

**ADOLESCENT IDENTITY DEVELOPMENT:  
THE RELATIONSHIP WITH LEISURE LIFESTYLE AND MOTIVATION**

by

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## **Author's Declaration**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## **Abstract**

Identity development is a crucial process which occurs during the period of adolescence (Erikson, 1950, 1968). Researchers have suggested that the adolescent period is becoming prolonged due to increasing numbers of individuals pursuing post-secondary education (Kerckhoff, 2002; Larson, 2002; Mortimer & Larson, 2002). During this period known as “post-adolescence”, further identity formation is believed to take place (Mortimer & Larson, 2002). Despite these suggestions, little research has been performed regarding identity development during post-adolescence. In addition, the role of leisure during the identity formation period has largely been overlooked. The few studies that have been conducted on this topic focus on the relationship between leisure participation and identity development, while failing to acknowledge the role of other salient leisure lifestyle variables such as leisure experience, motivation and meaningfulness. In addition, previous studies have used global measures of identity, rather than considering separate dimensions of personal and social identity. The present study expands upon previous literature by investigating personal and social identity development during post-adolescence, and the relationship between identity and a variety of leisure lifestyle variables.

Participants included 465 students from the University of Waterloo. Questionnaires were completed regarding leisure participation, meaningfulness derived from participation, leisure experience, motivation and identity. Results of the study indicate that identity development is still occurring during the period of post-adolescence. Leisure participation, meaningfulness, leisure experience and motivation all displayed some degree of a relationship with identity. Personal and social identities yielded differing associations with these leisure lifestyle factors. Personal identity was most strongly related to leisure experience, while social identity was associated with leisure motivation. Although causality cannot be inferred from the results of this study, indications do exist that these leisure lifestyle variables may exert some influence on the identity development process.

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## CHAPTER 1: INTRODUCTION

### Adolescent Identity Formation

Identity formation is the primary developmental task that occurs during the period of adolescence (Erikson, 1950, 1968). This successful completion of this process culminates with a sense of continuity of self and enables the adolescent to successfully commence the subsequent tasks of adulthood (Erikson, 1950). The identity development process starts during early adolescence (Erikson, 1950). This period is marked by the onset of puberty (Erikson, 1950), which typically occurs at eleven years of age for females and twelve years of age for males (Richards, Abell & Petersen, 1993). The end of adolescence is highly variable (Kleiber & Rickards, 1985). Modell, Furstenberg and Hershberg (1977) suggest that five circumstances indicate the conclusion of adolescence and the commencement of young adulthood. These transition events include leaving school, entering the work force, moving away from family, getting married, and setting up a household.

Although it has been suggested that late adolescence may typically end at around 23 years of age (Santrock, 1990), the age at which adolescence ends and young adulthood begins seems to be increasing greatly both in North America and around the world (Larson, 2002; Mortimer & Larson, 2002). Academics have suggested that in the recent past, the period of adolescence is being prolonged due to increasing numbers of youth seeking out post-secondary education (Kerckhoff, 2002; Larson, 2002; Mortimer & Larson, 2002). This new demand for increased education is due largely to the higher requirements needed to obtain desirable jobs in the workforce (Larson, 2002; Mortimer & Larson, 2002). In 1971, only 34 percent of Americans between the ages of 25 to 29 had attended college, yet thirty years later, in 2001, over 58 percent of 25 to 29 year olds had some college education (Caldwell, 2005a). Students attending university and college are thought to be in a period of extended adolescence, sometimes called “post-adolescence” (Mortimer & Larson, 2002). It

is speculated that this post-adolescent phase may provide an opportunity for further identity development to occur (Mortimer & Larson, 2002). Despite these predictions, minimal identity research has been performed using this population of adolescents.

### **Adolescent Leisure Participation Outcomes**

Recreation and leisure activities may be related to identity development as they comprise an incredibly important part of an adolescent's daily life. Every day, adolescents spend 40 to 50 percent of their time awake engaging in some sort of leisure pursuit (Caldwell, 2005a; Kleiber, Larson & Csikszentmihalyi, 1986; Shaw, Kleiber & Caldwell, 1995). According to the Australian Bureau of Statistics (1993, as cited in Lobo & Niepoth, 2005), adolescents between the ages of 15 and 24 spend approximately six hours each day in free time activities. Due to the enormous amount of time adolescents devote to these activities, researchers have put considerable energy into investigating adolescent leisure activities and their outcomes (Bowker, Gadbois & Cornock, 2003; Darling, Caldwell & Smith, 2005; Eccles & Barber, 1999; Eccles, Barber, Stone & Hunt, 2003; Field, Diego & Sanders, 2001; Marsh & Kleitman, 2003; Spreitzer, 1994; Tiggemann, 2001).

Participation in leisure activities during adolescence has consistently been associated with a variety of benefits including psychological, physiological and social benefits. Leisure participation improves mental health of participants (Larson & Kleiber, 1993) by increasing self-esteem (Marsh & Kleitman, 2003; Tiggemann, 2001) and decreasing levels of depression (Field et al., 2001). Physiological benefits of leisure include decreasing levels of body fat (Klentrou, Hay & Plyley, 2003), reducing illnesses (Klentrou et al., 2003), decreasing body dissatisfaction (Tiggemann, 2001) and increasing feelings of physical attractiveness (Bowker et al., 2003). In addition, participation in physical activity decreases drug use among adolescents (Field et al., 2001). Adolescent leisure participation also has numerous social benefits including improved relationships with parents (Field et al.,

2001), and having greater access to support from teachers, coaches, advisors and other non-familial adults (Eccles et al., 2003). Moreover, leisure participation promotes having peer groups of friends who engage in the same activities (Eccles et al., 2003).

Adolescent leisure participation also is related to numerous positive academic outcomes. Strong positive relationships have been found between extracurricular activities and grades (Darling et al., 2005; Eccles & Barber, 1999; Eccles et al., 2003; Field et al., 2001; Marsh & Kleitman, 2003; Spreitzer, 1994), attitudes towards school (Darling et al., 2005; Eccles & Barber, 1999; Eccles et al., 2003), and time spent on homework (Marsh & Kleitman, 2003). In addition, leisure participation is associated with high academic aspirations (Darling et al., 2005; Marsh & Kleitman, 2003). In particular, relationships have been found between adolescent leisure participation and the likelihood of attending and graduating college or university (Eccles & Barber, 1999; Eccles et al., 2003; Marsh & Kleitman, 2003). This relationship is especially strong for male participants (Marsh & Kleitman, 2003). Moreover, athletic participation during adolescence is positively related to total years of post-secondary education (Eccles et al., 2003).

However, associations have been identified between adolescent leisure participation and risky behaviours. Extracurricular participation is associated with increased rate of alcohol consumption and getting drunk (Darling et al., 2005; Eccles & Barber, 1999; Eccles et al., 2003). This association is particularly strong for sport participants, especially adolescents who participate in team sports (Eccles et al., 2003). These adolescents are also more likely than their peers to have friends who consume alcohol (Eccles et al., 2003).

### **Identity and Leisure**

Leisure behaviours have clear associations with many aspects of an adolescent's lifestyle. Given the importance of both leisure as well as the identity formation process during adolescence, relationships between the two may be anticipated. Despite this, little

attention has been given to research in this area. Academics have only begun to investigate the relationship between adolescent leisure participation and identity development (Kivel & Kleiber, 2000; Malmisur, 1976; Munson & Widmer, 1997; Shaw et al., 1995). While most researchers accept that leisure plays an important role in identity formation (Barber, Stone, Hunt & Eccles, 2005; Caldwell, 2005b; Dworkin, Larson & Hansen, 2003; Haggard & Williams, 1991, 1992; Kleiber, 1999), what leisure behaviours might be most salient in this process are not yet well understood. Most previous identity research has focused on the relationship between identity and various types of leisure activities (Malmisur, 1976; Munson & Widmer, 1997; Shaw et al., 1995). While participation in some types of leisure activities seems to enhance identity development (Kivel & Kleiber, 2000; Munson & Widmer, 1997), other types of leisure behaviour, such as television viewing, may actually hinder identity formation (Shaw et al., 1995).

Uncertainty remains surrounding the relationship between identity and various leisure pursuits. Conflicting results exist in regards to identity and sport participation. While some researchers suggest that sports and physical activity positively influence adolescent identity (Kivel & Kleiber, 2000; Shaw et al., 1995), other studies indicate that sport participation may actually stall the identity development process (Malmisur, 1976). Similarly, some studies have found positive relationships between identity and social activities (McIntosh, Metz & Youniss, 2005) while others have found them to be unrelated (Shaw et al., 1995). These results indicate that the type of leisure activity may not be the only variable involved in the relationship between leisure and identity. Other factors, such as the *experience* during leisure, the *meaningfulness* derived from leisure, and *motivation* for participation, may play a role in mediating such a relationship. These aspects are important to leisure lifestyle and therefore may also have a relationship with identity. The present study will seek to investigate relationships between these variables.

Gender may have mediating effects on the relationship between identity and leisure. Previous studies have identified that some leisure pursuits are related to identity for participants of one gender, yet have no association amongst participants of the other gender (Malmisur, 1976; Shaw et al., 1995). This gender difference may be a function of differences in the identity formation process between men and women (Adams & Fitch, 1982) or may be a by-product of society's creation of gender stereotypes (Shaw et al., 1995). The existence of these gender differences indicates that it is critical that gender be taken into account during identity and leisure research.

### **Purpose of the Study**

The purpose of the present study was to examine the relationship between university students' leisure and their identity. In particular, characteristics of post-adolescents' leisure lifestyle were examined with respect to their association with identity. Such leisure lifestyle characteristics include leisure participation, meaningfulness derived from participation, leisure experiences, and motivation for participation. More specifically, the following research questions were investigated throughout the research:

1. Does a relationship exist between leisure participation and identity?
2. Is identity and meaningfulness of leisure participation related?
3. Are there associations between identity and aspects of the leisure experience?
4. Are identity and leisure motivation related?
5. Does a relationship exist between identity and various types of leisure activities (e.g., active vs. passive, structured vs. unstructured, competitive vs. non-competitive, high social vs. low social)?
6. Does gender have an affect on the relationships between leisure behaviour, motivation and identity?
7. Are there any differences in identity based on selected characteristics of the sample?

## CHAPTER 2: LITERATURE REVIEW

Before commencing any research in the areas of identity formation and adolescent leisure lifestyle, it is necessary to examine previous research in these fields. This literature review guided the current research in several ways. It helped identify any gaps in the identity and leisure literature and assisted in filling those gaps with the current research. It moulded the methodology of the present research by examining the methods used in previous research and identifying any methodological problems that exist. Finally, it provided conceptualizations of identity and leisure which influenced the operationalization of the variables and assisted in explaining the observed relationships in the present study.

### **Identity Research**

#### *Identity Definitions and Models*

Throughout the literature, identity has been referred to by many terms including self, ego, I, and me (Kroger, 1989) and will hereon be referred to as identity. Identity has been defined by many academics such as Erikson (1950, 1968), Marcia (1980) and Waterman (1984). Many similarities exist between these definitions of identity. Each definition serves to provide continuity between past, present and future, integrate behaviours in multiple areas of life, and explain one's motivation for behaviours as developing a sense of identity (Waterman, 1984). As Erikson's conceptualization of identity has been used extensively throughout the academic areas of psychology, sociology, and leisure (Cote & Levine, 2002; Kleiber, 1999), his definition of identity was used in the present paper. He describes identity as:

a sense of inner wholeness...between that which he has come to be during the long years of childhood and that which he promises to become in the anticipated future; between that which he conceives himself to be and that

which he perceives others to see in him and expect of him (Erikson, 1968, p. 87).

Many different models of identity formation have been developed including Erikson's Psychosocial model, Blos' Individuation model, Kolberg's Cognitive Development model, Loevinger's Ego Development model, and Kegan's Constructive-Developmental model (Kroger, 1989). In each of these models, identity is developed gradually through the adolescent phase and is seen as a process which involves reformulating one's identity and distinguishing between the self and other (Lavoie, 1994). Despite some similarities that exist between these models, only Erikson's (1950) model has been given substantial attention within the identity literature (Lavoie, 1994). This may be due to the failure of the other models to take the environment into account in the identity development process (Kroger, 2000). In contrast, Erikson's (1950, 1968) model was the first to recognize the role of surroundings in shaping identity (Kroger, 1989). Moreover, other models display a lack of precision as well as methodological problems and have not been verified empirically (Kroger, 1989). Therefore, Erikson's psychosocial model guided the conceptualization of identity in the present research.

#### *Erikson's Psychosocial Model of Identity*

Erikson's (1950) conceptualization of identity formation has been the basis of most recent identity research, particularly in the fields of psychology and sociology (Cote & Levine, 2002; Kleiber, 1999). Erikson's psychosocial model of development contains eight developmental stages in which all humans progress in sequential order throughout the lifespan. These stages include: Trust vs. Mistrust, Autonomy vs. Shame and Doubt, Initiative vs. Guilt, Industry vs. Inferiority, Identity vs. Identity Confusion, Intimacy vs. Isolation, Generativity vs. Stagnation, and Integrity vs. Despair. Each stage takes place during a

different period of life and represents a crisis that must be overcome by the individual in order for healthy development to continue.

Erikson's (1950, 1968) fifth stage, Identity vs. Identity Confusion, takes place throughout the adolescent period. While identity is believed to exist in some form from birth, during this adolescent stage, individuals develop an identity through the assimilation of previous childhood identifications and the modification of these identifications into a coherent whole. Consistency of the new identity must be established within the individual as well as in the individual's portrayal to others. The adolescent period consists of the exploration of various identities and culminates with the commitment to one final identity. This final identity results in "a subjective sense of an invigorating sameness and continuity" (Erikson, 1968, p. 19). While most adolescents successfully develop a consistent identity during adolescence, others fail to develop such an identity thereby leading to identity confusion. According to Erikson (1950, 1968), identity confusion primarily occurs as a result of the adolescent's failure to commit to an occupational or sexual identity. Characteristics of identity confusion include delinquent and psychotic incidents, over-identification with others, isolation, mild depression, and inability to concentrate.

Despite the widespread acceptance of Erikson's (1950, 1968) identity model, some criticisms of the model do exist. Cote and Levine (2002) argue that Erikson's eight life stages are based around the masculine, European experience and therefore may not be generalizable to women and people of other cultures. The contemporary relevance of Erikson's model has also been questioned (Sorell & Montgomery, 2001). In addition, validation of Erikson's theory has relied primarily on clinical observation and logical argument rather than empirical studies (Rosenthal, Gurney & Moore, 1981). Despite this, Erikson's conceptualization still forms the basis for much of the current identity research (e.g., Adams, Berzonsky & Keating, 2006; Anthis & LaVoie, 2006; Berman, Weems, Rodriguez & Zamora, 2006; Hofer, Busch, Chasiotis & Kiessling, 2006; Markstrom, Li,

Blackshire & Wilfong, 2005; Seginer & Noyman, 2005; Shaw et al., 1995) and his work is recognized as a foundation for further models of identity (Cote & Levine, 2002).

### *Marcia's Identity Status Paradigm*

Marcia's (1966) conceptualization of identity statuses has also been widely used in identity development research (Balistreri, Bush-Rossnagel, Geisinger, 1995) and is the most popular Neo-Eriksonian framework (Cote & Levine, 2002). While Erikson's (1950) bipolar categories of identity and identity confusion provide limited information regarding the resolution of an individual's identity conflict, Marcia's (1966) paradigm provides greater specificity regarding the identity formation process (Marcia, 1980). Marcia's paradigm categorizes individuals into one of four identity statuses based on the individual's exploration of identity alternatives and commitment to a final identity. These identity statuses include identity achievement, identity diffusion, identity moratorium, and identity foreclosure. Individuals who have reached the identity achievement status have examined alternative identities and have made a commitment to one final identity. In contrast, individuals in the identity diffusion category have not yet examined alternative identities and have not made a commitment to one identity. The identity moratorium category describes individuals who are currently exploring identity alternatives, yet no commitment to an identity has been made. Finally, individuals are classified into the identity foreclosure status when they have not explored alternative identities, however have already made a commitment to one identity.

The identity development pattern among Marcia's (1966) four identity statuses has been investigated (Adams & Fitch, 1982; Lavoie, 1994; McIntosh et al., 2005; Waterman, 1982). The most common pattern of identity development is from foreclosure to moratorium and finally to identity achievement (Lavoie, 1994), however other patterns of development also have been acknowledged (Adams & Fitch, 1982; McIntosh et al., 2005; Waterman, 1982). While Erikson's (1950, 1968) model suggests that identity development can only

progress forward, Marcia's (1966) identity status model indicates that regression from an advanced identity stage to a less advanced stage is possible. In Adams and Fitch's (1982) study of college students, over 10 percent of students regressed in their identity status over a one year period. Similar regression patterns also have been identified among high school students (McIntosh et al., 2005); however, among college students, stability or positive advancement of identity status is most likely to occur (Adams & Fitch, 1982). Understanding the sequencing of identity statuses is important to the complete understanding of identity development, yet simply knowing the pattern does not explain what happens during the transition between statuses (Lavoie, 1994). According to Lavoie (1994), "a major problem with identity models is their failure to address the mechanisms involved in the transition between statuses even though these models recognize identity as a developmental process" (p. 23).

#### *Identity Formation: Discovery Versus Creation*

Much debate has occurred with respect to the process by which identities are developed (Waterman, 1984). There are two plausible methods by which an individual's identity is formed – discovery and creation (Waterman, 1984). The discovery method supports the existence of a true self (Waterman, 1984). Through the process of identity development, an individual comes to discover the true self by examining talents, abilities, and personal experiences, as well as relying on intuition to explore a small range of possible identities. In contrast, the creation method suggests there is no true self but rather an infinite number of identities that can be developed (Waterman, 1984). Identity development involves experimentation with a wide variety of identities, receiving feedback from others, and consciously deciding on an identity based on this feedback as well as internal responses. It has been suggested that individuals may choose the method they prefer in the formation of their identity (Waterman, 1984). As the final outcome of both discovery and creation is a

commitment to an identity, each method seems to be equally effective in achieving the goal. Although Waterman (1984) supposes that an individual's identity emerges through self-discovery, the "true" method by which identities are developed is not yet known. More research is necessary to determine this.

### *Identity Development Processes*

Academics have expanded upon Erikson's (1968) conceptualization of identity development to further describe the processes by which identity is formed. Erikson (1968) acknowledges the roles of identification and integration in the formation of identity. More recently, it has been hypothesized that a third process plays a role in this task. Identity development is now believed to occur through the three processes of individuation, identification, and integration (Kleiber, 1999; Mannell & Kleiber, 1997). Individuation assists adolescents in defining themselves as unique individuals (Mannell & Kleiber, 1997) and results in a growing sense of autonomy (Josselson, 1980). This process must occur in order for adolescents to gain a sense of difference from others, particularly their parents (Josselson, 1980). In contrast to individuation, the process of identification involves the adolescent identifying with groups of individuals (Kleiber, 1999). While individuation maintains the uniqueness of the individual (Mannell & Kleiber, 1997), identification provides a sense of belonging and connectedness to others (Kleiber, 1999). In order for identity formation to successfully occur, these two distinct aspects of identity must be combined into a coherent whole through the process of integration (Kleiber, 1999). It is through integration that various components of an individual's identity are organized to form a unified sense of self (Kleiber, 1999).

### *Identity Development Styles and Strategies*

During the individuation, identification and integration processes of identity formation, various strategies may be employed. Berzonsky (1990) proposed that individuals may use one of three styles when encountering identity issues: informational orientation, diffuse/avoidant orientation, and normative orientation. Individuals who utilize an information oriented style deliberately seek out, evaluate, and use information regarding their identity when encountered with a crisis (Berzonsky & Ferrari, 1996). These individuals are internally motivated to engage in exploration of their identity and are often classified as being in Marcia's (1966) identity achievement or identity moratorium categories (Berzonsky & Ferrari, 1996).

In contrast, individuals who engage in diffuse or avoidant strategies often display reluctance to examining identity issues (Berzonsky & Ferrari, 1996). These individuals may become defensive and typically only explore their identity for brief periods of time with the use of external rewards. They are primarily categorized as being in the identity diffusion stage (Berzonsky & Ferrari, 1996).

Individuals utilizing the final orientation, normative identity style, typically conform to the expectations of others and may rely greatly on their relationships with others for their self-definition. These individuals protect their existing identity by failing to explore any information that may threaten aspects of their self. They usually fall into Marcia's (1966) category of identity foreclosure (Berzonsky & Ferrari, 1996). All adolescents are capable of utilizing each of the three identity orientations, however influences such as situational factors and personal preference may impact which orientation is used (Berzonsky & Ferrari, 1996).

Cote and Levine (2002) also developed a typology of strategies employed in the identity formation process. These include Refusers, Drifters, Searchers, Guardians, and Resolvers (Cote & Levine, 2002). Refusers resist the identity formation process and

commencement of adulthood, often by exhibiting child-like behaviour and dependence on others. Similar to Refusers, Drifters resist identity development by failing to integrate themselves into a community. Their behaviour is characterized by poor impulse control and lack of commitment to relationships or to the community. They often hold the belief that conforming to adult society is “selling out” or feel that they are too good to integrate themselves.

In contrast to the previous two identity strategies, Searchers are focused on integrating themselves into adulthood, yet cannot find a community that meets their unrealistically high needs and expectations. They strive for perfection in themselves, often leading to dissatisfaction and despair. The Guardian typology describes individuals who have internalized values throughout childhood and are prepared to move readily through adolescence into adulthood. Their strong commitment to their values can hinder their identity development by failing to enable them modify their beliefs based on their developmental experiences. In addition, these individuals may find it difficult to differentiate themselves from their parents due to the values they share.

Finally, the Resolver successfully forms an identity by learning about their skills and abilities and developing their knowledge of themselves through their developmental experiences. This results in their successful transition into adulthood. Cote and Levine (2002) suggest that most adolescents have the potential to become Resolvers, yet may not follow this typology due to various constraints within their life. They argue that in modern societies, there are greater numbers of identity development strategies used than in the past. This may be due to the increasing number of choices available regarding identity formation and lack of coping mechanisms to deal with these greater numbers of options (Cote & Levine, 2002). This greater number of choices involving identity may be further enhanced by the increasing post-adolescent period during college and university.

### *Dimensions of Identity*

Identity is not a uni-dimensional construct but is rather composed of multiple facets. Erikson (1968) acknowledged the existence of several components of identity including an ego dimension, a personal dimension, and a social dimension. Ego identity refers to a continuity of personality. Personal identity refers to behaviour that differentiates an individual from others. Finally, social identity involves an individual's relationships with others (Cote & Levine, 2002). While some academics have maintained the integrity of these three distinct elements of identities (e.g., Cote & Levine, 2002), others only acknowledge the existence of personal and social identity (e.g., Dimanche & Samdahl, 1994; Kivel & Kleiber, 2000; Kleiber, 1999). Recent conceptualizations of personal and social identity may have been modified to include aspects of ego identity. In particular, personal identity now seems to include both personal and ego identity dimensions. For example, definitions of personal identity encompass internal consistencies, the similarities and differences with others, and plans and goals for the future (Kleiber, 1999). In comparison, definitions of social identity involve identification with groups (e.g., family, neighbourhood, workplace), roles (e.g., mother, doctor), and conditions (e.g., race, sexuality), and the significance placed on membership of these social groups (Kleiber, 1999; Tajfel, 1981).

Researchers have investigated the importance placed on both personal and social identity in describing one's self. Babbitt and Burbach (1990) identified a significant trend towards identifying the self in terms of personal identity rather than social identity. This pattern represents a substantial change from the recent past when social identities were more important. Among college students in the 1950s, only 30 percent described themselves primarily by their personal identity, compared to 80 to 90 percent in the 1980s (Babbitt & Burbach, 1990). Female college students as well as students who were married or divorced placed slightly less emphasis on personal identity and tended to focus on their social identity more than males and single college students (Babbitt & Burbach, 1990).

Within the psychology and leisure literature, identity has been measured as both a global and domain specific construct. While some researchers believe that only one global measure of identity should be used (e.g., Adams, Shea & Fitch, 1979), others argue that the use of multiple measures will provide more precise measures of identity in various domains such as occupation, religion, and politics (e.g., Dellas & Jernigan, 1990). These domains vary in their importance between individuals as well as within an individual across time (Kleiber, 1999). Some domains are more salient to an individual's identity than others (Kleiber, 1999). As domains increase in salience, the domain becomes more important to defining identity. Studies have shown that incongruence exists between the various identity domains (Dellas & Jernigan, 1990; Goossens, 2001). Within religious, occupational, and political domains, only four percent of participants were classified as having the same identity status in all three areas (Dellas & Jernigan, 1990). Global measures of identity do not provide information regarding the existence of varying identity statuses among domains. It is recommended that domain specific measures be used whenever possible (Goossens, 2001); however, some academics suggest that the use of global identity measures is appropriate when investigating correlations between identity and other constructs (Goossens, 2001).

#### *Identity Measures: Interviews and Questionnaires*

Interviews and questionnaires have both been used to measure identity development. Initially, interviews were used to assess identity (Marcia, 1966). Marcia's (1966) Identity Status Interview was the first interview used to classify individuals into one of the four identity statuses. This 15 to 30 minute semi-structured interview determines an individual's identity status in the ideological areas of religion, politics, and occupation based on the presence of exploration and commitment in each area (Marcia, 1966). While an identity status is determined for each of the three domains, a global measure of identity

development can also be assessed (Waterman, 1993). This global identity status can be determined by adding together domain specific statuses, or by using clinical judgment in determining which of the domains best represents the individual's global measure of identity (Waterman, 1993). The original Identity Status Interview has subsequently been revised to include the interpersonal domains of gender roles, dating, and friendship (Grotevant, Thorbecke & Meyer, 1982), as well as attitudes toward premarital intercourse (Marcia & Friedman, 1970).

Although Marcia's (1966) Identity Status Interview has good inter-rater reliability and is psychometrically sound, (Grotevant et al., 1982), it is costly and time consuming to administer (Balistreri et al., 1995; Bennion & Adams, 1986); therefore, objective measures of identity are increasingly being used to overcome some of these limitations (Schwartz, 2004). Questionnaires provide a faster, objective and less costly method of assessing identity development. Many identity questionnaires have been developed including the Objective Measure of Ego Identity Status (Adams et al., 1979), Dellas Identity Status Inventory (Dellas & Jernigan, 1990), Ego Identity Process Questionnaire (Balistreri et al., 1995), Sense of Identity subscale of the Resource Associates' Adolescent Personal Style Inventory for College Students (Lounsbury, Saudargas, & Gibson, 2004), Utrecht-Groningen Identity Development Scale (Meeus and Dekovic, 1995), Athletic Identity Measurement Scale (Brewer, Van Raalte & Linder, 1993), the Identity subscale of Collective Self-Esteem Scale (Luhtanen & Crocker, 1992), and Erikson Psychosocial Stage Inventory (Rosenthal, Gurney & Moore, 1981). Three of these scales appear frequently throughout the leisure and psychology literature and will be reviewed below.

The Objective Measure of Ego Identity Status (OM-EIS) was the first identity scale developed in order to overcome some of the limitations of interview methods (Adams et al., 1979). This scale assesses the four identity statuses by measuring the presence or absence of crises and commitment in the occupational, religious, and political domains. Respondents

are classified into a global identity status based on their responses (Grotevant & Adams, 1984).

The OM-EIS has been modified twice since its original creation (Bennion & Adams, 1986; Grotevant et al., 1982). The Extended Version of the Objective Measure of Ego Identity Status (EOM-EIS) expands upon the original measure by incorporating philosophical lifestyle items into the ideological domain and adding an interpersonal domain which includes friendship, dating, sex roles, and recreation (Grotevant et al., 1982). The scale classifies respondents into identity statuses for both ideological and interpersonal domains as well as an overall identity status (Grotevant & Adams, 1984). However, the EOM-EIS has been criticized in the literature for the ambiguous nature of its items (Bennion & Adams, 1986). Bennion and Adams (1986) suggest that as many as 75 percent of the scale's interpersonal items are unclear and therefore can be easily misinterpreted.

A revision of the EOM-EIS was made in order to improve the assessment of the scale's interpersonal items (Bennion & Adams, 1986). The ambiguous items were rewritten to improve participants' understanding of these items. These revisions maintained the psychometric soundness of the scale, however theoretically inconsistent results have emerged in regards to the number of factors present within the scale (Bennion & Adams, 1986). Other limitations of the EOM-EIS-II include the reference to marriage within the sex role items rather the investigation of sex roles in general (Balistreri et al., 1995). Individuals who are not within the institution of marriage may not be able to accurately respond to these sex role items even though they may still have opinions about sex roles. In addition, the items of the EOM-EIS-II assess the presence or absence of each of the four identity statuses but do not differentiate between the exploration and commitment dimensions of each status (Balistreri et al., 1995). Despite these limitations of the scale, the EOM-EIS-II has been widely used within identity development research (e.g., Bergh & Erling, 2005; Bishop, Weisgram, Holleque, Lund & Wheeler-Anderson, 2005; Streitmatter, 1993).

In contrast to the OM-EIS, the Ego Identity Process Questionnaire (EIPQ; Balestreri et al., 1995) is a relatively new measure of identity development. It was developed in response to some of the limitations of the OM-EIS and EOM-EIS-II (Balestreri et al., 1995). During scale development, the recreation and philosophical lifestyle domains used in the EOM-EIS-II were replaced by new domains of family and values. All items were rewritten to assess exploration and commitment in each domain. In addition, the sex roles domain was further modified to examine gender roles outside the context of marriage.

The EIPQ measures the four ideological domains of politics, religion, occupation, and values, and the four interpersonal domains of friendship, dating, family, and gender roles (Balestreri et al., 1995). In addition to exploration and commitment scores, participants' identity statuses can be determined by establishing the position of the participants' scores in relation to the median scores. The EIPQ is a reliable and valid instrument (Balestreri et al., 1995) and has improved upon some of the limitations of previous measures of identity development. It has shown to be an appropriate measure of the construct and has been frequently used to assess identity (e.g., Anthis & Lavoie, 2006; Berman, Weems, Rodriguez & Zamora, 2006; Berman, Weems & Stickle, 2006; Luyckx, Goossens, Soenens, Beyers & Vansteenkiste, 2005).

The Erikson Psychosocial Stage Inventory (EPSI; Rosenthal et al., 1981) is yet another scale that has been used in numerous studies to measure identity (e.g., Seginer & Noyman, 2005; Shaw et al., 1995). This inventory contains six subscales designed to assess Erikson's first six psychosocial stages. The identity subscale contains items designed to measure the successful or unsuccessful resolution of the identity crisis during this stage. This Likert-type scale has satisfactory psychometric properties and is a successful tool in operationalizing Erikson's psychosocial model (Rosenthal et al., 1981).

