4[d]	.405	.395	.5269	.039	23.930 (1,370)	.000
5[e]	.406	.395	.5270	.001	.860 (1,369)	.354

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Amotivation
c Predictors: (Constant), Gender, School A, School B, Amotivation, Parent Structure
d Predictors: (Constant), Gender, School A, School B, Amotivation, Parent Structure, PASI
e Predictors: (Constant), Gender, School A, School B, Amotivation, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.29.2 Effects of Amotivation, Parent Structure, Parent Autonomy Support and Involvement (PASI), and the Interaction of Parent Structure and PASI on Initiative while Controlling for Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.807	.069		55.137	.000
	School A	-.251	.086	-.163	-2.914	.004
	School B	-.206	.079	-.145	-2.600	.010
	Gender	-.245	.069	-.178	-3.539	.000
2	(Constant)	4.793	.095		50.524	.000
	School A	-.270	.071	-.175	-3.773	.000
	School B	-.177	.066	-.125	-2.691	.007
	Gender	-.226	.058	-.164	-3.927	.000
	Amotivation	-.452	.035	-.545	-13.045	.000
3	(Constant)	4.389	.175		25.045	.000
	School A	-.284	.071	-.184	-3.995	.000
	School B	-.182	.065	-.129	-2.793	.005
	Gender	-.242	.057	-.176	-4.223	.000
	Amotivation	-.424	.036	-.511	-11.847	.000
	Parent Structure	9.833E-02	.036	.119	2.739	.006
4	(Constant)	3.780	.211		17.942	.000
	School A	-.270	.069	-.175	-3.917	.000
	School B	-.173	.063	-.122	-2.736	.007
	Gender	-.238	.056	-.173	-4.275	.000
	Amotivation	-.371	.036	-.447	-10.191	.000
	Parent Structure	4.938E-02	.036	.060	1.362	.174
	PASI	.128	.026	.220	4.892	.000
5	(Constant)	3.439	.424		8.103	.000
	School A	-.273	.069	-.177	-3.951	.000
	School B	-.176	.063	-.124	-2.778	.006
	Gender	-.237	.056	-.172	-4.254	.000
	Amotivation	-.373	.036	-.450	-10.225	.000
	Parent Structure	.150	.114	.181	1.311	.191
	PASI	.204	.086	.349	2.376	.018
	Interaction Term PASI x Parent Structure	-2.15E-02	.023	-.211	-.927	.354

a. Dependent Variable: Initiative

Hypothesis 4

Hypothesis 4 stated that parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specific to this analysis, Hypothesis 4 stated that the effect of parent structure on amotivation would be diminished in the presence of high PASI. To test this hypothesis, control, independent variables, and the interaction term of parent structure and PASI were entered hierarchically in the regression analysis. Table 4.30.1 displays the model summary for this set of analyses. The fourth block of analysis (Table 4.30.2), which includes the interaction of PASI and parent structure on intrinsic motivation tests Hypothesis 4. Because this interaction is not significant, Hypothesis 4 cannot be accepted. In this model, PASI and PS negatively predicted amotivation (R^2=.165).

Table 4.30.1 Model Summary for Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Amotivation while Controlling for School and Gender

Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change (df)	Sig. F Change
1	.003	-.005	.8189	.003	.389 (3,373)	.761
2	.083	.073	.7865	.080	32.339 (1,372)	.000
3	.165	.153	.7517	.082	36.284 (1,371)	.000
4	.167	.154	.7514	.003	1.245 (1,370)	.265

a Predictors: (Constant), Gender, School A, School B
b Predictors: (Constant), Gender, School A, School B, Parent Structure
c Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI
d Predictors: (Constant), Gender, School A, School B, Parent Structure, PASI, Interaction Term PASI x Parent Structure

Table 4.30.2 Effects of Parent Autonomy Support and Involvement (PASI) and Parent Structure on Amotivation while Controlling for School and Gender

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.184	.086		25.511	.000
	School A	-4.13E-02	.107	-.022	-.386	.699
	School B	6.442E-02	.098	.038	.655	.513
	Gender	4.310E-02	.086	.026	.501	.616
2	(Constant)	3.178	.193		16.458	.000
	School A	2.948E-03	.103	.002	.029	.977
	School B	7.440E-02	.095	.044	.787	.432
	Gender	8.651E-02	.083	.052	1.043	.298
	Parent Structure	-.284	.050	-.284	-5.687	.000
3	(Constant)	3.915	.221		17.681	.000
	School A	-2.01E-02	.098	-.011	-.204	.838
	School B	5.280E-02	.090	.031	.584	.560
	Gender	7.167E-02	.079	.043	.904	.367
	Parent Structure	-.176	.051	-.177	-3.465	.001
	PASI	-.215	.036	-.305	-6.024	.000
4	(Constant)	3.317	.580		5.719	.000
	School A	-2.45E-02	.098	-.013	-.249	.804
	School B	4.772E-02	.090	.028	.527	.598
	Gender	7.323E-02	.079	.044	.924	.356
	Parent Structure	-3.58E-03	.163	-.004	-.022	.982
	PASI	-8.45E-02	.122	-.120	-.689	.491
	Interaction Term PASI x Parent Structure	-3.68E-02	.033	-.299	-1.116	.265

a. Dependent Variable: Amotivation

Summary of Hypothesis Testing

A summary of hypothesis testing is presented here to capture the results across motivation type and unify these results within each specific hypothesis. Each hypothesis is restated and followed by a brief summary of the results with conclusions for each hypothesis. Tables 4.31 and 4.32 provide the summary statistics for all five models tested, and will serve as reference for this summary.

Hypothesis 1: Initiative and internalized forms (intrinsic and identified) of motivation will positively predict structured activity involvement, while externalized forms of motivation (introjected, external) and amotivation will negatively predict structured activity involvement.

Across all motivation types, initiative positively predicted structured activity involvement (see Table 4.31). When coupled with intrinsic, identified, and introjected forms of motivation, initiative had an influence equal to or slightly stronger to these forms of motivation (comparing unstandardized weights within models). When coupled with introjected motivation, the effect of initiative on participating in structured activities was almost three times stronger than the effect of introjected motivation. Initiative eclipsed the effect of external motivation on structured activity participation. Each model accounted anywhere between 15.7 and 19.8 percent of the variance in structured activity involvement, with the effects of identified motivation, and PS accounting for the greatest amount of variance associated with structured activity involvement.

Similar to initiative, internalized forms of motivation positively predicted structured activity involvement. Contrary to this hypothesis, introjected motivation also positively predicted structured activity involvement, but had the weakest effect across models (b = .134), and within models, the strength of initiative was far greater in the predictive model that included introjected motivation and parent structure. Higher levels of initiative, internalized motivation, and introjected motivation were all predictive of higher levels of structured activity involvement. In opposition with the stated hypothesis, external

motivation was not predictive of structured activity involvement. In keeping with Hypothesis 1, amotivation was negatively predictive of structured activity involvement. Finally, higher levels of amotivation meant lower levels of structured activity involvement. Based on the sum of these findings, Hypothesis 1 is largely, but not totally supported. The effects of introjected and external motivation on structured activity involvement are different from Hypothesis 1, and do not allow full acceptance of this hypothesis.

Hypothesis 2: Internalized forms of motivation will positively predict unstructured activity involvement, while initiative will negatively predict unstructured activity involvement.

The effects of internalized motivation on unstructured activity involvement were mixed based on the degree of internalization (see Table 32). Intrinsic motivation, the most internalized form of motivation, was the only motivation variable to predict unstructured activity involvement. Initiative was found to be consistently and negatively predictive of unstructured activity involvement. It appears that intrinsic motivation is a stronger force than lack of initiative in predicting participation in unstructured activities (β = .254 versus β = -171). Based on these findings, Hypothesis 2 was largely supported with the one caveat being the effect of identified motivation on unstructured activity involvement.

Unstructured activity involvement was best predicted by the effects of intrinsic motivation, initiative, and PASI; accounting for 7.4% of the variance in unstructured activity involvement. All other models predicted only 2.7% of the variance in unstructured activity involvement, which is essentially using initiative as the lone predictor of unstructured activity involvement.

Table 4.31: Tests of Hypotheses 1 and 2 with the Strength of Predictive Variables on the Stated Dependent Variable

	Intrinsic Motivation		Identified Motivation		Introjected Motivation		External Motivation		Amotivation	
Hypothesis 1 Supported? Structured Activity Involvement (DV)	**Yes**		**Yes**		**No**		**No**		**Yes**	
Predictor Variables:	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**
Initiative	.250	.248	.243	.241	.321	.320	.340	.339	.222	.221
Adolescent Motivation	.258	.207	.240	.245	.134	.152	-	-	-.162	-.194
Parent Structure	.127	.153	.091	.109	.115	.139	.132	.158	.118	.143
PASI	-	-	-	-	-	-	-	-	-	-
Adjusted R^2	.188		.198		.174		.157		.178	
Hypothesis 2 Supported? Unstructured Activity Involvement (DV)	**Yes**		**No**		**Yes**		**Yes**		**Yes**	
Predictor Variables	**B**	**β**	**B**	**β**	**B**	**β**	**b**	**β**	**b**	**β**
Initiative	-.242	-.171	-.198	-.140	-.156	-.110	-.156	-.110	-.156	-.110
Adolescent Motivation	.446	.254	-	-	-	-	-	-	-	-
Autonomy Support	-.099	-.120	-	-	-	-	-	-	-	-
Parent Structure	-	-	-	-	-	-	-	-	-	-
PASI	-	-	-	-	-	-	-	-	-	-
Adjusted R^2	.074		.027		.027		.027		.027	

[a] Regression coefficients and Adjusted R^2 reflect the inclusion of the control variables, gender and school.

Hypothesis 3: Adolescent motivation, PASI and PS predict adolescent initiative. Specifically, more internalized forms of motivation positively predict initiative, while externalized forms of motivation and amotivation negatively predict adolescent initiative. Parents affect initiative, because PASI moderates the effect of PS on initiative. Specifically, parenting that was high in structure would more strongly predict initiative if PASI was also high.

The five motivation variables acted nearly as hypothesized on the dependent variable, initiative. The one exception for this group was introjected motivation, which was not predictive of initiative. Higher levels of intrinsic and identified motivation predicted higher levels of initiative, while higher levels of external motivation and amotivation were linked to lower levels of initiative.

In all five models, the interaction of PASI and PS had no significant bearing on the prediction of initiative. However, PASI and PS each had individual contributions to the prediction of initiative based on motivation type. Across all models, PASI positively predicted initiative, in particular in the introjected and external motivation models. When the motivation variable was intrinsic or identified motivation, PASI's contribution to the prediction of initiative was nearly equal to that of the motivation variable. When the motivation variable was introjected or external motivation, PASI contributed more to the prediction of initiative than any variable in analysis for the specific motivation type. PASI's contribution was about half of the negative effect of amotivation on predicting initiative. PS was a weak, but positive predictor of initiative when intrinsic, introjected, or external motivation was entered as the motivation variable. When examining all variables, amotivation was the strongest predictor of initiative (having a negative influence), and in combination with PASI, predicted nearly 40% of the variance associated with initiative. All other models accounted for 22.6% and 28.8% of the variance associated with initiative.

Based on the results, support for Hypothesis 3 was mixed and cannot be concluded with support. The motivation variables acted much as expected, however, the interaction of PASI and PS did not demonstrate their posited effects.

Hypothesis 4: Parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specifically, parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent autonomy support and involvement was also high. Conversely, the effect of PS on more externalized (introjected and external) forms of motivation and amotivation would be diminished in the presence of high PASI.