These three commonly used identity questionnaires all measure identity as a single construct rather than differentiating between ego, personal and social dimensions as

conceptualized by Erikson (1968). This observation is consistent with Cote and Levine's (2002) criticism that most identity research fails to distinguish between the various dimensions of identity. The items in the EOM-EIS-II, EIPQ, and EPSI seem to measure ego and personal aspects of identity but are limited in their measurement of social identity. Luhtanen and Crocker (1992) acknowledged the lack of scales which assess social identity and developed the first measurement tool to do so. While the previously discussed identity scales operationalized identity based on Erikson's (1950; 1968) conceptualization, Luhtanen and Crocker's (1992) Collective Self-Esteem Scale conceptualized social identity based on social identity theory. Based on this theory, social identity is composed of group memberships in categories such as gender, race, religion, nationality, ethnicity, and socioeconomic class (Luhtanen & Crocker, 1992). This differs from Erikson's (1950; 1968) conceptualization of social identity in reference to social roles and relationships with others.

Despite this differing theoretical background, Luhtanen and Crocker's (1992) scale has potential for operationalizing social identity. The scale items assess meaningful aspects of social identity such as how others reflect an individual's image and how others contribute to a sense of identity; however, these items are asked in regards to social group memberships rather than social relationships. Yet, slight modification of the wording of the scale items has the ability to overcome the limitations of this research tool and enable it to be adapted for this research. The present study sought to conquer these weaknesses of this social identity measure.

### *Gender Differences in Identity Development*

Questions remain regarding gender differences in identity development. While some research suggests that men may develop their identities at a faster rate than women (Adams & Fitch, 1982; McIntosh et al., 2005), other studies have found no difference in the rate of identity development (Shaw et al., 1995). Similarly, some studies indicate that men

and women follow the same pattern of identity development (Streitmatter, 1993), while others suggest that this developmental pattern may differ for women (Adams & Fitch, 1982). In a study of college students, both genders were equally likely to experience positive advancement of identity, yet females had a higher tendency to remain stable in their identity development while males were slightly more likely to regress (Adams & Fitch, 1982).

Some academics suggest that females and males may in fact develop their identity at the same rate, however argue that the tools currently used to measure identity do not accurately assess the ways in which female identity development occurs (Gilligan, 1982). Gilligan (1982) suggests that the identity formation of women relies more on relationships with others than that of men. She believes that current identity measures do not have enough focus on social relations and thereby do not validly assess women's true identity (Gilligan, 1982). Many inconsistent conclusions still exist regarding gender and identity. More research is needed in this area to clarify any gender differences that may exist.

#### *Age of Identity Development*

Although Erikson (1950) indicates that identity formation occurs during adolescence, it is unclear at exactly what age this event takes place. Studies have found that among 12 year old males, foreclosure and identity diffusion statuses are the most predominant identity statuses (Marcia, 1980). By age 18, many individuals begin the transition into moratorium and identity achievement statuses (Marcia, 1980). Finally, by age 21, most individuals are classified as identity achievement status (Marcia, 1980). This suggests that the period between ages 18 to 21 is critically important, as it is during this time in which the final identity of an individual is developed. Other studies have indicated that identity development may continue beyond the age of 21. Stark and Traxler (1974) found that youth ages 21 to 24 had significantly more developed identities than youth ages 17 to 20; therefore, the formation of identity may continue well beyond the high school years.

This follows Erikson's (1968) notion of psychosocial moratorium. Moratorium is a period of delay from adult commitments which is characterized by society's permissiveness for extended youthfulness. Erikson (1968) suggests that academic life is one of these moratoriums in which adolescents have an extended period of time for identity development to occur. A few studies have begun to investigate identity during the academic moratorium of university (e.g., Adams et al., 2006; Berman et al., 2006; Hofer et al., 2006; Lounsbury, Huffstetler, Leong & Gibson, 2005; Munro & Adams, 1977). Results of a study conducted by Berman and colleagues (2006) indicated that university students are more likely to have an identity achievement status than high school students. Moreover, individuals who enter the work force directly after high school have a higher likelihood of having an identity achievement status compared to individuals who attend college (Munro & Adams, 1977). This suggests that this moratorium period does exist and that college and university students may still be developing their identity during this post-adolescent period of life.

Of the few studies that exist regarding identity development among university students, all investigate relationships between identity and correlates such as Berzonsky's identity styles (Adams et al., 2006), romantic attachment (Berman et al., 2006), motive congruence (Hofer et al., 2006), and academic success (Lounsbury et al., 2005). To date, no research has investigated the relationship between identity and leisure among post-adolescents. This relationship is worthwhile investigating, as leisure plays a salient role in the lifestyle of university and college students.

### **Leisure and Identity**

Associations between leisure and identity have been identified, yet the directionality of this relationship remains unclear. While some academics believe that leisure participation leads to identity development (e.g., Barber et al., 2005; Dworkin et al., 2003; Haggard & Williams, 1991; Kleiber, 1999; Mannell & Kleiber, 1997; Shaw et al., 1995), others suggest

that it is plausible that one's identity influences the leisure pursuits in which they participate (e.g., Dimanche & Samdahl, 1994). Dimanche and Samdahl (1994) developed a model which encompasses both perspectives. They suggest that while identity influences the choice of leisure participation, leisure participation also provides feedback to the self and others, thereby influencing identity. These relationships are outlined in Figure 1. Currently, the prominent theoretical perspective among leisure researchers is that leisure influences identity development. Affirmation theory helps explain this relationship between leisure and identity.

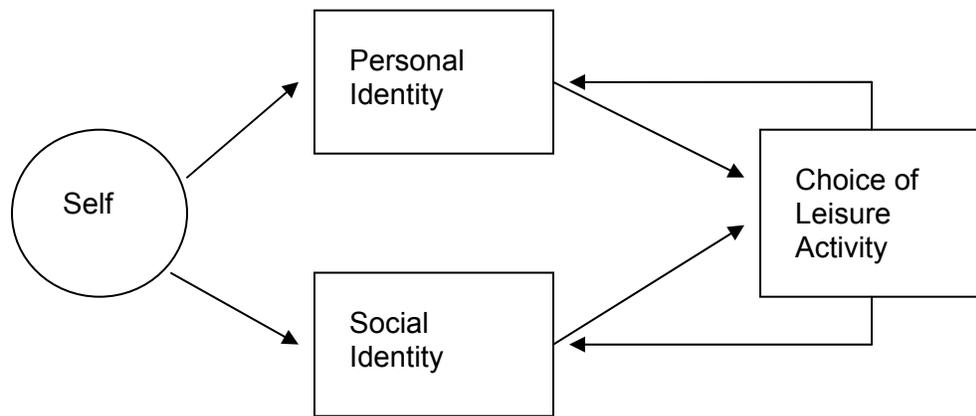


Figure 1  
Dimanche and Samdahl's (1994) model of leisure and identity.

### *Leisure, Identity and Affirmation Theory*

Affirmation theory suggests that individuals form images of themselves through feedback received from their own behaviour as well as from others (Mannell & Kleiber, 1997). Identity develops from these images as feedback from the self and others becomes consistent. Leisure provides a context in which individuals are able to affirm their identity (Mannell & Kleiber, 1997). Through leisure participation, individuals are able to affirm their identity to themselves (Haggard & Williams, 1991, 1992) as well as express this identity to others (Barber et al., 2005; Haggard & Williams, 1992). For example, sporting activities

enable participants to experiment with whether being an athlete is a comfortable identity for them and also allows them to demonstrate to others that they are an athlete (Eccles et al., 2003). This provides participants with feedback both from within as well as from others and enables them to use this feedback during the identity formation process (Waterman, 1984).

Haggard and Williams (1991, 1992) discovered that leisure activities aid individuals in affirming their identity because they represent specific identity images associated with that activity. Leisure activities may be selected to validate certain identity images to one's self and to express these identity images to others. Through the adoption of identity images during leisure, individuals are able to receive feedback and evaluate whether these identity images are a comfortable fit with identity (Haggard & Williams, 1992).

Leisure activities may play a role in affirming identity during post-adolescence as they provide a context which is conducive to identity development (Caldwell, 2005b; Kleiber, 1999). During leisure, individuals experience high degrees of freedom and control which are unique to leisure settings (Eccles et al., 2003; Kleiber et al., 1986). This freedom enables them to engage in reflection and experimentation of their identity (Dworkin et al., 2003; Eccles et al., 2003; Larson, 1994), and is thought to facilitate the individuation and identification processes of identity development (Kleiber, 1999).

### *Leisure and Individuation*

During leisure, individuation can occur through the exploration of identity alternatives (Kleiber, 1999). These identity alternatives provide opportunities to engage in different ways of acting and thinking and may expand personal interests (Kleiber, 1999). Adolescents report that the exploration that occurs during leisure enables them to discover how new behaviours fit into their developing identity, gain new knowledge about the self and discover their limits (Dworkin et al., 2003). In addition, these experiences provide them with opportunities for reflection regarding their identity (Dworkin et al., 2003). Therefore, the

exploration that occurs through leisure plays a large role in individuation and the formation of personal identity.

Leisure participation in adolescence may result more from the desire for individuation rather than the quality of a leisure experience (Mannell & Kleiber, 1997). In a study by Kivel and Kleiber (2000), gay and lesbian adolescents participated in leisure primarily for the purpose of exploring their identity. Although these adolescents were interested in sports, their motivation to participate was not a result of their interest in the sport, but rather was due to the positive effects that sports had on their developing sense of personal identity (Kivel & Kleiber, 2000). Among female adolescents, sports were used as a way of seeking out other individuals who were of the same sexual identity. The women used these interactions to come to terms with their own sexual identity (Kivel & Kleiber, 2000).

#### *Leisure and Identification*

Leisure participation also aids in identity development by facilitating the identification process (Kleiber, 1999). Other participants engaging in the same leisure pursuit provide a reference group for the adolescent forming his or her identity (Larson, 1994). Feelings of connectedness with others develop from participating in leisure activities together (Kleiber, 1999). These connections with members of leisure reference groups enable the development of social identity to occur. For example, the majority of male athletes identify themselves as jocks rather than other descriptions such as brains or princesses (Barber et al., 2005). Those individuals who identify as jocks and engage in sporting activities feel more socially connected than those jocks who do not engage in sports (Barber et al., 2005). This suggests that leisure pursuits assist in social identity development through the formation of bonds between individuals engaging in the same leisure activities and the creation of membership within the reference group.

### *Relationships Between Leisure and Identity*

Despite the benefits to identity formation that are believed to occur through leisure participation, very few empirical studies exist on this topic. Positive relationships have been identified between identity and leisure pursuits such as faith-based activities (Larson, Hansen & Moneta, 2006), student government (Markstrom et al., 2005), volunteering (Markstrom et al., 2005) and thinking and contemplating (Munson & Widmer, 1997). Adolescents report that organized leisure activities enable identity development to occur more often than in other settings such as school (Larson et al., 2006). These leisure pursuits positively impact both personal and social identity (Barnett, 2006).

Some studies have investigated the positive relationships that exist between leisure and social identity (e.g., Groff & Zabriskie, 2006; Malcom, 2006; Tusak, Faganel & Bednarik, 2005). Although several factors may mediate this relationship, inconclusive results exist. While one study indicated that a participant's skill level in a leisure activity may have a positive association with their social identity (Malcom, 2006), other studies have indicated that this is not the case (Groff & Zabriskie, 2006; Tusak et al., 2005). Similarly, some studies have shown that a positive correlation exists between a participant's level of involvement in a leisure pursuit and their social identity (Van Raalte, Brewer, Brewer & Lindner, 1992), while other studies have not found this relationship (Groff & Zabriskie, 2006). Further research is necessary to confirm any moderating relationships that may exist between leisure and social identity.

A study by McIntosh and colleagues (2005) suggests that leisure activities may explain a substantial portion of identity. Their study revealed that the leisure activities of adolescents in grade 10 explained 18.2 percent of their identity. By grade 12, the proportion of identity explained by leisure activities had increased to 28.6 percent. This indicates that as adolescents age, their leisure pursuits may play a larger role in defining their identity.

Although positive relationships may result between leisure and identity, leisure pursuits also have the potential to impede identity development. According to Kleiber (1999), there are three ways in which this can occur: deviance, overinvestment and other-directedness. Deviance can impede identity development when drug and alcohol use, or other deviant behaviour becomes self-defining and the individual begins to identify with others who are also defined by their deviance. Under most circumstances however, drug and alcohol use is simply a form of self-expression and may actually contribute to the individuation process of identity development (Kleiber, 1999). Overinvestment is another way in which leisure may impede identity development. This occurs when an individual is over-committed to a leisure activity and fails to explore other identity alternatives. The individual may identify with the activity to the extent that their uniqueness is damaged and they are de-individuated (Kleiber, 1999). Finally, leisure may disrupt identity development through other-directedness. This may occur when an individual is attracted to the identity image or status associated with an activity that is inconsistent with their abilities and potentials. Unless the desired identity image is reinforced by an individual's ability, it will not result in a sense of identity and may negatively impact self-esteem (Kleiber, 1999).

The relationship between leisure and identity may vary depending upon the outcome of leisure participation. A study by Barnett (2006) investigated the effects of trying out for school activities such as dance and cheerleading. While successfully being chosen for the team had positive effects on both personal and social identity, those who were not selected sustained extensive negative effects to their identity (Barnett, 2006).

Shaw and colleagues' (1995) research indicates that leisure activities can either benefit or hinder adolescent identity development depending on the type of activity and the participant's gender. Among male adolescents, television watching was negatively related to identity development, however these results were not found for females. In addition,

participation in sports was positively related to identity in females, yet no relationship was present for male participants.

Other research findings conflict with Shaw and colleagues' (1995) study (Malmisur, 1976; Munson & Widmer, 1997). Malmisur (1976) found that sport participation may actually hinder identity development. Among college football players, identity development was significantly behind that of a comparison group. The comparison group was composed only of females, therefore the observed variations could be a result of gender differences rather than sport participation (Malmisur, 1976). However, based on this study as well as Shaw and others' (1995) research, there is reason to suspect that sport participation may in fact inhibit the identity development of adolescent males.

### *The Influence of Gender*

Previous research suggests that an individual's gender may mediate the relationship between leisure participation and identity development (e.g., Malmisur, 1976; Shaw et al., 1995). These gender differences may be due to society's established gender roles. For example, sports have traditionally been defined as a male domain (Messner, Duncan & Jensen, 1993). Within early childhood, sports become sex-typed as male activities, thereby inhibiting female participation within these leisure pursuits (Shakib, 2003). Moreover, Western feminine ideals are incongruent with sport participation (Hall, Durborow & Progen, 1986). The ideal woman is portrayed as small, thin, weak and heterosexual (Roth & Basow, 2004). Female athletic participation and the feminine ideal are not seen as compatible, as athletic women are muscular, strong and as a result are often labelled as homosexuals (Shakib, 2003). This incompatibility inhibits many girls from participating in sports (Shakib, 2003).

Females who participate in sports must resist these traditional gender norms (Shakib, 2003). Their sport participation enables them to explore a wider range of identity

alternatives than non-participants and may result in a higher level of identity development as seen in Shaw and colleagues' (1995) study. In contrast, male athletes may be conforming to masculine gender norms (Frank, 1999) and are therefore not exploring alternative identities. This lack of exploration may result in a lower level of identity formation and could explain why the college football players in Malmisur's (1976) study had lower than average measures of identity development. The differing relationships between sport participation and identity in male and female adolescents (Malmisur, 1976; Shaw et al., 1995) indicate the importance of examining the influence of gender within the identity development process. This relationship between gender, leisure and identity was investigated further in the present study.

## **Adolescent Leisure**

### *Leisure Lifestyles*

Much research has been devoted to examining the activities in which adolescents participate in their leisure time (Bynner & Ashford, 1992; Eccles & Barber, 1999; Eccles et al., 2003; Garton & Pratt, 1987; Hendry, 1983; Kleiber, Caldwell & Shaw, 1993; Kleiber et al., 1986; Lobo & Niepoth, 2005; Passmore & French, 2001; Shaw et al., 1995). Common leisure activities during adolescence typically involve solely adolescent participants and are often performed in groups (Hendry, 1983). Such activities may include dancing, youth clubs, drinking, dating, going out on the town and hanging around with friends (Hendry, 1983). During a study using the experiential sampling method, Kleiber and colleagues (1986) identified the leisure pursuits that are most commonly engaged in by adolescent high school students. These activities included socializing, watching television, non-school reading, sports and games, thinking, and arts and hobbies. Other studies have investigated the leisure activities that adolescents most enjoy (Kleiber et al., 1993). Physical activities, social

activities, relaxation oriented activities, intellectual and expressive activities, and entertainment have been identified as the favourite activities of many adolescents.

Some gender differences do exist in regard to adolescent leisure behaviour. Female adolescents are more likely than males to have a large repertoire of leisure interests (Eccles et al., 2003). In addition, females tend to have greater participation in performing arts, pro-social and school activities, whereas males are more likely to spend time watching television and engaging in sports and other physical activities (Eccles & Barber, 1999; Eccles et al., 2003; Shaw et al., 1995).

Leisure pursuits of late-adolescents have also been investigated. Among 18 to 19 year olds, leisure activities such as drinking, going to pubs, parties, dances and discos were far more common than at younger ages (Bynner & Ashford, 1992). In addition, those who were continuing their education were less likely to “hang around” as a form of leisure than their peers who were no longer in school (Hendry, Shucksmith, Love & Glendinning, 1993). Among older adolescents ages 20 to 24, visiting friends and relatives, entertaining, driving for pleasure and visiting pubs were at the highest rate of participation (Lobo & Niepoth, 2005).

### *Changes in Leisure Behaviour*

Adolescence is characterized by changes in leisure from childhood play activities towards adult leisure pursuits (Mannell & Kleiber, 1997). Leisure activities evolve from adult-organized clubs and activities to more casual leisure activities and finally to commercially organized leisure (Hendry, 1983). Three types of adolescent leisure styles have been identified (Bynner & Ashford, 1992). They include youth culture leisure style (e.g., drinking, smoking, going to pubs, discos and parties), sports leisure style (e.g., watching and participating in sports), and youth club leisure style (e.g., participation in youth organizations). As adolescents age, frequencies of sports and youth club leisure styles

decrease while youth culture leisure styles become more popular (Bynner & Ashford, 1992). This pattern seems to level off by the age of 17 to 18 for females and 19 to 20 for men.

Csikszentmihalyi and Larson (1984) identified a type of leisure activities occurring during adolescence that bridges the gap between childhood play and the highly structured leisure of adulthood. These activities, termed transitional activities, provide adolescents with great challenge and require high amounts of concentration, yet are also experienced with high degrees of freedom and intrinsic motivation (Kleiber et al., 1986). Examples of such activities include sports, games, arts and hobbies. The highly structured organization of these activities is similar to the nature of adult activities, while maintaining the freedom experienced during childhood. Enjoyment of these adolescent transitional activities provides a foundation for obligatory activities during adulthood (Kleiber et al., 1986).

#### *Leisure Activity Type and Identity*

Particular leisure activities may have certain inherent qualities which make them especially conducive to identity development. Structured leisure activities may be one of these types of activities. Over 69 percent of adolescents participate in at least one form of structured leisure (Eccles & Barber, 1999). Participation in team sports is most common (Eccles & Barber, 1999). Typically, adolescents are involved in one or two structured activities (Eccles et al., 2003); however this level declines as adolescents age (Eccles & Gootman, 2002). Despite this decline in participation, structured activities may be the most intrinsically rewarding type of leisure activity for adolescents as they enable individuals to use their skills within an organized environment (Csikszentmihalyi & Larson, 1984). Structured leisure activities may also promote development due to their features such as physical and psychological safety, supportive relationships, opportunities for belonging and skill development (Eccles & Gootman, 2002). These characteristics of structured leisure may

also make it conducive to identity development. The present study explored identity and structured leisure to determine if such a relationship exists.

Social and individual leisure activities may have differing relationships with identity. Previous research has identified that moderate leisure participation in social activities is related to higher identity scores than either low or high participation in social activities (McIntosh et al., 2005). Similarly, Csikszentmihalyi, Larson and Prescott (1977) found that adolescents who were better adjusted spent at least a moderate amount of time alone. Individual leisure activities provide opportunities for personal reflection that social activities do not allow (Mannell & Kleiber, 1997). In addition, during individual leisure activities, adolescents have complete freedom and independence and are not influenced by the feedback they receive from peers (Kleiber & Rickards, 1985). This may aid the individual in the individuation process of identity development (Kleiber & Rickards, 1985). Despite these potential benefits of individual leisure participation, adolescents are more likely to engage in social leisure activities (Kleiber & Rickards, 1985; Mannell & Kleiber, 1997). The differing relationships individual and social leisure activities may have with identity were investigated further in the current study.

Competitive leisure activities may also differ in their relationship with identity from non-competitive activities. Previous research has mixed findings regarding the effects of competition. A study by Marsh and Kleitman (2003) suggests that competitive extramural athletic participation has more positive benefits than less competitive intramural athletic participation. However, other research indicates that leisure activities with low competition are most successful at suppressing delinquency (Larson, 1994). Although no previous studies have directly investigated the relationship between competition and identity, non-competitive leisure activities may have a stronger relationship with identity than competitive activities. Whereas the focus of competitive activities is on winning, non-competitive

activities may provide a superior context for examining one's self, thereby facilitating the individuation process.

## **Leisure Motivation**

Although the type of leisure activity in which an individual participates may be associated with identity, this relationship does not take into account the reasons people choose to participate in leisure. It is possible that these leisure motives might have a stronger association with identity than examining leisure activities alone. The relationship between identity and leisure motivation has been largely neglected in previous research. Therefore, the present study will expand the leisure literature by investigating the relationships between leisure participation, motivation, and identity.

### *Motivation Model*

The relationship between leisure motivation, leisure participation and leisure benefits has been given some attention in the literature. Mannell (1999) proposed a motivation model to explain the connections between these variables. This model is displayed in Figure 2.

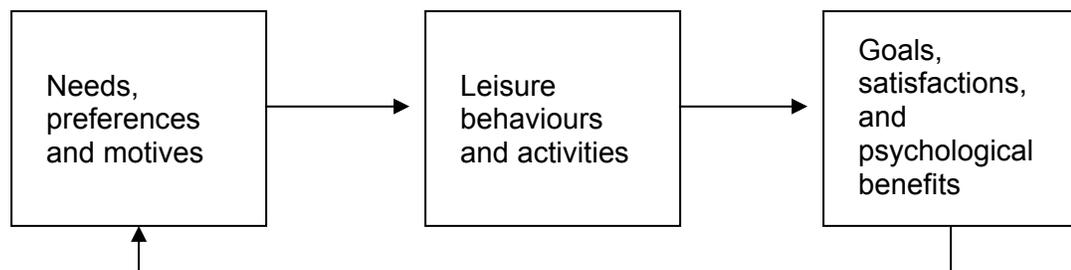


Figure 2  
Mannell's (1999) model of the motivational process

Mannell (1999) suggests that needs, preferences and motives influence leisure behaviour, which in turn impact the outcome of leisure in the form of goals, satisfaction and psychological benefits. These leisure outcomes then provide feedback which may alter subsequent leisure needs, preferences and motives (Mannell, 1999). In the context of identity development, this model implies that an individual's leisure motivation impacts his or her leisure behaviour, thereby resulting in identity development which provides feedback regarding motivation for participating in the leisure activity.

The relationships that have previously been acknowledged between identity and leisure seem to support Mannell's (1999) motivation model. Kivel and Kleiber's (1999) study of gay and lesbian youth indicated that the youth's motivation for participating in leisure activities was the effects it had on their identity development. This suggests that motivation leads to participation and then to identity development rather than the sequence occurring in some other order. This identity then provides feedback which may alter motivation for further leisure participation. Mannell's (1999) model will be adopted for the present research, however due to the correlational nature of the study, it must be acknowledged that the order of his model cannot be confirmed by this research. Although it is suspected that motivation causes participation which then influences identity, it is also possible that an alternative relationship could exist.

#### *Intrinsic and Extrinsic Leisure Motivations*

Within the leisure literature, there is widespread acceptance that most leisure behaviours are intrinsically motivated (Iso-Ahola, 1980, 1999). Intrinsic motivation refers to "the innate energy that people demonstrate when they pursue a goal or an activity because it is interesting or fun" (Koestner & Losier, 2002, p. 101). This type of motivation may be manifest in many ways including escape, relaxation and being with friends (Iso-Ahola, 1980). Curiosity, pursuit of challenge and competence development are other expressions

of intrinsic motivation (Koestner & Losier, 2002). In order for leisure behaviour to become intrinsically motivated, the activity must be freely determined and must result in feelings of competence for the participant (Iso-Ahola, 1980). When these feelings of competence or perceived freedom are minimized, often through the use of external rewards, intrinsic motivation becomes diminished (Iso-Ahola, 1980). The individual's leisure behaviour may then become motivated by extrinsic motivation, or external reasons, rather than the original internal motivation for participation (Iso-Ahola, 1999).

Researchers have identified many intrinsic and extrinsic motives for engaging in leisure activities (Iso-Ahola & Allen, 1982; Lounsbury & Hoopes, 1988; Ryan, Fredrick, Lepes, Rubio & Sheldon, 1997; Tinsley & Kass, 1979). These include such reasons as self-actualization (Tinsley & Kass, 1979), self-esteem (Tinsley & Kass, 1979), self-control (Tinsley & Kass, 1979), personal competence (Iso-Ahola & Allen, 1982; Ryan et al., 1997), escape (Iso-Ahola & Allen, 1982), social interaction (Iso-Ahola & Allen, 1982; Lounsbury & Hoopes, 1988; Ryan et al., 1997; Tinsley & Kass, 1979), relaxation (Iso-Ahola & Allen, 1982), spending time with the opposite sex (Iso-Ahola & Allen, 1982), interest (Ryan et al., 1997), power (Tinsley & Kass, 1979), compensation (Tinsley & Kass, 1979), security (Tinsley & Kass, 1979), social service (Tinsley & Kass, 1979), exercise (Lounsbury & Hoopes, 1988; Tinsley & Kass, 1979; Ryan et al., 1997), and physical appearance (Ryan et al., 1997). Youth seem to be most motivated to participate in leisure by fun, enjoyment, skill development and challenge (Fredrick-Recascino, 2002). Gender differences exist with regards to leisure motivation. While men seem to be more motivated due to competence (Fredrick, 1991, as cited in Fredrick-Recascino, 2002) and competition (Reddon, Pope & Freil, 1996), women are motivated more than men by physical appearance (Fredrick, 1991, as cited in Fredrick-Recascino, 2002). Although leisure motives may exhibit some small degree of change depending on the situation, location, and the presence of other individuals (Iso-Ahola, 1980), these motives remain fairly stable over time (Lounsbury & Hoopes, 1988).

### *Leisure Motivation Scale*

Based on many of the aforementioned leisure motives, Beard and Ragheb (1983) performed factor analysis procedures to reveal four underlying dimensions of leisure motivation. These dimensions of motivation included intellectual, social, competency-mastery, and stimulus-avoidance motives. Intellectual motive refers to the motivation to engage in leisure activities involving mental tasks such as learning, exploring, discovering, creating, or imagining. Social motive involves motivation to participate in leisure for the purpose of interpersonal relationships such as friendships, as well as to gain the approval of others. Competence-mastery motive refers to the motivation to engage in leisure pursuits to achieve, master, challenge, and compete. Finally, stimulus-avoidance motive involves the motivation to escape, seek solitude, rest, and unwind. These four dimensions of leisure motivation are believed to be inclusive of all reasons for participation in leisure activities (Beard & Ragheb, 1983). From these leisure motives, the Leisure Motivation Scale was developed (Beard & Ragheb, 1983). The scale contains four subscales, each assessing one of the four leisure motives. This scale has been used in numerous research studies to measure leisure motivation (e.g., Munchua, Lesage & Reddon, 2003; Reddon, Pope & Freil, 1996; Starzyk, Reddon & Friel, 2000).

### *Identity Development as Motivation for Leisure Participation*

Although the Beard and Ragheb's (1983) research does not acknowledge identity development as a motive for participation in leisure, other research suggests that this might be the case (Haggard & Williams, 1992). In Haggard and Williams' (1992) study of leisure and identity, participants most strongly desired the identity images associated with the leisure activities in which they currently engaged. Based on these findings, it was suggested that individuals may engage in leisure activities in order to have their desired identity images affirmed. Haggard and Williams (1992) concluded that these identity images may serve as a

source of motivation for participants to engage in particular leisure activities. Therefore, it was proposed that identity development and affirmation may serve as an important motive for participating in leisure. This relationship between leisure motivation and identity development will be explored in greater depth throughout this research.

### **Leisure Experience and Meaningfulness**

Although it is necessary to consider leisure participation as an antecedent of identity development, it is also possible that experiences during leisure will play a mediating role in this relationship. The meaningfulness an individual derives from his or her leisure may determine the strength of the relationship between leisure and identity. Individuals who find great meaningfulness in their leisure may allow leisure to influence their identity to a greater extent than those who find their leisure less meaningful to them.

While the meaningfulness of leisure is one manner of conceptualizing the leisure experience, Caldwell, Smith and Weissinger (1992) proposed an alternate conceptualization. They suggest that the leisure experience is composed of four dimensions: boredom, challenge, anxiety and awareness. Boredom occurs when a leisure pursuit is below the level of optimal arousal. This may result in decreased leisure participation, or among adolescents, participation in alternate forms of high risk leisure. Challenge is important to the leisure experience as inconsistencies between skill level and the challenge of a leisure pursuit may result in boredom or anxiety. Anxiety may result from a lower skill level than the amount of challenge of a leisure pursuit, or from a fear of free time and being evaluated by others during leisure. Anxiety is believed to play a role in the leisure experience as those who experience anxiety in regards to their leisure may be less likely to participate. Finally, awareness is also an important aspect of the leisure experience, as those who are aware of the potential satisfaction they may receive through leisure are more motivated to participate in such pursuits.

While Caldwell and colleagues (1992) suggested that these four dimensions compose a person's experience during leisure, Barnett (2005) further developed this conceptualization by proposing that the leisure experience may be an antecedent to leisure participation. Leisure awareness, as well as the perception of boredom, challenge, and anxiety during leisure, is believed to precede participation. Awareness of leisure opportunities and resources are necessary before leisure participation can occur. The presence of leisure boredom may inhibit engagement in leisure pursuits. Conversely, the presence of appropriate levels of challenge may serve as a motivating factor for leisure participation. Finally, anxiety and negative feelings towards leisure may result in decreased levels of participation.

It has not been determined whether these four factors composing the leisure experience are part of leisure participation as suggested by Caldwell and colleagues' (1992), or are determinants of leisure participation as indicated by Barnett (2005). It seems likely that the leisure experience would influence the motivation to engage in leisure which in turn would influence leisure participation. However, it is also plausible that certain dimensions of the leisure experience, such as boredom, challenge and anxiety, would only be realized following leisure participation, and would subsequently influence motivation to engage in leisure again in the future.

### **Identity Development Model**

Based on the previous conceptualizations of identity, leisure and related constructs, as well as the relationships between these variables that emerged during the review of previous literature, a model of the identity development process was developed. This model is displayed in Figure 3.

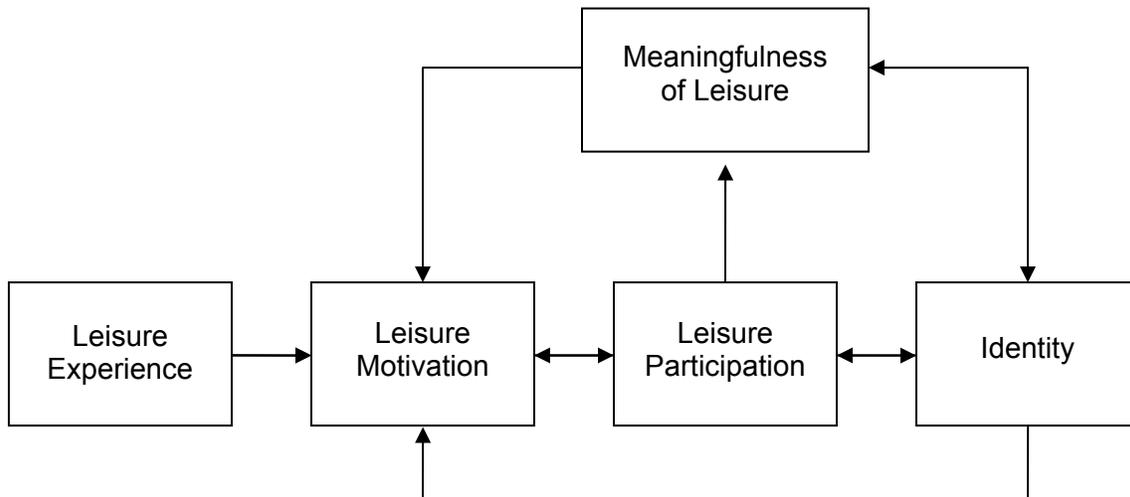


Figure 3  
Model of the identity development process

As suggested by Barnett (2005), the leisure experience may be an antecedent to leisure participation. It is believed that the leisure experience may influence leisure motivation to engage in leisure pursuits. This leisure motivation may then lead to participation in certain leisure activities (Mannell, 1999). Gender is also believed to play a role in this process, as motivation to participate in various leisure pursuits may be influenced by society's prescription of gender roles. It is also plausible that leisure participation may have an impact on motivation. Participation in a leisure activity may subsequently influence the motivation to continue to pursue this activity in the future. It has been proposed that leisure participation may lead to the development of identity (Caldwell, 2005b; Dworkin et al., 2003; Haggard & Williams, 1991, 1992; Kleiber, 1999). Both personal and social identity is expected to be developed in this process. Identity may then provide feedback regarding the motivation to engage in certain types of leisure again in the future. However, it is also possible that identity may not be an outcome of leisure participation, but rather that identity may influence the leisure in which he or she chooses to engage (Dimanche & Samdahl,

1994). Individuals may choose to pursue various leisure activities based on their existing identity.

The meaningfulness derived from leisure participation may influence the identity development process in several ways. Identity may be impacted by the importance the individual places on their leisure. As leisure becomes increasingly meaningful to the individual, it may play a more salient role in the identity development process. Similarly, as the meaningfulness of leisure increases, motivation for participating in these leisure pursuits may also increase. However, identity might also have the ability to impact the meaningfulness placed on leisure. An individual's identity may determine whether they find a leisure activity meaningful based on the ways in which it confirms their pre-existing identity. The relationships between these variables were further investigated throughout the current study.

## **CHAPTER 3: METHODS**

### **Type of Research Design**

Due to the nature of the research questions, a quantitative research design was used. This methodology was appropriate as the present research sought uncover the relationships between identity, leisure lifestyle, and motivation rather than the subjective experience of identity. A questionnaire format was utilized to examine the nature of the relationships between these variables.

### **Participants and Sampling Procedures**

Participants included undergraduate students from the University of Waterloo. A cluster sampling method was used to randomly select participants. During the Winter 2007 term, all university classes in the Faculty of Applied Health Sciences were included in a pool of potential participants. All classes in the pool met on campus rather than by distance education format. Twelve classes were randomly selected from the sampling pool. The course instructor of each selected class was contacted to request their class's participation in the study. Following initial contact, a follow-up letter was given to each instructor providing more details about the study and requesting permission to recruit participants from his or her class (Appendix A). Only one instructor declined the request for assistance; therefore, one additional class was randomly selected from the sampling pool. All students in the classes selected were invited to participate in the research.

### **Variables**

Independent variables in the study included adolescent leisure lifestyle and leisure motivation. Leisure lifestyle included aspects such as the types of activities in which the participant engages (e.g., social vs. individual, competitive vs. non-competitive, structured

vs. unstructured), leisure experience, and the meaningfulness derived from leisure participation. In addition, demographic characteristics were also treated as independent variables. Dependent variables included overall, social, and personal identity.

### **Measurement Instruments**

Rosenthal and colleagues' (1981) identity subscale of the Erikson Psychosocial Stage Inventory (EPSI) and Luhtanen and Crocker's (1992) identity subscale of the Collective Self-Esteem Scale (CSES) were administered in order to obtain measurements of personal and social identity (Appendix B). The EPSI consisted of six subscales measuring Erikson's first six psychosocial stages. Each subscale consisted of 12 questions which measured the successful or unsuccessful resolution of each stage. Respondents were asked to indicate how often each item applies to them on a five-point Likert-type scale. In the current study, each item was modified to a seven-point scale to maintain consistency with other identity scale being used. The identity subscale of the EPSI measured personal identity through items such as "I've got a clear idea of what I want to be" and "I find I have to keep up a front when I'm with people". Half of the items in the subscale were negatively coded. Once reverse coded, higher scores indicated higher levels of identity development. The EPSI was originally tested on a sample of adolescent high school students (Rosenthal et al., 1981). The scale was found to have acceptable levels of reliability and validity, and was deemed an appropriate research tool. Since its original development, the EPSI has been used by numerous academics including Seginer and Noyman (2005), and Shaw and colleagues (1995).

The Collective Self-Esteem Scale (CSES) was originally developed to measure self-esteem relating to social group memberships (Luhtanen & Crocker, 1992). It contains four subscales including membership, private, public and identity. The membership subscale assesses how worthy respondents perceive themselves to be as members of a social group.

Items in the private subscale measure personal evaluations regarding an individual's social groups, while the public subscale measures evaluations of how others perceive these social groups. Finally, items in the identity subscale assess the importance of memberships in social groups to identity.

The four-item identity subscale was utilized in the current research study to measure social identity. Respondents were asked to indicate their agreement with items on a seven-point Likert scale. As the original identity items focus on social group memberships, the wording of the items were modified to increase consistency with Erikson's (1950) conceptualization of social identity. The terms "social groups" and "social memberships" were removed and substituted with phrases such as "social relationships". For example, the item "Overall, my group memberships have very little to do with how I feel about myself" was modified to "Overall, my social relationships have very little to do with how I feel about myself". These wording changes were not anticipated to alter the acceptable psychometric properties of the original identity subscale of the CSES. The reliability of the modified social identity subscale was later tested.

The research survey also contained questions assessing each participant's involvement in various types of leisure activities (Appendix B). Respondents were asked to indicate the average number of hours each week they participated in 30 different leisure pursuits. In addition, participants were asked to approximate the percentage of time spent engaging in each leisure activity with others. Examples of leisure activities included going to bars/pubs, participating in community volunteer organizations, and going to sports or athletic events. These leisure activities were selected from previously developed research tools as well as from common leisure pursuits as identified in the literature. Additionally, participants were asked to indicate on a seven-point Likert scale the extent to which their participation in each leisure activity was meaningful to them. Higher scores indicated higher

meaningfulness of leisure participation. This rating helped determine the meaningfulness that each participant placed on their leisure experiences.

Leisure motivation was measured by Beard and Ragheb's (1983) Leisure Motivation Scale (LMS) (Appendix B). This scale was administered in order to determine the reasons participants choose to engage in leisure activities. The LMS consists of four subscales which assess intellectual, social, competence-mastery, and stimulus-avoidance motives. Higher scores on each subscale indicate higher levels of motivation. Two versions of the LMS exist, a long 48-item version and a short 32-item version. In both forms of the scale, each item is measured on a five-point Likert scale. In the present study, this was adapted to a seven-point Likert scale in order to increase the specificity of measurement for each item. Both the long and short versions of the scale have previously been tested with high school and college students and have acceptable psychometric properties (Beard & Ragheb, 1983). Both versions of the LMS are appropriate for use; however, Beard and Ragheb (1983) suggested the use of the short scale in research settings in which time is limited. As time was not a large constraint in the current study, the long version of the LMS was utilized.

Caldwell and colleagues' (1992) Leisure Experience Battery for Adolescents (LEBA) was included in the questionnaire to measure participants' leisure experiences. The scale contains 19 items measuring the four dimensions of boredom (e.g., "For me, free time just drags on and on"), awareness (e.g., "I know of places where there are lots of things to do"), challenge (e.g., "I feel good when my free time challenges my skills"), and anxiety (e.g., "The worst feeling I know is when I have free time and don't have anything planned"). Each item is measured on a five-point Likert scale. Respondents are asked to indicate the extent to which they agree with each statement. Higher scores indicate higher levels of agreement. In the current study the scale was modified to use a seven-point Likert scale to increase the specificity of responses. The LEBA was originally tested on a sample of adolescent high school students. The scale was found to have good reliability and validity among this

sample. Subsequently, Barnett (2005) tested the LEBA with university students. Following analyses of the scale's psychometric properties, it was concluded that the LEBA is appropriate for use among this population.

In the final section of the survey, participants were asked a variety of demographic questions (Appendix B). These included information such as the respondent's gender, age, number of years in university, university faculty, location of residence, and current financial situation. These questions were necessary to determine if demographic variables influenced the relationship among variables in the identity development process. The respondent's gender may influence the leisure activities in which they participate (Eccles & Barber, 1999; Eccles et al., 2003; Shaw et al., 1995), as well as the relationship between leisure and identity (Shaw et al., 1995). Age may mediate the relationships in the identity formation process as older students may have a better formed identity. Similarly, the number of years in university may also mediate the relationship with identity, as individuals who have been in university for longer periods of time may have a more developed sense of identity than newer students. University faculty may also play a role in these relationships. Individuals from differing faculties may have varying degrees of identity due to different opportunities to develop identity within the university setting, as well as characteristics that may attract students to various areas of study. Location of residence may influence identity. Individuals living with others might have more opportunities to develop their identity, in particular social identity. Finally, financial situation may determine whether or not participants are able to afford to participate in particular leisure pursuits. Collecting this demographic information assisted in determining whether these factors played a salient role in the identity development process.

## **Procedure**

Data collection occurred during the Winter 2007 semester. Recruitment of participants took place during class time. The researcher entered the classroom and introduced the research study to the students using a script (Appendix C and D). Students were informed about the research purpose, procedure, rights as a participant, and were then invited to partake in the study. Surveys were handed out to all students in the class for completion if they chose to do so. Students' voluntary participation in the study implied their informed consent. All surveys remained completely anonymous and confidential. At no point in time were the participants asked to provide their name or any other identifying information. While some course instructors provided class time for students to complete the surveys, other classes were instructed to complete the surveys at home and return them to the researcher during their next class. Any surveys that were not obtained in class were collected by the instructor and returned to the researcher at a later point in time. Instructors were provided with a debriefing form containing further information about the study as well as contact information if students would like a copy of the study results (Appendix E). All completed questionnaires were kept in a secure location for safe storage.

## CHAPTER 4: RESULTS OF INDIVIDUAL VARIABLES

### Characteristics of the Sample

Of the 710 students sampled, 459 agreed to participate in the study. This represented a response rate of 64.64 percent. The characteristics of the sample are displayed in Table 1.

Table 1  
Characteristics of the Sample

Characteristic	Category	Frequency	Percentage
Gender	Male	140	31.0
	Female	312	69.0
Age	18	93	20.6
	19	116	25.7
	20	75	16.6
	21	63	14.0
	22	50	11.1
	23	30	6.7
	24 and older	24	5.2
Year of University Study	1	174	38.6
	2	112	24.8
	3	57	12.6
	4	98	21.7
	5	10	2.2
University Faculty	Applied Health Science	392	87.5
	Arts	13	2.9
	Environmental Studies	29	6.5
	Mathematics	2	0.4
	Science	12	2.7
Current Living Arrangements	In residence	168	37.4
	At home with family	84	18.7
	In house with roommates	183	40.8
	In house living alone	14	3.1
Current Financial Situation	Barely enough to make ends meet	38	8.5
	Enough to get by	143	31.8
	Little left over after obligations	122	27.2
	Quite comfortable	115	25.6
	All that I need and more	31	6.9

There was a good representation of both males (31.0%) and females (69.0%) in the sample, allowing for analysis by gender to take place. Ages of participants varied between 18 and 32 years of age, with a mean age of 20.20 years (SD=2.11). The majority of participants (94.8%) were between 18 and 24 years old. Students from all years of university study were represented. While the majority of participants were students in the Faculty of Applied Health Sciences (87.5%), there were also participants from four other faculties including Arts, Environmental Studies, Mathematics, and Science. Participants reported a variety of living arrangements, but primarily were living in residence (37.4%) or in a house/apartment with roommates (40.8%). Participants reported a wide range of financial situations. The majority of participants (84.6%) indicated that they had enough to get by, had a little left over after obligations had been met, or were quite comfortable, although a smaller number of participants did report having barely enough to make ends meet (8.5%) or having all they needed and more (6.9%).

## **Leisure and Identity Variables**

### *Leisure Participation*

Participants were asked to report the number of hours in a typical month that they engaged in 32 various leisure pursuits. As is common with these types of data, participants in the current study displayed a tendency to over-report their leisure participation rates in these activities. Upon close investigation, it became apparent that the number of hours many participants reported participating in leisure each month exceeded the maximum number of hours in the month. In order to correct for this over-reporting, cut-off points were developed to reduce outlying data points to an acceptable level. Active leisure activities, including competitive and recreational sports, were recoded to a maximum of 90 hours per month. This set a limit for physically active individuals to participate in any one type of physical activity for an average of three hours each day. This strategy reasonably captured

the experience of the majority of the participants. Less than 1.6 percent of participants were reduced to a maximum of 90 hours on any active leisure activity. Similarly, passive leisure activities such as watching movies, playing video games and non-school reading were recoded to a maximum of 90 hours per month. This also set a limit for participation in any passive activity to an average of three hours per day. Most participants reported their passive leisure participation within this limit. A maximum of 3.7 percent of participants were reduced to 90 hours on any type of passive leisure activity. The one exception to this was for the activity listening to music. For this leisure activity, 18.8 percent of participants reported listening to music for more than 90 hours a month. It is possible that these participants were listening to music while performing other activities throughout the day; however it is unlikely that they engaged in this activity as their primary form of leisure for more than an average of three hours each day. Therefore, listening to music was reduced to a maximum of 90 hours per month.

Structured leisure activities, including participating in student or community volunteer organizations, as well as going to events such as going to concerts, plays or musicals, were recoded to a maximum of 36 hours per month. Similarly, “purple leisure” activities such as drinking and gambling also were reduced to 36 hours per month. Participants were unlikely to engage in these types of activities for more than three hours, three times a week, therefore the cut off point of 36 hours a month was deemed appropriate for this group of activities. Less than 3.2 percent of participants were reduced to this maximum on any of these leisure activities. Finally, social leisure activities such as hanging out with friends, family and relatives, was recoded to a maximum of 120 hours each month. While participants may go to school or live with friends and family members, spending more than an average of four hours each day engaged in leisure pursuits with these individuals seemed unlikely; therefore, limiting these social leisure activities to a maximum of 120 hours each month was appropriate. Only 10.9 percent of participants reported participating in

social leisure activities for more than this maximum and were reduced to 120 hours per month.

Table 2  
Leisure Participation Rates

Leisure Activity	Participation			
	Numbers		Intensity <sup>a</sup>	
	Frequency	Percentage	Mean Hours Per Month	Standard Deviation
Hanging out with friends	459	99.8	52.19	37.41
Listening to music	451	98.3	44.36	29.73
Going out to eat	446	97.2	7.95	7.50
Watching movies	438	95.4	8.71	6.97
Watching television	434	94.6	22.50	21.86
Spending time with family and relatives	424	92.4	26.63	28.65
Shopping	418	91.1	6.30	5.73
Relaxing, reflecting or contemplating	414	90.2	19.92	22.02
Physical activities	394	85.8	13.28	11.32
Drinking	363	79.1	12.73	9.64
Recreational individual sports	355	77.3	13.16	12.35
Non-school reading	325	70.8	10.61	12.85
Going to pubs or bars	310	67.5	10.66	7.93
Playing card or board games	293	63.8	5.03	6.73
Going to sports or athletic events	285	62.1	5.46	5.27
Taking classes or lessons	276	60.1	27.11	12.90
Recreational team sports	263	57.3	9.31	9.12
Playing an instrument or singing informally	203	44.2	14.93	20.03
Community volunteer organizations	184	40.1	8.60	7.90
Participating in student organizations	179	39.0	8.03	7.89
Playing video games	172	37.5	13.09	15.39
Going to concerts	156	34.0	3.69	2.86
Driving for pleasure	155	33.8	7.48	13.77
Painting, sculpting, drawing or visual art	129	28.1	6.13	6.86
Competitive team sports	128	27.9	30.76	27.14
Writing in a journal or diary	111	24.2	6.76	10.93
Participating in church groups	103	22.4	8.97	8.64
Attending plays or musicals	96	20.9	2.66	2.09
Competitive individual sports	91	19.8	16.38	17.17
Gambling	78	17.0	5.10	7.46
Scrapbooking	77	16.8	3.26	2.56
Band or choir practice	31	6.8	8.94	10.40

<sup>a</sup> descriptive statistics are for participants only

Following the recoding of the leisure participation data, descriptive statistics for each leisure pursuit was generated. Table 2 displays the number and percentage of participants that reported participating in each activity as well as the mean number of hours per month and standard deviation. The leisure pursuits in which most respondents reported participating included hanging out with friends (99.8%), listening to music (98.3%), going out to eat (97.2%), watching movies at the theatre or at home (95.4%), watching tv (94.6%), spending time with family and relatives (92.4%), shopping (91.1%), and relaxing, reflecting and contemplating (90.2%). Many of these popular leisure activities were also the activities in which participants reported spending the most time. The leisure pursuits in which participants reported spending the greatest numbers of hours each month included hanging out with friends (M=52.19, SD=37.41), listening to music (M=44.36, SD=29.73), competitive team sports (M=30.76, SD=27.14), spending time with family and relatives (M=26.63, SD=28.65), watching tv (M=22.50, SD=21.86), and relaxing, reflecting and contemplating (M=19.92, SD=22.02). On average, respondents reported participating in 194.40 hours of leisure activities per month (SD=94.91). The total number of hours was spent participating in a diverse selection of leisure pursuits. Participants engaged in an average of 15.43 (SD=4.09) different leisure activities.

Taking classes or lessons was another leisure pursuit in which participants reported spending large amounts of time (M=27.11, SD=12.90). Upon closer examination of this activity, there may have been inconsistencies in the way in which participants interpreted this leisure pursuit. Participants reported a large range in the number of hours spent each month taking classes or lessons. While some respondents reported no participation in this activity, others reported participating up to 160 hours each month. This seemed to indicate that some participants may have reported as was intended on the leisure classes or lessons in which they participate, while other participants may have also reported the time spent in their university classes. As it was not possible to determine the way in which each

participant interpreted the meaning of this activity, the measure remained ambiguous and was therefore dropped from all subsequent analyses.

Composite measures of leisure activities were created based on various types of leisure pursuits and the characteristics that these activities possessed. Categories of leisure activities are not mutually exclusive; therefore some leisure activities may be included in more than one category. The categories were not designed to be compared against one another, but rather to investigate the patterns that their inherent qualities might generate. Table 3 displays the categories of activities generated as well as their descriptive statistics.

Table 3  
Descriptive Statistics for Leisure Activity Categories

Leisure Activity Category	Hours per month of participation		
	Frequency	Mean	Standard Deviation
Active activities	448	7.39	7.37
Passive activities	451	10.94	6.17
Competitive activities	447	3.70	4.71
Non-competitive activities	447	7.69	3.68
Structured activities	447	2.62	2.99
Unstructured activities	448	9.55	4.75

Active leisure activities consisted of activities in which the participant is physically active and typically expending high levels of energy. Activities in this category include competitive team sports, recreational team sports, competitive individual sports, recreational individual sports, and physical activities. On average, each active leisure activities was participated in for 7.39 hours per month (SD=7.37). In contrast to active leisure activities, passive leisure activities included activities in which the participant is not physically active in the leisure pursuit. Examples of passive activities include watching television, watching movies at the theatre or at home, playing video games, playing cards or board games, painting, sculpting, drawing or creating other visual art, scrapbooking, writing in a journal or

diary, and relaxing, reflecting and contemplating. Participants reported participating in each passive leisure activity on average 10.94 hours per month (SD=6.17).

Categories of competitive and non-competitive leisure activities were created based on the degree of competition present in the leisure pursuits. Competitive activities are activities in which there is an element of competition and culminate in winning or losing. Competitive activities include competitive team and individual sports, going to sports or athletic events, playing video games, playing cards or board games, and gambling. In comparison, non-competitive activities are not based around competition and do not result in winning or losing. Recreational sports, physical activities, watching television and movies, drinking, going to pubs or bars, listening to music, band or choir practice, playing an instrument or singing informally, going to concerts, attending plays or musicals, creating other visual art, scrapbooking, non-school reading, writing in a journal or diary, relaxing, reflecting or contemplating, driving for pleasure, shopping, going out to eat, and participating in student organizations, community volunteer organizations and church groups are all types of non-competitive activities. Overall, participants reported engaging in each non-competitive leisure activity for more hours each month than competitive activities. The mean duration per month of each non-competitive leisure pursuit was 7.69 hours (SD=3.68), compared to a mean of 3.70 hours per month for competitive leisure activities (SD=4.71).

Categories of structured and unstructured leisure activities also were developed. Structured leisure pursuits consist of those activities with a high degree of organization and structure, such as those that require organization of people and space, or highly structured rules. Examples include competitive sports, going to sports or athletic events, band or choir practice, going to concerts, attending plays or musicals, and participating in student organizations, community volunteer organizations and church groups. Each structured leisure activity was typically performed for 2.62 hours per month (SD=2.99). Unstructured leisure activities consist of activities which are low in organization and structure. These types

of activities include recreational sports, physical activities, watching television and movies, playing video games, drinking, going to pubs and bars, listening to music, playing an instrument or singing informally, creating visual art, scrapbooking, non-school reading, writing in a journal or diary, relaxing, reflecting and contemplating, driving for pleasure, shopping, and going out to eat. Participants reported engaging in unstructured leisure activities for an average of 9.55 hours per month (SD=4.75).

The final type of leisure pursuits included those in which the primary focus was socializing with others. This category was labelled friends and family leisure activities and consisted of spending time with family and relatives, and hanging out with friends. Participants reported participating in each of these friends and family leisure activities for 38.05 hours each month (SD=26.21). Due to the nature of these activities, participants may have reported engaging in these leisure pursuits at the same time as they reported engaging in other leisure activities. For example, if a participant went out for dinner with friends, they may report this time as going out to eat and also as hanging out with friends. The ambiguous nature of these friends and family leisure measures was confirmed in later comparisons with the number of hours participants reported engaging in leisure with others; therefore, due to the vagueness of these friends and family leisure items, they were dropped from all subsequent measures and analyses.

#### *Leisure Participation with Others*

For each leisure pursuit, participants were asked to report the percentage of time they engaged in the activity with others. Table 4 displays the mean percentage of time that participants reported engaging in each activity with others, as well as the standard deviation.

Table 4  
Percentage of Time Spent Participating with Others

Leisure Activity	Percentage of time with others		
	Frequency	Mean	Standard Deviation
Competitive team sports <sup>a</sup>	113	100.00	0.00
Recreational team sports <sup>a</sup>	248	100.00	0.00
Going out to eat <sup>a</sup>	435	100.00	0.00
Participating in student organizations <sup>a</sup>	166	100.00	0.00
Community volunteer organizations <sup>a</sup>	167	100.00	0.00
Participating in church groups <sup>a</sup>	93	100.00	0.00
Spending time with family and relatives <sup>a</sup>	410	100.00	0.00
Hanging out with friends <sup>a</sup>	448	100.00	0.00
Going to pubs or bars	281	98.61	9.72
Drinking	327	98.45	8.43
Attending plays or musicals	79	98.35	8.83
Going to concerts	142	96.58	17.31
Band or choir practice	19	94.74	22.94
Playing card or board games	267	94.45	19.86
Going to sports or athletic events	241	90.12	25.13
Gambling	65	87.38	30.65
Watching movies at the theatre or home	395	83.57	24.45
Shopping	367	74.64	29.78
Playing video games	152	68.74	36.96
Watching television	387	66.98	27.31
Physical activities	344	52.60	38.52
Competitive individual sports	63	52.14	41.38
Driving for pleasure	130	47.61	36.64
Recreational individual sports	306	37.12	37.05
Listening to music	392	27.46	25.61
Playing an instrument or singing informally	173	25.84	31.63
Painting, sculpting, drawing or other visual art	103	15.88	30.50
Relaxing, reflecting or contemplating	359	15.44	24.88
Scrapbooking	56	12.32	24.62
Non-school reading	277	2.69	14.79
Writing in a journal or diary	88	2.27	14.99

<sup>a</sup> Percentages were set at 100% as the activity requires others for participation

Participants reported engaging in more hours of leisure with others than alone. Typically, participants spent 101.97 hours of their leisure time with others each month (SD=64.89) and 92.56 hours of leisure time alone (SD=64.44). The activities in which participants always participated with others included competitive team sports, recreational team sports, going out to eat, participating in student organizations, participating in community volunteer organizations, participating in church groups, spending time with friends and relatives, and hanging out with friends. These activities had set values of 100 percent for participation with others, as others are required for participation in these activities. Beyond these activities, participants also reported frequently participating with others when going to pubs or bars (M=98.61%), drinking (M=98.45%), attending plays or musicals (M=98.35%), going to concerts (M=96.58%), band or choir practice (M=94.74%), playing cards or board games (M=94.45%), and going to sports or athletic events (M=90.12%). The activities which were least likely to occur with others included writing in a journal or diary (M=2.27%), non-school reading (M=2.69%), scrapbooking (M=12.32%), relaxing, reflecting or contemplating (M=15.44%), and painting, sculpting, drawing or creating other visual art (M=15.88%).

The percentage of time participants engaged in leisure with others was investigated with respect to the various categories of leisure activities. Active leisure activities were most often participated with others (M=62.93%, SD=31.19), while passive leisure activities were slightly more likely to be engaged in alone (M=46.67%, SD=18.31). Both competitive and non-competitive leisure activities were participated mostly with others, however participants reported engaging in competitive activities (M=85.21%, SD=24.62) with others a higher proportion of the time than non-competitive activities (M=65.89%, SD=15.43). Similarly, participants tended to take part in structured leisure pursuits (M=93.51%, SD=17.51) with others more frequently than unstructured leisure (M=61.87%, SD=17.03).

Based on the percentage of time each participant reported engaging in their leisure with others, every activity was classified as either a high, moderate or low social activity. If an individual reported participating in an activity with others 90 to 100 percent of the time, the activity was classified as a high social activity for that individual. Activities were classified as moderately social activities if participants engaged in that activity with others 11 to 89 percent of the time. Finally, low social activities were those activities in which respondents reported participating with others 0 to 10 percent of the time. These categories of social leisure activities were used in comparisons with other constructs in further analyses.

#### *Meaningfulness of Leisure Participation*

Participants reported the meaningfulness they placed on each leisure activity in which they engaged. Table 5 displays the mean meaningfulness rating for each leisure activity, as well the standard deviation. Overall, participants reported their leisure to be slightly more meaningful than neutral ( $M=4.88$ ,  $SD=0.70$ ). The activities that participants reported to be most meaningful included hanging out with friends ( $M=6.63$ ,  $SD=0.70$ ), spending time with family and relatives ( $M=6.54$ ,  $SD=0.78$ ), listening to music ( $M=6.01$ ,  $SD=1.18$ ), relaxing, reflecting or contemplating ( $M=5.94$ ,  $SD=1.23$ ), and physical activities ( $M=5.84$ ,  $SD=1.17$ ). In contrast, other leisure activities were rated less meaningful than neutral. Examples of these activities regarded as least meaningful included gambling ( $M=2.47$ ,  $SD=1.63$ ), watching tv ( $M=3.81$ ,  $SD=1.45$ ), playing video games ( $M=3.28$ ,  $SD=1.84$ ), band or choir practice ( $M=3.29$ ,  $SD=2.06$ ), and scrapbooking ( $M=3.91$ ,  $SD=1.90$ ).

Table 5  
Meaningfulness of Leisure Participation

Leisure Activity	Meaningfulness <sup>a</sup>		
	Frequency	Mean	Standard Deviation
Hanging out with friends	452	6.63	0.70
Spending time with family and relatives	441	6.54	0.78
Listening to music	452	6.01	1.18
Relaxing, reflecting or contemplating	418	5.94	1.23
Physical activities	402	5.84	1.17
Recreational individual sports	392	5.74	1.17
Competitive team sports	182	5.67	1.78
Recreational team sports	302	5.54	1.39
Participating in community volunteer organizations	254	5.45	1.26
Non-school reading	367	5.27	1.42
Competitive individual sports	178	5.12	1.70
Going out to eat	453	5.03	1.30
Playing an instrument or singing informally	232	5.00	1.75
Participating in student organizations	223	4.92	1.45
Participating in church groups	162	4.85	2.06
Going to sports or athletic events	332	4.68	1.51
Going to concerts	259	4.63	1.60
Writing in a journal or diary	176	4.63	2.00
Painting, sculpting, drawing or other visual art	175	4.51	1.81
Watching movies at the theatre or home	449	4.43	1.25
Going to pubs or bars	351	4.42	1.56
Shopping	431	4.38	1.60
Attending plays or musicals	204	4.29	1.72
Drinking	390	4.28	1.59
Playing card or board games	361	4.25	1.52
Driving for pleasure	231	4.13	1.65
Scrapbooking	146	3.91	1.90
Watching television	442	3.81	1.45
Band or choir practice	96	3.29	2.06
Playing video games	262	3.28	1.84
Gambling	165	2.47	1.63

<sup>a</sup> measured on a scale from one (not at all meaningful) to seven (highly meaningful)

When considering categories of leisure pursuits, active leisure activities ( $M=5.65$ ,  $SD=0.98$ ) were reported to be more meaningful than passive leisure activities ( $M=4.77$ ,  $SD=0.85$ ). Competitive and non-competitive leisure activities also differed in their meaningfulness, with non-competitive activities ( $M=4.90$ ,  $SD=0.74$ ) being more meaningful than competitive activities ( $M=4.12$ ,  $SD=1.05$ ). Similarly, participants reported unstructured leisure pursuits ( $M=4.90$ ,  $SD=0.70$ ) as more meaningful than structured leisure activities ( $M=4.44$ ,  $SD=0.99$ ). An interesting pattern was revealed with respect to the categories of low, moderate and high social activities. High social activities were reported as being the least meaningful of the three groups ( $M=5.05$ ,  $SD=0.81$ ), followed by moderate social activities ( $M=5.18$ ,  $SD=1.08$ ), and finally low social activities ( $M=5.49$ ,  $SD=0.96$ ). This result suggests that as the social nature of leisure activities decreases, the meaningfulness found in the leisure activity increases.