Hypothesis 4 was largely unsupported. Overall, the effects of PASI and PS varied depending on motivation type. PASI solely and positively predicted intrinsic motivation (Adj. R^2=.145). Identified motivation was influenced nearly equally by PASI and PS (Adj. R^2=.184) and introjected motivation was predicted only by PS (Adj. R^2= .056). External motivation was the only form of motivation to be affected by the interaction of PASI and PS as hypothesized (Adj. R^2=.102). High PASI diminished the effect of high PASI on external motivation. High PS in the absence or presence of low PASI yielded the highest levels of external motivation. Finally, both PASI and PS negatively and nearly equally predicted amotivation (Adj. R2=.153). Table 32 presents the summary statistics for Hypotheses 3 and 4.

Table 4.32: Tests of Hypotheses 3 and 4 with the Strength of Predictive Variables on the Stated Dependent Variable[a]

	Intrinsic Motivation		Identified Motivation		Introjected Motivation		External Motivation		Amotivation	
Hypothesis 3 Supported? Initiative (DV)	**No**		**No**		**No**		**No**		**No**	
Predictor Variables:	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**
Adolescent Motivation	.322	.259	.237	.278	-	-	-.097	-.101	-.371	-.447
Parent Structure	.102	.123	-	-	.109	.132	.132	.160	-	-
PASI	.156	.267	.168	.288	.208	.356	.194	.331	.128	.220
PASI x Parent Structure	-	-	-	-	-	-	-	-	-	-
Adjusted R^2	.283		.288		.226		.234		.395	
Hypothesis 4 Supported? Adolescent Motivation (DV)	**No**		**No**		**No**		**Yes**		**No**	
Predictor Variables	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**	**b**	**β**
Parent Structure	-	-	.245	.253	-	-	.710	.827	-.176	-.177
PASI	.161	.342	.168	.245	.205	.217	.254	.419	-.215	-.305
PASI x Parent Structure	-	-	-	-	-	-	-.113	-1.072	-	-
Adjusted R^2	.145		.184		.056		.102		.153	

[a] Regression coefficients and Adjusted R^2 reflect the inclusion of the control variables, gender and school.

Chapter 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to test a model of adolescent initiative and motivation, and parent influence on activity participation in free time. Using free time as a context, the study attempted to unify many of the key findings from past studies of parent influence. Specifically, this model investigated the influence of parent behaviors on adolescent initiative in free time, the effect of child's self-determination as it relates to adolescent initiative in free time, and how initiative predicts structured and unstructured activity involvement. This chapter contains a summary of the findings, a discussion of the findings, potential implications for future research and practical application, limitations to the current study, and recommendations for future study.

Summary of Findings

Hierarchical regression analyses were conducted to test the proposed model predicting participation in structured and unstructured activities in free time. The analysis strategy was a series of multiple regression equations guided by a set of hypotheses. Separate hierarchical analyses were conducted to examine the predictors of intermediate outcomes (e.g., adolescent motivation, initiative) as well as the outcome variables, structured and unstructured activity involvement. In each analysis, the principal investigator controlled for gender and school because of differences found between males and females and among the schools on demographic and study variables. School was dummy coded into two dummy variables to reflect the three school levels.

Analyses are presented in order of hypotheses. Based on the five different motivation types, five separate tests of each hypothesis were conducted. Following is the summary of findings for each hypothesis with interpretation and conclusions.

Hypothesis 1: Initiative and internalized forms of motivation (i.e., intrinsic, identified) will positively predict structured activity involvement, while externalized forms of motivation (i.e., introjected, external) and amotivation will negatively predict structured activity involvement.

In general, regardless of motivation type, initiative always positively predicted structured activity involvement. Except for the model containing identified motivation, initiative also contributed the most to the prediction of structured activity involvement. Also as hypothesized, intrinsic and identified motivation both positively predicted structured activity involvement. Thus, adolescents most involved in structured activities were those that reported high levels of internalized motivation and initiative. Consistent to this finding, amotivation was negatively predictive of structured activity involvement.

Contrary to hypothesis, externalized forms of motivation (i.e., introjected and external) did not influence structured activity involvement. Introjected motivation positively predicted structured activity involvement, while external motivation did not predict structured activity involvement. Compared with the other motivation types, introjected motivation contributed relatively little, if at all, to the prediction of structured activity involvement. For these externalized forms of motivation, adolescent initiative played more of a role in determining if adolescents were involved in structured activities, which suggests that adolescent initiative is a critical element in structured activity involvement when adolescents exhibit more extrinsic forms of motivation.

Regardless of motivation type, parent structure was also found to be a positive and significant predictor of structured activity involvement. This finding suggests that having rules and guidelines about free time use plays a role in selecting and participating in structured activities.

Hypothesis 2: Internalized forms of motivation will positively predict unstructured activity involvement, while initiative will negatively predict unstructured activity involvement.

Hypothesis 2 was largely supported, although identified motivation did not predict unstructured activity involvement. This may be due in part to the nature of identified motivation, which is internalized regulation of an externally motivated activity.

As hypothesized, initiative always negatively predicted unstructured activity involvement, regardless of motivation type. This means that adolescents exhibiting high levels of initiative were less likely to participate in unstructured activity experiences. It should be noted that the models explained very little of the variance associated with unstructured activity involvement. The predictive model included intrinsic motivation, initiative, and parent autonomy support and involvement as predictor variables, although only 7.4% of the variance in unstructured activity involvement was accounted for. In all other models, adolescent motivation and PASI did not predict unstructured activity involvement, leaving initiative as the sole predictor that explained only 2.7% of the variance associated with unstructured activity involvement. The large amount of unaccounted variance in these models suggests that other variables may better predict unstructured activity involvement.

Hypothesis 3: Adolescent motivation, PASI and PS predict adolescent initiative. Specifically, more internalized forms of motivation positively predict initiative, while externalized forms of motivation and amotivation negatively predict adolescent initiative. Parents affect initiative, because PASI moderates the effect of PS on initiative. Specifically, parenting that was high in structure would more strongly predict initiative if PASI was also high.

Across all motivation types, Hypothesis 3 was not supported. The findings indicated some support for how motivation impacts initiative, but the effects of PASI and PS on initiative were not as hypothesized. In support of Hypothesis 3, internalized forms of motivation (i.e., intrinsic and identified) positively predicted initiative, while external

motivation and amotivation negatively predicted initiative. Introjected motivation did not predict adolescent initiative. Of the five motivation types, amotivation was the strongest predictor and had a negative influence on initiative.

Contrary to Hypothesis 3, PASI did not moderate the effect of parent structure on initiative. Instead, the effects of PASI and parent structure on initiative varied based on the type of adolescent motivation present in the analysis. When intrinsic motivation was modeled, PASI and, to a lesser extent, parent structure, positively predicted adolescent initiative. When identified motivation was the motivation form in the analyses, PASI positively predicted adolescent initiative and parent structure was not predictive of adolescent initiative. In models with introjected and external motivation, PASI made the strongest contribution to the explained variance in initiative, with parent structure as a weak, but positive predictor of initiative. PASI was at its highest when externalized forms of motivation were present in analyses. When amotivation was modeled, PASI positively predicted initiative, but was overshadowed by the strong negative prediction of amotivation.

When adolescents exhibited internalized forms of motivation, the contribution of PASI to the overall models was nearly identical to that of internalized motivation. In other words, parents remained highly supportive and involved with internally motivated children, but these children's motivation level played an equal role in predicting initiative. More extrinsically motivated adolescents were also more likely to report higher levels of PASI.

High levels of amotivation were associated with low levels of initiative, despite the positive effects of PASI in these cases. More specifically, when adolescents were highly amotivated, the provision of PASI had little influence on initiative. Parent structure had a weak, but positive effect on initiative in models where intrinsic, introjected, and

external motivation were present in the model. In all cases, it is interesting to note that PASI and not parent structure was strongly and consistently linked to initiative—suggesting that supportive environments where parents are involved and caring help contribute to the facilitation of initiative.

Hypothesis 4: Parent autonomy support and involvement (PASI) moderates the effect of parent structure (PS) on motivation. Specifically, parenting that was high in structure would more strongly predict internalized (intrinsic and identified) forms of motivation if parent autonomy support and involvement was also high. Conversely, the effect of PS on more externalized (introjected and external) forms of motivation and amotivation would be diminished in the presence of high PASI.

The findings indicate that Hypothesis 4 was largely unsupported and the effects of PASI and parent support varied by motivation type. Intrinsic motivation was solely and positively predicted by PASI, while PASI and parent support contributed nearly equally to the prediction of identified motivation. Introjected motivation was predicted by parent structure alone, although it accounted for a relatively small portion of the variance associated with introjected motivation.

In support of Hypothesis 4, external motivation was predicted by the interaction of parent structure and PASI. PASI moderated the effect of parent structure on external motivation. Youth whose parents provided low levels of autonomy support and involvement (PASI) and high levels of structure had higher levels of external motivation. Parents who were perceived to provide high levels of structure but also provide high levels of PASI had youth who were less externally motivated. In fact, level of external motivation remained the same across all levels of parent structure when youth perceived that their parents provided high levels of PASI.

Finally, amotivation was negatively predicted by PASI and parent structure. Of the two parenting variables, PASI contributed the most to the prediction of amotivation.

Thus, amotivation was least likely to be seen in adolescents whose parents provided high PASI and structure.

Discussion and Implications

The benefits to participating in structured activities are fairly well understood and documented. Structured activity involvement has been linked to higher academic achievement, identity exploration and reflection, teamwork skills, and lower levels of anti-social behaviors (Eccles, Barber, Stone, & Hunt, 2003; Hansen, Larson, & Dworkin, 2003; Kleiber, 1999; Mahoney, 2000; Mahoney & Stattin, 2000). Structured activities connect youth with positive adult role models and like-minded peers that reinforce the commitment and behaviors needed to succeed in these types of experiences. Beyond offering social support and reinforcement, structured activities afford adolescents a context in which to practice and develop the skills and attributes needed to succeed in more obligatory adult contexts (Kleiber, 1999; Larson, 2000; Larson & Kleiber, 1993). Research and theory suggests that positive development occurs most in those activities that are integrated to fit within one's own goals, values and needs (Kleiber, 1999; Ryan & Deci; 2000). This process of assimilation is known as internalization.

This study offers evidence on how involvement in structured activities can be facilitated through person characteristics of initiative and adolescent motivation and how these characteristics work within the parenting environment to form proximal processes that influence development. The importance of this study is that it provides empirical models that verify the process of internalization and how it relates to involvement in structured activities. Much of the internalization literature focuses on educational outcomes and how specific environments (teaching, parenting or otherwise) affect internalization based on the support of autonomy, opportunities for relatedness, and the provision of structures that feature the rules and expectations. The findings from this

study provide clear implications for parents, recreation professionals, and other adults interested in exposing and maintaining involvement in positive, structured activity experiences.

Predictors of Structured Activity

In this study, intrinsic motivation and initiative were used as dispositional variables to predict involvement in structured activities. As they exist in this study, these variables are what Bronfenbrenner and Morris (1998) referred to as person characteristics. Person characteristics are, in large part, the most influential processes at work in development and have a direct bearing on the microsystem or immediate environment in which the individual interacts (Bronfenbrenner & Morris, 1998). Enduring patterns of interaction between person and environment are referred to as proximal processes (Bronfenbrenner & Morris, 1998). Bronfenbrenner and Morris theorized that the dispositional characteristics of a person could be generative or disruptive to development, and that proximal processes with people, objects, and symbols in the environment play a large role in how these dispositions affect development. The findings will be addressed through Bronfenbrenner's ecological model, and specifically the effect of proximal processes in the microsystem on involvement in structured and unstructured activity experiences.