### *Leisure Experience Patterns*

Composite measures for leisure awareness, boredom, challenge, and distress were created using the items in each of these subscales of the Leisure Experience Scale (Caldwell et al., 1992). Reliability analyses were performed on each of the four leisure experience subscales to ensure that all items in the scale were internally consistent and appropriate for use in the current study. Three of the four measures initially contained low internal consistency, as indicated by their Cronbach's alpha value. The awareness measure had a low alpha level of 0.60. Upon closer examination, it became apparent that by removing the item "I've never really given much thought to whether free time could be good for me" the measure would become much more internally consistent. This item differed from the other items in the scale as it measured awareness of the benefits of free time rather than the awareness of leisure opportunities in the community; therefore, this item was subsequently eliminated from the awareness measure.

The challenge measure also initially had low internal consistency. These five items generated a Cronbach's alpha level of 0.53; however, this level of reliability was increased greatly by removing one the items. Upon the elimination of the item "I am willing to try the unknown in my free time", the internal reliability of the scale improved to a level of 0.64. This item seemed to measure an individual's fear of the unknown during leisure rather than the desire for challenge. Removing the item increased the consistency of the challenge measure.

Finally, the four items of the leisure distress measure displayed a comparatively low reliability level of 0.68. The item "when I know I'm going to have some free time, I generally get anxious" was not consistent with the other distress measures. This item measures whether the participant experiences anxiousness during free time, whereas the other items in the subscale measure anxiousness experienced when the participant has no plans during free time. The former item could be interpreted as measuring anxiousness during any leisure activity, rather than when there is nothing to do during free time. By eliminating this item from the measure, the reliability of the distress measure was increased to a much more acceptable level of 0.72.

Following the revisions of the leisure experience measures, descriptive statistics were generated for each. These statistics are reported in Table 6.

Table 6  
Leisure Experience Subscales <sup>a</sup>

Subscale	Number of Items	Frequency	Mean	Standard Deviation	Cronbach's Alpha
Challenge	4	451	4.80	0.93	0.64
Awareness	3	454	4.70	1.27	0.73
Distress	3	451	2.90	1.33	0.72
Boredom	6	453	2.54	0.92	0.73

<sup>a</sup> Measured on a seven point scale from one (strongly disagree) to seven (strongly agree)

The mean ratings were only slightly higher than neutral for the awareness ( $M=4.70$ ,  $SD=1.27$ ) and challenge subscales ( $M=4.80$ ,  $SD=0.93$ ). This indicates that participants only somewhat perceive that there are leisure opportunities in their communities and enjoy only a small amount of challenge during their leisure time. Both the boredom ( $M=2.54$ ,  $SD=0.92$ ) and distress subscales ( $M=2.91$ ,  $SD=1.33$ ) had mean ratings below neutral. Participants reported a somewhat low level of boredom with their leisure and little experience of distress in regard to their leisure time.

Correlations between the four leisure experience variables were also investigated. Awareness displayed strong negative correlations with both boredom ( $r=-0.41$ ,  $p<0.01$ ) and distress ( $r=-0.17$ ,  $p<0.01$ ). Those participants who reported high awareness of leisure opportunities experienced low boredom and distress during their leisure, likely due to their perception of many possible leisure choices. Awareness was also positively associated with challenge ( $r=0.24$ ,  $p<0.01$ ). It is possible that those individuals who enjoy experiencing challenge during their leisure become more aware of leisure opportunities available in order to fulfill this desire. Challenge was also negatively related to boredom ( $r=-0.22$ ,  $p<0.01$ ), indicating that participants who experience challenge during their leisure also experience low levels of boredom. Boredom and distress displayed a strong positive relationship ( $r=0.38$ ,  $p<0.01$ ). Participants who reported experiencing boredom during their leisure also reported experiencing distress. No correlation was identified between distress and challenge; therefore, scores on these two variables are independent of one another.

### *Leisure Motivation Patterns*

Leisure motivation measures were generated using the items in each of the four motive subscales from the Leisure Motivation Scale (Beard & Ragheb, 1983). The descriptive statistics for each of the four motivation subscales can be found in Table 7.

Table 7  
Leisure Motivation Subscales <sup>a</sup>

Subscale	Number of Items	Frequency	Mean	Standard Deviation	Cronbach's Alpha
Competence-Mastery	12	448	5.51	0.90	0.91
Intellectual	12	449	5.14	0.82	0.89
Social	12	449	5.06	0.78	0.85
Stimulus-Avoidance	12	448	4.90	0.82	0.84

<sup>a</sup> Measured on a seven-point scale from one (strongly disagree) to seven (strongly agree)

Reliability analyses were performed on each of the motivation measures. Each subscale had a sufficiently high level of internal reliability; therefore, all items in each subscale were retained. The competence-mastery motive had the highest mean score of 5.51 (SD=0.90). Participants reported being most motivated by the desire to improve their skill level, and challenge and compete with others. The next highest mean score was for the intellectual motive (M=5.14, SD=0.82), suggesting that participants are also motivated by the desire for mental stimulation. The social and stimulus-avoidance subscales had the lowest two means of 5.06 (SD=0.78) and 4.90 (SD=0.82) respectively. Although these two motives are the weakest of the four, the means of these subscales are still well above neutral. Participants reported being motivated to develop interpersonal relationships as well as rest and escape, however to a lesser degree than the other motives.

Correlation analyses indicated that relationships exist between the four motivation variables. The intellectual motive was highly positively related to the social motive ( $r=0.57$ ,  $p<0.01$ ), competence-mastery motive ( $r=0.50$ ,  $p<0.01$ ), and stimulus-avoidance motive ( $r=0.24$ ,  $p<0.01$ ). In addition, the social motive was also positively correlated with competence-mastery ( $r=0.53$ ,  $p<0.01$ ) and stimulus-avoidance ( $r=0.19$ ,  $p<0.01$ ). These positive correlations suggest that individuals may be highly motivated to engage in leisure activities for more than one reason. As one type of motive increased, so did other motives.

Despite this pattern, two of the motives, competence-mastery and stimulus-avoidance, were not correlated with each other. The desire to participate in leisure in order to challenge, compete, or master had no relationship with the desire to participate in leisure to seek solitude, rest, or escape.

### *Identity Patterns*

Composite measures of personal and social identity were created from the identity subscales of the Erikson Psychosocial Stage Inventory (Rosenthal et al., 1981) and the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992) respectively. A global measure of overall identity was generated using the items from both the personal and social identity measures. Descriptive statistics were generated for overall identity, personal identity and social identity. They are displayed in Table 8.

Table 8  
Descriptive Statistics for Identity <sup>a</sup>

Identity	Number of Items	Frequency	Mean	Standard Deviation	Cronbach's Alpha
Personal Identity	12	446	5.01	0.92	0.86
Social Identity	4	446	5.20	1.00	0.74
Overall Identity	16	445	5.10	0.71	0.83

<sup>a</sup> Measured on a seven-point scale from one (strongly disagree) to seven (strongly agree)

Internal reliability levels were adequate for all three identity measures; therefore all items were retained for the analysis. Overall identity had a reasonably high mean of 5.10 (SD=0.71), suggesting that participants had a fairly strong sense of overall identity. Interestingly, the mean for social identity (M=5.20, SD=1.00) was higher than that of personal identity (M=5.01, SD=0.92). Participants had a more highly developed sense of their social groups and relationships with others than of their internal sense of self. Upon investigation of the relationship between personal and social identity, it became apparent

that no relationship existed between the two variables. This provides support for the existence of personal and social identities as two distinct constructs. Scores on one type of identity had no association with scores on the other type of identity.

### **Participant Demographic Patterns**

Participant demographic characteristics displayed many patterns with other variables including leisure participation, meaningfulness of leisure, leisure experience, leisure motivation, and identity. These relationships will be investigated in the following sections.

#### *Leisure Participation*

Total hours of leisure participation was investigated with respect to participant characteristics such as gender, age, year of university study, university faculty, current living arrangements, and financial situation. Male participants reported engaging in significantly more hours of leisure each month than female participants ( $t=3.74$ ,  $p<0.01$ ). On average, males participated in 218.60 (SD=102.41) hours of leisure each month whereas females participated in only 183.19 hours (SD=88.50). No other patterns emerged between total hours of leisure participation and participant demographic characteristics. Total leisure participation did not differ based on age, year of university, faculty, living arrangements, or financial situation.

Each category of leisure activity was also examined for relationships between leisure participation and demographic characteristics. Patterns existed between gender and participation in various categories of leisure activities. Male participants reported engaging in significantly more hours of active ( $t=2.54$ ,  $p=0.01$ ), passive ( $t=3.26$ ,  $p<0.01$ ), competitive ( $t=4.28$ ,  $p<0.01$ ), non-competitive ( $t=2.31$ ,  $p=0.02$ ), and unstructured ( $t=3.45$ ,  $p<0.01$ ) leisure activities than female participants. These findings were likely biased due to the higher overall leisure participation of males, and as such, these variables were examined with

respect to the proportion of time each gender participated in the various categories of leisure. Table 9 displays the proportion of time spent in each category of leisure by both male and female participants. Males reported participating in competitive leisure activities during a higher proportion of their leisure time than females ( $t=4.01$ ,  $p<0.01$ ), while females reported participating in non-competitive activities a higher proportion of time ( $t=-4.01$ ,  $p<0.01$ ). No differences were present in regards to the proportion of time each gender participated in active, passive, competitive and non-competitive leisure activities.

Table 9  
Proportion of Time Spent Participating in Each Category of Leisure Activity by Gender

Category of Leisure Activity	Gender			
	Males		Females	
	Proportion of Leisure Time	Standard Deviation	Proportion of Leisure Time	Standard Deviation
Active Leisure	0.19	0.13	0.18	0.15
Passive Leisure	0.55	0.15	0.54	0.17
Competitive Leisure	0.13	0.12	0.09	0.11
Non-Competitive Leisure	0.87	0.12	0.91	0.11
Structured Leisure	0.11	0.12	0.12	0.12
Unstructured Leisure	0.87	0.13	0.86	0.12

Leisure participation also differed based on the age of the participant. Although no relationship was found between age and hours of participation in each category of leisure, age and proportion of leisure time in each category displayed some patterns. Significant positive correlations were found between age and proportion of time spent participating in non-competitive leisure activities ( $r=0.14$ ,  $p<0.01$ ). Age was also negatively correlated with the proportion of leisure time spent in competitive ( $r=-0.14$ ,  $p<0.01$ ) and structured leisure activities ( $r=-0.09$ ,  $p=0.05$ ). These correlations suggest that as post-adolescents age, a lower proportion of their leisure time is spent in competitive and structured activities, while a higher proportion is spent engaging in non-competitive leisure pursuits.

Similar results emerged between year of university study and participation in each category of leisure activity. While no patterns were present between year of university and hours engaged in each leisure category, significant relationships were found when proportion of leisure time spent was examined. Year of university study was positively correlated to the proportion of non-competitive leisure participation ( $r=0.15$ ,  $p<0.01$ ), while being negatively correlated to proportion of leisure time spent in competitive activities ( $r=-0.15$ ,  $p<0.01$ ). As post-adolescents reported attending more years of university, they also reported a higher proportion of their leisure time spent in non-competitive activities and a lower proportion spent engaging in competitive activities.

The proportion of time spent in the various categories of leisure was investigated with respect to university faculty. No significant differences emerged between the faculty of Applied Health Sciences and other faculties. Similarly, no differences existed between participation in the various categories of leisure, and financial situation or living arrangements. These results suggest that the proportion of leisure time spent engaging in each category of activity does not differ based on participants' faculty, financial situation, or living situation.

The number of hours spent engaging in leisure with others was investigated with regards to participant demographics. When gender was examined, males reported participating in significantly more hours of leisure with others than females ( $t=3.68$ ,  $p<0.01$ ). While male participants typically engaged in 118.96 hours ( $SD=70.37$ ) of leisure with others each month, female participants only engaged in 94.83 hours ( $SD=61.47$ ). Given that males reported on average participating in more total hours of leisure each month than females, the significant difference found in number of hours of leisure with others may have been biased. Thus, the percentage of total hours of leisure that was spent with others was examined for any gender differences. During this analysis, no significant gender differences emerged. In addition, the number and proportion of leisure hours spent with others was

investigated for differences based on age, year of university study, faculty, living arrangements, and financial situation. No significant differences were found for these characteristics.

Finally, the number of leisure activities in which participants reported engaging was analysed for differences based on the various demographic characteristics. No significant differences were found, indicating that leisure repertoires were equally diverse regardless of gender, age, year of university study, faculty, living arrangements, or financial situation.

### *Meaningfulness of Leisure Participation*

The meaningfulness reported by each participant for those leisure activities in which they engaged was analysed with respect to the demographic variables. Faculty, living arrangements, and financial situation had no relationship to meaningfulness of leisure; however, significant relationships were found between meaningfulness of leisure and gender, age, and year of university. Although there were no differences in the average meaningfulness in which each gender derived from their leisure, differences in leisure meaningfulness emerged within the varying categories of leisure activities. These meaningfulness scores are displayed in Table 10. Male participants reported higher levels of meaningfulness for those activities which were active ( $t=2.34$ ,  $p=0.02$ ), and competitive ( $t=3.85$ ,  $p<0.01$ ), whereas females reported higher meaningfulness in leisure activities which were low social in nature ( $t=-2.08$ ,  $p=0.04$ ). No further differences were identified for any other categories of leisure activities.

Age was found to be significantly and positively correlated with average meaningfulness of leisure participation ( $r=0.14$ ,  $p<0.01$ ). This suggests that as age increases, so does the meaning derived from leisure participation. This increasing meaningfulness of leisure with age may be a by-product of increasing responsibilities and time demands, thereby increasing appreciation for the time spent engaging in leisure.

Significant correlations also were found between age and the meaningfulness of active leisure, passive leisure, non-competitive leisure, and unstructured leisure participation. Age was positively correlated with the meaningfulness of passive leisure ( $r=0.17$ ,  $p<0.01$ ), non-competitive leisure ( $r=0.16$ ,  $p<0.01$ ), and unstructured leisure participation ( $r=0.13$ ,  $p=0.01$ ). As age increased, so did the meaningfulness derived from participation in these types of leisure pursuits. In contrast, age was negatively correlated with the meaningfulness of active leisure participation ( $r=-0.14$ ,  $p=0.02$ ), suggesting that as age increases, the meaningfulness of participating in active types of leisure activities decreases.

Table 10  
Leisure Meaningfulness Scores by Gender <sup>a</sup>

Category of Leisure Activity	Gender			
	Males		Females	
	Average Meaningfulness	Standard Deviation	Average Meaningfulness	Standard Deviation
Active Leisure	5.84	0.91	5.56	1.01
Passive Leisure	4.66	0.94	4.83	0.80
Competitive Leisure	4.45	0.87	3.91	1.12
Non-Competitive Leisure	4.79	0.88	4.96	0.67
Structured Leisure	4.43	0.98	4.46	1.01
Unstructured Leisure	4.88	0.78	4.93	0.65
Low Social Leisure	5.34	1.16	5.59	0.83
High Social Leisure	5.09	0.79	5.05	0.81
All Leisure Activities	4.83	0.72	4.91	0.69

<sup>a</sup> Measured on a scale from one (not at all meaningful) to seven (highly meaningful)

Similar patterns emerged between year of university study and the meaningfulness of leisure participation. Year of university was positively correlated with average meaningfulness of leisure ( $r=0.14$ ,  $p<0.01$ ). As participants reported being in university for longer periods of time, they also reported increasing meaningfulness derived from their leisure. Meaningfulness of passive leisure ( $r=0.15$ ,  $p<0.01$ ), non-competitive leisure ( $r=0.17$ ,

$p < 0.01$ ), and unstructured leisure participation ( $r = 0.12$ ,  $p = 0.02$ ) also were positively correlated with year of university. In addition, year of university had a significant negative relationship with the meaningfulness of active leisure pursuits ( $r = -0.16$ ,  $p < 0.01$ ).

### *Leisure Experience*

Relationships between leisure experience variables and demographics were analyzed. Significant patterns emerged between leisure experience and gender, age, year of university study, and faculty. Living arrangements and financial situation were not related to leisure experience. With respect to gender, the leisure experience variables of awareness, boredom and distress showed no significant differences between males and females; however, male participants reported significantly higher challenge scores than females ( $t = 3.13$ ,  $p < 0.01$ ). While males typically reported challenge scores of 5.01 ( $SD = 0.97$ ), females scored only an average of 4.71 ( $SD = 0.89$ ), suggesting that males enjoy challenge in their leisure to a greater extent than females.

Correlations were also identified between age and the leisure experience variables of awareness, boredom, and challenge. Age was positively correlated to both awareness ( $r = 0.12$ ,  $p = 0.01$ ) and challenge ( $r = 0.10$ ,  $p = 0.03$ ), indicating that as participants age, they perceive that they are more aware of leisure choices and enjoy more challenge during their leisure. Age also was negatively related to boredom ( $r = -0.15$ ,  $p < 0.01$ ). As age increased, participants reported experiencing less boredom during leisure time. No relationship was found between age and distress.

Similar patterns were found between year of university and leisure experience. Like age, year of university was positively correlated with both awareness ( $r = 0.10$ ,  $p = 0.04$ ) and challenge ( $r = 0.10$ ,  $p = 0.04$ ). Moreover, year of university was negatively related to boredom ( $r = -0.12$ ,  $p = 0.01$ ). Year of university and distress had no relationship.

Finally, leisure experience was moderately related to faculty. Although no patterns were found between faculty and boredom, challenge, and distress, a positive relationship emerged between faculty and awareness ( $t=3.25$ ,  $p<0.01$ ). Participants in the faculty of Applied Health Science reported significantly higher awareness scores ( $M=4.77$ ,  $SD=1.27$ ) than participants in other faculties ( $M=4.18$ ,  $SD=1.19$ ). Participants who reported being in the faculty of Applied Health Sciences perceived there to be more leisure opportunities than participants who were in other faculties, likely as a result of many of these students learning about recreation opportunities as part of their course of study.

### *Leisure Motivation*

Leisure motivation scores were examined with respect to their relationships with demographic characteristics. Relationships were identified with two of these variables, namely gender and faculty. When patterns between leisure motivation and gender were examined, a significant relationship emerged between gender and the competence-mastery motive ( $t=5.56$ ,  $p<0.01$ ). Male participants reported significantly higher competence-mastery scores ( $M=5.83$ ,  $SD=0.78$ ) than females ( $M=5.36$ ,  $SD=0.91$ ). This suggests that males are more motivated to participate in leisure to challenge, compete, or master skills. No other gender differences existed in regards to the other leisure motivation variables.

Patterns between leisure motivation and faculty also existed. A significant relationship was found between faculty and the social motive ( $t=2.08$ ,  $p=0.04$ ). Participants in the faculty of Applied Health Sciences reported higher social motive scores ( $M=5.09$ ,  $SD=0.77$ ) than participants from other faculties ( $M=4.85$ ,  $SD=0.83$ ), suggesting that participants in Applied Health Sciences are more motivated to participate in leisure to develop interpersonal relationships. No patterns were found between leisure motivation and age, year of university study, living arrangements, or financial situation. Participants were equally motivated to participate in leisure regardless of these demographic variables.

## Identity

Relationships were identified between identity and all demographic variables except for living arrangements. When the relationship between identity and gender was examined, significant patterns were found with respect to both social identity ( $t=-3.70$ ,  $p<0.01$ ) and overall identity ( $t=-2.31$ ,  $p=0.02$ ). Female participants reported significantly higher scores for both these variables. Table 11 displays the mean identity scores for both male and female participants.

Table 11  
Identity Scores by Gender <sup>a</sup>

Identity	Gender			
	Males		Females	
	Mean	Standard Deviation	Mean	Standard Deviation
Personal Identity	5.04	0.86	5.00	0.95
Social Identity	4.94	1.06	5.31	0.95
Overall Identity	4.99	0.71	5.16	0.71

<sup>a</sup> Measured on a seven-point scale from one (low) to seven (high)

Identity and age also were significantly related. No significant correlation was found between age and either personal or social identity. The correlation between age and overall identity did reach a level of significance ( $r=0.10$ ,  $p=0.04$ ). This result indicates that as age increases, so does overall identity, thereby suggesting that identity development may still be occurring during post-adolescence.

The relationship between identity and year of university revealed a different pattern. Year of university and overall identity were not related, nor were year of university and personal identity. Year of university and social identity did display a positive relationship ( $r=0.12$ ,  $p<0.01$ ). Although personal and overall identity scores did not increase with years of university, increases in social identity did occur.

A pattern between faculty and identity also existed. Faculty was significantly associated with both personal ( $t=2.28$ ,  $p=0.02$ ) and overall identity ( $t=2.48$ ,  $p=0.01$ ). Those participants who were in the faculty of Applied Health Sciences reported significantly higher personal identity ( $M=5.04$ ,  $SD=0.91$ ) than participants in other faculties ( $M=4.74$ ,  $SD=1.01$ ). Similarly, their overall identity was also higher ( $M=5.13$ ,  $SD=0.70$ ) than that of other participants ( $M=4.88$ ,  $SD=0.73$ ). No difference between the two groups was found in regards to social identity.

Additionally, relationships were identified between identity and financial situation. Both social ( $F=3.13$ ,  $p=0.02$ ) and overall identity ( $F=4.89$ ,  $p<0.01$ ) significantly differed depending on the financial situation of the participant. When the differences between financial statuses was examined, participants who had enough to get by had significantly lower mean social identity scores ( $M=5.03$ ,  $SD=1.09$ ) than participants who had a little left over after all obligations had been met ( $M=5.37$ ,  $SD=0.96$ ). With respect to overall identity, participants who had barely enough to make ends meet had significantly lower overall identities ( $M=4.88$ ,  $SD=0.66$ ) than participants who had a little left over after obligations had been met ( $M=5.26$ ,  $SD=0.67$ ), as well as those who had all they needed and more ( $M=5.40$ ,  $SD=0.68$ ). In addition, participants who had enough to get by had significantly lower overall identities ( $M=4.98$ ,  $SD=0.79$ ) than those who had a little left over after obligations had been met, as well as participants who reported having all they needed and more.

### **Combined Effects of Gender and Age**

Throughout the previous analyses, gender, age, and year of university study consistently emerged as characteristics that displayed relationships with leisure and identity variables. These demographic characteristics then were examined in combination to determine any patterns that may exist with other variables. Due to the extensive positive correlation between age and year of university study ( $R=0.69$ ,  $p<0.01$ ), subsequent

analyses focused solely on the age of participant, rather than taking into consideration both age and year of study. Three age categories were generated – 18-19 years of age, 20-22 years of age, and 23 years of age and older. These three categories represented the lower, middle and upper age ranges of the sample respectively. Using factorial ANOVA, these age categories and gender were collectively examined for relationships with leisure participation, meaningfulness, leisure experience, leisure motivation, and identity.

### *Leisure Participation*

Gender and age were investigated with respect to their relationship with total hours of leisure participation. A significant main effect of gender emerged ( $F=4.25$ ,  $p=0.04$ ), indicating that gender has a relationship with total hours of leisure participation independent of the age of the participant. The main effect of age was insignificant, as was the interaction between the variables. Males in the youngest two age categories reported participating in extensively more total hours of leisure than females; however in the oldest age category, the leisure participation of males dropped substantially, while engagement of females steadily increased.

Next, gender and age were examined along with the number of hours participants reported engaging in each category of leisure activity. The number of hours participants engaged in competitive activities displayed a main effect of gender ( $F=9.81$ ,  $p<0.01$ ), suggesting that gender is independently related to competitive leisure participation. No main effect of age or interaction effect emerged from the analysis. Male participants in all age categories reported engaging in more competitive leisure than female participants.

Similarly, the number of hours of unstructured participation also presented a main effect of gender ( $F=4.44$ ,  $p=0.04$ ), yet no other main effect or interaction. Only a participant's gender was independently related to unstructured leisure participation. Male participants in the youngest two age categories reported higher participation in

unstructured leisure than female participants. Males in the oldest age category displayed much lower engagement in unstructured leisure activities, while female participation displayed an increase. Unstructured leisure participation by females in the oldest age category exceeded that of male participants.

The number of hours spent engaging in active, passive, non-competitive, and structured leisure activities also were analysed with respect to gender and age. None of these leisure variables displayed main effects of either gender or age. Neither gender nor age were independently associated with engagement in active, passive, non-competitive, or structured leisure pursuits.

The relationship between gender, age, and leisure time spent with others and alone was investigated. The total number of hours participants reported participating in leisure with others had a significant main effect of gender ( $F=5.29$ ,  $p=0.02$ ), indicating the existence of an independent relationship between gender and hours of leisure with others. Neither a main effect of age nor an interaction between gender and age was present for this variable. Male participants in all age categories reported more total hours of leisure participation with others than female participants.

When total number of hours engaged in leisure alone was analysed with respect to gender and age, no main effects were present for either gender or age. Neither gender nor age had an independent relationship to the number of hours participants engaged in leisure alone.

The proportion of time spent engaging in each type of leisure activity was analysed with respect to the combined association with both gender and age. The proportion of leisure time spent participating in competitive activities had a significant main effect of gender ( $F=11.89$ ,  $p<0.01$ ). No significant main effect of age or interaction effect was present. Similarly, the proportion of leisure spent engaging in non-competitive activities also had a main effect of gender ( $F=11.89$ ,  $p<0.01$ ), yet no main effect of age or interaction.

Males spent a greater proportion of their leisure time engaging in competitive activities than females, regardless of their age. In contrast, females spent a higher proportion of their leisure time in non-competitive activities.

No other patterns emerged regarding the proportion of time spent in active, passive, structured, or unstructured leisure. These variables showed no main effects of gender or age, and no interaction effect. This suggests that neither gender nor age has a significant relationship with the proportion of leisure time spent engaging in these activities. Similarly, the proportion of leisure time spent alone or with others also had no significant main effects or interactions, and therefore, does not seem to be associated with either gender or age.

Finally, gender and age were analysed with respect to their combined relationship with diversity of leisure activities. No significant main effects emerged for either gender or age. Neither of these variables had an independent relationship with diversity of leisure. The number of leisure activities in which participants reported did not have an association with either the participant's gender or age.

#### *Meaningfulness of Leisure Participation*

The combined effects of gender and age were investigated with respect to the average meaningfulness that participants placed on their leisure. Neither gender nor age displayed a significant main effect on average meaningfulness. This result suggests that meaningfulness is not independently related to either gender or age. No significant interaction effect was present between the variables, indicating that gender and age also have no combined relationship with average meaningfulness of leisure activities. In the lowest age category, both male and female participants reported moderate amounts of meaningfulness. Interestingly, in subsequent age categories males reported consistent levels of meaningfulness, while the meaningfulness of females' leisure participation continued to increase substantially.

Gender and age also were examined for relationships with the meaningfulness participants placed on engaging in each category of leisure pursuit. When meaningfulness of active leisure participation was analysed, a main effect of gender emerged ( $F=3.87$ ,  $p=0.05$ ). Similarly, a main effect of age was also present ( $F=4.15$ ,  $p=0.02$ ). Thus, both gender and age had a relationship with the meaningfulness of active leisure participation independent of each other. The interaction between the two variables was non-significant. Male participants in all age categories placed more meaningfulness of active leisure participation than female participants. In addition, as age categories increased, meaningfulness of active leisure participation decreased, regardless of the gender of the participant.

Meaningfulness of competitive leisure activities also displayed a significant main effect of gender ( $F=13.29$ ,  $p<0.01$ ). Neither the main effect of age nor the interaction effect reached a level of significance; therefore, meaningfulness of competitive leisure participation was only independently related to the gender of the participant. Male participants in all age categories consistently reported higher levels of meaningfulness for competitive leisure activities than female participants.

A significant main effect of age ( $F=3.24$ ,  $p=0.04$ ) was revealed for the meaningfulness of non-competitive leisure pursuits. Participants in older age categories reported higher levels of meaningfulness for non-competitive leisure pursuits, regardless of the gender of the participant. No significant main effect of gender was present, suggesting that gender does not have an independent relationship with meaningfulness of non-competitive activities. The interaction between gender and age was insignificant.

The meaningfulness of passive leisure activities, structured activities, and unstructured activities also were examined for relationships with gender and age. Main effects of gender and age were insignificant for all of these meaningfulness variables.

Neither gender nor age was independently related to the meaningfulness of passive, structured, or unstructured leisure pursuits.

The combined effects of gender and age were investigated with respect to the meaningfulness that participants placed on activities that were reported as being high and low social in nature. The meaningfulness of high social leisure activities did not display significant main effects for either gender or age. These demographic variables were not individually related to the meaningfulness of leisure activities that are highly social in nature. In addition, no interaction was present between the variables.

The meaningfulness of low social activities did exhibit a significant main effect of gender ( $F=6.74$ ,  $p=0.01$ ). Gender was independently related to the meaningfulness of low social activities regardless of age. On average, female participants derived more meaningfulness from activities which were low social in nature than males did. Neither the main effect of age nor the interaction effect reached levels of significance for low social meaningfulness. Male and female participants in the youngest age category reported highly similar levels of meaningfulness, yet as age increased, levels of meaningfulness began to differ. In the oldest two age categories, female participants placed increasingly higher levels of meaningfulness on participating in low social activities, while the meaningfulness reported by male participants decreased.

### *Leisure Experience*

The relationships between gender, age, and the four leisure experience variables were investigated. Awareness, boredom, and distress all displayed non-significant main effects of both gender and age. These variables were not independently related to either gender or age. Although boredom and distress showed no interaction between gender and age, awareness yielded a significant interaction effect ( $F=3.12$ ,  $p=0.05$ ). Although gender and age had no independent relationship with awareness, in combination the variables were

highly associated. In the two youngest age categories, male participants reported higher levels of awareness than female participants. Yet, this pattern changed in the oldest age category where females reported higher awareness scores than males. Above the age of 22, male awareness scores tend to increase substantially, while awareness scores of females show a drastic decline.

Challenge also displayed relationships with both gender and age. Challenge yielded significant main effects of gender ( $F=5.73$ ,  $p=0.02$ ), and age ( $F=4.50$ ,  $p=0.01$ ), suggesting that both gender and age are respectively independently related to challenge. No interaction effect was present. At each age category, male participants reported higher challenge scores than females. In addition, challenge scores increased as age categories increased, regardless of the gender of the participant.

#### *Leisure Motivation*

Leisure motivation variables were analysed with respect to both gender and age. Results of these analyses revealed that social and stimulus-avoidance motives presented non-significant main effects of both gender and age. In addition, the intellectual motive did not display any significant main effects, however a significant interaction effect between gender and age was present ( $F=3.61$ ,  $p=0.03$ ). In combination, gender and age had a relationship with the intellectual motive. Male and female participants displayed differing patterns of intellectual motive across age categories. In the youngest age category, males obtained substantially higher intellectual motive scores than females. Participants in the middle age category had highly similar levels of intellectual motivation regardless of gender. Finally, female participants in the oldest age category reported much higher levels of intellectual motivation than males. This indicates that as age increases, males show a marked decrease in intellectual motive scores, while females display a consistent increase in this motive.

Only competence-mastery displayed an independent relationship with gender ( $F=16.84$ ,  $p<0.01$ ). Male participants reported higher levels of the competence-mastery motive than females in all age categories. Age was not independently related to competence-mastery, nor was there a significant interaction effect between gender and age.