The nature of intrinsic and internalized motivation is such that people who exhibit these characteristics are more likely to seek out and participate in activities that reinforce feelings of self-regulation (Deci & Ryan, 2000). Throughout the adolescent development literature, structured activities are consistently linked to higher levels of intrinsic motivation, concentration, and enjoyment (Csikszentmihalyi & Kleiber, 1991; Csikszentmihalyi et al., 1993; Larson & Kleiber, 1993). The links between these outcomes and structured activity experiences has led to Larson's (2000) theory on the

development of initiative through these contexts. Larson believed that adolescents benefit from structured activity experiences because these experiences offer challenge with prolonged engagement. Exposure to these experiences over time develops and reinforces initiative in adolescents. This study's hypotheses were developed, in part, based on the assumption that adolescents with the generative, dispositional characteristics of internalized motivation and initiative would gravitate to these experiences because they offer the opportunity for these dispositions to become realized.

The findings from this study support this orientation—higher levels of structured activity involvement were predicted best by youth who were high in internalized motivation and initiative, low in amotivation, and where some structure from parents existed. Internal motivation occurs when the needs for autonomy, competence, and relatedness are satisfied. Structured activities offer the potential fulfillment of these needs and are attractive to internally motivated and initiative-oriented adolescents for these reasons. In this case, findings suggest that adolescents seek out structured activities because not only are they intrinsically interested and possess initiative, but structured activities act as a feedback loop to reinforce internal regulation and initiative. Recreation leaders and others charged with providing structured experiences should keep in mind the elements that draw adolescents to structured activities. Activities that allow opportunities for exploration, provide feedback, allow for challenges, and are perceived to be freely chosen are generally those activities that are intrinsically appealing, and can lead to the facilitation of initiative. Adolescents that are self-determined and initiative-oriented will choose to be involved with these types of activities, because they are fulfilling and enjoyable.

Of interest to this study is the fact that intrinsic and identified motivation and initiative were similar in their predictive ability of structured activity involvement. The balance of internalized motivation and initiative could be attributed to qualities of structured activity experiences. The literature suggests that opportunities to develop each exist within structured activities, which may account for the balanced prediction that each has on structured activity involvement (Kleiber, 1999; Larson, 2000).

The findings to this point come as no surprise, and are in keeping with the literature. However, two key findings emerge when using the other adolescent motivation variables to predict structured activity involvement. First, introjected motivation, a less internalized form of motivation, predicts structured activity involvement, and second, initiative has a differential effect on structured activity involvement based on adolescent motivation type.

While introjected motivation is an extrinsic form of motivation, Ryan and Deci (2000) indicated that introjected motivation represents the first form of extrinsic motivation with internalized elements. When introjectedly motivated, people consider what other people want them to do, or consider how others will perceive them if they act in a certain way. Findings from this study show that, to some extent, adolescents are participating in structured activities because they feel socially compelled to do so, although participation in structured activities is more heavily influenced by initiative than introjected motivation. This latter finding suggests that social desirability plays a role in their choice to participate in structured activities, but personal feelings of initiative have greater bearing on participation when adolescents are introjectedly motivated. As with more internalized forms of motivation, parent structure supports the prediction of structured activity involvement when adolescent motivation is introjected.

The existence and strength of initiative in the presence of introjected motivation comes as some surprise. Larson (2000) contended that initiative is a product of or at least developed in situations that are intrinsically motivating. The fact that initiative is a strong presence when introjected motivation is high suggests that initiative, as measured in this study, acts to facilitate structured activity involvement when motivational dispositions are less internalized. This notion garners more support when examining external motivation.

This study shows that when external motivation is combined with initiative and parent structure, the link between structured activity involvement and external motivation is non-existent. In other words, adolescents do not participate in structured activities because of some extrinsic reward associated with participation. Externally motivated adolescents largely depend on the presence of initiative and parent structure to determine their participation in structured activities. In the cases where either introjected motivation or external motivation is high, initiative's strength facilitates structured activity involvement close to those levels of high intrinsic or identified motivation. From a developmental perspective, initiative could be thought of as a 'bridge' variable to the process of internalization. Initiative serves as a generative, internal attribute that affords adolescents the time to become familiar with and successful in the activity or activities in question, and leads to the eventual integration of those activities to the self. More specifically, adolescents who maintain high levels of initiative and prolonged engagement in structured activities eventually identify with the goals and values associated with that activity, which leads to integration and internalization of motives to participate in this activity. Once motives are internalized, the strength of initiative decreases, because the internal capacities or generative dispositions that lead to structured activities exist and these attributes assure sustained behavior over time.

The fact that initiative remains a predictor of structured activity involvement in the presence of externally motivated dispositions suggests that initiative is an internal attribute that can exist in the presence of externalized forms of motivation. Furthermore this finding explains, in part, why introjectedly and externally motivated adolescents may participate in structured activities. This finding also suggests that initiative can be facilitated or supported through means other than internalized forms of motivation. These findings are particularly relevant to recreation leaders and youth development practitioners hoping to influence participation and prolonged engagement in structured activity experiences. For those adolescents that are trying activities for externally motivated reasons (e.g., because their friends are doing it or their parents want them to do it), it is important that youth leaders carefully monitor youth involvement and structure activities in ways that promote persistence. This may require adapting rules and structure to be more in line with the abilities of youth participants, and continued modification until participants begin to demonstrate interest and investment in the experience.

The last motivation variable under examination, amotivation, is marked by perceptions of incompetence, lack of control, and nonintentional action (Ryan & Deci, 2000). Theoretically, amotivation would be in opposition to internalized motivation on outcomes, and this is exactly what the findings indicated. This study shows that amotivation works against initiative and parent structure, and undermines structured activity involvement. Adolescents with the lowest structured activity involvement were those reporting high levels of amotivation, and low levels of initiative and parent structure. This finding provides further support for the recommendations for recreation leaders and other youth development practitioners. Contexts that lack structure and opportunities for initiative are linked to amotivation. Dispositions high in amotivation are developmentally

disruptive, because they preclude adolescents from structured activities and their associated benefits. Throughout the self-determination literature, amotivation is viewed as developmentally disruptive, because it is linked with low levels of need satisfaction, less perceived control, and negatively associated with overall well being (Grolnick et al., 1997; Ryan & Deci, 2000). Practitioners who provide experiences that allow for self-expression and initiative, and support the needs and abilities of youth through structuring practices, create motivation for participation in structured experiences. Structured experiences that lack these qualities are not intrinsically appealing or externally rewarding and are unappealing to youth..

To this point, the discussion has emphasized the importance of person disposition characteristics in the facilitation of structured activity involvement. The presence of disposition as a person characteristic is further strengthened by the inclusion of parent variables such as a parent structure and parent autonomy support and involvement (PASI). These variables serve as indicators of the parenting environment and influence the proximal processes for development as described by Bronfenbrenner and Morris (1998).

While the measures on parent practices were collected through a single administration of a questionnaire, and reflected children's perceptions of their parents structure and PASI, the specific questions on parenting practices assumed the type of interaction indicative of those identified as proximal processes. It should be noted that in the course of becoming involved with structured activities, many proximal processes are in motion. The proximal processes associated with peers, other adult interaction, and experiences within the activity are all responsible for the initiation and continuation of structured activities. This study chose to focus on the parenting environment, because of its recognized strength as socialization force (Collins, et al., 2000). Throughout the

discussion, the role of this environment and its associated proximal processes will be discussed.

Of the two parenting variables, parent structure consistently predicts structured activity involvement across all adolescent motivation types. PASI did not. In this case, parent structure in combination with adolescent motivation and initiative operate to form proximal processes that facilitate structured activity involvement. However, the influence of this variable is not as strong as internalized motivation or initiative on structured activity involvement, which validates the idea that person characteristics are most influential on development (Bronfenbrenner & Morris, 1998).

In this study, the parent structure scale addressed common parenting practices such as rules about, monitoring of, and expectations around the use of free time. In the current study, parents that enacted these types of practices, to an extent, influenced their child's participation in structured activities. The literature around parenting and structured activity involvement is consistent with this finding.

Hutchinson et al. (2003) found that parents who enact a lot of structure often communicated expectations and rules about how to use free time. Structure was often a product of the parents' beliefs and expectations on how free time was to be used. Hutchinson et al. cited a number of examples where parents directed adolescents to a structured activity like instrument playing or sports because of beliefs about the positive nature of the activity to the adolescent's development. Parents also directed their child's activities as a means of controlling problem behaviors and preventing adolescents from having a lot of unobligated time. The latter reason for providing structure was based on beliefs that the elements of some unstructured pursuit offered little in the way of challenge and personal meaning. In all of these cases, parents made clear that they

preferred their adolescent to be involved in structured experiences, and were willing to oversee the provision of these experiences.

In another study, Larson, Gillman, and Dworkin (2001) examined single parent families to understand the practices they enact to promote structured activity involvement. Larson et al. found that firm parental control and family routines played a large role in influencing structured activity involvement. Control in this case was in the form of monitoring, assistance with decision making, and being firm with expectations. Findings from both studies provide ideas about why and how parents influence structured activity involvement, and the generalized effect of parent structure across motivation type probably emanates from some value or belief ascribed to structured activity participation.

In summary, the proximal processes that occur between parent structure, adolescent motivation and initiative account for variations in structured activity involvement. Parent structure was found to have a modest effect on structured activity involvement, which was largely determined by the level of internalized motivation and initiative. The current study demonstrates that structured activities are undertaken most by youth reporting high levels of internal motivation, initiative, and parent structure. Next are youth high in introjected motivation followed by externally motivated youth. Predictive models of introjected and external motivation benefit most from initiative, which buoys their respective effects on structured activity involvement to be similar to or slightly less than those involving internalized forms of motivation. The strength of initiative in these cases marks clear evidence that initiative is a salient generative characteristic, especially when youth demonstrate levels of externalized motivation. Furthermore, the presence of high initiative in youth with high introjected or external motivation may indicate dispositions that are becoming internalized. High amotivation is

consistently linked with lower levels of structured activity involvement and this finding is compounded by the fact that amotivation is in opposition to initiative and parent structure. Youth that are high in amotivation rarely exhibit initiative and achieve little, if any, benefit from parent structure practices. The findings also point to the developmentally disruptive effect of amotivation on structured activity involvement. Highly amotivated adolescents fail to realize the benefit of structured activity involvement, and are not likely to report levels of initiative and parent structure that could aid the facilitation of these experiences.

Predictors of Unstructured Activity

This study also examined the influence of parent structure, parent autonomy support and involvement (PASI), adolescent motivation, and initiative on unstructured activity involvement. Throughout the literature, unstructured activity involvement is linked with both beneficial and detrimental effects. Researchers that advocate the action-in-context model see experiences that offer limited adult control and opportunities to enact voluntary control provide an environment beyond home, school, and work for development (Kleiber, 1999; Silbereisen, Noack, & Eyferth, 1986). This 'fourth environment' for development provides the adolescent with opportunities for differentiation and integration of explored ideas and experiences, and is generally seen as beneficial. Another assumption of this model is that adolescents have the internal capabilities to be active producers in their development and able to orchestrate their actions in ways that promote growth (Kleiber, 1999; Silbereisen, Noack, & Eyferth, 1986). Unfortunately, this is not always the case, and for many adolescents, the prospect of unstructured time and activities offer little in the way of challenge or developmental benefit (Larson, 2000; Mahoney & Stattin, 2000).