### *Identity*

The relationship between gender and age was investigated for overall identity, personal identity, and social identity. Overall identity revealed a significant main effect of gender ( $F=7.95$ ,  $p<0.01$ ), indicating an independent relationship between gender and overall identity. No main effect of age was present, nor was an interaction effect. Female participants reported higher levels of overall identity than male participants in all age categories.

The analysis of social identity also revealed a significant main effect of gender ( $F=13.72$ ,  $p<0.01$ ). Once again, no main effect of age and no interaction effect were present. In all age categories, female participants possessed higher mean social identity scores than males. Finally, results of the analysis between personal identity, gender, and age displayed no significant main effects. Neither gender nor age was independently associated with personal identity.

### **Relationships between Leisure and Identity Variables**

Following the investigation of demographic characteristics, the relationships between leisure and identity variables were examined. Analyses were performed in order to identify any associations between variables such as leisure participation, meaningfulness of leisure, leisure experience, leisure motivation, and identity.

### *Leisure Participation and Meaningfulness*

Relationships between leisure participation and meaningfulness were identified. Total hours of leisure participation was significantly and positively correlated with average meaningfulness of leisure ( $r=0.16$ ,  $p<0.01$ ). As the total number of hours participants reported spending in leisure increased, so did the meaningfulness placed on leisure participation. Engagement in each category of leisure activity was investigated with respect to its relationship with average meaningfulness. Passive ( $r=0.14$ ,  $p<0.01$ ), non-competitive ( $r=0.17$ ,  $p<0.01$ ), and unstructured ( $r=0.15$ ,  $p<0.01$ ) leisure participation was significantly correlated with average meaningfulness of leisure participation. As the number of hours of participation in passive, non-competitive, and unstructured leisure increased, so did the meaningfulness derived from leisure. Total hours of leisure participation with others also was significantly correlated with average meaningfulness of leisure ( $r=0.12$ ,  $p<0.01$ ). Similarly, total hours of leisure participation alone also was related to average meaningfulness ( $r=0.12$ ,  $p=0.01$ ). This suggests that as leisure participation both with others and alone increases, so does the meaningfulness placed on leisure. Interestingly, active, competitive, and structured leisure participation had no association with meaningfulness.

Each category of leisure activity was analysed with respect to the meaningfulness derived from participating in that type of activity. The meaningfulness of each type of leisure pursuit was positively correlated with the hours of participation in that category of activity. Engagement in active leisure activities was significantly related to the meaningfulness of active leisure participation ( $r=0.27$ ,  $p<0.01$ ). Passive leisure participation was correlated with the meaningfulness of passive activities ( $r=0.22$ ,  $p<0.01$ ). Participation in competitive activities was associated with meaningfulness of competitive leisure pursuits ( $r=0.45$ ,  $p<0.01$ ). Similarly, non-competitive leisure activities were related to the meaningfulness of participating in those activities ( $r=0.20$ ,  $p<0.01$ ). Structured leisure participation was positively correlated with the meaningfulness of structured activities ( $r=0.34$ ,  $p<0.01$ ), and

engagement in unstructured activities was correlated with the meaningfulness of unstructured leisure ( $r=0.22$ ,  $p<0.01$ ). These results imply that the meaningfulness of participating in a type of activity increases with the hours of participation in that activity, although the directionality of this relationship is unknown.

In addition, the meaningfulness of those activities reported to be low social activities was significantly correlated with hours of leisure participation alone ( $r=0.15$ ,  $p<0.01$ ). No relationship was present between the meaningfulness of high social activities and leisure participation with others.

The association between diversity of leisure activities and meaningfulness was investigated. No correlation was identified between these two variables, indicating that the number of leisure activities in which an individual participates has no relationship to the average meaningfulness of leisure.

#### *Leisure Participation and Leisure Experience*

The relationships between leisure participation and leisure experience were examined. Numerous relationships became apparent between leisure participation and awareness, boredom, and challenge. Total leisure participation was significantly related to challenge ( $r=0.16$ ,  $p<0.01$ ). As the number of hours of participants reported participating in leisure increased, so did challenge scores. This may be an indication that individuals who derive challenge from their leisure participate in more hours of leisure than individuals who experience less challenge during their leisure. Interestingly, no relationships were identified between total leisure participation and awareness, boredom, or distress.

Leisure participation in each category of activity and leisure experience factors were analysed to further develop the relationship between these variables. Table 12 displays the correlations between hours of leisure participation and leisure experience.

Table 12  
Correlations between Leisure Participation and Leisure Experience

Category of Leisure Participation	Leisure Experience			
	Awareness	Boredom	Challenge	Distress
Active leisure	0.05	-0.04	0.13**	0.01
Passive leisure	-0.10*	0.10*	0.10*	0.03
Competitive leisure	0.06	-0.01	0.15**	-0.02
Non-competitive leisure	-0.02	0.06	0.14**	0.05
Structured leisure	0.16**	-0.09	0.16**	0.00
Unstructured leisure	-0.06	0.08	0.14**	0.05
Participation with others	0.09	0.04	0.12**	0.05
Participation alone	-0.09*	0.01	0.11*	0.02
Total leisure participation	-0.00	0.03	0.16**	0.05

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Challenge was positively associated with all categories of leisure pursuits, indicating that participants experienced challenge in all types of activities. As the amount of challenge reported increased, so did the hours of leisure participation. Individuals who participated in more hours of leisure activities experienced more challenge, and perhaps engaged in more leisure as a result.

Awareness showed a positive relationship with structured leisure participation ( $r=0.16$ ,  $p<0.01$ ). This suggests that individuals who participate in structured leisure activities are more aware of leisure opportunities, and may participate in these structured forms of leisure as a result. Activities which are structured may require a higher level of awareness in order to find structured leisure activities in which to participate. Interestingly, passive leisure ( $r=-0.10$ ,  $p=0.04$ ) and leisure participation alone ( $r=-0.09$ ,  $p=0.05$ ) were negatively correlated with awareness. As total hours of passive leisure and leisure participation alone increased, awareness decreased. This may suggest that these leisure participants are less aware of available leisure opportunities and participate in passive or solitary pursuits as a result. Although causality may not be implied from this analysis, it is

possible that lack of awareness of leisure option results in an increased number of hours spent participating in passive leisure or leisure alone.

Boredom and passive leisure participation displayed a significant positive relationship ( $r=0.10$ ,  $p=0.04$ ). Total hours of passive participation increased along with boredom experienced during leisure. This indicates that boredom may result from participation in passive leisure, or alternatively, that individuals who are bored with their leisure choose to participate in passive leisure.

Relationships were consistently revealed between leisure participation and awareness, boredom, and challenge. Interestingly, distress was not correlated with leisure participation. It seems that distress has no association with the number of hours engaged in leisure. Individuals who experience distress may participate in leisure for few or many hours per month.

Associations between diversity of leisure activities and leisure experience also were revealed. Diversity was positively correlated with both awareness ( $r=0.17$ ,  $p<0.01$ ) and challenge ( $r=0.13$ ,  $p<0.01$ ). As participants reported more diversity in their leisure activities, they also reported higher levels of awareness and challenge. Diversity was not associated with either boredom, or distress.

#### *Leisure Participation and Leisure Motivation*

Relationships were identified between leisure participation and leisure motivation. Total leisure participation was correlated with three types of motives – intellectual ( $r=0.14$ ,  $p<0.01$ ), social ( $r=0.13$ ,  $p<0.01$ ), and competence-mastery ( $r=0.17$ ,  $p<0.01$ ). As total hours of leisure participation increased, so did motivation to participate in leisure for intellectual, social, and competence-mastery reasons. No relationship was found between total hours of leisure participation and the stimulus-avoidance motive. Total participation had no association with the desire to participate in leisure to escape, rest, or seek solitude.

Participation in each category of leisure activity was investigated for relationships with motivation. Refer to Table 13 for correlations between these variables.

Table 13  
Correlations between Leisure Participation and Leisure Motivation

Category of Leisure Participation	Leisure Motivation			
	Intellectual	Social	Competence-Mastery	Stimulus-Avoidance
Active leisure	0.06	0.10*	0.27**	-0.10*
Passive leisure	0.11*	0.06	0.02	0.02
Competitive leisure	0.02	0.14**	0.28**	-0.13**
Non-competitive leisure	0.15**	0.10*	0.09	-0.00
Structured leisure	0.13**	0.21**	0.28**	-0.11*
Unstructured leisure	0.11*	0.08	0.09	-0.01
Participation with others	0.04	0.16**	0.20**	-0.07
Participation alone	0.18	0.03	0.05	0.01
Total leisure participation	0.14**	0.13**	0.17**	-0.05

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Both active and competitive leisure participation displayed positive correlations with social and competence-mastery motives, and negative correlations with stimulus-avoidance. These results suggest that individuals participate in active and competitive leisure activities to develop interpersonal relationships and master skills. In addition, individuals who wish to rest or escape do not participate in active and competitive activities to fulfill these needs. Similar to active and competitive leisure, structured leisure participation was also positively correlated with social ( $r=0.21$ ,  $p<0.01$ ) and competence-mastery motives ( $r=0.28$ ,  $p<0.01$ ), and negatively correlated with stimulus-avoidance ( $r=-0.11$ ,  $p<0.02$ ). Additionally, participation in structured leisure activities also displayed a significant positive correlation with the intellectual motive ( $r=0.13$ ,  $p<0.01$ ), suggesting that participation in this type of leisure is the result of the desire for mental stimulation. Non-competitive leisure activities were positively related to both intellectual ( $r=0.15$ ,  $p<0.01$ ) and social motives ( $r=0.10$ ,

$p=0.04$ ). Finally, participation in both passive and unstructured leisure activities was solely correlated with the intellectual motive. The motivation to participate in either of these categories of leisure activities may be a result of a desire to be mentally stimulated.

Associations between motivation and leisure participation with others and alone were identified. Leisure participation with others was significantly related to both social ( $r=0.16$ ,  $p<0.01$ ) and competence-mastery motives ( $r=0.20$ ,  $p<0.01$ ). This indicates that individuals engage in leisure pursuits with others in order to develop interpersonal relationships and master skills. Participation in leisure activities alone was positively correlated with only the intellectual motive ( $r=0.18$ ,  $p<0.01$ ), suggesting that participants engage in leisure activities alone to fulfill their intellectual needs.

Diversity also displayed some associations with motivation. The diversity of leisure activities was correlated with intellectual ( $r=0.17$ ,  $p<0.01$ ), social ( $r=0.18$ ,  $p<0.01$ ), and competence-mastery motives ( $r=0.20$ ,  $p<0.01$ ). As individuals' repertoire of leisure activities increased, so did their desire to participate in these activities for intellectual, social, and competence-mastery reasons. It is plausible that participating in a large variety of leisure pursuits may increase opportunities for mental stimulation, social interaction in various contexts, and development of a broad range of skills, thereby enhancing these types of motives.

#### *Leisure Participation and Identity*

An examination between leisure participation and identity revealed interesting results. Correlation analyses showed non-significant relationships between total hours of leisure participation, and overall, personal, and social identity. This suggests that engagement in leisure pursuits has no relationship to identity. Each category of leisure activity then was investigated with respect to identity. Correlation results are displayed in Table 14.

Table 14  
Correlations between Leisure Participation and Identity

Category of Leisure Participation	Identity		
	Personal	Social	Overall
Active leisure	0.05	0.02	0.04
Passive leisure	-0.06	0.01	-0.03
Competitive leisure	0.02	-0.01	0.01
Non-competitive leisure	-0.00	0.06	0.04
Structured leisure	0.11*	0.08	0.13**
Unstructured leisure	-0.02	0.04	0.01
Participation with others	0.10*	0.10*	0.13*
Participation alone	-0.10*	-0.01	-0.07
Total leisure participation	0.00	0.06	0.04

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Active, passive, competitive, non-competitive, and unstructured leisure had no correlation with identity. Only structured leisure participation showed a significant correlation with both overall ( $r=0.13$ ,  $p<0.01$ ) and personal identity ( $r=0.11$ ,  $p=0.02$ ). No relationship was found between structured leisure and social identity. These results indicate that structured leisure may have qualities that make it conducive to identity development. Alternatively, individuals who have a more developed sense of total and personal identity may choose to participate in larger amounts of structured leisure.

The relationship between identity, and leisure participation alone and with others also revealed relationships. Total hours of leisure participation with others was highly correlated with overall ( $r=0.13$ ,  $p<0.01$ ), personal ( $r=0.10$ ,  $p=0.04$ ), and social identity ( $r=0.10$ ,  $p=0.04$ ). Interestingly, total hours of leisure participation alone was negatively correlated with personal identity ( $r=-0.10$ ,  $p=0.04$ ). No relationship was found between leisure participation alone, and overall and social identity. The results of these analyses indicate that participating in leisure with others may enhance identity development, while participating in leisure alone may in fact hinder development of personal identity. These results may also

imply that individuals who have a developed sense of identity may choose to participate in leisure with others, while individuals who have a less developed sense of personal identity may choose to participate in leisure alone.

Finally, the diversity of leisure activities was analysed for relationships with identity. Diversity was positively correlated with both overall ( $r=0.13$ ,  $p<0.01$ ) and social identity ( $r=0.12$ ,  $p=0.01$ ). As the number of activities in which participants reported engaging increased, so did overall and social identity. This relationship seems to make sense, as individuals who participate in large numbers of leisure activities have many social contexts in which to develop their social and overall identity. It is also plausible that individuals who have a well developed sense of social and overall identity choose to engage themselves in many social networks through their leisure. No relationship was found between diversity and personal identity.

#### *Meaningfulness of Leisure and Leisure Experience*

Analyses of meaningfulness and leisure experience displayed some relationships between these variables. Average meaningfulness of leisure was positively correlated with awareness ( $r=0.15$ ,  $p<0.01$ ) and challenge ( $r=0.10$ ,  $p=0.04$ ), and negatively correlated with boredom ( $r=-0.12$ ,  $p<0.01$ ). As individuals reported more awareness of leisure opportunities, and experienced more challenge and less boredom during their leisure, the meaningfulness of their leisure participation increased. Interestingly, average meaningfulness showed no relationship with distress.

The meaningfulness of the various types of leisure activities showed differing relationships with leisure experience variables. These relationships can be viewed in Table 15.

Table 15  
Correlations between Meaningfulness and Leisure Experience

Meaningfulness of Leisure Category	Leisure Experience			
	Awareness	Boredom	Challenge	Distress
Active leisure	0.14*	0.01	0.18**	-0.01
Passive leisure	0.13*	-0.13*	0.11*	-0.10
Competitive leisure	0.10	0.07	0.20**	0.04
Non-competitive leisure	0.16**	-0.13*	0.16*	-0.01
Structured leisure	0.27**	0.02	0.25**	0.10
Unstructured leisure	0.11*	-0.10	0.10*	-0.03
High social leisure	0.11*	-0.03	0.09	0.00
Low social leisure	0.08	-0.08	0.06	-0.06
Average meaningfulness	0.15**	-0.12**	0.10*	-0.06

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Challenge was positively related to the meaningfulness of most types of leisure pursuits including active ( $r=0.18$ ,  $p<0.01$ ), passive ( $r=0.11$ ,  $p=0.04$ ), competitive ( $r=0.20$ ,  $p<0.01$ ), non-competitive ( $r=0.16$ ,  $p=0.01$ ), structured ( $r=0.25$ ,  $p<0.01$ ), and unstructured ( $r=0.10$ ,  $p=0.05$ ) leisure activities. For these types of activities, challenge and meaningfulness increased together. Although causality cannot be inferred from these analyses, it is plausible that increasing amounts of challenge experienced during leisure causes the meaningfulness of leisure participation to increase as well.

Awareness was positively correlated to the meaningfulness of active ( $r=0.14$ ,  $p=0.02$ ), passive ( $r=0.13$ ,  $p=0.01$ ), non-competitive ( $r=0.16$ ,  $p<0.01$ ), structured ( $r=0.27$ ,  $p<0.01$ ), unstructured ( $r=0.11$ ,  $p=0.03$ ), and high social leisure activities ( $r=0.11$ ,  $p=0.02$ ). As awareness increased, so did the meaningfulness derived from these types of leisure participation. The perception of awareness of available leisure opportunities may result in increased meaningfulness in certain types of activities.

Boredom was negatively correlated with the meaningfulness of both passive ( $r=-0.13$ ,  $p=0.02$ ) and non-competitive ( $r=-0.13$ ,  $p=0.03$ ) leisure activities. As participants reported less boredom experienced during leisure, they also reported more meaningfulness of passive and non-competitive leisure. This increase in meaningfulness may be a direct result of experiencing lower levels of boredom, although this premise cannot be confirmed through the present research.

Although numerous relationships were present between meaningfulness and the leisure experience variables of awareness, boredom, and challenge, it is worth noting that distress was not correlated with the meaningfulness of any category of leisure activity. As such, it seems that any distress experienced during leisure does not impact the meaningfulness of leisure participation in a negative or positive manner.

#### *Meaningfulness of Leisure and Leisure Motivation*

Relationships between meaningfulness and leisure motives were analysed. These relationships can be seen in Table 16.

Table 16  
Correlations between Meaningfulness and Leisure Motivation

Meaningfulness of Leisure Category	Leisure Motivation			
	Intellectual	Social	Competence-Mastery	Stimulus-Avoidance
Active leisure	0.17**	0.21**	0.48**	0.01
Passive leisure	0.30**	0.09	-0.02	0.08
Competitive leisure	0.12	0.19**	0.32**	0.01
Non-competitive leisure	0.30**	0.14*	0.06	0.03
Structured leisure	0.24**	0.29**	0.19*	-0.04
Unstructured leisure	0.32**	0.20**	0.11*	0.08
High social leisure	0.24**	0.26**	0.13**	0.04
Low social leisure	0.36**	0.19**	0.11*	0.15**
Average meaningfulness	0.29**	0.21**	0.12*	0.05

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Average meaningfulness of leisure participation was significantly correlated with intellectual ( $r=0.29$ ,  $p<0.01$ ), social ( $r=0.21$ ,  $p<0.01$ ), and competence-mastery ( $r=0.12$ ,  $p=0.01$ ) motives, indicating that meaningfulness increases along with these three types of motives for engaging in leisure. Competence-mastery was associated with the meaningfulness of participating in many types of leisure activities including active ( $r=0.48$ ,  $p<0.01$ ), competitive ( $r=0.32$ ,  $p<0.01$ ), structured ( $r=0.19$ ,  $p=0.03$ ), unstructured ( $r=0.11$ ,  $p=0.04$ ), high social activities ( $r=0.13$ ,  $p<0.01$ ), and low social activities ( $r=0.11$ ,  $p=0.03$ ). This relationship suggests that individuals who wish to improve or master skills do so through engaging in these types of activities. It is plausible that through fulfilling those desires, meaningfulness may be generated through leisure participation. Alternatively, individuals who find meaning in these leisure activities through increasing their skills and knowledge may become motivated to continue participating in leisure for competence-mastery reasons.

The intellectual motive was positively related to the meaningfulness of all types of leisure except for competitive activities. Competitive activities may not meet intellectual needs, as the focus of the activity may be more on winning than on learning and developing mentally. Since this desire for intellectual stimulation may not be fulfilled, participation derives little meaningfulness, thereby having no relationship with intellectual motivation.

The social motive was positively related to the meaningfulness of participation in all types of leisure activities, with the exception of the meaningfulness of passive leisure. This indicates that passive leisure pursuits do not satisfy social needs, thereby having little relationship with the meaningfulness of passive leisure activities. Interesting to note, is that the social motive and the meaningfulness of participating in low social activities were positively correlated ( $r=0.19$ ,  $p<0.01$ ). As participants reported higher levels of social motive, they also reported higher meaningfulness derived from participating in low social activities. This relationship seems contradictory, however perhaps engaging in low social activities

becomes meaningful to these individuals as participation may not occur frequently and may be a valuable break from participating in highly social activities.

Stimulus-avoidance was positively correlated with the meaningfulness of participation in low social leisure activities ( $r=0.15$ ,  $p<0.01$ ). As participants' stimulus-avoidance motive increased, so did participation in solitary leisure pursuits. This relationship makes sense, as individuals who wish to unwind or relax may participate in leisure by themselves, and thereby derive meaning from their participation. Interestingly, this was the only relationship found between the meaningfulness of leisure and stimulus-avoidance. Whereas numerous associations were identified between meaningfulness and intellectual, social, and competence-mastery motives, the relationships with stimulus-avoidance motive were limited to the meaningfulness of low social leisure pursuits.

#### *Meaningfulness of Leisure and Identity*

Correlation analyses were performed between meaningfulness and identity to discover any existing relationships. Table 17 displays these correlations. Average meaningfulness was positively correlated with both overall ( $r=0.16$ ,  $p<0.01$ ) and social identity ( $r=0.18$ ,  $p<0.01$ ), indicating that as meaningfulness increases, so do these forms of identity. Although causation cannot be inferred, these results may suggest that leisure participation must be meaningful in order to positively impact overall and social identity.

Personal identity was not significantly related to average meaningfulness of leisure, yet relationships between the two variables became apparent when the meaningfulness of varying types of leisure was examined. The meaningfulness of active leisure was significantly related to personal identity ( $r=0.12$ ,  $p=0.04$ ), yet not other types of identity. This might indicate the mediation of meaningfulness of active leisure in the relationship between leisure and personal identity. It is important to note that this was the only relationship found between meaningfulness and personal identity. While multiple relationships were present

between meaningfulness, and overall and social identity, associations between meaningfulness of leisure and personal identity were quite limited.

Table 17  
Correlations between Meaningfulness and Identity

Meaningfulness of Leisure Category	Identity		
	Personal	Social	Overall
Active leisure	0.12*	0.04	0.11
Passive leisure	-0.04	0.11*	0.06
Competitive leisure	0.08	0.00	0.05
Non-competitive leisure	-0.01	0.22**	0.15*
Structured leisure	0.01	0.24**	0.18*
Unstructured leisure	-0.01	0.18**	0.12*
High social leisure	0.08	0.05	0.09
Low social leisure	0.06	0.13*	0.13*
Average meaningfulness	0.04	0.18**	0.16**

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

In addition to average meaningfulness, social identity also was positively related to the meaningfulness of several other types of leisure pursuits including passive ( $r=0.11$ ,  $p=0.03$ ), non-competitive ( $r=0.22$ ,  $p<0.01$ ), structured ( $r=0.24$ ,  $p<0.01$ ), unstructured ( $r=0.18$ ,  $p<0.01$ ), and low social leisure activities ( $r=0.13$ ,  $p=0.01$ ). Moreover, overall identity also was positively related to non-competitive ( $r=0.15$ ,  $p=0.01$ ), structured ( $r=0.18$ ,  $p=0.04$ ), unstructured ( $r=0.12$ ,  $p=0.03$ ), and low social leisure activities ( $r=0.13$ ,  $p=0.01$ ). As identity increased, so did the meaningfulness of these types of leisure pursuits. It is unclear whether identity develops because of the meaningfulness derived from leisure, whether leisure becomes more meaningful due to a developed sense of identity, or whether this relationship is mediated by another variable such as leisure participation, leisure experience, or leisure motivation. These relationships will be further investigated later.

### *Leisure Experience and Leisure Motivation*

Analyses revealed relationships between leisure experience and leisure motivation variables. These correlations are displayed in Table 18.

Table 18  
Correlations between Leisure Experience and Leisure Motivation

Leisure Experience	Leisure Motivation			
	Intellectual	Social	Competence-Mastery	Stimulus-Avoidance
Awareness	0.25**	0.11*	0.17**	-0.08
Boredom	-0.24**	0.01	-0.09	-0.02
Challenge	0.41**	0.14**	0.40**	-0.08
Distress	-0.05	0.10*	-0.02	-0.14**

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Awareness was positively correlated with intellectual ( $r=0.25$ ,  $p<0.01$ ), social ( $r=0.11$ ,  $p=0.02$ ), and competence-mastery motives ( $r=0.17$ ,  $p<0.01$ ). Similarly, challenge was also positively related to these three motives. Participants who reported high levels of awareness and challenge also reported being motivated to engage in leisure by intellectual, social, and competence-mastery reasons.

Distress was positively related to the social motive ( $r=0.10$ ,  $p=0.04$ ). As the amount of distress experienced during leisure increased, social motive also increased, perhaps as a need for social support. In addition, distress also was negatively associated with stimulus-avoidance ( $r=-0.14$ ,  $p<0.01$ ). Although this relationship seems somewhat contradictory, it is possible that those individuals who are not motivated by stimulus-avoidance begin to experience distress as a result of not having an outlet to rest and unwind.

Boredom was negatively correlated with the intellectual motive ( $r=-0.24$ ,  $p<0.01$ ). As boredom scores increased, intellectual motive scores decreased. Although it is unknown if

this is a causal relationship, it is possible that individuals who lack a desire for mental stimulation and learning in their leisure soon become bored by their leisure activities.

*Leisure Experience and Identity*

Correlations were identified between leisure experience and identity. These relationships are displayed in Table 19.

Table 19  
Correlations between Leisure Experience and Identity

Leisure Experience	Identity		
	Personal	Social	Overall
Awareness	0.29**	0.10*	0.25**
Boredom	-0.37**	-0.04	-0.27**
Challenge	0.27**	0.01	0.18**
Distress	-0.24**	0.02	-0.15**

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Awareness was positively related to personal ( $r=0.29$ ,  $p<0.01$ ), social ( $r=0.10$ ,  $p=0.04$ ), and overall identity ( $r=0.25$ ,  $p<0.01$ ). This implies that an individual's perception of available leisure opportunities increases with their sense of identity. Challenge was also associated with personal ( $r=0.27$ ,  $p<0.01$ ) and overall identity ( $r=0.18$ ,  $p<0.01$ ). The directionality of this relationship is unknown. The experience of challenge during leisure may lead to a development of identity, or rather a developed sense of identity may cause an individual to seek out challenge during their leisure. Boredom and distress also were associated with personal and overall identity. As both boredom and distress increased, personal and overall identity decreased. It seems plausible that individuals who experience boredom and distress during their leisure do not fully gain the benefits of leisure, thereby leading to a lower level of identity development.

It is interesting to note that although personal and overall identity are related to all four leisure experience variables, social identity is only related to awareness. As such, it seems that having a perception of available leisure opportunities is the only leisure experience variable that may contribute to social identity development.

### *Leisure Motivation and Identity*

Many relationships existed between leisure motivation and identity. These relationships can be found in Table 20.

Table 20  
Correlations between Leisure Motivation and Identity

Leisure Motivation	Identity		
	Personal	Social	Overall
Intellectual	0.15**	0.11*	0.17**
Social	0.02	0.34**	0.25**
Competence-Mastery	0.15**	0.12*	0.18**
Stimulus-Avoidance	-0.13**	0.03	-0.06

\*Significant at the 0.05 level (2-tailed)

\*\*Significant at the 0.01 level (2-tailed)

Both intellectual and competence-mastery motives were positively correlated with all three types of identity. This suggests that being motivated to participate in leisure to be mentally stimulated or to develop skills may contribute to the development of identity. Similarly, the social motive was positively associated with both social ( $r=0.34$ ,  $p<0.01$ ) and overall identity ( $r=0.25$ ,  $p<0.01$ ). This relationship makes sense, as being motivated to engage in leisure for social reasons will develop interpersonal networks and lead to a more developed sense of social identity. Stimulus-avoidance was negatively related to personal identity ( $r=-0.13$ ,  $p<0.01$ ). Thus, it seems that participating in leisure to rest, escape, or unwind may in fact inhibit personal identity development from occurring. Despite these suggestions however, the directionality of these relationships remain uncertain.

## CHAPTER 5: COMBINED RELATIONSHIPS OF VARIABLES

### Regression Analyses

Utilizing the information gained through the previous analyses, regression models were developed to determine if one variable could be predicted by the existence of other variables. For the purpose of this study, the focus was on determining if identity could be predicted by leisure participation, meaningfulness, leisure experience, and motivation. This does not imply that identity is caused by the other leisure variables, but rather helps to determine if the variance in the leisure variables can explain the variance in identity development.

#### *Overall Identity*

Correlation analyses revealed relationships between overall identity and leisure participation. These leisure participation variables then were explored in combination to determine if they could predict overall identity. First, total leisure participation and diversity were combined to determine if variations in the leisure variables could explain variations in overall identity. This model was significant in predicting identity ( $F=3.56$ ,  $p=0.03$ ), suggesting that in combination total leisure participation and diversity of leisure activities could explain variations in overall identity development. These variables were successful in predicting 1.6 percent of the variation in overall identity. When the variables were examined independently, only diversity was a significant predictor of overall identity ( $t=2.53$ ,  $p=0.01$ ). Higher diversity of leisure activities was associated with higher overall identity scores ( $r=0.13$ ,  $p<0.01$ ).

Mean hours of active leisure participation, mean passive participation, and diversity were entered into a second model to predict overall identity. This model was significant ( $F=3.30$ ,  $p=0.02$ ) and was successful in predicting 2.3 percent of the variance in overall identity. Regression coefficients indicated that diversity was the only variable in the model

that was able to independently predict overall identity ( $t=2.98$ ,  $p<0.01$ ). Changes in active and passive participation did not contribute to any statistically significant changes in overall identity.

A third regression model was created with the variables mean competitive leisure participation, mean non-competitive participation, and diversity of leisure participation. Collectively, variations in these three variables were able to predict 2.2 percent of variations in overall identity. This represented a statistically significant amount of explained variance ( $F=3.21$ ,  $p=0.02$ ). Diversity was the only variable to independently predict overall identity ( $t=3.00$ ,  $p<0.01$ ). Regression coefficients of competitive and non-competitive leisure participation did not reach levels of significance.

Mean structured leisure participation, mean unstructured leisure participation, and diversity composed another regression model. This model was also able to predict statistically significant variations in overall identity ( $F=4.08$ ,  $p<0.01$ ). Changes in these three variables accounted for 2.8 percent of changes in overall identity. Once again, diversity was the only variable to independently contribute a statistically significant amount of explained variance ( $t=2.16$ ,  $p=0.03$ ). Changes in mean structured and unstructured leisure did not significantly predict changes in overall identity.

Similarly, total hours of leisure alone, total hours of leisure with others, and diversity were entered into a regression model. These variables were successfully able to predict 3.2 percent of variation in overall identity. This represented a statistically significant amount of explained variation ( $F=4.90$ ,  $p<0.01$ ). In contrast to the previous models, total hours with others was the only variable to explain a significant amount of variation in overall identity ( $t=2.11$ ,  $p=0.04$ ). Increases in total hours of leisure participation with others was related to positive changes in overall identity ( $r=0.13$ ,  $p<0.01$ ). Although changes in total hours of leisure alone ( $t=-1.87$ ,  $p=0.06$ ) and diversity ( $t=1.93$ ,  $p=0.06$ ) did not contribute to any statistically significant changes in overall identity, the regression coefficients approached

levels of significance and may indicate a trend. Positive changes in total hours of leisure alone seem to be associated with negative changes in overall identity ( $r=-0.07$ ,  $p=0.06$ ). In addition, increases in diversity of leisure activities were related to positive changes in overall identity ( $r=0.13$ ,  $p<0.01$ ). Beta values of these three variables were fairly similar, indicating that total leisure with others ( $\beta=0.11$ ), total leisure alone ( $\beta=-0.09$ ), and diversity ( $\beta=0.10$ ) are of similar importance in explaining overall identity.