Larson (2000) reported that the while motivated for intrinsic reasons, most common forms of unstructured leisure activities do not adequately provide opportunities for adolescents to exercise concentration, face challenge, and exert effort over time. It is theorized that initiative will not develop in contexts that lack these qualities. Following is a presentation of the findings, which are discussed by examining the predictors of unstructured activity involvement. The first predictor addressed is adolescent motivation, followed by adolescent initiative, and then parent autonomy support and involvement.

Of all the motivation variables, intrinsic motivation was the only one to positively and significantly predict unstructured activity involvement. This finding is in keeping with Larson and Kleiber's (1993) contention that most unstructured activities are intrinsically motivated. In this study, unstructured activities referred to watching television and videos, playing videogames, reading magazines and books, listening to music, hanging out at malls or other people's homes, and internet use for chatting, gaming, or e-mail. While in reality these activities may be motivated due to peer pressure or a reward of types, adolescents clearly perceive they are participating because they want to.

According to Table 4.9 (correlation matrix, p. 145), in general, unstructured activity participation was weakly, but significantly and positively correlated with initiative ($r = .118$, $p < .05$), but in each separate analysis, initiative negatively predicted unstructured activity involvement across all motivation types. In addition, the partial correlations (beta weights) between initiative and participation in unstructured activities are larger than the zero-order correlation. This suggests that initiative is a suppressor variable. Thus, in the context of other variables, and in particular intrinsic motivation, initiative negatively predicts unstructured activity participation.

This finding supports the notion that participation in structured activities is done to fulfill the needs for challenge and active, prolonged engagement, while unstructured activities do not offer the same levels of challenge and engagement, and therefore do not support the continued facilitation of initiative (Larson, 2000). As environments for the enactment of proximal processes, unstructured activities lack the opportunities to engage initiative-oriented adolescents, and therefore, adolescents with this generative orientation choose not to participate in these types of activities.

When combined with intrinsic motivation and initiative, parent autonomy support and involvement (PASI) also negatively predicts unstructured activity involvement. The variable, PASI, combined parent autonomy support and interpersonal involvement, which are two of the three elements identified in Grolnick, Deci, and Ryan's (1997) Facilitating Parental Context. Autonomy support involves providing choices, encouraging self-initiation, minimizing control, and acknowledging feelings. Interpersonal involvement is marked by devoting time and resources, taking interest in an adolescent's activities, and providing warmth and caring. Parents who offered these types of environments decreased their adolescents' time spent in unstructured activities. Rather, parenting environments that were more controlling, less caring, and less dedicated to the provision of resources in free time influenced unstructured activity involvement.

In summary, unstructured activity involvement was high when adolescents were highly intrinsically motivated, low in initiative, and when parents were not supportive or involved with them. Even though unstructured experiences are strongly partaken for intrinsic reasons, the experiential quality of these activities and influence on positive development is in doubt. As measured in this study, the generative disposition of

initiative is in opposition to unstructured activity involvement, which suggests that these contexts offer little to adolescents seeking to enact these dispositions. Furthermore, controlling and less caring parenting practices were also associated with unstructured activity involvement. It is theorized that internalization fares poorly when parenting environments are constrained and controlling to the adolescent. Given this orientation, it seems that unstructured activities, as conceived in this study, would work against internalization and the development of initiative.

It should be noted that this model predicted only about 7.4% of the variance associated with unstructured activity involvement, suggesting that other factors provide a better explanation as to why adolescents choose to do unstructured activities. One obvious variable to examine is peer acceptance and involvement in activities. Caldwell and Darling (1999) found that adolescents were more involved in unstructured experiences when they reported peer approval and involvement in those activities. Csikszentmihalyi and Larson (1984) reported that much of the time spent in unstructured experiences was done in the presence of peers. The idea of 'hanging out' with friends is a common phenomenon in the adolescent literature (Agnew & Peterson, 1989; Caldwell & Darling, 1999; Kleiber, Caldwell, & Shaw, 1993). Peer acceptance and involvement could be used to predict either structured or unstructured activity involvement. Another variable that could aid in the prediction of structured and unstructured activities is boredom. Boredom has been linked to adolescents reporting 'having nothing to do' (Caldwell, Darling, Payne, & Dowdy, 1999). The absence of attractive alternatives may be another reason why adolescents participate in unstructured leisure activities.

Predictors of Initiative

Initiative has been identified as a generative disposition that facilitates involvement in structured activity experiences. Initiative makes its greatest impact on structured activity involvement when adolescents report dispositions high in introjected or external motivation. In these cases, initiative acts to facilitate involvement in these activities to levels similar to adolescents motivated by intrinsic and identified reasons. Within the framework of internalization, initiative may be serving as a 'bridge' that connects adolescents to structured experiences on the way to internalization. Larson (2000) specifies that initiative is born out of intrinsic motivation and contexts that offer prolonged engagement. However, this study finds that initiative exists even when adolescents are externally motivated. This next section explains why initiative may arise in situations where externalized motivations are high by examining influences on initiative. To understand influences on initiative, parent structure, parent autonomy support and involvement, and adolescent motivation were examined as predictor variables.

As previously mentioned, Larson (2000) specifically identified intrinsic motivation as a key influence on initiative. Initiative transcends the intrinsic qualities of "wanting to be doing an activity and being invested in it" (Larson, 2000; p.172). Findings from the current study indicate that intrinsic and identified motivation were strong, positive predictors of initiative. This is not surprising as the effects of each can sometimes yield similar outcomes (Ryan & Deci, 2000). Consistent with Larson's contention, introjected motivation had no bearing on initiative, while external motivation, and to a greater extent, amotivation were counter to the development of initiative.

Proximal processes that foster these types of regulation ultimately detract from structured activity involvement. The direct effects of adolescent motivation on initiative,

again, speak to the power of person characteristics and their influence on development. Of most interest to the prediction of initiative, however, are the differential effects of parent autonomy support and initiative (PASI) and parent structure on initiative, which are based on the type of adolescent motivation.

Across all motivation types, PASI positively predicted adolescent initiative. When internalized motivation (i.e., intrinsic and identified) was high, the effect of PASI on adolescent initiative was similar to the effect of adolescent motivation. In this case, PASI matched adolescent motivation in its facilitation of initiative. Oddly, parent structure predicted initiative for intrinsic motivation, but not identified motivation. However, parent structure's strength as a predictor of initiative was relatively weak in the presence of intrinsic motivation, and for the purposes of this discussion, irrelevant.

The effects of the parenting variables, particularly PASI, gain strength when combined with introjected and external motivation. By all indications, it appears that introjectedly and externally motivated adolescents benefit most from the provision of PASI. High PASI is autonomy supportive, less controlling, and more involved with the facilitating adolescent interests. These qualities support psychological states that are conducive to the development of initiative (Larson, 2000). Controlling and detached parenting detracts from the development of initiative, and indirectly, structured activity involvement. To a lesser extent, parent structure also positively influenced and had greater effects on initiative when adolescents exhibited introjected and external motivation. These findings are also similar to the work of Hutchinson et al. (2002) who found that amotivated and externally motivated adolescents demonstrated higher levels of initiative when parents were perceived to be more involved. Hutchinson's study concluded that parent involvement cultivated initiative in adolescents who needed it most.

It could be that, as Hutchinson et al. suggested, parents are providing the support and structure or the ‘extra push’ needed by externally and introjectedly motivated adolescents to enact feelings of initiative and maintain structured activity involvement. Parents make this effort to sustain involvement because they value the activity and wish to prolong their child’s engagement in these types of activities (Hutchinson et al., 2003). It would also appear that parents are impacting adolescent motivation in cases when adolescents lack the internal capacities to stabilize and maintain initiative. This quality is especially important for those who work with youth and hope to positively impact youth. Recreation leaders and youth practitioners must be attuned to the capabilities of youth participants, and design experiences based on their knowledge of adolescent abilities. Furthermore, they must also convey genuine interest and care about those with whom they are working. In these examples, youths' internal motivation is being buoyed by meeting their needs for competence and relatedness. The need for autonomy becomes realized as the activity becomes internalized.

Hutchinson et al. (2003) also found that parenting practices are often enacted, because the parent has some belief about the capability of the adolescent to perform. In many ways this balance of parenting and adolescent abilities reflects the developmental process. As children move into adolescence, parents are often faced with changing how they enact parenting practices. Generally, parents play less of a role in the decision-making process and gradually relinquish control as the adolescent becomes more capable of making good decisions and choices, and demonstrating independence. In this case, as adolescents become more internalized, the amount of support, involvement and direction needed by adolescents decreases, which would explain why the influence of the parenting variables diminish in the presence of internalized forms of motivation.

The parenting variables do little to support initiative when amotivation is high, which speaks to the relative strength of amotivation as a disruptive force in development. Of all the variables measured, amotivation was the strongest in opposition and least likely to overcome when trying to influence initiative.

Predictors of Adolescent Motivation

Understanding how motivation is influenced and supported is critical to the development of initiative and structured activity involvement. The last part of this discussion will discuss how motivation is influenced and developed, and what the overall implications of this study mean to parents and professionals who wish to impact youth in positive ways.

PASI and parent structure were used in analysis to predict adolescent motivation. The work of Grolnick, Deci, and Ryan's (1997) provided the framework for this study. They conceptualized the Facilitating Parental Context, where internal regulation develops in situations that support autonomy, where parents are involved emotionally and provide resources, time, and structures (i.e., rules, expectations and constraints on behavior). Internalization occurs when these elements are in place and support the needs for autonomy, relatedness, and competence. This study found that variations in autonomy support, involvement, and structure are specific in their predictions of specific types of motivation.

The findings indicate that intrinsic motivation was solely predicted by parent autonomy support and involvement (PASI). This finding is well supported in the literature. Intrinsic motivation is already an internal attribute, but it is strongly affected by social contextual forces (Grolnick et al., 1997). Ryan and Deci (2000) indicated that a great deal of research has shown that more controlling environments reduce intrinsic motivation and the inherent appeal of activities. Rewards, deadlines, surveillance,

evaluations, pressuring language, and demanding interpersonal styles have all been found to undermine intrinsic motivation (Ryan & Deci, 2000). More importantly, when these types of controlling behaviors are present, the perceived locus of causality of these behaviors shifts from internal to external, which led Grolnick et al. to suggest that the external pressure taints the inherent appeal of the activity. Both the literature and this study support the notion that if parents wish to enhance their child's intrinsic motivation, they should support their child's actions by allowing them to make choices and assisting their child when needed. Similar findings have been seen in other environments such as schools, organized sports, and in the workplace (Grolnick et al., , 1997; Pelletier, Fortier, Vallerand, & Briere, 2001; Ryan & Deci, 2000).

In this study, the measurement of identified motivation represents the highest level of internalized regulation of extrinsic motivation. The findings indicate that identified motivation was highest when both PASI and parent structure were present. In fact, the findings indicate that each is nearly equal in their prediction of identified motivation. Ryan and Deci (2000) outlined several studies that suggest parents who foster environments characterized by autonomy support, involvement, and structure facilitate their children's internalization of extrinsic motivation. The fact that identified motivation was predicted by the provision of both PASI and parent structure reinforces past research on internalization and provides a link to how parents can best influence structured activity involvement.

Findings indicate that introjected motivation was solely predicted by structure. The person who acts to meet some societal expectation best demonstrates introjected motivation (Ryan & Deci, 2000; Baldwin & Caldwell, 2003). Parent structure in this study took the form of parent monitoring, stated expectations, and rules on the use of free time. What this study demonstrates is that rules, expectations and monitoring behaviors

alone predict introjected motivation. Adolescents are acting out of the compulsion to satisfy some imposed standard, and are not embracing an activity because they personally identify with it or are intrinsically motivated. According to Ryan and Deci (2000), introjected motivation is associated with weak effects on positive development. Instead of enjoying and feeling free to participate in activities, people act because of anxiety or guilt associated with how they will be perceived by others. The result is that these adolescents do not attribute action to what they want, but rather what they perceive society wants.

Of the five motivation types, external motivation was the only form of motivation that was influenced by PASI and PS as hypothesized. It was hypothesized that the effect of parent structure on motivation would be moderated by PASI. Specifically, the effect of high structure on external motivation would be diminished in the presence of high PASI. This study not only supported this notion but also found that regardless of the level of structure, high PASI was always equated with lower external motivation. High structure enacted with low PASI resulted in highest levels of external motivation. In keeping with Ryan and Deci's earlier work, controlling and uninvolved environments undermined internalization and led to external motivation.

Amotivation was negatively predicted by PASI and parent structure. Thinking in terms of internalization, these effects are in opposition to what was found when identified motivation was examined. Specifically, when environments are high in control, low in parent involvement, and low in structure adolescents tend to be amotivated. The social context described is one where parents are overly controlling in their presence, uncaring and uninvolved, and provide little, if any, communication on their expectations and standards for behaving. This generally negative environment does not allow for the compulsion to act. Amotivation results from feelings of incompetence, lack of control,

and unintentional action (Ryan & Deci, 2000). Uninvolved and uncaring parents and adults can seriously impact an adolescent's ability to develop into a healthy adult when these environments exist. Ryan and Deci noted that amotivation is a serious detriment to personal well being. In this study, amotivation was the single most disruptive force to positive development and internalization. Highly amotivated youth were less likely to be involved in structured activities and demonstrate initiative, which are theorized to significantly impact adolescents as they transition to adulthood. Professionals who work with families, and particularly youth, should be attuned to practices that lead to this motivational disposition.

Measuring Parent Autonomy Support, Parent Involvement and Parent Structure

Prior to concluding the study, the principal investigator and thesis committee thought it wise to bring forth measurement issues and potential theoretical issues regarding parent autonomy support, parent involvement and parent structure. The originally proposed study treated these three variables as separate entities. Each had its own proposed effect on adolescent motivation, initiative, and type of activity involvement. These proposed effects were based largely on the theoretical model introduced by Grolnick et al. (1997). Grolnick et al. state that these three elements work together to create an environment that facilitates internalization. The authors base the model on the vast research that the group has conducted over numerous years.

This study used measures from Robbins (1994) perceptions of parents scale to measure parent warmth and involvement, which were combined to measures parent involvement. Autonomy support items from Robbins scale were used to measure parent autonomy support. The parent structure scale was developed in part from Hutchinson et al.'s (2002) work, and combined measures of parent monitoring, rules on free time use

and parent behaviors on how rules are presented to adolescents. These measures were all used under the assumption that they tapped into different constructs and each had been used in previous studies, although not all together.

Prior to hypothesis testing, tests of bivariate relationships revealed that parent autonomy support and involvement were highly correlated to the point where it appeared that they were measuring the same construct. The scales were formed with added free time items and removal of the free time items did little to reduce the high correlation between the two variables. A review of the literature was conducted to see if the two items could be combined.

Support for combining the two measures came from Grolnick et al.'s review of past studies. Each construct was found to interact with structure to positively impact internalized forms of motivation (Grolnick et al., 1997). Interpersonal involvement and parent autonomy support similarly interact with parent structure to positively impact internalization. Parent structure was most beneficial to internalization when combined with high parent autonomy support or high interpersonal involvement, and least effective when environments were controlling or detached (Grolnick et al., 1997). Two other considerations were made when considering combining the two constructs.

First, autonomy support and interpersonal involvement share similar affective components. Autonomy support is described with words like reasoning and empathy (Grolnick et al., 1997). These are interpersonal skills needed to enact supportive behaviors with adolescents. Autonomy supportive conditions imply affective connections to adolescents, and these connections would be evident when measuring interpersonal involvement. The second consideration of the researcher dealt with how extrinsically regulated behaviors become internalized.

Ryan and Deci (2000) theorize that internalization is achieved when the needs for competence and relatedness are met. The provision of autonomy support is thought to meet the need of competence, because an individual is being supported in ways that he or she can face challenges and situations knowing that he or she can rely on someone to assist them if needed. Interpersonal involvement fulfills the need for relatedness. Internalization is thought to thrive in conditions where acceptance and interest of valued others exist, and provides a natural entry to the initiation of extrinsically motivated behavior. While the autonomy support and interpersonal involvement are unique in their contribution to internalization, it is well acknowledged that when each is present, evidence of internalization is abundant (Grolnick, et al., 1997). Based on all of these considerations, the researcher and his advisor felt that there was enough of a connection between the two constructs to warrant their combination in analysis. The combination of the two variables present some interesting challenges to Grolnick et al.'s model.

From a measurement perspective, it might not be possible to tease out the separate effects of each because of their shared affective component. This may also be a product of the age of the participants in the study. Separating out how these youth feel about their interpersonal connection to their parents and how supportive their parents are with their free time interests might be difficult for youth of this age. In other words, measuring the two as separate constructs might not be developmentally appropriate for this age group. From a theoretical perspective, these findings may warrant revision of Grolnick et al.'s model. The fact that these parent autonomy support and parent interpersonal involvement do not act separately is in contrast with Grolnick et al.'s conceptualization. At

minimum, other studies should test Grolnick et al.'s model to see if it performs as theorized.

Conclusion

The findings of this study highlight the importance of the parenting environment on adolescent motivation, initiative, and structured activity involvement. Developmentally, each is theorized to prepare adolescents with successful transition to adulthood. High levels of initiative and structured activity involvement were associated with contexts that were high in both PASI and parent structure. Internalization and intrinsic motivation were best predicted by these environments, and adolescent motivation coupled with high PASI and parent structure led to higher levels of initiative. High levels of initiative and internal motivation best predicted structured activity involvement, and high levels of initiative were also related to lower levels of unstructured activity involvement. Parents were strong influences in the process of internalization as higher levels of PASI and parent structure were in place with youth who were introjectedly and externally motivated. In these cases, PASI supported these adolescents capacity for initiative, which was a major reason for these adolescent's participation in structured activities. The importance of this study is that it provides clear evidence on how teachers, recreation leaders, and leaders in other youth development contexts can best support the internalization of behaviors to facilitate structured activity involvement.

Study Limitations

The findings of this study must be carefully interpreted due to the limitations associated with the sampling method and data collection. First, the research is cross-sectional rather than longitudinal, preventing the ability to test the processes of parent influence on children's behavior over time. These processes are often reciprocal in nature rather than a linear, unidirectional process as measured. Another concern is the study used a convenience sample to acquire the targeted age group for the study. Convenience samples have limited generalizability, because the extent to which these samples represent the entire population is not known. Another issue with the sample in this study is that represents a very homogeneous group, with just over 86% of the entire sample being white. How the findings might apply to a group that was largely another ethnic minority group is not known. Studies have shown variations in parenting and outcomes among different ethnic groups, and the current study's findings maybe inconsistent with groups that are more ethnically diverse. The parent consent process may also act as an arbiter of selection biases. Uninvolved and uncaring parents may not allow children to participate in a study. Furthermore, youth themselves may be disinterested with the idea of the study, and fail to seek consent or opt not to assent. Another issue with the parent consent process in this study is the variation in parent consent among schools. The variation included a low of 28% from School A to a high of 79% at School C with School B falling in between at 63%. It is reasonable to assume that selection bias at School A was a serious issue.

The data analyses for this study were also limited in that it did not explore possible issues with gender and school with the other study variables. While analyses entered the effects of gender and school in each regression equation, the interactive effects of each with other study variables was not entered. This was a conscious

decision by the researcher to focus on hypothesis testing. The effects of these interactions will be explored in a follow-up study and reported at a later date. This limitation is particularly notable given what is known about gender differences in the developmental literature. Lastly, the study relies solely on self-report measures from adolescents. Specifically, the study relies on children's perspectives to assess parenting behaviors and rules around free time use. There may be a monomethod bias at work here, because the research was taken from only the perspective of the youth. Parents may have different perceptions than their adolescents when describing their parenting practices and their adolescent's self-determination and initiative behaviors.

While the study has its share of limitations, the findings should not be dismissed or minimized. Research with youth is often a challenge, because of issues with access to this population. Because most of the day is spent there, schools are the most logical place from which to recruit participants. However, schools are often overburdened with outside requests in addition to the educational mission of these institutions. These barriers and challenges seriously limit the ability of researchers to randomize sampling and oversample underrepresented minority groups.

Given the number of limitations associated with the study, much care was taken to ensure that data collection and analysis yielded reasonably valid and reliable information. First, the entire instrument was pilot-tested with a group of youth within and just below the age ranges of the proposed target population. This pilot test provided information on the questionnaire's readability, temporal consideration around the questionnaire's time to administer, and specific nuances related to frequently asked questions from students. All teachers serving as questionnaire administrators were trained on how to proceed through the questionnaire. Administrator training was designed to ensure that questionnaires were delivered consistently. Finally, the data

were double-entered and cleaned of errors prior to analysis. This process also included the identification of questionnaires that were obviously not completed in earnest. Questionnaires that contained a discernible response pattern (e.g., zigzagged responses, circling the same response for all questions) were excluded from analysis. Questionnaires were also removed if lewd or profane language were written on the document.

Recommendations for Future Study

This study concludes with the following recommendations for future studies. It is recommended that future studies:

- Include the influence of peers, interest in activities, and leisure boredom as predictor variables of structured and unstructured activity involvement, in addition to the variables in the current study.
- Include parent measures along with the child's perceptions of parents scales to avoid issues with monomethod bias.
- Include longitudinal designs with multiple data collection points. This type of research study would better reflect developmental trajectories and dialectical processes that are at work over time.
- Include motivation and initiative as outcomes of organized recreation and park programs.
- Target and oversample specific ethnic and racial groups to see if the findings from this study are applicable to a diverse population.
- Use a randomized design to derive a sample for measurement activities.
- Use mix-method designs (i.e., qualitative and quantitative) to better inform the context in which the research is occurring.
- Examine the reciprocal relationships among the variables in the study. Based on the literature, cases can be made that the children's self-determination influenced parenting, and that structured activity involvement influences initiative.
- Develop motivation profiles for youth and compare outcomes associated with these profiles. Clustering individuals on the adolescent motivation variables is one way to create these profiles.

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APPENDIX A:

NINTH GRADE QUESTIONNAIRE

Ninth Grade Questionnaire:

Free Time Choices and Influences on Free Time

PLEASE READ FIRST

Thanks again for agreeing to be part of this study, your contribution is valuable to understanding what types of choices exist for teenagers, and what influences these choices. This questionnaire should take no more than 40 minutes.

There are three important things you should know before you begin:

1. All answers are **anonymous**. This means that anything you answer cannot be linked to you, and that no personally identifying information, for example name, date of birth, address, will be collected by this questionnaire.