Based on these regression analyses between leisure participation and overall identity, it became apparent that diversity of leisure activities as well as total hours spent engaging in leisure with others are most important in predicting overall identity. While total leisure participation and engagement in the various categories of leisure contributed to each model's overall significance, independently these variables were not able to explain a significant amount of overall identity.

Next, meaningfulness variables were entered into regression models to determine any variations in overall identity that may be explained by meaningfulness of leisure. The meaningfulness of active leisure pursuits and meaningfulness of passive activities were combined into the first regression model. Together, these two variables did not explain a significant amount of the variation in overall identity. Individually, these variables also were non-significant.

The meaningfulness of competitive activities and meaningfulness of non-competitive activities were combined into a regression model. This model also was insignificant in explaining variations in overall identity. Although the variables independently were not significant either, the meaningfulness of non-competitive leisure activities approached a level of significance ( $t=1.92$ ,  $p=0.06$ ). This trend indicates that changes in the meaningfulness of non-competitive leisure pursuits may play a role in predicting changes in overall identity.

A third regression model contained the meaningfulness of structured activities and unstructured activities. Combined, these variables were not able to predict a significant amount of variation of overall identity. Independently, the meaningfulness of unstructured leisure pursuits also was insignificant in explaining overall identity; however, the relationship between meaningfulness of structured leisure participation and overall identity was significant ( $t=2.25$ ,  $p=0.03$ ). In this model, increases in the meaningfulness of structured leisure pursuits could explain increases in overall identity.

Finally, the meaningfulness of high social leisure activities and low social leisure activities were entered into a model together. This model was significant in predicting 2.6 percent of the variation in overall identity ( $F=5.08$ ,  $p<0.01$ ). Independently, the meaningfulness of low social activities was significant in predicting changes in overall identity ( $t=1.97$ ,  $p=0.05$ ). Increases in the meaningfulness of leisure activities that were low social in nature successfully predicted increases in overall identity. Although overall identity could not be significantly explained by the meaningfulness of highly social activities, the two variables approached a level of significance ( $t=1.85$ ,  $p=0.07$ ). Beta values for the meaningfulness of high social ( $\beta=0.10$ ) and low social ( $\beta=0.11$ ) activities were nearly equal, indicating that both variables are of similar importance in explaining changes in overall identity.

The relationship between leisure experience and overall identity was closely examined by entering all four experience variables into a regression model. Together, these variables were able to explain 10.9 percent of the variance in overall identity. This represented a statistically significant amount of explained variation ( $F=13.34$ ,  $p<0.01$ ). Upon careful examination, it became apparent that three of the four leisure experience variables were independently able to explain changes in overall identity. The relationships between overall identity and awareness ( $t=2.92$ ,  $p<0.01$ ), boredom ( $t=-3.15$ ,  $p<0.01$ ), and challenge ( $t=2.26$ ,  $p=0.03$ ) all reached levels of statistical significance. Increases in awareness and

challenge were able to predict increases in overall identity, whereas increases in boredom predicted decreases in overall identity. Beta values suggested that boredom ( $\beta=-0.17$ ) was the most important predictor of overall identity, followed by awareness ( $\beta=0.15$ ) and challenge ( $\beta=0.11$ ). Distress was the only variable which was not independently able to predict changes in overall identity.

Finally, the four leisure motives were entered into a regression model to determine their ability to predict changes in overall identity. This model was able to explain 7.9 percent of overall identity, a significant amount of variation ( $F=9.44$ ,  $p<0.01$ ). Only two of the variables were independently able to explain changes in overall identity. Increases in social motive scores were able to significantly predict increases in overall identity ( $t=3.68$ ,  $p<0.01$ ). In contrast, increases in stimulus-avoidance were able to predict decreases in overall identity ( $t=-2.54$ ,  $p=0.01$ ). The social motive ( $\beta=0.22$ ) was approximately twice as important in explaining overall identity as stimulus-avoidance ( $\beta=-0.12$ ).

Following the regression analyses of each leisure variable with overall identity, all four leisure variables were entered into hierarchical regression models together to determine which variables would emerge as most important predictors in the presence of other variables. It is important to note that the variables could have been entered into the regression model in many combinations. For the purpose of the current study, participant demographic characteristics were entered in the first stage, followed by leisure experience, leisure motivation, leisure participation, and meaningfulness in respective subsequent stages. This model was based on conceptual evidence gathered in the literature review phase of the research, and further drawn from the model of the identity development process developed in Chapter 2. Demographic characteristics were entered into the model first, as those variables are predetermined and may impact subsequent variables. It was then hypothesized that previous leisure experiences would affect motivation to participate in

leisure again in the future, which would in turn impact leisure participation, the meaningfulness derived from leisure participation, and finally identity.

The first hierarchical regression model contained five stages including the demographic characteristics of gender and age, the four leisure experience variables, the four leisure motivation variables, total leisure participation and diversity of activities, and average meaningfulness respectively. The results of this regression model are displayed in Table 21.

Table 21  
Contribution of Demographics, Leisure Experience, Motivation, Leisure Participation,  
and Meaningfulness to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F change	$\beta$	P
<b>1. Demographics</b>	0.02	0.02	4.49		<b>0.01</b>
Male <sup>a</sup> .....				<b>-0.10</b>	<b>0.04</b>
Age .....				0.07	0.15
<b>2. Leisure Experience</b>	0.10	0.12	12.42		<b>&lt;0.01</b>
Awareness .....				<b>0.10</b>	<b>0.05</b>
Boredom.....				<b>-0.19</b>	<b>&lt;0.01</b>
Challenge .....				0.09	0.08
Distress .....				-0.09	0.08
<b>3. Motivation</b>	0.07	0.20	9.76		<b>&lt;0.01</b>
Intellectual .....				-0.10	0.11
Social .....				<b>0.29</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.04	0.54
Stimulus-Avoidance.....				<b>-0.09</b>	<b>0.05</b>
<b>4. Leisure Participation</b>	0.00	0.20	0.40		0.67
Total Hours.....				-0.00	0.94
Diversity.....				0.04	0.39
<b>5. Meaningfulness</b>	0.00	0.20	0.55		0.46
Average Meaningfulness .....				0.04	0.46

<sup>a</sup> binary variable

In the first stage of the model, the demographic variables of gender and age significantly predicted 2.0 percent of overall identity (F=4.49, p<0.01). Both gender (t=-2.19,

$p=0.03$ ) and age ( $t=1.95$ ,  $p=0.05$ ) also independently predicted overall identity at this stage. Being male predicted a lower total identity, whereas increases in age predicted a higher overall identity.

Leisure experience variables were added in the second stage of the regression model. Combined, demographics and leisure experience significantly predicted overall identity ( $F=9.94$ ,  $p<0.01$ ). Incorporating the leisure experience variables into the model also better explained overall identity than demographic variables alone ( $F\text{-change}=12.42$ ,  $p<0.01$ ). This stage was successful in explaining 12.2 percent of variations in identity. Gender was once again a significant predictor of overall identity ( $t=-2.47$ ,  $p=0.01$ ), yet in the presence of leisure variables, age was no longer significant. In addition, awareness ( $t=2.85$ ,  $p<0.01$ ), boredom ( $t=-2.90$ ,  $p<0.01$ ), and challenge ( $t=2.53$ ,  $p=0.01$ ) each independently explained identity. Higher levels of overall identity could be explained by increases in awareness and challenge, and decreases in boredom. Distress was not able to independently explain overall identity.

The third stage incorporated motivation into the model, alongside demographic and leisure experience variables. At this stage, the overall model remained significant ( $F=10.35$ ,  $p<0.01$ ). In addition, the inclusion of the motivation variables significantly improved the ability to predict overall identity to 19.5 percent ( $F\text{-change}=9.76$ ,  $p<0.01$ ). Gender ( $t=-2.27$ ,  $p=0.02$ ), awareness ( $t=2.11$ ,  $p=0.04$ ), and boredom ( $t=-3.57$ ,  $p<0.01$ ) once again emerged as significant predictors of overall identity; yet, in the presence of the motivation variables, challenge was no longer a significant predictor. Two of the motivation variables also were able to independently explain overall identity. Increases in social motive scores ( $t=5.02$ ,  $p<0.01$ ), as well as decreases in stimulus-avoidance scores ( $t=-2.01$ ,  $p=0.05$ ), could significantly explain increases in overall identity.

In the fourth stage of the regression model, leisure participation variables were added. These variables included both the total hours of leisure participation and the diversity

of leisure activities. Overall the model was significant ( $F=8.67$ ,  $p<0.01$ ), however the addition of leisure participation variables did not significantly improve the ability to explain overall identity ( $F\text{-change}=0.40$ ,  $p=0.67$ ). The addition of leisure participation variables only increased the ability of the model to predict identity to 19.7 percent. Neither total hours of participation nor diversity were significantly able to predict overall identity. Gender ( $t=-2.17$ ,  $p=0.03$ ), awareness ( $t=1.98$ ,  $p=0.05$ ), boredom ( $t=-3.58$ ,  $p<0.01$ ), social motive ( $t=4.94$ ,  $p<0.01$ ), and stimulus-avoidance motive ( $t=-1.97$ ,  $p=0.05$ ) were identified as significant independent predictors at this stage.

Finally, leisure meaningfulness, as measured by average meaningfulness of participation, was added to the last stage of the regression model. Once again, the overall model was significant ( $F=8.03$ ,  $p<0.01$ ), yet the addition of leisure meaningfulness did not significantly improve the ability of the model to predict overall identity ( $F\text{-change}=0.55$ ,  $p=0.46$ ). The inclusion of meaningfulness only slightly increased the variation in overall identity explained by the model to 19.8 percent. Leisure meaningfulness was not significantly able to explain variations in overall identity. Independent predictors of overall identity included gender ( $t=-2.11$ ,  $p=0.04$ ), awareness ( $t=1.93$ ,  $p=0.05$ ), boredom ( $t=-3.54$ ,  $p<0.01$ ), social motive ( $t=4.86$ ,  $p<0.01$ ), and stimulus-avoidance motive ( $t=-1.95$ ,  $p=0.05$ ). Increases in overall identity could be explained by increases in social motive and awareness scores, decreases in boredom and stimulus-avoidance motive scores, and being female. The social motive presented as the strongest predictor of overall identity ( $\beta=0.29$ ), more so than boredom ( $\beta=-0.19$ ), and three times as strong as gender ( $\beta=-0.10$ ), awareness ( $\beta=0.10$ ), and stimulus-avoidance ( $\beta=-0.09$ ).

Although the inclusion of leisure participation and meaningfulness into the above model did not significantly improve the ability of the model to predict variations in overall identity, these variables may still play a salient role in this process. Previous correlation analyses identified strong relationships between meaningfulness and leisure experience,

and between meaningfulness and motivation. Similarly, associations also were found between leisure participation and experience, and leisure participation and motivation. These strong correlations may bias the results of the current regression analyses. Variations in identity that may be explained by leisure participation and meaningfulness may be previously accounted for by leisure experience and motivation. As such, the results may indicate that identity cannot be predicted by leisure participation and meaningfulness variables, when in reality they may be important factors in explaining identity.

Three models were generated to examine the role of leisure participation and meaningfulness in explaining identity in the absence of leisure experience and motivation. This process was not meant to neglect the role of leisure experience and motivation in explaining identity, but rather to determine whether leisure participation and meaningfulness become predictors of overall identity when their effects have not previously been accounted for by leisure experience and motivation.

The first regression model contained demographic, motivation, participation, and meaningfulness variables, which were entered into the model in four respective stages. Leisure experience variables were not incorporated into this model. Results of the regression analyses are displayed in Table 22. When all variables had been entered into the model, 11.4 percent of variations in overall identity could be predicted. This represented a statistically significant amount of variation ( $F=6.17$ ,  $p<0.01$ ). The incorporation of demographic ( $F\text{-change}=4.82$ ,  $p<0.01$ ) and motivation ( $F\text{-change}=10.28$ ,  $p<0.01$ ) variables into the model contributed significant increases of explained variance, yet leisure participation and meaningfulness did not play a significant role in this process. Even in the absence of leisure experience, participation and meaningfulness did not emerge as significant predictors of identity. Correlations remained between these variables and motivation, therefore some of their predictive ability may be already accounted for in the previous motivational stage of the model.

Table 22  
Contribution of Demographics, Motivation, Leisure Participation,  
and Meaningfulness to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.02	0.02	4.82		<b>&lt;0.01</b>
Male <sup>a</sup> .....				<b>-0.12</b>	<b>0.02</b>
Age .....				<b>0.10</b>	<b>0.04</b>
<b>2. Motivation</b>	0.09	0.11	10.28		<b>&lt;0.01</b>
Intellectual .....				0.01	0.88
Social .....				<b>0.20</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.09	0.13
Stimulus-Avoidance.....				<b>-0.11</b>	<b>0.03</b>
<b>3. Leisure Participation</b>	0.00	0.11	0.80		0.45
Total Hours of Participation .....				-0.02	0.74
Diversity.....				0.06	0.20
<b>4. Meaningfulness</b>	0.00	0.11	2.26		0.13
Average Meaningfulness .....				0.07	0.13

<sup>a</sup> binary variable

The following regression model was created to determine whether leisure participation and meaningfulness would emerge as significant predictors of identity in the absence of motivation. Table 23 displays the results of this model. Overall, the model was significant in predicting identity ( $F=7.20$ ,  $p<0.01$ ). When all variables had been entered, the model was able to predict 13.1 percent of variations in overall identity. The addition of leisure participation ( $F$ -change= $1.63$ ,  $p=0.20$ ) and meaningfulness ( $F$ -change= $2.28$ ,  $p=0.13$ ) in the third and fourth stages did not significantly increase the amount of explained variance. Even in the absence of leisure motivation, leisure participation and meaningfulness did not play a large role in predicting overall identity. Once again, this may be due to portions of leisure participation and meaningfulness being explained by the leisure experience stage in the model.

Table 23  
Contribution of Demographics, Leisure Experience, Leisure Participation,  
and Meaningfulness to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.02	0.02	4.43		<b>0.01</b>
Male <sup>a</sup> .....				<b>-0.11</b>	<b>0.03</b>
Age .....				0.03	0.49
<b>2. Leisure Experience</b>	0.10	0.12	12.28		<b>&lt;0.01</b>
Awareness .....				<b>0.12</b>	<b>0.02</b>
Boredom.....				<b>-0.15</b>	<b>&lt;0.01</b>
Challenge .....				<b>0.11</b>	<b>0.03</b>
Distress .....				-0.05	0.35
<b>3. Leisure Participation</b>	0.01	0.13	1.63		0.20
Total Hours of Participation .....				0.01	0.77
Diversity.....				0.07	0.14
<b>4. Meaningfulness</b>	0.00	0.13	2.28		0.13
Average Meaningfulness .....				0.07	0.13

<sup>a</sup> binary variable

A third regression model was created in order to determine whether participation and meaningfulness would become significant predictors in the absence of both leisure experience and motivation variables. Results of this model are displayed in Table 24. This model was able to explain a significant amount of variation in overall identity (F=4.58, p<0.01). Overall, the model predicted 5.0 percent of variations in identity. Each stage of the model was also able to provide increasingly more explanatory power. The incorporation of demographic (F-change=4.76, p<0.01), leisure participation (F-change=3.35, p=0.04), and meaningfulness (F-change=6.36, p=0.01) stages each provided the model with greater ability to predict changes in overall identity. As such, in the absence of leisure experience and motivation, participation and meaningfulness become significant predictors of overall identity. Some of these variables also emerged as independent predictors of identity. Increases in overall identity could be independently explained by increases in diversity of

leisure activities ( $t=2.21$ ,  $p=0.03$ ), average meaningfulness of leisure participation ( $t=2.52$ ,  $p=0.01$ ), and being female ( $t=-2.07$ ,  $p=0.04$ ). Average meaningfulness was the most powerful predictor of overall identity ( $\beta=0.12$ ), followed closely by diversity ( $\beta=0.11$ ) and gender ( $\beta=-0.10$ ).

Table 24  
Contribution of Demographics, Leisure Participation,  
and Meaningfulness to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.02	0.02	4.76		<b>&lt;0.01</b>
Male <sup>a</sup> .....				<b>-0.10</b>	<b>0.04</b>
Age .....				0.07	0.14
<b>2. Leisure Participation</b>	0.02	0.04	3.35		<b>0.04</b>
Total Hours of Participation .....				0.01	0.88
Diversity.....				<b>0.11</b>	<b>0.03</b>
<b>3. Meaningfulness</b>	0.01	0.05	6.36		<b>0.01</b>
Average Meaningfulness .....				<b>0.12</b>	<b>0.01</b>

<sup>a</sup> binary variable

This model provided support for the ability of leisure participation and meaningfulness to predict identity. Although the model explained a significant amount of variation in identity, the amount of explained variation was much lower than in previous models which included leisure experience and motivation. The current model explains only five percent of variations, whereas the first model presented explains 20 percent. As such, it seems that the model which best explains identity is the first model which took into account demographic, leisure experience, motivation, leisure participation, and meaningfulness variables in five respective stages. The structure of this model will be retained for all further regression analyses and will form the general regression model from which all subsequent models will be based.

During preliminary regression analyses, it became apparent that participation in certain types of leisure pursuits and the meaningfulness associated with participation in

those activities were able to predict overall identity. A variety of hierarchical regression models were created in order to determine if these variables were still able to predict overall identity in the presence of other leisure variables. In these four models, the overall participation and meaningfulness variables were replaced by the participation and meaningfulness of certain categories of leisure pursuits, including active and passive leisure, competitive and non-competitive leisure, structured and unstructured leisure, and high and low social leisure. The results of these regression models are displayed in Tables 25 to 28 and will be described below.

Table 25  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation *Alone and With Others*, and Meaningfulness of  
*High and Low Social Activities* to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.02	0.02	2.88		0.06
Male <sup>a</sup> .....				-0.09	0.07
Age .....				0.06	0.23
<b>2. Leisure Experience</b>	0.11	0.12	11.00		<b>&lt;0.01</b>
Awareness .....				0.05	0.33
Boredom.....				<b>-0.22</b>	<b>&lt;0.01</b>
Challenge .....				0.10	0.07
Distress .....				-0.09	0.09
<b>3. Motivation</b>	0.10	0.22	11.59		<b>&lt;0.01</b>
Intellectual .....				-0.05	0.46
Social .....				<b>0.34</b>	<b>&lt;0.01</b>
Competence-Mastery .....				-0.02	0.75
Stimulus-Avoidance.....				-0.09	0.08
<b>4. Leisure Participation</b>	0.01	0.23	1.01		0.39
Total Hours With Others.....				0.09	0.10
Total Hours Alone.....				-0.05	0.32
Diversity.....				0.01	0.92
<b>5. Meaningfulness</b>	0.00	0.23	0.85		0.43
Meaningfulness of High Social Activities.....				-0.02	0.67
Meaningfulness of Low Social Activities.....				0.07	0.20

<sup>a</sup> binary variable

The regression model presented in Table 25 contained the following variables entered their respective order- demographics, leisure experience, motivation, total hours of leisure with others and alone, diversity, and meaningfulness of high and low social activities. The results of this regression analysis were similar to the general regression model for overall identity. The demographic, leisure experience and leisure motivation stages of the model were significant in predicting variations in identity, and each stage significantly increased the model's ability to explain overall identity. Once again, the addition of leisure participation and meaningfulness variables in the fourth and fifth stages did not significantly contribute to the model's ability to predict identity. In each stage the overall model was significant, and when all variables in the model were entered, the model successfully explained 22.9 percent of overall identity ( $F=7.14$ ,  $p<0.01$ ); therefore, the inclusion of total hours of participation with others and alone, and meaningfulness of high and low social activities increased the amount of explained identity from previous regression models. In the final stage of the model, boredom ( $t=-3.77$ ,  $p<0.01$ ) and the social motive ( $t=5.20$ ,  $p<0.01$ ) were identified as independent predictors of overall identity. Even in the presence of all other leisure variables, decreases in boredom and increases in social motive scores both could independently explain increases in overall identity. The social motive was the strongest predictor of overall identity ( $\beta=0.34$ ), followed by boredom ( $\beta=-0.22$ ).

Table 26 displays the results of the regression model which incorporates the participation and meaningfulness of active and passive leisure. Once again, the overall model was significant in predicting overall identity ( $F=4.84$ ,  $p<0.01$ ). The inclusion of participation and meaningfulness of active and passive activities in the fourth and fifth stages did not explain a significant increase in variation of overall identity scores; however, overall this model did explain more variation (Total R-square=0.25) than the general regression model which only took into account overall participation and meaningfulness. As such, it seems that taking into account participation and meaningfulness of active and

passive participation is important in determining overall identity. In the final stage of the model, gender ( $t=-2.03$ ,  $p=0.43$ ), awareness ( $t=2.36$ ,  $p=0.02$ ), boredom ( $t=-3.20$ ,  $p<0.01$ ), and the social motive ( $t=3.69$ ,  $p<0.01$ ) all emerged as variables able to independently explain changes in identity. Social motive ( $\beta=0.30$ ) was the strongest of these predictors, followed by boredom ( $\beta=-0.22$ ), awareness ( $\beta=0.16$ ), and finally being female ( $\beta=-0.13$ ).

Table 26  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation in *Active and Passive Activities*, and Meaningfulness of  
*Active and Passive Activities* to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.03	0.03	3.16		<b>0.04</b>
Male <sup>a</sup> .....				<b>-0.13</b>	<b>0.04</b>
Age .....				0.05	0.39
<b>2. Leisure Experience</b>	0.13	0.16	9.20		<b>&lt;0.01</b>
Awareness .....				<b>0.16</b>	<b>0.02</b>
Boredom .....				<b>-0.22</b>	<b>&lt;0.01</b>
Challenge .....				0.11	0.13
Distress .....				-0.04	0.52
<b>3. Motivation</b>	0.08	0.24	6.15		<b>&lt;0.01</b>
Intellectual .....				-0.11	0.19
Social .....				<b>0.30</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.06	0.54
Stimulus-Avoidance.....				-0.07	0.29
<b>4. Leisure Participation</b>	0.01	0.25	0.32		0.81
Mean Active Participation.....				-0.01	0.89
Mean Passive Participation .....				-0.01	0.86
Diversity.....				0.07	0.31
<b>5. Meaningfulness</b>	0.00	0.25	0.17		0.84
Meaningfulness of Active Activities .....				0.01	0.95
Meaningfulness of Passive Activities .....				-0.04	0.56

<sup>a</sup> binary variable

The next model sought to consider competitive and non-competitive leisure participation and meaningfulness in explaining overall identity. The results of this model can be found in Table 27.

Table 27  
Contribution of Demographics, Leisure Experience, Motivation, Leisure Participation in *Competitive and Non-competitive Activities*, and Meaningfulness of *Competitive and Non-competitive Activities* to Overall Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.02	0.02	1.06		0.35
Male <sup>a</sup> .....				-0.15	0.09
Age .....				0.04	0.61
<b>2. Leisure Experience</b>	0.13	0.14	4.99		<b>&lt;0.01</b>
Awareness .....				<b>0.18</b>	<b>0.05</b>
Boredom.....				-0.16	0.09
Challenge .....				-0.02	0.81
Distress .....				-0.04	0.69
<b>3. Motivation</b>	0.08	0.22	3.19		<b>0.02</b>
Intellectual .....				-0.08	0.50
Social .....				0.16	0.16
Competence-Mastery .....				0.21	0.06
Stimulus-Avoidance.....				0.04	0.68
<b>4. Leisure Participation</b>	0.02	0.24	1.32		0.27
Mean Competitive Participation.....				-0.01	0.90
Mean Non-competitive Participation.....				0.10	0.29
Diversity.....				0.10	0.31
<b>5. Meaningfulness</b>	0.01	0.25	0.55		0.58
Meaningfulness of Competitive Activities .....				-0.11	0.30
Meaningfulness of Non-competitive Activities .....				0.03	0.77

<sup>a</sup> binary variable

Similar to the previous model, this overall model was also significant (F=2.77, p<0.01) in predicting 24.7 percent of overall identity. This represents an equal amount of variance explained as the previous model involving active and passive leisure. In the first stage of the model, the demographic variables did not significantly explain any variations in

overall identity; yet in the second and third stages, the incorporation of leisure experience (F-change=4.99,  $p<0.01$ ) and motivation (F-change=3.19,  $p=0.02$ ) variables increased the ability of the model to predict identity to a level of statistical significance. The incorporation of competitive and non-competitive leisure participation, and meaningfulness did not contribute a statistically significant amount of explained variance to the model. Awareness was the only variable to emerge as a significant predictor of identity in the last stage of the model ( $t=2.01$ ,  $p=0.05$ ). Increases in awareness were able to explain increases in overall identity. Contrary to previous regression analyses, variables such as gender, boredom, and social motive did not emerge as predictors.

A final regression model was created to examine the role of meaningfulness of structured and unstructured leisure participation in predicting overall identity. The following variables were entered into the model – demographics, leisure experience, motivation, mean structured and unstructured participation, diversity, and meaningfulness of structured and unstructured participation. The results of the analyses are presented in Table 28. Results displayed similarities with previous hierarchical regression analyses. Once again, the addition of leisure participation and meaningfulness variables in the final two stages did not produce any significant improvements in the predictive power of the model; however, overall the model was statistically significant ( $F=2.79$ ,  $p<0.01$ ) and was able to explain 28.5 percent of the variations in overall identity. This represents the highest amount of explained variation of any model. Even though the incorporation of participation rates and meaningfulness of structured and unstructured leisure participation did not produce any statistically significant changes in the model, the inclusion of these variables yielded the highest percentage of explained variation of all models. In the final stage of the model, awareness was once again the only variable that was an independent predictor of overall identity ( $t=2.74$ ,  $p<0.01$ ).

Table 28  
 Contribution of Demographics, Leisure Experience, Motivation,  
*Structured and Unstructured* Leisure Participation, and Meaningfulness of  
*Structured and Unstructured* Activities to Overall Identity

<i><b>Dimension</b></i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.03	0.03	1.58		0.21
Male <sup>a</sup> .....				-0.13	0.15
Age .....				0.08	0.36
<b>2. Leisure Experience</b>	0.18	0.20	6.30		<b>&lt;0.01</b>
Awareness .....				<b>0.27</b>	<b>&lt;0.01</b>
Boredom .....				-0.09	0.40
Challenge .....				0.18	0.08
Distress .....				-0.02	0.84
<b>3. Motivation</b>	0.07	0.27	2.71		<b>0.03</b>
Intellectual .....				-0.13	0.29
Social .....				0.21	0.12
Competence-Mastery .....				0.07	0.52
Stimulus-Avoidance.....				0.14	0.19
<b>4. Leisure Participation</b>	0.01	0.28	0.37		0.77
Mean Structured Participation .....				-0.01	0.93
Mean Unstructured Participation .....				0.02	0.87
Diversity.....				0.11	0.31
<b>5. Meaningfulness</b>	0.00	0.29	0.25		0.78
Meaningfulness of Structured Activities .....				0.02	0.87
Meaningfulness of Unstructured Activities .....				-0.08	0.52

<sup>a</sup> binary variable

In summary, for overall identity, demographic characteristics, leisure experience, and leisure motivation stages all frequently contributed significant amounts of explained variation to the regression models. Numerous independent predictors of overall identity existed. The social motive frequently emerged as the most important predictor followed by boredom, awareness, gender, and stimulus-avoidance motive. The regression model taking into account structured and unstructured leisure participation yielded the highest percentage of explained variation of all overall identity regression models. As such, it seems that structured

and unstructured leisure pursuits are the most important type of activity to take into account when determining overall identity.

*Personal Identity*

Following the regression analyses for overall identity, subsequent analyses were performed to determine if the same general model could also explain variations in personal identity. Demographics, leisure experience, motivation, participation, and meaningfulness were entered into five stages of a regression model. The results of this regression analysis are displayed in Table 29.

Table 29  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation, and Meaningfulness to Personal Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.01	0.01	1.04		0.35
Male <sup>a</sup> .....				0.03	0.58
Age .....				0.01	0.87
<b>2. Leisure Experience</b>	0.20	0.21	27.02		<b>&lt;0.01</b>
Awareness .....				0.09	0.07
Boredom.....				<b>-0.26</b>	<b>&lt;0.01</b>
Challenge .....				<b>0.14</b>	<b>&lt;0.01</b>
Distress .....				<b>-0.14</b>	<b>&lt;0.01</b>
<b>3. Motivation</b>	0.02	0.23	2.83		<b>0.03</b>
Intellectual .....				0.03	0.66
Social .....				0.02	0.74
Competence-Mastery .....				0.05	0.35
Stimulus-Avoidance.....				<b>-0.15</b>	<b>&lt;0.01</b>
<b>4. Leisure Participation</b>	0.00	0.23	0.41		0.66
Total Hours of Participation .....				-0.04	0.44
Diversity.....				0.01	0.81
<b>5. Meaningfulness</b>	0.00	0.23	1.01		0.32
Overall Meaningfulness .....				-0.05	0.32

<sup>a</sup> binary variable

Similar to overall identity, this general model was also overall significant in predicting variations in personal identity ( $F=9.64$ ,  $p<0.01$ ). Although the first stage of the model was not significant, leisure experience ( $F\text{-change}=27.02$ ,  $p<0.01$ ), and motivation ( $F\text{-change}=2.83$ ,  $p=0.03$ ) variables in the second and third stages provided significantly increases in the amount of variation the model was able to explain. Similar to previous models, leisure participation and meaningfulness variables in the last two stages did not significantly increase amount of explained variation; yet, the final stage of the model was able to explain 23 percent of changes in personal identity. Several variables also displayed an ability to independently explain personal identity. Personal identity could be predicted by high levels of challenge ( $t=2.80$ ,  $p<0.01$ ), as well as low boredom ( $t=-4.90$ ,  $p<0.01$ ), distress ( $t=-3.04$ ,  $p<0.01$ ), and stimulus-avoidance motive ( $t=-3.17$ ,  $p<0.01$ ). Interestingly, many of these independent predictors are different than the predictors of total identity. Boredom displayed the strongest ability to explain personal identity ( $\beta=-0.26$ ). This variable was almost twice as important a predictor as challenge ( $\beta=0.14$ ), distress ( $\beta=-0.14$ ), and stimulus-avoidance ( $\beta=-0.15$ ).

Next, four regression models were created in order to assess the roles of each of the various categories of leisure pursuits in determining personal identity. The following regression model incorporates leisure participation and meaningfulness of high and low social activities. The results of this analysis are depicted in Table 30. The results of this regression analysis differed substantially from all previous analyses. Overall, the model was able to predict 24.8 percent of changes in personal identity, a statistically significant amount of explained variation ( $F=7.90$ ,  $p<0.01$ ). This represented the highest amount of variation of any personal identity regression model; however, the demographic, motivation, and meaningfulness stages of the model were non-significant in providing additional predictive power to the model. Whereas in previous models the incorporation of motivation into the model helped significantly increase the amount of identity explained, this did not occur in the

present regression model. Interestingly, the leisure experience (F-change=24.55,  $p < 0.01$ ) and participation (F-change=2.76,  $p = 0.04$ ) stages of the model did significantly increase the model's ability to explain personal identity.