2. Answering these questions is **voluntary**. This means you can choose not to answer any question that makes you feel uncomfortable. You can also stop the interview at any time. However, I encourage you to complete as much of the questionnaire as possible. By doing this, you are helping us understand the experiences of ninth grade students, and the reality of their lives.

3. I would appreciate it if you answered your questions **honestly**. There are no right or wrong answers to these questions. I am doing this study to understand your perspective or how you think, feel and act. I cannot stress to you how important it is to understand your perspective.

Do you understand this? If you have any questions, you will be given time to ask them before we start the questionnaire. You can also raise your hand at any time during the questionnaire, if you have trouble understanding a question just ask for help.

This is not a test. There are no right or wrong answers. Answer the questions as they apply to you and your life.

Thanks again for your help and good luck with the future,

Clifton E. Watts, Jr.
Ph.D. Candidate
Penn State University

PLEASE STOP, and wait for further instructions**.**_____

SECTION 1: BACKGROUND INFORMATION _____

1. Are you ❑ **Male or** ❑ **Female**

2. What is your age? _____ **years old**

3. Are your parents…?(check one)

❑ still married
❑ never married or not married
❑ divorced or separated
❑ divorced, but my mother is currently remarried
❑ divorced, but my father is currently remarried
❑ divorced, and both my parents are currently remarried
❑ other:_____

4. Which parents do you live with during the school year? (check one)

❑ Both my mother and my father in the same house
❑ Only my mother
❑ My mother and stepfather
❑ Only my father
❑ My father and stepmother
❑ Sometimes with my father and sometimes with my mother
❑ Other relatives
❑ A guardian or foster parent
❑ Other arrangements:_____

5. How do you describe your ethnic background? (check one, use other and describe if ethnic background is not listed or consists of two or more of those listed)

❑ African-American
❑ Asian/Pacific Islander
❑ Latino/Hispanic
❑ White
❑ Cape Verdean
❑ Other (please describe):_____

6. What language is USUALLY spoken at home?

- ❑ English
- ❑ Spanish
- ❑ Both English and Spanish
- ❑ Some other language(s): _____

7. How many children are in your family? (write number) _____

8. Ranking the number of children listed in question #6 from oldest to youngest, what number would you be? (Remember, the oldest child will always be 1, the second born child will always be 2, and so on…)

(write number): _____

9. Do you receive free or reduced lunch? (Circle one) 1. YES 2. NO

10. What is the last report card grade you received in each class listed? (check only one choice for each class)

Subject:	**A**	**B**	**C**	**D**	**F**	**Not enrolled in subject**
English	❑	❑	❑	❑	❑	❑
Math	❑	❑	❑	❑	❑	❑
Social Studies	❑	❑	❑	❑	❑	❑
Science	❑	❑	❑	❑	❑	❑

11. What is your mother's level of education:

- ❑ Less than high school
- ❑ Some high school
- ❑ High school graduate
- ❑ Some college
- ❑ College graduate
- ❑ Advanced degree (Master's or Doctorate)
- ❑ Don't know/Not sure/Can't answer

Please turn to the next page.

SECTION 2: CHOICES IN FREE TIME _____

In this survey, we are asking you to think about your free time. Free time means things you do outside of school. These can include after-school activities like sports or clubs, and activities like 4-H, music, spending time with friends, reading, and watching TV.

12. For each activity listed, please circle the <u>number of hours a week</u> that you participate in these activities.

How many hours a week do you…?		**Number of Hours Per Week**						
		None	**Less than 1 hour**	**1-2 hours**	**3-4 hours**	**5-6 hours**	**7-8 hours**	**9 or more hours**
12A.	Exercise or workout	0	<1	1-2	3-4	5-6	7-8	9+
12B.	Play school sponsored sports	0	<1	1-2	3-4	5-6	7-8	9+
12C.	Play organized sports through a CYO, YMCA, City/Town Recreation dept., local league or other **<u>non-school</u>** organization.	0	<1	1-2	3-4	5-6	7-8	9+
12D.	Serve as a manager for a sports team in school or at another organization	0	<1	1-2	3-4	5-6	7-8	9+
12E.	Play an instrument for the school band	0	<1	1-2	3-4	5-6	7-8	9+
12F.	Play an instrument **<u>outside</u>** of school and school sponsored events	0	<1	1-2	3-4	5-6	7-8	9+
12G.	Participate in a school-based club (like the chess team, math club or debate team, yearbook, newspaper)	0	<1	1-2	3-4	5-6	7-8	9+
12H.	Participate in other organized groups outside of school (like Scouting, the Rainbow Girls, 4-H, CCD, or some other youth group)	0	<1	1-2	3-4	5-6	7-8	9+

12. (Continued) For each activity listed, please circle the <u>number of hours a week</u> that you participate in these activities.

How many hours a week do you…?		Number of Hours Per Week						
		None	**Less than 1 hour**	**1-2 hours**	**3-4 hours**	**5-6 hours**	**7-8 hours**	**9 or more hours**
12I.	Engage in a hobby (like model building, baseball card collecting, sewing, needlepoint, fishing, hunting)	0	<1	1-2	3-4	5-6	7-8	9+
12J.	Read books, magazines or newspapers	0	<1	1-2	3-4	5-6	7-8	9+
12K.	Watch television, DVDs, or VCR tapes	0	<1	1-2	3-4	5-6	7-8	9+
12L.	Play video games	0	<1	1-2	3-4	5-6	7-8	9+
12M.	Use the internet (for chatting, internet gaming, surfing, and e-mail)	0	<1	1-2	3-4	5-6	7-8	9+
12N.	Listen to music	0	<1	1-2	3-4	5-6	7-8	9+
12O.	"Hang out" at the mall, movies, arcades, and other public areas	0	<1	1-2	3-4	5-6	7-8	9+
12P.	"Hang out" at your home or other people's homes	0	<1	1-2	3-4	5-6	7-8	9+
12Q.	Work for money outside of the home (like baby-sitting, paper route, working at a store, etc)	0	<1	1-2	3-4	5-6	7-8	9+

13. Circle the answer that best reflects WHY you do what you do in your free time.

I do what I do in my free time because…		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13A.	I would get in trouble if I don't.	SD	D	N	A	SA
13B.	I want people to think I am good at what I do.	SD	D	N	A	SA
13C.	I want to understand how things work.	SD	D	N	A	SA

I do what I do in my free time because…		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13D.	I don't know why I do my free time activities, and I don't really care.	SD	D	N	A	SA
13E.	I want to have fun.	SD	D	N	A	SA
13F.	I don't know, nothing much interests me.	SD	D	N	A	SA
13G.	I am supposed to.	SD	D	N	A	SA
13H.	I will feel badly about myself if I don't.	SD	D	N	A	SA
13I.	What I do is important to me.	SD	D	N	A	SA
13J.	I enjoy what I do.	SD	D	N	A	SA
13K.	I don't know, I have never really thought about it.	SD	D	N	A	SA
13L.	That is the rule in my house.	SD	D	N	A	SA
13M.	I want to impress my friends.	SD	D	N	A	SA
13N.	I develop skills that I can use later in life.	SD	D	N	A	SA
13O.	I like what I do.	SD	D	N	A	SA
13P.	I don't know, but it doesn't matter, because I don't do much of anything.	SD	D	N	A	SA
13Q.	So others won't get mad at me.	SD	D	N	A	SA
13R.	I want people to like me.	SD	D	N	A	SA
13S.	The activities help me develop into the person I want to become.	SD	D	N	A	SA
13T.	Sense of freedom.	SD	D	N	A	SA
13U.	My parents expect me to.	SD	D	N	A	SA
13V.	I want to earn rewards, medals, trophies or certificates.	SD	D	N	A	SA
13W.	I want to.	SD	D	N	A	SA

14. For the next set of questions, please circle the answer that best describes you <u>in your free time.</u>

IN MY FREE TIME…

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
14A.	I can overcome things that get in the way of doing what I want to do.	SD	D	N	A	SA
14B.	I am easily distracted and tend to stop and start things as my interest shifts.	SD	D	N	A	SA
14C.	If I don't do well at first in an activity, I'll keep trying to do better.	SD	D	N	A	SA
14D.	I give up easily if things don't go my way.	SD	D	N	A	SA
14E.	I tend to try things where I know I can be successful.	SD	D	N	A	SA
14F.	When I start something, I am able to focus on it for long periods of time.	SD	D	N	A	SA
14G.	There are too many things that get in the way of doing what I want to do.	SD	D	N	A	SA
14H.	When I start something, I stick with it.	SD	D	N	A	SA

SECTION 3: PARENTING QUESTIONS

These questions are concerned with parent knowledge, rules and practices around your use of free time. Question section 15. Please answer the following questions about one of your parents. Parents can be a mother, a father, a grandmother, an uncle, a stepparent or another adult that lives with you and is responsible for you. For this section we will call this parent, PARENT1.

REMEMBER, WE ARE ASKING QUESTIONS ABOUT PARENTS THAT LIVE WITH YOU.

Is PARENT1 your (check one) :

- ❑ Mother
- ❑ Father
- ❑ Grandmother
- ❑ Grandfather
- ❑ Stepmother
- ❑ Stepfather
- ❑ Other parent (who? Please describe):_____

Please circle how true the following statements are about PARENT1 on a scale of 1-7, where 1=not at all true and 7= very true.

		Not at all true			Somewhat true		Very True	
15A.	PARENT1 seems to know how I feel about things.	1	2	3	4	5	6	7
15B.	PARENT1 tries to tell me how to run my life.	1	2	3	4	5	6	7
15C.	PARENT1 finds time to talk with me.	1	2	3	4	5	6	7
15D.	PARENT1 accepts me and likes me as I am.	1	2	3	4	5	6	7
15E.	PARENT1, whenever possible, allows me to choose what to do.	1	2	3	4	5	6	7
15F.	PARENT1 doesn't seem to think of me often.	1	2	3	4	5	6	7
15G.	PARENT1 clearly conveys his or her love for me.	1	2	3	4	5	6	7
15H.	PARENT1 listens to my opinion or perspective when I have a problem.	1	2	3	4	5	6	7
15I.	PARENT1 spends a lot of time with me.	1	2	3	4	5	6	7

		Not at all true					Somewhat true	Very True
15J.	PARENT1 makes me feel special.	1	2	3	4	5	6	7
15K.	PARENT1 allows me to decide things for myself.	1	2	3	4	5	6	7
15L.	PARENT1 often seems too busy to be involved with me.	1	2	3	4	5	6	7
15M.	PARENT1 is often disapproving and not accepting of me.	1	2	3	4	5	6	7
15N.	PARENT1 insists upon my doing things her or his way.	1	2	3	4	5	6	7
15O.	PARENT1 is not very involved with my concerns.	1	2	3	4	5	6	7
15P.	PARENT1 is typically not too happy to see me.	1	2	3	4	5	6	7
15Q.	PARENT1 is usually willing to consider things from my point of view.	1	2	3	4	5	6	7
15R.	PARENT1 puts time and energy into helping me.	1	2	3	4	5	6	7
15S.	PARENT1 helps me to choose my own direction.	1	2	3	4	5	6	7
15T.	PARENT1 seems disappointed in me a lot.	1	2	3	4	5	6	7
15U.	PARENT1 is not very sensitive to many of my needs.	1	2	3	4	5	6	7
15V.	PARENT1 encourages me to take responsibility for planning and organizing the things I do in my free time.	1	2	3	4	5	6	7
15W.	PARENT1 provides the resources necessary for me to do the things he or she thinks are good for me in my free time.	1	2	3	4	5	6	7
15X.	PARENT1 gets involved in the activities I participate in so that she or he can support me (e.g., coaching and volunteering).	1	2	3	4	5	6	7
15Y.	PARENT1 trusts I will make good decisions about how I spend my free time.	1	2	3	4	5	6	7

		Not at all true			Somewhat true		Very True	
15Z.	PARENT1 encourages me to explore and try out different free time activities.	1	2	3	4	5	6	7
15AA.	PARENT1 understands why I like to do the activities I participate in during my free time.	1	2	3	4	5	6	7
15BB.	PARENT1 provides the resources I need to help me develop the skills I need to do my free time activities.	1	2	3	4	5	6	7
15CC.	PARENT1 and I enjoy doing things together in our free time.	1	2	3	4	5	6	7
15DD.	PARENT1 helps me take responsibility for planning and organizing the things I do in my free time.	1	2	3	4	5	6	7
15EE.	PARENT1 and I share common interests in our free time.	1	2	3	4	5	6	7
15FF.	PARENT1 spends a lot of his or her time supporting my free time activities (e.g., driving me to places and staying at practice sessions).	1	2	3	4	5	6	7
15GG.	PARENT1, whenever possible, allows me to decide what to do in my free time.	1	2	3	4	5	6	7
15HH.	PARENT1 gives me the right amount of freedom to do what I like in my free time.	1	2	3	4	5	6	7
15II.	If there is something I'd like to do in my free time, PARENT1 does her or his best to help me do it.	1	2	3	4	5	6	7
15JJ.	I enjoy spending time with PARENT1 during my free time.	1	2	3	4	5	6	7
15KK.	PARENT1 never considers things from my point of view when it comes to my free time activities	1	2	3	4	5	6	7

16. These next questions ask about rules PARENT1 has around the use of free time.

		Almost never		Sometimes		Almost Always
16A.	I need to have PARENT1's permission to stay out late on a weekday evening.	1	2	3	4	5
16B.	I need to ask PARENT1 before I can decide with my friends what I will do on a Saturday evening.	1	2	3	4	5
16C.	If I have been out very late at night, PARENT1 requires me to tell her where I was and with whom.	1	2	3	4	5
16D.	I need to 'check-in' with PARENT1 throughout the day if I am out of the house on a Saturday.	1	2	3	4	5
16E.	PARENT1 sometimes 'pushes' me to do things that she thinks will help me in the future.	1	2	3	4	5
16F.	PARENT1 clearly states activities of which she approves and does not approve to me.	1	2	3	4	5
16G.	PARENT1 requires me to tell her with whom I'll be spending my free time.	1	2	3	4	5
16H.	PARENT1 encourages me to be involved in activities that she feels are important.	1	2	3	4	5
16I.	PARENT1 lets me choose my activities as long as I finish what she asks me to do.	1	2	3	4	5
16J.	PARENT1 monitors how I spend my free time.	1	2	3	4	5
16K.	PARENT1 sets a time when I am expected home	1	2	3	4	5
16L.	PARENT1 monitors when I come home from my free time activities.	1	2	3	4	5
16M.	PARENT1 finds out if other parents are present at the parties I go to.	1	2	3	4	5
16N.	PARENT1 supervises the parties I have at home.	1	2	3	4	5

17. If you have second parent that lives with you please refer to that parent as PARENT2. <u>SKIP TO PAGE 16 IF YOU DO NOT HAVE A SECOND PARENT LIVING WITH YOU.</u>

Is PARENT2 your (check one) :

- ❑ Mother
- ❑ Father
- ❑ Grandmother
- ❑ Grandfather
- ❑ Stepmother
- ❑ Stepfather
- ❑ Other parent (who? Please describe:):_____

Please circle how true the following statements are about PARENT2 on a scale of 1-7, where 1=not at all true and 7= very true.

		Not at all true			Somewhat true		Very True	
17A.	PARENT2 seems to know how I feel about things.	1	2	3	4	5	6	7
17B.	PARENT2 tries to tell me how to run my life.	1	2	3	4	5	6	7
17C.	PARENT2 finds time to talk with me.	1	2	3	4	5	6	7
17D.	PARENT2 accepts me and likes me as I am.	1	2	3	4	5	6	7
17E.	PARENT2, whenever possible, allows me to choose what to do.	1	2	3	4	5	6	7
17F.	PARENT2 doesn't seem to think of me often.	1	2	3	4	5	6	7
17G.	PARENT2 clearly conveys his or her love for me.	1	2	3	4	5	6	7
17H.	PARENT2 listens to my opinion or perspective when I have a problem.	1	2	3	4	5	6	7
17I.	PARENT2 spends a lot of time with me.	1	2	3	4	5	6	7
17J.	PARENT2 makes me feel special.	1	2	3	4	5	6	7
17K.	PARENT2 allows me to decide things for myself.	1	2	3	4	5	6	7
17L.	PARENT2 often seems too busy to be involved with me.	1	2	3	4	5	6	7

		Not at all true					Very True	
17M.	PARENT2 is often disapproving and not accepting of me.	1	2	3	4	5	6	7
17N.	PARENT2 insists upon my doing things her or his way.	1	2	3	4	5	6	7
17O.	PARENT2 is not very involved with my concerns.	1	2	3	4	5	6	7
17P.	PARENT2 is typically not too happy to see me.	1	2	3	4	5	6	7
17Q.	PARENT2 is usually willing to consider things from my point of view.	1	2	3	4	5	6	7
17R.	PARENT2 puts time and energy into helping me.	1	2	3	4	5	6	7
17S.	PARENT2 helps me to choose my own direction.	1	2	3	4	5	6	7
17T.	PARENT2 seems disappointed in me a lot.	1	2	3	4	5	6	7
17U.	PARENT2 is not very sensitive to many of my needs.	1	2	3	4	5	6	7
17V.	PARENT2 encourages me to take responsibility for planning and organizing the things I do in my free time.	1	2	3	4	5	6	7
17W.	PARENT2 provides the resources necessary for me to do the things he thinks are good for me in my free time.	1	2	3	4	5	6	7
17X.	PARENT2 gets involved in the activities I participate in so that he or she can support me (e.g., coaching and volunteering).	1	2	3	4	5	6	7
17Y.	PARENT2 trusts I will make good decisions about how I spend my free time.	1	2	3	4	5	6	7
17Z.	PARENT2 encourages me to explore and try out different free time activities.	1	2	3	4	5	6	7
17AA.	PARENT2 understands why I like to do the activities I participate in during my free time.	1	2	3	4	5	6	7
		Not at all true					**Very True**	
17BB.	PARENT2 provides the resources I need to help me develop the skills I need to do my free time activities.	1	2	3	4	5	6	7
17CC.	PARENT2 and I enjoy doing things together in our free time.	1	2	3	4	5	6	7
17DD.	PARENT2 helps me take responsibility for planning and organizing the things I do in my free time.	1	2	3	4	5	6	7

17EE.	PARENT2 and I share common interests in our free time.	1	2	3	4	5	6	7
17FF.	PARENT2 spends a lot of his or her time supporting my free time activities (e.g., driving me to places and staying at practice sessions).	1	2	3	4	5	6	7
17GG.	MPARENT2, whenever possible, allows me to decide what to do in my free time.	1	2	3	4	5	6	7
17HH.	PARENT2 gives me the right amount of freedom to do what I like in my free time.	1	2	3	4	5	6	7
17II.	If there is something I'd like to do in my free time, PARENT2 does her or his best to help me do it.	1	2	3	4	5	6	7
17JJ.	I enjoy spending time with PARENT2 during my free time.	1	2	3	4	5	6	7
17KK.	PARENT2 never considers things from my point of view when it comes to my free time activities	1	2	3	4	5	6	7

CONTINUE TO NEXT PAGE

18. These next questions ask about rules PARENT2 has around the use of free time.

		Almost never		Sometimes		Almost Always
18A.	I need to have PARENT2's permission to stay out late on a weekday evening.	1	2	3	4	5
18B.	I need to ask PARENT2 before I can decide with my friends what I will do on a Saturday evening.	1	2	3	4	5
18C.	If I have been out very late at night, PARENT2 requires me to tell him or her where I was and with whom.	1	2	3	4	5
18D.	I need to 'check-in' with PARENT2 throughout the day if I am out of the house on a Saturday.	1	2	3	4	5
18E.	PARENT2 sometimes 'pushes' me to do things that he thinks will help me in the future.	1	2	3	4	5
18F.	PARENT2 clearly states activities of which she or he approves and does not approve to me.	1	2	3	4	5
18G.	PARENT2 requires me to tell him or her with whom I'll be spending my free time.	1	2	3	4	5
18H.	PARENT2 encourages me to be involved in activities that he or she feels are important.	1	2	3	4	5
18I.	PARENT2 lets me choose my activities as long as I finish what she or he asks me to do.	1	2	3	4	5
18J.	PARENT2 monitors how I spend my free time.	1	2	3	4	5
18K.	PARENT2 sets a time when I am expected home	1	2	3	4	5
18L.	PARENT2 monitors when I come home from my free time activities.	1	2	3	4	5
18M.	PARENT2 finds out if other parents are present at the parties I go to.	1	2	3	4	5
18N.	PARENT2 supervises the parties I have at home.	1	2	3	4	5

19. <u>Questions on this Survey</u>

I am trying to make this survey easy to read and understand. Please take a few minutes to think about the survey while answering the questions below. Your insight will be valuable in making this study worthwhile. Thanks again for participating in this study.

19.1 Length of time to complete: _____

19.2 On a scale of 1 to 10, how easy was this survey to read?:

Extremely Easy				Not easy, but not hard					Difficult to Read
1	2	3	4	5	6	7	8	9	10

19.3 Were there any questions that were particularly difficult to answer? (Circle Yes or No)

YES NO

19.3.1 If you answered YES to 19.3, could you please list the question numbers for those questions you had difficulty understanding or reading and comment what was tough about the question?

Example: Question #18.D - I did not know what 'check-in' meant.

_____

_____

_____

_____

_____

_____

Please include any other comments on the back of this page.

ONCE AGAIN,
THANK YOU FOR PARTICIPATING!
BEST OF LUCK IN THE FUTURE

APPENDIX B:

ADMINISTRATOR NOTES

Ninth Grade Survey - Administrator Notes

The following notes were developed after a recent administration of this survey. Please read over all considerations before administering the test. Thank you for your assistance with this research project.

Please read through the questionnaire prior to administration. Any and all questions should be directed to Clifton Watts, the study's principal investigator. He can be reached at 1-800-225-4276 extension 2180, or e-mail him at cwatts@edc.org.

1. Reminders to Students

Please read these reminders to students before administering the survey.

a) Remember, the survey is not a test. There are no right or wrong answers, only answers that reflect your life and experiences.

b) For most students, the survey takes between 20-30 minutes to complete. The packet may look thick, but the questions are not difficult to answer.

c) All questions are anonymous, please do not write your name, address or date of birth on the survey. Remember, the research is looking at how ninth graders, as a group, use their free time.

d) If you mistakenly answer a question and need to correct it, cross out (X out) the incorrect answer and circle the correct answer.

e) The survey directs some students to go to page 16. This is a mistake. Students directed to page 16, should go to page 15—the last page of the survey.

f) The survey has lots of questions around free time activities. Free time activities are basically anything that you do outside of school that is not schoolwork, chores, or paid work (e.g., sports, hobbies, hanging out, gardening, playing video games, etc.).