Table 30  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation *Alone and With Others*, and Meaningfulness of  
*High and Low Social Activities* to Personal Identity

<i>Dimension Category</i>	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.00	0.00	0.78		0.46
Male <sup>a</sup> .....				0.04	0.42
Age .....				-0.01	0.89
<b>2. Leisure Experience</b>	0.21	0.21	24.55		<b>&lt;0.01</b>
Awareness .....				0.04	0.42
Boredom.....				<b>-0.26</b>	<b>&lt;0.01</b>
Challenge .....				<b>0.15</b>	<b>&lt;0.01</b>
Distress .....				<b>-0.15</b>	<b>&lt;0.01</b>
<b>3. Motivation</b>	0.02	0.23	1.92		0.11
Intellectual .....				0.09	0.21
Social .....				0.00	0.94
Competence-Mastery .....				0.03	0.64
Stimulus-Avoidance.....				<b>-0.11</b>	<b>0.03</b>
<b>4. Leisure Participation</b>	0.02	0.25	2.76		<b>0.04</b>
Total Hours of Participation With Others .....				0.09	0.12
Total Hours of Participation Alone.....				<b>-0.13</b>	<b>&lt;0.01</b>
Diversity.....				-0.03	0.52
<b>5. Meaningfulness</b>	0.00	0.25	0.18		0.84
Meaningfulness of High Social Activities.....				0.01	0.85
Meaningfulness of Low Social Activities.....				0.03	0.61

<sup>a</sup> binary variable

When hours of participation alone and with others were entered into the model, the amount of explained variance increased significantly. This pattern was not seen in previous models; thus, considering total hours of leisure participation alone and with others provides important information regarding personal identity that is not apparent otherwise. Once all

variables had been entered into the final stage of the model, several variables emerged as important predictors of personal identity. High personal identity scores could be independently predicted by low levels of boredom ( $t=-4.63$ ,  $p<0.01$ ), distress ( $t=-2.89$ ,  $p<0.01$ ), and stimulus-avoidance motive ( $t=-2.24$ ,  $p=0.03$ ), as well as few hours of leisure participation alone ( $t=-2.65$ ,  $p<0.01$ ), and high levels of challenge ( $t=2.66$ ,  $p<0.01$ ). Each of these predictors were approximately of equal importance in determining personal identity, with the exception of boredom ( $\beta=-0.26$ ) which was almost twice as strong as the other predictors.

Table 31  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation in *Active and Passive* Activities, and Meaningfulness of  
*Active and Passive* Activities to Personal Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	p
<b>1. Demographics</b>	0.00	0.00	0.29		0.75
Male <sup>a</sup> .....				-0.01	0.95
Age .....				-0.00	0.97
<b>2. Leisure Experience</b>	0.17	0.17	12.10		<b>&lt;0.01</b>
Awareness .....				<b>0.15</b>	<b>0.04</b>
Boredom.....				<b>-0.20</b>	<b>0.01</b>
Challenge .....				<b>0.17</b>	<b>0.02</b>
Distress .....				-0.10	0.15
<b>3. Motivation</b>	0.01	0.19	0.97		0.43
Intellectual .....				0.03	0.76
Social .....				-0.04	0.60
Competence-Mastery .....				0.05	0.59
Stimulus-Avoidance.....				-0.08	0.22
<b>4. Leisure Participation</b>	0.00	0.19	0.11		0.96
Mean Active Participation.....				-0.01	0.83
Mean Passive Participation .....				-0.02	0.72
Diversity.....				0.02	0.81
<b>5. Meaningfulness</b>	0.01	0.20	1.37		0.26
Meaningfulness of Active Activities .....				0.07	0.35
Meaningfulness of Passive Activities .....				-0.10	0.14

<sup>a</sup> binary variable

The next regression model took into account participation in active and passive leisure pursuits as well as the meaningfulness derived from participation in these forms of leisure. The results can be found in Table 31. This model was significant in predicting 20.0 percent of variations in personal identity ( $F=3.70$ ,  $p<0.01$ ). Interestingly, only the addition of leisure experience variables in the second stage of the model yielded significant increases the amount of variation explained by the model ( $F\text{-change}=12.01$ ,  $p<0.01$ ). The incorporation of demographic variables, motivation, participation, and meaningfulness into the model did not produce significant increases in explained variance. In the final stage of the model, leisure experience variables displayed an ability to independently explain changes in personal identity. High personal identity scores could be explained by high awareness of leisure opportunities ( $t=2.08$ ,  $p=0.04$ ) and challenge experienced during leisure ( $t=2.31$ ,  $p=0.02$ ), as well as low amounts of boredom experienced during leisure episodes ( $t=-2.85$ ,  $p<0.01$ ). Once again, boredom emerged as the most important predictor of personal identity ( $\beta=-0.20$ ), above both challenge ( $\beta=0.17$ ) and awareness ( $\beta=0.15$ ).

Next, the role of participation and meaningfulness of competitive and non-competitive activities were considered in determining personal identity. These variables were entered into the regression analysis displayed in Table 32. The variables in this model were able to explain 18.2 percent of variations in personal identity. This represented a significant amount of explained variation ( $F=1.89$ ,  $p=0.03$ ). Of these variables, only the addition of the leisure experience variables in the second stage of the model provided a significantly increase in explained variation to the model ( $F\text{-change}=5.12$ ,  $p<0.01$ ). Despite demographics, motivation, participation, and meaningfulness not providing substantial amounts of predictive ability to the model, both leisure experience and motivation variables emerged as independent predictors of personal identity. In the final stage of the model, high levels of personal identity could be predicted by high awareness ( $t=1.98$ ,  $p=0.05$ ) and competence-mastery motive scores ( $t=2.04$ ,  $p=0.04$ ). Although all four leisure motives did

not collectively increase the amount of explained variation in the model, independently the competence-mastery motive showed a strong ability to predict personal identity.

Table 32  
 Contribution of Demographics, Leisure Experience, Motivation,  
 Leisure Participation in *Competitive and Non-Competitive* Activities, and  
 Meaningfulness of *Competitive and Non-Competitive* Activities to Personal Identity

<b>Dimension</b> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.00	0.00	0.09		0.92
Male <sup>a</sup> .....				-0.07	0.43
Age .....				0.02	0.84
<b>2. Leisure Experience</b>	0.13	0.13	5.12		<b>&lt;0.01</b>
Awareness .....				<b>0.18</b>	<b>0.05</b>
Boredom.....				-0.12	0.20
Challenge .....				-0.02	0.86
Distress .....				-0.12	0.20
<b>3. Motivation</b>	0.03	0.16	1.27		0.28
Intellectual .....				0.05	0.66
Social .....				-0.17	0.14
Competence-Mastery .....				<b>0.24</b>	<b>0.04</b>
Stimulus-Avoidance.....				0.02	0.87
<b>4. Leisure Participation</b>	0.01	0.17	0.52		0.67
Mean Competitive Participation.....				-0.03	0.79
Mean Non-Competitive Participation.....				0.10	0.27
Diversity.....				0.05	0.63
<b>5. Meaningfulness</b>	0.01	0.18	0.63		0.54
Meaningfulness of Competitive Activities .....				-0.02	0.86
Meaningfulness of Non-Competitive Activities .....				-0.10	0.31

<sup>a</sup> binary variable

The final regression model explored the role of structured and unstructured leisure participation and meaningfulness in explaining personal identity. The results of this regression model can be found in Table 33.

Table 33  
 Contribution of Demographics, Leisure Experience, Motivation,  
 Leisure Participation in *Structured and Unstructured* Activities, and Meaningfulness of  
*Structured and Unstructured* Activities to Personal Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.01	0.01	0.59		0.56
Male <sup>a</sup> .....				-0.00	0.99
Age .....				0.05	0.63
<b>2. Leisure Experience</b>	0.12	0.13	4.10		<b>&lt;0.01</b>
Awareness .....				<b>0.26</b>	<b>0.02</b>
Boredom.....				-0.03	0.83
Challenge .....				0.04	0.72
Distress .....				-0.14	0.19
<b>3. Motivation</b>	0.01	0.14	0.23		0.92
Intellectual .....				0.08	0.58
Social .....				-0.14	0.34
Competence Mastery .....				0.05	0.66
Stimulus Avoidance.....				0.05	0.69
<b>4. Leisure Participation</b>	0.01	0.15	0.37		0.77
Mean Structured Participation .....				0.09	0.41
Mean Unstructured Participation .....				0.07	0.57
Diversity.....				-0.04	0.76
<b>5. Meaningfulness</b>	0.01	0.16	0.75		0.48
Meaningfulness of Structured Activities .....				0.04	0.79
Meaningfulness of Unstructured Activities .....				-0.14	0.26

<sup>a</sup> binary variable

Interesting results emerged from the analysis of this model. The model only was able to predict 16.2 percent of the variations found in personal identity scores. This constituted a statistically insignificant amount of explained variation. Earlier regression models were all able to significantly predict personal identity, yet the incorporation of structured and unstructured leisure participation, and meaningfulness in the current model did not enhance the predictive ability of the model but rather decreased the amount of explained variation obtained. While the same model was able to predict the greatest percentage of change in

overall identity scores, this model also predicted the smallest amount of variation in personal identity scores. Similar to several other personal identity regression models, the addition of the leisure experience variables in the second stage was the only stage of the model to significantly increase the amount of variation in personal identity explained (F-change=4.10,  $p < 0.01$ ). Other variables including demographics, motivation, participation, and meaningfulness did not increase the explained variation by a significant amount.

In conclusion, throughout the personal identity regression models, leisure experience was the only stage to frequently provide a significant increase in the amount of variance explained by the model. Numerous independent predictors of personal identity emerged. Of these, boredom was frequently the most important determinant of personal identity, followed by challenge, awareness, distress, stimulus-avoidance motive, competence-mastery motive, and leisure participation alone. The regression model incorporating leisure participation with others and alone yielded the highest percentage of explained variation of any personal identity regression model; thus, it is important to account for social and individual types of leisure participation when determining personal identity.

### *Social Identity*

The various regression models were also tested to determine if they were able to predict social identity. The general regression model was first investigated. Demographics, leisure experience, motivation, leisure participation, and meaningfulness were entered into the model in five respective stages. Results of this analysis are displayed in Table 34.

Table 34  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation, and Meaningfulness to Social Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.04	0.04	8.16		<b>&lt;0.01</b>
Male <sup>a</sup> .....				<b>-0.16</b>	<b>&lt;0.01</b>
Age .....				0.09	0.06
<b>2. Leisure Experience</b>	0.01	0.05	1.08		0.37
Awareness .....				0.05	0.29
Boredom.....				-0.03	0.57
Challenge .....				-0.00	0.99
Distress .....				0.01	0.82
<b>3. Motivation</b>	0.12	0.17	15.40		<b>&lt;0.01</b>
Intellectual .....				<b>-0.17</b>	<b>&lt;0.01</b>
Social .....				<b>0.40</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.00	0.99
Stimulus-Avoidance.....				0.01	0.91
<b>4. Leisure Participation</b>	0.00	0.17	1.13		0.33
Total Hours of Participation .....				0.03	0.56
Diversity.....				0.05	0.32
<b>5. Meaningfulness</b>	0.01	0.18	3.74		0.06
Overall Meaningfulness .....				0.09	0.06

<sup>a</sup> binary variable

This general model is overall effective in explaining 17.8 percent of variations in social identity scores. This represents a statistically significant amount of variation predicted by this model (F=7.05, p<0.01). The addition of demographic (F-change=8.16, p<0.01) and motivation (F-change=15.40, p<0.01) variables in the first and third stages of the model increased the percentage of explained variation by a significant amount. Interestingly, the amount of variation added by incorporating meaningfulness into the model in the fifth stage nearly reached a level of significance (F=3.74, p=0.06). Even in the presence of other variables including demographics, leisure experience, motivation, and participation, meaningfulness still remained an important predictor of social identity. This differs from other

regression models for overall and personal identity which did not reveal as strong a relationship between meaningfulness and identity. In contrast to previous models, the addition of leisure experience variables did not produce significant increases in the amount of explained variation in social identity. As such, while leisure experience may be an important predictor of overall and personal identity, it may not play such a prominent role in predicting social identity. This relationship will be investigated further in subsequent regression analyses.

At the final stage of the model, several demographic and motivation variables were identified as independent predictors of social identity. Increasing social identity scores could be predicted by high social motive ( $t=6.80$ ,  $p<0.01$ ), low intellectual motive ( $t=-2.28$ ,  $p=0.02$ ), increasing age ( $t=2.20$ ,  $p=0.03$ ), and being female ( $t=-3.59$ ,  $p<0.01$ ). The social motive was by far the strongest of these predictors ( $\beta=0.41$ ), much more so than gender ( $\beta=-0.17$ ), intellectual motive ( $\beta=-0.14$ ), or age ( $\beta=0.10$ ). While motivation and demographic variables emerged as independent predictors of total and personal identity less frequently than leisure experience, these variables seem to play a much stronger role in explaining social identity.

The continuation of the investigation of these patterns involved exploring regression models containing leisure participation and meaningfulness variables for each opposing category of leisure activity. This exploration began by analysing the regression model for high and low social types of leisure pursuits. The results of these analyses are shown in Table 35. This model predicts a significant amount of explained variation in social identity ( $F=5.99$ ,  $p<0.01$ ). Approximately 20.0 percent of the changes in social identity can be predicted using this regression model. This represents a higher amount of variation than was explained by the general model; thus, the incorporation of high and low social activities, rather than overall participation and meaningfulness, aids in increasing the predictive power of the model. Similar to the previous social identity regression model, demographic ( $F\text{-change}=7.00$ ,  $p<0.01$ ) and motivation ( $F\text{-change}=16.08$ ,  $p<0.01$ ) variables each contributed

a significant amount of explained variation to the present model. In addition, demographic and motivation variables once again emerged as independent predictors of social identity in the final stage of the model. High social identity could be explained by high social motive ( $t=7.04$ ,  $p<0.01$ ), low intellectual motive ( $t=-2.15$ ,  $p=0.03$ ), and being female ( $t=-3.23$ ,  $<0.01$ ). The social motive was the strongest of these predictors ( $\beta=0.47$ ). It was nearly three times as important in determining social identity as either intellectual motive ( $\beta=-0.16$ ) or gender ( $\beta=-0.17$ ).

Table 35  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation *with Others and Alone*, and Meaningfulness of  
*High and Low Social Activities* to Social Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.04	0.04	7.00		<b>&lt;0.01</b>
Male <sup>a</sup> .....				<b>-0.17</b>	<b>&lt;0.01</b>
Age .....				0.09	0.08
<b>2. Leisure Experience</b>	0.01	0.04	0.70		0.60
Awareness .....				0.03	0.55
Boredom.....				-0.06	0.33
Challenge .....				0.01	0.91
Distress .....				0.02	0.78
<b>3. Motivation</b>	0.14	0.19	16.08		<b>&lt;0.01</b>
Intellectual .....				<b>-0.16</b>	<b>0.03</b>
Social .....				<b>0.47</b>	<b>&lt;0.01</b>
Competence-Mastery .....				-0.06	0.39
Stimulus-Avoidance.....				-0.02	0.70
<b>4. Leisure Participation</b>	0.01	0.20	1.30		0.27
Total Participation With Others.....				0.05	0.41
Total Participation Alone .....				0.05	0.31
Diversity.....				0.04	0.47
<b>5. Meaningfulness</b>	0.00	0.20	0.98		0.38
Meaningfulness of High Social Activities.....				-0.04	0.45
Meaningfulness of Low Social Activities.....				0.07	0.19

<sup>a</sup> binary variable

Active and passive leisure variables were incorporated into the following regression model displayed in Table 36.

Table 36  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation in *Active and Passive* Activities, and  
Meaningfulness of *Active and Passive* Activities to Social Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.05	0.05	5.76		<b>&lt;0.01</b>
Male <sup>a</sup> .....				<b>-0.18</b>	<b>&lt;0.01</b>
Age .....				0.08	0.21
<b>2. Leisure Experience</b>	0.04	0.09	2.62		<b>0.04</b>
Awareness .....				0.09	0.16
Boredom.....				-0.13	0.06
Challenge .....				-0.00	0.99
Distress .....				0.03	0.64
<b>3. Motivation</b>	0.16	0.25	12.00		<b>&lt;0.01</b>
Intellectual .....				<b>-0.18</b>	<b>0.03</b>
Social .....				<b>0.47</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.03	0.72
Stimulus-Avoidance.....				-0.02	0.74
<b>4. Leisure Participation</b>	0.01	0.26	0.56		0.65
Mean Active Participation.....				0.00	0.99
Mean Passive Participation .....				0.01	0.93
Diversity.....				0.08	0.22
<b>5. Meaningfulness</b>	0.00	0.26	0.41		0.66
Meaningfulness of Active Activities .....				-0.06	-0.43
Meaningfulness of Passive Activities .....				0.04	0.57

<sup>a</sup> binary variable

This model was able to predict 25.5 percent of variations in social identity (F=5.08, p<0.01). Demographics (F-change=5.76, p<0.01) and motivation (F-change=12.00, p<0.01), as well as leisure experience (F-change=2.62, p=0.04), each contributed a significant amount of explained variation in the first three stages of the model. In the final two stages,

leisure participation and meaningfulness did not significantly increase the ability of the model to explain social identity. Once again, gender ( $t=-2.83$ ,  $p<0.01$ ), intellectual motive ( $t=-2.14$ ,  $p=0.03$ ), and social motive ( $t=5.74$ ,  $p<0.01$ ) were independently able to predict variations in social identity. Social motive ( $\beta=0.47$ ) presented as the strongest predictor, followed by gender ( $\beta=-0.18$ ) and intellectual motive ( $\beta=-0.18$ ).

Similar results emerged for the regression model containing competitive and non-competitive leisure variables. Refer to Table 37 for these findings.

Table 37  
Contribution of Demographics, Leisure Experience, Motivation,  
Leisure Participation in *Competitive and Non-Competitive* Activities, and  
Meaningfulness of *Competitive and Non-Competitive* Activities to Social Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.03	0.03	2.03		0.14
Male <sup>a</sup> .....				-0.16	0.08
Age .....				0.05	0.58
<b>2. Leisure Experience</b>	0.05	0.08	1.95		0.11
Awareness .....				0.09	0.31
Boredom.....				-0.11	0.22
Challenge .....				-0.02	0.86
Distress .....				0.06	0.48
<b>3. Motivation</b>	0.16	0.24	6.72		<b>&lt;0.01</b>
Intellectual .....				-0.16	0.14
Social .....				<b>0.40</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.08	0.46
Stimulus-Avoidance.....				0.04	0.65
<b>4. Leisure Participation</b>	0.02	0.26	1.07		0.37
Mean Competitive Participation.....				0.01	0.93
Mean Non-Competitive Participation.....				0.04	0.64
Diversity.....				0.10	0.30
<b>5. Meaningfulness</b>	0.02	0.27	1.61		0.20
Meaningfulness of Competitive Activities .....				-0.14	0.16
Meaningfulness of Non-Competitive Activities .....				0.13	0.14

<sup>a</sup> binary variable

This model also explained a significant amount of variation in social identity scores ( $F=3.19$ ,  $p<0.01$ ). Approximately 27.3 percent of the variation in social identity could be attributed to the variables in this regression model. In contrast to the previous model, only leisure motivation variables significantly increased the amount of variation explained ( $F\text{-change}=6.72$ ,  $p<0.01$ ). The incorporation of the other variables did not improve the explained variation by a substantial amount. Once again, the social motive was an independent predictor of social identity ( $t=3.58$ ,  $p<0.01$ ). In the presence of all other variables, social motive was the only variable to independently explain variations in identity scores. This relationship makes sense, as individuals who are more motivated to participate in leisure for social reasons will be more likely to seek out interactions with others during their leisure and build social bonds and networks.

A final regression analysis was conducted with a model containing structured and unstructured leisure variables. Results are found in Table 38. This regression model explained 35.2 percent of the variation in social identity scores. This represented a statistically significant amount ( $F=3.80$ ,  $p<0.01$ ) and the highest percentage of explained variance of any regression model. Leisure experience ( $F\text{-change}=4.45$ ,  $p<0.01$ ) and motivation ( $F\text{-change}=6.67$ ,  $p<0.01$ ) each contributed a statistically significant amount of variation explained in the second and third stages of the model. Demographics, leisure participation, and meaningfulness did not provide significant improvements to the explained variance of the model. As with the other regression models for social identity, gender ( $t=-2.11$ ,  $p=0.04$ ), and intellectual ( $t=-2.08$ ,  $p=0.04$ ) and social motives ( $t=3.21$ ,  $p<0.01$ ) were independently able to predict changes in identity. Moreover, challenge also emerged as a predictor in the present model ( $t=2.23$ ,  $p=0.02$ ). High social identity scores could be explained by high levels of challenge and social motive, low intellectual motive, and being female. Social motive ( $\beta=0.41$ ) displayed the strongest ability to explain social identity, and

was almost twice as important a predictor as intellectual motive ( $\beta=-0.25$ ), challenge ( $\beta=0.22$ ), and gender ( $\beta=-0.19$ ).

Table 38  
 Contribution of Demographics, Leisure Experience, Motivation,  
 Leisure Participation in *Structured and Unstructured* Activities, and  
 Meaningfulness of *Structured and Unstructured* Activities to Social Identity

<i>Dimension</i> Category	R <sup>2</sup> change	Total R <sup>2</sup>	F Change	$\beta$	P
<b>1. Demographics</b>	0.03	0.03	2.03		0.14
Male <sup>a</sup> .....				<b>-0.19</b>	<b>0.04</b>
Age .....				0.07	0.39
<b>2. Leisure Experience</b>	0.13	0.16	4.45		<b>&lt;0.01</b>
Awareness .....				0.16	0.10
Boredom.....				-0.10	0.31
Challenge .....				<b>0.22</b>	<b>0.03</b>
Distress .....				0.09	0.32
<b>3. Motivation</b>	0.16	0.33	6.67		<b>&lt;0.01</b>
Intellectual .....				<b>-0.25</b>	<b>0.04</b>
Social .....				<b>0.41</b>	<b>&lt;0.01</b>
Competence-Mastery .....				0.06	0.61
Stimulus-Avoidance.....				0.15	0.13
<b>4. Leisure Participation</b>	0.02	0.35	1.35		0.26
Mean Structured Participation .....				-0.09	0.35
Mean Unstructured Participation .....				-0.03	0.75
Diversity.....				0.19	0.08
<b>5. Meaningfulness</b>	0.00	0.35	0.01		0.99
Meaningfulness of Structured Activities .....				-0.00	0.99
Meaningfulness of Unstructured Activities .....				0.02	0.89

<sup>a</sup> binary variable

In summary, demographic and motivation stages of the model frequently contributed a significant amount of explained variance to social identity regression models. Common independent predictors of social identity include gender, and social and intellectual motives. For social identity, the social motive was the most important predictor, followed by the

intellectual motive and gender. The structured and unstructured participation regression model was able to explain the highest amount of explained variation of any social identity model. This highlights the importance of this type of leisure in predicting social identity.

## CHAPTER 6: DISCUSSION

The purpose of this study was to investigate the relationships between university students' leisure and their identity. The analysis of the data revealed many results which will aid in the interpretation of patterns between leisure and identity. This discussion section will reflect on these patterns in relation to the research questions of the study. In addition, important enhancements to the field of study will be acknowledged, along with some limitations of the current study.

Three measures of identity were used throughout the study— overall, personal, and social. Overall identity represented a global measure of identity, while personal and social identities were believed to be distinct dimensions of identity. These separate facets of identity have been consistently acknowledged in the literature (e.g., Dimanche & Samdahl, 1994; Erikson, 1968; Kivel & Kleiber, 2000; Kleiber, 1999). Results confirmed this lack of relationship between personal and social identity dimensions. This suggests that personal and social identities are in fact unique aspects of identity. Changes in one type of identity are not necessarily related to changes in the other type of identity.

These distinct dimensions necessitate the use of measures which accurately assess each unique facet of identity. Many frequently used identity scales measure identity as a single construct of personal identity rather than differentiating between personal and social identity dimensions (e.g., EOM-EIS-II, Bennion & Adams, 1986; EIPQ, Balestreri et al., 1995; EPSI, Rosenthal et al., 1981). The present study sought to expand the measurement of social identity by utilizing a modified version of Luhtanen and Crocker's (1992) Collective Self-Esteem Scale. Modification of the wording of the scale items to refer to social relationships with others overcame the limitations of this research tool and enabled it to be adapted for the present research. The new social identity scale was internally reliable and all items were appropriate for use in the study. The successful adaptation of this measurement

tool provides an opportunity for the further assessment of personal and social identities as distinct constructs.

Analyses revealed relationships between identity and various demographic characteristics of the sample including gender, age, year of university study, university faculty, and financial situation. It is important to note that many of these demographic characteristics are truly independent; that is, a portion of identity seems to be related to factors which are beyond the control of the individual. University faculty was related to both personal and overall identity. Participants who were in the faculty of Applied Health Sciences displayed higher levels of these types of identity than participants from other faculties. Through their studies, individuals in Applied Health Sciences have an opportunity to develop an understanding of topics which relate strongly to their lifestyle, including recreation and leisure, health, and kinesiology. It is possible that learning about issues which are so pertinent to their well-being enhances the development of identity more so than in other areas of study. It should also be noted that the majority of participants in this research were students in the faculty of Applied Health Sciences. Although other faculties of study were also represented, it is possible that increasing the number of participants in these other faculties would reveal relationships that did not emerge through the present research.

Financial situation was strongly related to both social and overall identity. Participants who reported having high amounts of disposable income also reported higher levels of identity than those with less disposable income. Thus, it seems that having money available to use may enhance identity. Individuals who have more disposable income are able to participate more freely in a variety of recreation opportunities which require fees to participate. This increased level of participation may in turn enhance the development of social and overall identity through the bonds and relationships created through participation.

Both year of university study and age displayed associations with identity. Interestingly, despite the strong relationship between age and year of study, these two factors yielded differing relationships with identity. While age was positively related to overall identity, year of university study was positively related to social identity. Participants who reported being enrolled in university for long durations also reported higher social identity, likely as a result of having created stronger relationships and social networks within the university setting. In addition, these participants also may have a strong identification as a student, thereby also increasing their sense of social identity. However, regardless of the length of time spent in university, age seems to play a role in determining identity. Overall identity increases with age, likely as a result of gaining larger amounts of knowledge and familiarity about one's self. These results are consistent with previous research by Stark and Traxler (1974) and suggest that identity does continue to develop beyond the high school years. Additionally, this provides increasing support for the existence of a "post-adolescent" period, whereby academic life provides an opportunity for extended identity development to occur (Erikson, 1968; Mortimer & Larson, 2002).

Gender also was highly associated with levels of identity. Although no differences existed with respect to personal identity, female participants consistently reported higher levels of social and overall identity than male participants. This pattern is inconsistent with much of the previous research that suggests men and women display equal rates of identity development (Shaw et al., 1995), as well as studies which suggest that men are more advanced in their identity development than women (Adams & Fitch, 1982; McIntosh et al., 2005). Gilligan (1982) has argued that past identity measurement tools are inadequate in assessing the identities of women, as women's identity focuses highly on social networks. The development and incorporation of a social identity scale in the present study may have overcome this limitation by acknowledging the importance of these social relationships in identity development. The usage of this social identity scale may have allowed for a more

valid assessment of women's identities, thereby accounting for inconsistencies which exist with results of previous studies involving gender and identity.

Gender and age displayed the most consistent associations with identity and were therefore investigated in combination for any relationships they might have with identity. Although age independently displayed relationships with identity, in combination with gender, only gender showed associations with identity variables. As such, it seems that of all the demographic variables, gender has the strongest relationship with identity. Subsequent analyses confirmed this finding. Even in the presence of other leisure variables, gender consistently emerged as an independent predictor of both overall and social identities.

Analyses revealed surprising results regarding the relationship between identity and leisure participation. While many academics have found relationships between participation in leisure pursuits and identity (e.g., Larson et al., 2006; Markstrom et al., 2005; Munson & Widmer, 1997; Shaw et al., 1995), the present study revealed no relationship between *total* leisure participation and identity. Contrary to the literature, it may not be leisure participation that leads to identity development, but rather other factors such as leisure experience, motivation, meaningfulness, or diversity of leisure repertoire.

The diversity of leisure activities displayed a positive relationship with both social and overall identity. While the number of hours spent engaging in leisure seems to be unrelated to identity, the diversity of leisure pursuits may play a role in the identity development process. When these two leisure participation variables were examined together, diversity frequently emerged as a variable able to independently explain overall identity, even in the presence of other leisure variables. Thus, it seems that increasing the size of leisure repertoire may be an important factor related to determining increases in identity.

Although total leisure participation did not have associations with identity, relationships did become apparent between identity and participation in various types of

leisure pursuits. Participation in active, passive, competitive, non-competitive, and unstructured leisure was not related to identity; however, structured leisure participation, as well as leisure participation with others and alone, did display strong relationships. Of all the types of leisure pursuits, structured leisure participation displayed the strongest relationships to identity. As suggested by Eccles and Gootman (2002), qualities of structured leisure activities, including physical and psychological safety, supportive relationships, opportunities for belonging, and skill development, make them inherently conducive to individual development. These notions support the findings of the present study, whereby participation in structured leisure activities displayed positive associations with both personal and overall identity in several of the analyses.

Participation in leisure pursuits alone, as well as with others, was associated with identity. In the current study, leisure participation alone was negatively related to personal identity. In contrast, positive relationships were identified between hours of leisure participation with others and personal, social, and overall identity. Researchers have previously suggested that participation in leisure pursuits alone provides opportunities for personal reflection that may not be obtained during leisure participation with others (Mannell & Kleiber, 1997). Other studies also have found that individuals with high levels of identity only engaged in moderate amounts of leisure with others, rather than either low or high levels of participation (McIntosh et al., 2005). Yet, the present study indicates that individual leisure participation is related to lower levels of personal identity, while social leisure participation and identity increase together. As suggested by affirmation theory, identity is formed as individuals receive feedback regarding their behaviour from both themselves as well as others (Haggard & Williams, 1992; Mannell & Kleiber, 1997). Although individual leisure participation allows feedback to be received from one's self, it is plausible that engaging in leisure alone does not expose the participant to sufficient feedback from others,

thereby limiting the identity development taking place. Social leisure participation enables this feedback from others to occur and enhances the identity development process.

Incorporating each category of leisure participation into the regression models frequently helped determine more variations in identity than considering only total leisure participation. A higher percentage of variation in identity could often be explained by including participation in the various categories of leisure into the model. For example, the model that explained the most variation in overall identity included participation in structured and unstructured leisure pursuits. This model was able to explain 29 percent of variations in overall identity, compared to 20 percent of explained variation when total leisure participation was taken into account. Similarly, the inclusion of structured and unstructured leisure participation into the social identity model was able to predict 35 percent of variations in social identity, the highest of any model. In contrast, when total leisure participation was used in the model, only 18 percent of variations in social identity could be explained. These examples emphasize the importance of taking into account the type of leisure activity in which participants are engaging rather than considering only the total duration of leisure participation.

In contrast to the overall and social identity models, the incorporation of hours engaged in each category of leisure pursuit into the personal identity model produced only modest improvements to the amount of explained variance. The personal identity model that was able to explain the largest amount of variation in personal identity scores contained the variables of leisure participation alone and with others. This model was able to predict 25 percent of variations in personal identity. This represented only a small improvement from the model containing total leisure participation, which successfully predicted 23 percent of explained variation. Interestingly, the inclusion of active and passive leisure participation, competitive and non-competitive participation, and structured and unstructured participation,

each yielded lower levels of explained variations in personal identity compared to the model which contained total leisure participation.

It is necessary to acknowledge that the measurement of leisure participation was limited by the list of activities selected for use in the present study. There are an infinite number of possible leisure activities and it is therefore impossible to create a complete listing of all leisure pursuits. The activities selected for use were based on activities identified as popular forms of leisure by previous studies. The incorporation of different activities into the list may have yielded different results.

Each category of leisure pursuit was created based on the inherent qualities that the particular type of leisure pursuit possessed, for example physical activity, competition, structure, or social interaction. The creation of the categories in this fashion did not allow for mutual exclusivity of activities. Many types of leisure pursuits had membership in multiple categories. The categories were designed in this manner to enable conclusions to be made based on the similar characteristics of the leisure activities in the category. However, because the categories were not mutually exclusive, they could not all be entered into a single regression analysis to compare their importance in determining identity. Only opposing categories were able to be entered into a regression model together. Further studies may be necessary to contrast the impact of each of these categories together.

Results revealed relationships between identity and leisure motivation. Consistently strong associations were found between motivation and overall and social identities. Overall identity was positively related with intellectual, social, and competence-mastery motives. In addition, motivation provided a significant increase in explained variance to the regression models for overall identity. The social motive consistently emerged as a variable able to independently predict overall identity, and thus seems to be the most important motivational determinant of overall identity. Stimulus-avoidance also infrequently appeared as an independent predictor. Similarly, social identity was positively related to intellectual, social,

and competence-mastery motives. The incorporation of motivation into the social identity models significantly increased the amount of variation in identity explained by the model. Both intellectual and social motives also were able to independently predict social identity, although the social motive was a much stronger predictor than the intellectual motive.

Personal identity displayed fewer associations with motivation. Positive relationships existed between personal identity and the intellectual and competence-mastery motives. In addition, personal identity was negatively related with stimulus-avoidance. Depending on the factors included in the regression models, inconsistent relationships between personal identity and motivation resulted. Although some models showed significant increases in the amount of variation in personal identity explained by motivation, other models showed no relationship. Stimulus-avoidance and competence-mastery motives infrequently emerged as independent predictors of personal identity. Thus, although some relationships exist between the two variables, consistent associations are not present between personal identity and motivation as they are for the other two types of identity.

The relationship between identity and leisure motivation has not been investigated in previous research. As such, it is difficult to establish whether these findings are in fact typical. Similarities do exist with early motivational studies by Beard and Ragheb (1983). These researchers identified intellectual, social, competence-mastery, and stimulus-avoidance as the four underlying factors of all leisure motivation. In the current study, all of these four dimensions emerged as important leisure motives. In addition, they all showed some association with identity.

The present study also was the first to consider the role of leisure experience variables in identity development. Results revealed numerous relationships between leisure experience and identity. In particular, awareness, boredom, challenge, and distress were most closely tied to overall and personal identity. Awareness and challenge displayed positive correlations with overall and personal identity, while boredom and distress displayed

negative correlations. Analyses for overall identity revealed that leisure experience variables added a significant amount of explained variance to the model. Awareness and boredom remained independent predictors of overall identity, even in the face of other leisure variables. Similarly, leisure experience variables also increased the amount of explained variation in personal identity models. All four experience factors also frequently appeared as independent predictors of personal identity. Thus, the leisure experience seems to be closely related to both overall and personal identities.

In contrast, few associations were present between leisure experience and social identity. Awareness was the only leisure experience variable related with social identity. In addition, leisure experience variables generally did not provide a significant increase in explained variance to social identity regression models. Of the few models that did identify leisure experience as a significant contributor of explained variance, only challenge emerged as an independent predictor of social identity. Based on this evidence, it seems that leisure experience is not as closely linked to social identity as it is to overall and personal identity. Thus, it seems that levels of awareness, boredom, challenge, and distress experienced during leisure have little role in determining social identity.

Previous research on leisure experience has yielded inconsistent results regarding the role of these variables as an antecedent to leisure participation. During the original conceptualization of leisure experience, Caldwell and others (1992) conceptualized these variables as occurring *during* leisure participation and chose to measure the four constructs as such. Later, Barnett (2005) suggested that the leisure experience variables may instead *precede* participation. She proposed that the awareness of leisure opportunities, as well as the perception of boredom, challenge and distress during leisure, determine leisure participation. Barnett's (2005) conceptualization of leisure experience was utilized during the present study, as it was my belief that these variables were antecedents to leisure participation. Subsequent analyses and the creation of the regression models were based

on this perspective; however it is important to acknowledge that the leisure experience variables could have been placed later in the regression model following leisure participation. Future studies may consider using Caldwell and colleagues' (1992) conceptualization of leisure experience and attempting to determine the definitive placement of leisure experience in the identity development sequence.

Although Barnett (2005), and Caldwell and others (1992) conceptualize the leisure experience in different ways, they each operationalize this construct in the same manner. Barnett (2005) suggests that the Leisure Experience Battery for Adolescents (Caldwell et al., 1992) is applicable for use in measuring leisure experience as an antecedent of participation. Despite this suggestion, it is not clear if participants responding to the scale are conceptualizing leisure experience as occurring *before* or *during* leisure participation. While some participants may be responding to the items on the scale as they feel *before* their engagement in leisure, others may be responding to the items as they feel *during* leisure participation. Revisions of the Leisure Experience Battery for Adolescents (Caldwell et al., 1992) may be necessary in order to correct these ambiguities. The creation of two versions of the scale may be necessary to ensure that the scale is operationalizing the leisure experience as it was conceptualized.

Moderate relationships were found between identity and the meaningfulness derived from leisure participation. Overall and social identities were both positively associated with meaningfulness, as well as the meaningfulness of non-competitive, structured, unstructured, and low social types of leisure pursuits. In addition, social identity was positively related to the meaningfulness of passive leisure activities. Personal identity displayed only one positive relationship with the meaningfulness of active leisure. These findings emphasize the importance of the relationships between meaningfulness and identity. Although causation cannot be implied from these analyses, the results suggest that leisure participation must be meaningful in order to have some influence on identity formation. For example, the number

of hours engaged in leisure pursuits alone showed no relationship with social and overall identities. However, as the meaningfulness of these low social leisure pursuits increases, so does social and overall identity. Thus, it may be assumed that low social leisure participation only results in identity development when the participation is meaningful. Alternatively, it also must be considered that individuals who have a more developed sense of social and overall identity may obtain a greater amount of meaning from their leisure participation when alone.

Analyses revealed independent associations between meaningfulness and identity, yet when meaningfulness of leisure participation was entered into regression models alongside other leisure variables, meaningfulness did not contribute a significant amount of explained variance to identity. Similarly, although analyses showed that some leisure participation variables were independently related to identity, in the presence of other leisure variables in regression models, participation did not significantly increase the amount of explained variation in identity. Despite this, it was anticipated that these meaningfulness and participation variables may still play a role in explaining identity. Regression models were created using demographic, leisure participation, and meaningfulness variables to determine if these variables would become significant predictors in the absence of other leisure variables. Each of these variables added significantly more ability to predict identity; thus, meaningfulness and leisure participation do help in explaining identity. It seems that in the presence of leisure experience and motivation, meaningfulness and participation lose their predictive power as it is used up in previous stages of the model due to correlations between the variables. Despite this, it is important to acknowledge that meaningfulness and participation both still play a role in determining identity; therefore, it is important to recognize both of these variables.

This study is unique in its attempt to measure the meaningfulness that individuals derive from their leisure participation. While other studies may only take into account leisure

participation, this study acknowledges the importance of the meaningfulness placed on this participation. The meaningfulness scale that was developed appeared to adequately assess this construct. Meaningfulness scores were highly related to leisure participation, yet also provided additional information not attainable solely through participation. This suggests that meaningfulness is related to leisure participation, yet is also a distinct construct. As such, it is recommended that subsequent research also take into account the meaningfulness of leisure participation.

While the majority of participants completing the questionnaire seemed to understand the distinction between meaningfulness and participation, other participants may not have made this distinction. In part, this may account for the strong relationship between meaningfulness and participation. While participation rates and meaningfulness are sometimes related, this is not always the case. For example, participation in some leisure activities may occur infrequently yet may be highly meaningful. In contrast, participation may occur extremely frequently, yet the participant may derive low meaningfulness from this engagement. Overall, the differences identified through analyses between meaningfulness and participation suggest that participants understood the distinction of these concepts. This provides further support for the measurement of meaningfulness as well as the adequacy of the meaningfulness scale.

Separate analyses were performed for personal, social and overall identities. Although some similarities existed between the results of these analyses, many differences also emerged. Personal identity was most closely related to leisure experience factors. Boredom, challenge, awareness, and distress were all important predictors of personal identity. These factors represent outcomes of previous leisure participation which affect subsequent participation. In contrast, social identity was closely tied to motivation and demographic characteristics of participants. In particular, social and intellectual motives were the most important predictors of social identity. These factors represent anticipated

outcomes of leisure participation. Overall identity was most closely linked to leisure experience, motivation, and demographic factors. This finding makes sense, as overall identity is a measure of both personal and social identities. Boredom, awareness, gender, and social and stimulus-avoidance motives emerged as the most important predictors of overall identity. It is interesting to note that some of these determinants of overall identity are fixed factors such as demographic characteristics, while others are changeable factors including leisure experience and motivation. This suggests that identity is in part controllable, yet also partly predetermined by demographics.

Although the nature of this study does not allow for conclusions about causation to be made from the findings, it is thought that these leisure variables may play a role in identity development. It is possible that the way in which the process was conceptualized and then operationalized in the models might suggest that causality occurs in this order. Leisure experiences may influence motivation to participate in leisure activities, which in turn would impact participation, meaningfulness and finally identity. It is also possible that identity development does not occur in such a linear fashion, and may involve many feedback loops. For example, in addition to influencing identity, the meaningfulness derived from leisure participation also may affect the motivation to participate in leisure again in the future. Similarly, it is possible that identity may influence subsequent leisure participation, as well as the meaningfulness derived from this participation. Further studies are needed to test these predictions.

Throughout the research, demographics, leisure experience, and leisure motivation were consistently identified as factors which contribute extensively to explaining levels of identity. Other more specific models also have confirmed the importance of leisure meaningfulness and leisure participation in this process. Previous leisure and identity research has tended to focus solely on the role of leisure participation in identity development (e.g., Kivel & Kleiber, 2000; Malmisur, 1976; Munson & Widmer, 1997; Shaw

et al., 1995). The findings of the present study highlight the importance of incorporating more nuanced leisure lifestyle factors into future studies of identity. While leisure participation seems to play a role in predicting identity, so does leisure experience, motivation, and the meaningfulness derived from participation.

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## APPENDIX A

### Information Letter to Instructors

January, 2007

Dear Professor <insert name>,

I am completing my Master's Thesis with Professor Bryan Smale in the Department of Recreation and Leisure Studies. I am studying the relationship between leisure lifestyle, motivation, and identity in order to gain a better understanding of the elements of leisure that are related to identity development among university students.

I am currently recruiting participants for my study and would appreciate the opportunity to enter your classroom and request your students' participation. Voluntary participation by students would require approximately 20 minutes of class time. I will introduce the study to students in class using a prewritten script and will then have copies of the questionnaire available for students to complete in class if they so choose. Blank or completed questionnaires may be deposited into the box provided in the classroom.

Students who choose to participate in the study will be asked to indicate their degree of participation in various leisure activities. In addition, they will be asked to indicate the meaningfulness they derive from their leisure participation, their motivation for participating in leisure and their feelings about free time. Finally, students will be asked to answer a series of questions regarding how they view themselves as well as some personal characteristics such as gender, age and university faculty.

Students' participation in this study is completely voluntary. They may stop their involvement at any time or skip any questions they wish to leave unanswered. All information collected in this study will be combined with the information of other participants. Students' answers will be entirely anonymous because at no time will they be asked to write their name, student number, or any other identifying information on the survey. Once the study is complete, all data will be kept for a period of one year and will be securely stored in a locked filing cabinet.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics. There are no known or anticipated risks of participation in the study. Participation in this research will hopefully lead to a better understanding of the elements of leisure which are related to an individual's sense of self.

If you have any questions about your class's participation in the study, I have included my contact information as well as that of my supervisor, Dr. Bryan Smale in the Department of Recreation and Leisure Studies (ext. 35664). Any further questions or concerns may also be directed to Dr. Susan Sykes in the Office of Research Ethics (ext. 36005).

Thank you for your time and consideration of allowing me class time to recruit participants for my research study.

Sincerely,

Jennifer Campbell  
University of Waterloo  
Department of Recreation and Leisure Studies  
j22campb@ahsmaill.uwaterloo.ca

## APPENDIX B



Department of Recreation and Leisure Studies  
University of Waterloo

# *The leisure and lifestyle of university students!*

*Investigator:* Jennifer Campbell, MA Candidate <j22campb@ahsmaail.uwaterloo.ca>  
*Faculty Supervisor:* Dr. Bryan Smale, ext. 35664,  
<smale@healthy.uwaterloo.ca>

A study to determine the types of leisure in which university students participate and examine the relationship between leisure lifestyle, motivation, and identity development.

- Your participation is *completely voluntary* and will have no impact on your grade in this course. This survey is not part of your course requirements.
- The answers you provide will remain *completely anonymous*. You do not have to provide your name, student ID number, or any other identifying information on the questionnaire.
- You may choose to leave any question unanswered that you do not wish to answer. You may also stop your participation at any time.
- There are no known or anticipated risks from your participation in the study.
- The data gathered in the study will be kept confidential and will be stored in a secure cabinet in a locked office for one year.
- If you have any further questions about the study or wish to obtain a copy of the results, feel free to contact me, Jennifer, after April 2007.
- This study has been reviewed and received ethics clearance through the Office of Research Ethics (ORE). Any questions or concerns may be directed to Dr. Susan Sykes in the ORE at 519-888-4567, ext. 36005.

*Thank you* for taking the time to participate in our study on the leisure lifestyles of University of Waterloo students! We appreciate your input into our research!

## Part 1: Your Leisure Participation

For each of the activities below, please indicate how many *hours a month* you typically participate in each leisure activity. Please write a zero on the line provided if you do not engage in the leisure activity. Also, please indicate the *percentage of time* you typically engage in each leisure activity with *others* (e.g., if about half of your time participating in the activity involves others, such as family or friends, please write in “50 %”).

<b>Leisure Activities:</b>	<i>Number of hours I participate in a typical month</i>	<i>Percentage of time I participate in this activity with others</i>
	↓	↓
Competitive team sports (e.g., varsity soccer).....	_____	100%
Recreational team sports (e.g., pick-up basketball).....	_____	100%
Competitive individual sports (e.g., competitive swimming).....	_____	_____
Recreational individual sports (e.g., jogging).....	_____	_____
Physical activities (e.g., weightlifting, yoga, aerobics).....	_____	_____
Going to sports or athletic events.....	_____	_____
Watching television.....	_____	_____
Watching movies at the theatre or at home.....	_____	_____
Playing video games.....	_____	_____
Playing cards or board games.....	_____	_____
Drinking.....	_____	_____
Going to pubs or bars.....	_____	_____
Gambling (e.g., poker, casinos).....	_____	_____
Listening to music.....	_____	_____
Band or choir practice.....	_____	_____
Playing an instrument or singing informally.....	_____	_____
Going to concerts.....	_____	_____
Attending plays or musicals.....	_____	_____
Painting, sculpting, drawing or creating other visual art.....	_____	_____
Scrapbooking.....	_____	_____
Taking classes or lessons.....	_____	_____
Non-school reading.....	_____	_____
Writing in a journal or diary.....	_____	_____
Relaxing, reflecting, or contemplating.....	_____	_____
Driving for pleasure.....	_____	_____
Shopping.....	_____	_____
Going out to eat.....	_____	100%

<b>Leisure Activities:</b>	<i>Number of hours I participate in a typical month</i>	<i>Percentage of time I participate in this activity with others</i>
	↓	↓
Participating in student organizations.....	_____	100%
Participating in community volunteer organizations.....	_____	100%
Participating in church groups.....	_____	100%
Spending time with family and relatives.....	_____	100%
Hanging out with friends.....	_____	100%

## ***Part 2: The Meaningfulness of Your Leisure to You***

*Just for those leisure activities in which you participate and regardless of how often you participate, please indicate how meaningful each activity is to you by placing a check mark in the appropriate box. For example, a leisure activity may be meaningful to you if it contributes pleasure to your life and you would feel a great loss if you could no longer participate in that activity. If you do not participate in a leisure activity, please indicate so by checking the “do not participate” box.*

<b>Leisure Activities:</b>	Not at all meaning- ful	Not as meaning- ful	Less meaning- ful	Neutral	More meaning- ful	Meaning- ful	Highly meaning- ful	I do <i>not</i> engage in this activity
	↓	↓	↓	↓	↓	↓	↓	↓
Competitive team sports (e.g., varsity soccer).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreational team sports (e.g., pick-up basketball).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competitive individual sports (e.g., competitive swimming).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreational individual sports (e.g., jogging).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical activities (e.g., weightlifting, yoga, aerobics).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going to sports or athletic events.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watching television.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watching movies at the theatre or at home.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playing video games.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playing cards or board games.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drinking.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going to pubs or bars.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gambling (e.g., poker, casinos).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listening to music.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Leisure Activities:</b>	Not at all meaning- ful	Not as meaning- ful	Less meaning- ful	Neutral	More meaning- ful	Meaning- ful	Highly meaning- ful	I do <i>not</i> engage in this activity
	↓	↓	↓	↓	↓	↓	↓	↓
Band or choir practice.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playing an instrument or singing informally.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going to concerts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attending plays or musicals .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Painting, sculpting, drawing or creating other visual art.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scrapbooking.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking classes or lessons.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-school reading .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Writing in a journal or diary .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relaxing, reflecting, or contemplating ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving for pleasure.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going out to eat .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in student organizations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in community volunteer organizations .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in church groups.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spending time with family/relatives.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hanging out with friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thinking now about *how important your leisure time is in comparison to other aspects of your life*, please check the appropriate box below that best describes how you feel.

<b>“How meaningful is your leisure...”</b>	Not at all meaning- ful	Not as meaning- ful	Less meaning- ful	Neutral	More meaning- ful	Meaning- ful	Highly meaning- ful
	↓	↓	↓	↓	↓	↓	↓
Compared to <i>school</i> ?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to <i>work</i> ? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to <i>friends</i> ? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to <i>family</i> ? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Part 3: Your Leisure Experiences

Please indicate the extent to which you agree with each of the following statements *about how you feel about your free time* by placing a check mark in the appropriate box.

	Strongly disagree	Disagree	Some-what disagree	Neutral	Some-what agree	Agree	Strongly agree
	↓	↓	↓	↓	↓	↓	↓
For me, free time just drags on and on.....	<input type="checkbox"/>						
In the community where I live I am aware of exciting things to do in my free time ..	<input type="checkbox"/>						
I know of places where there are lots of things to do .....	<input type="checkbox"/>						
Free time is boring .....	<input type="checkbox"/>						
I like free time activities that are a little beyond my ability .....	<input type="checkbox"/>						
If I think I might fail at an activity during my free time, I won't do it.....	<input type="checkbox"/>						
When I know I'm going to have some free time, I generally get anxious .....	<input type="checkbox"/>						
In my free time I usually don't like what I'm doing but I don't know what else to do.....	<input type="checkbox"/>						
I like a challenge in my free time.....	<input type="checkbox"/>						
The worst feeling I know is when I have free time and don't have anything planned .....	<input type="checkbox"/>						
I usually become very absorbed by what I do in my free time .....	<input type="checkbox"/>						
I've never really given much thought to whether free time could be good for me..	<input type="checkbox"/>						
During my free time I almost always have something to do .....	<input type="checkbox"/>						
I am willing to try the unknown in my free time.....	<input type="checkbox"/>						
I get uptight when I have a whole weekend with nothing to do.....	<input type="checkbox"/>						
My friends and I often talk about how bored we are .....	<input type="checkbox"/>						
My community lacks things for people my age to do .....	<input type="checkbox"/>						
I feel good when my free time activities challenge my skills .....	<input type="checkbox"/>						
I feel relaxed about free time when I don't have any plans .....	<input type="checkbox"/>						

### ***Part 4: Your Reasons for Leisure Participation***

Please indicate the extent to which you agree with each of the following statements about your *reasons for participating in leisure activities* by placing a check mark in the appropriate box.

<b>“One of my reasons for engaging in leisure activities is...”</b>	Strongly disagree	Disagree	Some-what disagree	Neutral	Some-what agree	Agree	Strongly agree
	↓	↓	↓	↓	↓	↓	↓
To expand my interests .....	<input type="checkbox"/>						
To interact with others.....	<input type="checkbox"/>						
To make things more meaningful for me .....	<input type="checkbox"/>						
To develop my physical fitness.....	<input type="checkbox"/>						
To satisfy my curiosity .....	<input type="checkbox"/>						
To learn about myself.....	<input type="checkbox"/>						
To see what my abilities are .....	<input type="checkbox"/>						
To be creative.....	<input type="checkbox"/>						
To use my imagination.....	<input type="checkbox"/>						
To be with others.....	<input type="checkbox"/>						
To expand my knowledge .....	<input type="checkbox"/>						
To avoid crowded areas.....	<input type="checkbox"/>						
To meet new and different people .....	<input type="checkbox"/>						
To seek stimulation .....	<input type="checkbox"/>						
So others will think well of me for doing them .....	<input type="checkbox"/>						
To reveal my thoughts, feelings, or physical skills to others.....	<input type="checkbox"/>						
To influence others.....	<input type="checkbox"/>						
To learn about things around me.....	<input type="checkbox"/>						
To challenge my abilities .....	<input type="checkbox"/>						
To develop close friendships.....	<input type="checkbox"/>						
To gain a feeling of belonging .....	<input type="checkbox"/>						
To help others.....	<input type="checkbox"/>						
To avoid the hustle and bustle of daily activities.....	<input type="checkbox"/>						
To relax physically .....	<input type="checkbox"/>						
To compete against others.....	<input type="checkbox"/>						

“One of my reasons for engaging in leisure activities is...”	Strongly disagree	Disagree	Some-what disagree	Neutral	Some-what agree	Agree	Strongly agree
	↓	↓	↓	↓	↓	↓	↓
To rest.....	<input type="checkbox"/>						
To gain others’ respect .....	<input type="checkbox"/>						
To be good in doing them .....	<input type="checkbox"/>						
To get a feeling of achievement .....	<input type="checkbox"/>						
To improve my skill and ability in doing them .....	<input type="checkbox"/>						
To be active .....	<input type="checkbox"/>						
Because I enjoy mastering things.....	<input type="checkbox"/>						
To explore new ideas.....	<input type="checkbox"/>						
To develop physical skills and abilities.....	<input type="checkbox"/>						
To keep in shape physically .....	<input type="checkbox"/>						
To be socially competent and skillful.....	<input type="checkbox"/>						
To be original .....	<input type="checkbox"/>						
To be in a calm atmosphere.....	<input type="checkbox"/>						
To slow down.....	<input type="checkbox"/>						
Because I sometimes like to be alone.....	<input type="checkbox"/>						
To discover new things .....	<input type="checkbox"/>						
To relax mentally .....	<input type="checkbox"/>						
To relieve stress and tension .....	<input type="checkbox"/>						
To build friendships with others.....	<input type="checkbox"/>						
To use my physical abilities .....	<input type="checkbox"/>						
To do something simple and easy .....	<input type="checkbox"/>						
To unstructure my time .....	<input type="checkbox"/>						
To get away from the responsibilities of my everyday life .....	<input type="checkbox"/>						

## Part 5: Your Feelings About Yourself

Please indicate the extent to which you agree with each of the following statements *about how you see yourself* by placing a check mark in the appropriate box.

	Strongly disagree	Disagree	Some-what disagree	Neutral	Some-what agree	Agree	Strongly agree
	↓	↓	↓	↓	↓	↓	↓
I change my opinion of myself a lot .....	<input type="checkbox"/>						
My relationships with others are an important reflection of who I am.....	<input type="checkbox"/>						
I feel mixed up .....	<input type="checkbox"/>						
The important things in life are clear to me ...	<input type="checkbox"/>						
Overall, my social relationships have very little to do with how I feel about myself..	<input type="checkbox"/>						
I know what kind of person I am .....	<input type="checkbox"/>						
I can't decide what I want to do with my life.....	<input type="checkbox"/>						
I have a strong sense of what it means to be female/male .....	<input type="checkbox"/>						
My social relationships are unimportant to my sense of what kind of person I am.....	<input type="checkbox"/>						
I don't really know what I'm all about .....	<input type="checkbox"/>						
I find I have to keep up a front when I'm with people .....	<input type="checkbox"/>						
I don't really feel involved.....	<input type="checkbox"/>						
I've got it together.....	<input type="checkbox"/>						
I've got a clear idea of what I want to be.....	<input type="checkbox"/>						
I like myself and am proud of what I stand for .....	<input type="checkbox"/>						
In general, my relationships with others are an important part of my self-image .....	<input type="checkbox"/>						

***Part 6: Some Characteristics About Yourself***

Please tell us a bit more about yourself!

- a) What is your gender?                      Male                       Female
- b) What is your age?                      I am \_\_\_\_\_ years old
- c) What year of university are you in?                      I am in \_\_\_\_\_ year.
- d) What university Faculty are you in? [please check one]

- Applied Health Sciences
- Arts
- Engineering
- Environmental Studies
- Mathematics
- Science

- e) What are your *current living arrangements*? [please check one]

- In residence
- At home with family
- In house or apartment with roommates
- In house or apartment living alone

- f) Which one of the following statements best describes your *current financial situation*?

- I have barely enough to make ends meet
- I have enough to get by
- I have a little left over after all my obligations have been met
- I am quite comfortable
- I have all that I need and more

***Thank you very much for your help with this research project!***

## APPENDIX C

### Recruitment Script – Questionnaire completed in class

Hello, my name is Jenny Campbell and I am a graduate student in the Department of Recreation and Leisure Studies. I am currently working on my thesis with Professor Bryan Smale. I am studying the relationship between leisure activities, motivation, and identity and am recruiting participants for my study.

I am here today with the permission of your instructor, Prof. <insert name> to provide you with information about a study I am conducting and to request your participation. Participation involves completing a questionnaire that would take approximately 15 minutes of your time.

Participation in this study is completely voluntary. If you choose to participate, you will be asked to indicate your degree of participation in various leisure activities such as recreational sports, listening to music, shopping and drinking. In addition, you will also be asked to indicate the meaningfulness you get out of your participation in these activities, your reasons for participating in leisure activities and how you feel about your free time. Finally, you will be asked to answer a series of questions about how you see yourself as well as some characteristics about yourself. If you choose to participate in my study, may stop your involvement at any time or leave any question unanswered that you do not wish to answer.

All information collected in this study will be combined with the information provided by all other participants. Your answers will remain entirely anonymous because you do not have to write your name or any identifying information on the questionnaire. Thus, your name will not appear on any report, publication, or presentation resulting from this study. All data will be kept for a period of one year in a secure place in a locked office.

There are no known or anticipated risks of participation in the study. Your participation in this research will hopefully lead to a better understanding of the elements of leisure which are related to an individual's sense of self.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics.

If you have any questions about participating in the study, please raise your hand and I will speak to you privately. If you require any further information, please feel free to contact me by e-mail. I have included contact information on the cover of the questionnaire.

I will now have the questionnaire made available to you. If you choose to participate in the study, you may complete the questionnaire now. Blank and completed questionnaires can be placed in the box provided in the classroom.

Thank you for your time!

## APPENDIX D

### Recruitment Script – Questionnaire completed at home

Hello, my name is Jenny Campbell and I am a graduate student in the Department of Recreation and Leisure Studies. I am currently working on my thesis with Professor Bryan Smale. I am studying the relationship between leisure activities, motivation, and identity and am recruiting participants for my study.

I am here today with the permission of your instructor, Prof. <insert name> to provide you with information about a study I am conducting and to request your participation. Participation involves completing a questionnaire that would take approximately 15 minutes of your time at home.

Participation in this study is completely voluntary. If you choose to participate, you will be asked to indicate your degree of participation in various leisure activities such as recreational sports, listening to music, shopping and drinking. In addition, you will also be asked to indicate the meaningfulness you get out of your participation in these activities, your reasons for participating in leisure activities and how you feel about your free time. Finally, you will be asked to answer a series of questions about how you see yourself as well as some characteristics about yourself. If you choose to participate in my study, may stop your involvement at any time or leave any question unanswered that you do not wish to answer.

All information collected in this study will be combined with the information provided by all other participants. Your answers will remain entirely anonymous because you do not have to write your name or any identifying information on the questionnaire. Thus, your name will not appear on any report, publication, or presentation resulting from this study. All data will be kept for a period of one year in a secure place in a locked office.

There are no known or anticipated risks of participation in the study. Your participation in this research will hopefully lead to a better understanding of the elements of leisure which are related to an individual's sense of self.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics.

If you have any questions about participating in the study, please raise your hand and I will speak to you privately. If you require any further information, please feel free to contact me by e-mail. I have included contact information on the cover of the questionnaire.

I will now have the questionnaire made available to you. If you choose to participate in the study, you may take a questionnaire to complete at home. Please return the questionnaire the following class. Blank and completed questionnaires can be placed in the drop box provided in the classroom.

Thank you for your time!

## APPENDIX E

### Feedback Letter

Department Letterhead

University of Waterloo

January, 2007.

Dear Professor <insert name>,

I would like to thank you for allowing the participation of your class in this study. As a reminder, the purpose of this study is to identify relationships between the leisure behaviours of university students, motivations for leisure participation, and identity.

The data collected from the questionnaires will contribute to a better understanding of the elements of leisure which are related to one's sense of identity.

Please remember that any data pertaining to individual participants will be kept confidential. Once all of the data are collected and analyzed for this project, I plan on sharing this information with the research community through a written thesis. If you or your students are interested in receiving more information regarding the results of this study, or if you have any questions or concerns, please contact me at the e-mail address listed at the bottom of the page. If you would like a brief summary of the results, please let me know, and I will send it to you when I have completed my study. The study is expected to be completed by April, 2007. In addition, if you would like me to present a brief summary of the results to your students, I would be happy to return to your class at a later point in the semester and do so.

As with all University of Waterloo projects involving human participants, this project was reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any comments or concerns resulting from participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, ext., 36005.

Thank you again for assisting me with my research.

Sincerely,

Jennifer Campbell

University of Waterloo  
Department of Recreation and Leisure Studies

[j22campb@ahsmail.uwaterloo.ca](mailto:j22campb@ahsmail.uwaterloo.ca)