2. Teacher Preparation

Page 15 asks several questions that are designed to improve the survey for future use. Questions address time to complete, ease of reading, and problematic questions faced by the student.

After distributing the surveys, <u>please note the start time on the board</u>. Students will use this information to note the time to complete the survey.

3. Administrator Considerations

The surveys are self-administered (students read and fill out the form on their own), but the teacher should be aware of some issues that were identified while administering the survey recently.

These issues are usually common questions from students or related to typographical errors contained on the document.

a) Question #7 - How many children are in your family? (write number)

i. This number includes the student taking the survey.

ii. This number also includes older siblings living at college or working and living outside of the home.

b) Question #8 – Ranking the number of children listed in question #6 from oldest to youngest, what number would you be? (Remember, the oldest child will always be 1, the second born child will always be 2, and so on…)

i. Should read, “Ranking the number of children listed in question #7…”

c) Section 3: Parenting Questions

Section 3 asks specific questions about the practices parents use to support their child’s free time use, enact rules about free time, and their level of involvement in free time.

To avoid alienating anyone, this questionnaire has been designed to capture a variety of parent types. However, in order to be considered for a parent, the adult must live with the child, and be viewed by the child as a parent figure. If a student needs this explained, please use emphasizes these two criteria. Please refer to pages 7-14 of the questionnaire to see how the questions are structured.

d) Question#15G/17G - PARENT1 clearly conveys his or her love for me.

i. The word ‘convey’ may confuse some students. In this example, convey would mean “shows” or “demonstrates”.

APPENDIX C:
ADOLESCENT ASSENT AND
PARENT INFORMED CONSENT FORMS

ASSENT FORM FOR YOUTH PARTICIPANTS
FOR SOCIAL SCIENCE RESEARCH
The Pennsylvania State University

Title of Project: A Model of Parent Influence on Adolescent Initiative and Structured Activity Involvement in Free Time

Principal Investigator: Clifton E. Watts, Jr., Doctoral Candidate, Leisure Studies

Other Investigator(s): Linda L. Caldwell, Ph.D., Department of Leisure Studies, School of HRRM

A. To reiterate the information found in the informed consent document, a restatement of the study's purpose, discomforts or risks, and benefits have been provided.

1. **Purpose of the Study:** The purpose of this study is to examine how parents influence their child's initiative and choices in the free time or after school hours.

2. **Discomforts and Risks:** There are no anticipated discomforts or risks linked to completing this survey. If the survey brings out emotions or causes any distress, you can receive a referral to the Boys and Girls Club social worker if you desire.

3. **Benefits:**
   a. The benefits to participants include a chance to learn about choices after high school through a talk given by Mr. Watts. Mr. Watts has served in the military, attended college, and is currently finishing a doctoral degree from Penn State. Mr. Watts will also talk about his current research work, and explain his role in developing and evaluating programs for youth in and around Massachusetts.

   b. The benefits to society include an expansion of the work in adolescent development and the role parents play in this process.

B. After going over the Informed Consent Form, I understand these basic rights as a participant in this research:

1. I freely choose to be a part of this study. This means that I can leave the study at anytime. Also, I can choose not answer anything asked of me without fear of negative treatment by staff at the Roxbury Boys and Girls Club.
2. My identity is protected. No one but the research team will be able to read my answers. The research team has designed the questionnaire to be anonymous. Anonymous means that information about my identity such as my name, date of birth, and address will not be collected on the survey that I am to complete.

As a research subject, I will be expected to:

1. Complete a survey in class over the period of 40 minutes. I recognize that this data collection will take place only 1 time.
2. Answer questions on my background, how I use my free time, and my parents' rules and limits on free time.

SUBJECT STATEMENT OF VOLUNTARY ASSENT

My signature shows my free choice to be in this study. I have had a chance to read the consent form and it is written in a way that I understand. I have had a chance to ask questions and have received answers that make sense to me. I have been told that a copy of the signed Informed Consent Form will be with my parent.

_____

Youth Participant's Name (Print or type)

_____ _____

Signature Date

I, the undersigned, verify that the above informed consent procedure has been followed.

_____

Investigator's Name (Print or type)

_____ _____

Investigator Signature Date

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH
The Pennsylvania State University

Title of Project: A Model of Parent Influence on Adolescent Initiative and Structured Activity Involvement in Free Time

Principal Investigator: Clifton E. Watts, Jr., Doctoral Candidate, College of Health and Human Development

Other Investigator(s): Linda L. Caldwell, Ph.D., College of Health and Human Development

By signing this consent form you, _____, on behalf of
(Please print consenting parent's name)
your ward, _____, indicate that you willingly agree to participate in this
(Please print child's name)
project.

The essence of this project is as follows:

4. **Purpose of the Study:** The purpose of this study is to examine how parents influence their child's initiative and choices in the free time or afterschool hours.

5. **Procedures to be followed:** By giving your consent, you are allowing your child to complete a survey that contains questions on their background, their use of free time, an assessment of their initiative taking behavior, and rules and limits set by parents around the use of free time. This survey will be completed at the Boys and Girls Club of Roxbury, and should take no more than 40 minutes. If you decide to exclude your child from this study, your child will be given the opportunity of quiet study time during the data collection period.

6. **Discomforts and Risks:** There are no anticipated discomforts or risks linked to completing this survey. If the survey brings out emotions or causes any distress, your child will be referred to the clubhouse social worker at the Roxbury Boys and Girls Clubs.

7. **Benefits:**
   a. The benefits to participants include a chance to learn about choices after high school through a talk given by Mr. Watts. Mr. Watts has served in the military, attended college, and is currently finishing a doctoral degree from Penn State. Mr. Watts will also talk about his current research work, and explain his role in developing and evaluating programs for youth in and around Massachusetts.

   b. The benefits to society include an expansion of the work in adolescent development and the role parents play in this process.

8. **Duration/Time:** The surveys will be completed in one classroom period and should take no more than 40 minutes. Mr. Watts will only need to collect data from your child only on one occasion.

9. Statement of Confidentiality:

- Your child's participation in the study as well as the answers your child provides are private and shall remain with the research team of Mr. Watts and Dr. Linda Caldwell. No one outside of this research team will be able to view your child's private answers.
- To make sure that your child's answers remain ***anonymous***, names, addresses and all other personally identifying facts are not collected on data forms.
- To protect your child, questions asked in the questionnaire do *not* collect information regarding risky behavior or illegal involvement.
- The answers provided by your child through the survey will be combined with answers from other children similar in age and experience to create a doctoral thesis. This thesis describes the experiences of all children with regard to the study questions. Nothing about any single child will be used in the summaries.
- A copy of the survey will be available a week before the study date, and will remain there for one month following the study date. Feel free to review this document at the Roxbury Boys and Girls Clubs front desk.

10. **Right to Ask Questions:** Participants have the right to ask questions and have those questions answered. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775. You can also contact the principal investigator, Clifton Watts, and his research advisor, Dr. Linda Caldwell through the information provided below:

    To Contact Principal Investigator **-** Clifton E. Watts, Jr., Education Development Center, Inc., 55 Chapel Street, Newton, MA 02458, e-mail: cwatts@edc.org, phone: 1-800-225-4276 extension 2180.

    To Contact Research Advisor **-** Dr. Linda Caldwell, School of HRRM, Pennsylvania State University, 201 Mateer Building, University Park, PA 16802, e-mail: llc7@psu.edu, phone: 814-863-8983.

11. **Voluntary Participation:** Being part of this study is *voluntary*. Your child may pull out of the research study at any time. Your child may refuse to answer any question asked on the survey. You must be 18 years of age or older and the legal guardian of the child to which you provide consent to participate in this research study. My signature, below, shows that I have read and understand the statement of informed consent. Knowing the risks and benefits of this study, I freely agree to allow my son/daughter be part of this study.

You will be given a copy of this consent form to keep for your records.

_____ _____

Parent's Signature Date

I, the undersigned, verify that the above informed consent procedure has been followed.

_____

Investigator's Name (Print or type)

_____ _____

Investigator Signature Date

APPENDIX D:

HUMAN SUBJECTS APPROVAL FROM PENN STATE

PENNSTATE

Vice President for Research
Office for Research Protections

The Pennsylvania State University
212 Kern Graduate Building
University Park, PA 16802-3301

(814) 865-1775
Fax: (814) 863-8699
www.research.psu.edu/orp/

Date: July 29, 2003

From: Jodi L. Mathieu, IRB Administrator

To: Clifton E. Watts

Subject: Results of Review of Proposal - Expedited **(IRB #16113)**

Approval Expiration Date: July 28, 2004

"A Model of Parent Influence on Adolescent Initiative Taking in Free Time"

The Social Science Committee of the Institutional Review Board has reviewed and approved your proposal for use of human participants in your research. **This approval has been granted for a one-year period. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for this research.**

COMMENT: **Once received, please forward the letters of agreement to our office for the file.**

Approval for use of human participants in this research is given for a period covering one year from today. **If your study extends beyond this approval period, you must contact this office to request an annual review of this research.**

Subjects must receive a copy of any informed consent documentation that was submitted to the Office for Research Protections for review.

By accepting this decision you agree to notify the Office for Research Protections of (1) any additions or procedural changes that modify the participants' risks in any way and (2) any unanticipated subject events that are encountered during the conduct of this research. Prior approval must be obtained for any planned changes to the approved protocol. Unanticipated participant events must be reported in a timely fashion.

On behalf of the committee and the University, I thank you for your efforts to conduct your research in compliance with the federal regulations that have been established for the protection of human participants.

JLM/mbc
Enclosure
cc: Linda L. Caldwell
Department Head, Leisure Studies
Research Dean, Health and Human Development
Jerome Ilinger

VITA

Clifton E. Watts, Jr.

Education

Doctor of Philosophy, Leisure Studies, August 2004
Minor in Human Development and Family Studies
Thesis: Predicting Free Time Activity Involvement: The Influence of Adolescent Motivation, Adolescent Initiative, and Perceptions of Parenting
The Pennsylvania State University, University Park, PA

Master of Science, Leisure Studies, May 1997
Emphasis in Therapeutic Recreation
Thesis: An Evaluation of Two Programs for At-Risk Youth in Pittsburgh, PA: The Art Partners and Space Station Pittsburgh Community Enrichment Programs
The Pennsylvania State University, University Park, PA

Bachelor of Science in Physical Education, May 1992
Emphasis in Motor Development Therapy
Bridgewater State College, Bridgewater, MA

Research Experience

Research Associate (September 2000 – August 2004)
Senior Research Assistant (June 1999 - September 2000)
Health and Human Development Programs
Education Development Center, Inc., Newton, MA

Research Assistant and Coordinator (1994-1998)
Department of Leisure Studies
College of Health and Human Development
The Pennsylvania State University, University Park, PA

Teaching Experience

The Pennsylvania State University, University Park, PA

Course Instructor, RPM 236: Supervision and Group Dynamics in Leisure Services (1997-98)
Course Instructor, RPM 433W: Research and Evaluation in Recreation and Park Management
Writing Intensive Class (Spring, 1998)
Teaching Assistant, RPM 120: Leisure and Human Behavior (1996-1997)
Teaching Assistant, RPM 433W: Research and Evaluation in Recreation and Park Management
Writing Intensive Class (Spring 1995, Fall 1995)
Teaching Assistant, RSOC 573: Survey Data Analysis (Spring 1998)
Faculty Supervisor, Recreation and Park Management Practicum (Summers of 1996, 1997)

Bridgewater State College, Bridgewater, MA

Peer Tutor, Office of Disability Services, 1990-1992