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Immersion in the Blue: Tourist Scuba Divers’
Involvement with Scuba Diving.

A thesis
submitted in partial fulfilment
of the requirements for the Degree of
Master of Parks, Recreation, and Tourism Management

at
Lincoln University
by
Kyran Tranter-Watson

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**Immersion in the Blue: Tourist Scuba Divers’ Involvement with Scuba Diving.**

by

Kyran Tranter-Watson

Many tourists participate in recreational scuba diving and it is one of the fastest growing recreational activities. The literature that surrounds tourist scuba diving focuses on aspects related to this activity, with only limited literature being on the subject of tourist scuba divers themselves. This study is about tourist scuba divers. It has investigated the extent of tourist scuba divers’ involvement with scuba diving, and the perceived durable benefits scuba diving provides them.

The Serious Leisure Perspective is used to make sense of the information obtained from two hundred tourist scuba divers. This information was collected through using the Serious Leisure Inventory and Measure (SLIM), which formed an index for involvement. A self-administered questionnaire was used to collect data in Cairns, Australia.

Respondents in this study are a heterogeneous group, supporting a trend away from the tendency for tourist scuba divers to be thirty-something tertiary educated males that are certified scuba divers. Results showed that each quality used to construct involvement increased as the involvement category increased with regard to pursuit of (tourist) scuba diving. The same occurs with all ten durable benefits, with self-gratification, self-enrichment, and re-creation being the most consistently realised. Individuals casually pursuing the serious leisure activity of scuba diving are more prevalent than is suggested in the serious leisure concept. What tourist scuba divers perceive they gain from their involvement in scuba diving
expands upon the elements of satisfaction and enjoyment identified in tourist scuba diver literature.

However, discrepancies between the empirical data and theoretical criteria were found with regard to leisure career, identification with pursuit, and perseverance. Possible methods to resolve these discrepancies are discussed, concentrating on adjusting category ranges on the SLIM and whether or not the SLIM statement completely captured tourist scuba diver involvement with scuba diving.

**Keywords:** Scuba diving, tourist, serious leisure, Serious Leisure Inventory and Measure, involvement, durable benefits, tourist experience
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<tr>
<td>AD</td>
<td>Adventure Diver</td>
</tr>
<tr>
<td>AOWD</td>
<td>Advanced Open Water Diver</td>
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<tr>
<td>ANMP</td>
<td>Association Nationale des Moniteurs de Plongée</td>
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<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>AUSI</td>
<td>Associated Underwater Scuba Instructors</td>
</tr>
<tr>
<td>CMAS</td>
<td>Confédération Mondiale des Activités Subaquatiques</td>
</tr>
<tr>
<td>DM</td>
<td>Divemaster</td>
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<td>DS</td>
<td>Discover Scuba</td>
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<td>EAD</td>
<td>Enriched Air Diver</td>
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<td>EI</td>
<td>Enduring Involvement</td>
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<tr>
<td>MANOVA</td>
<td>Multivariate Analysis of Variance</td>
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<td>NAUI</td>
<td>National Association of Underwater Instructors</td>
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<tr>
<td>OWD</td>
<td>Open Water Diver</td>
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<tr>
<td>PADI</td>
<td>Professional Association of Diving Instructors</td>
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<tr>
<td>PAP</td>
<td>professional-amateur-public</td>
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<td>RD</td>
<td>Rescue Diver</td>
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<td>RS</td>
<td>Recreation Specialisation</td>
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<tr>
<td>SCUBA</td>
<td>Self-Contained Underwater Breathing Apparatus</td>
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<td>SI</td>
<td>Situational Involvement</td>
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<td>SLIM</td>
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<td>Serious Leisure Perspective</td>
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<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
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<td>SSI</td>
<td>Scuba Schools International</td>
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Chapter 1

Introduction

1.1 Introduction

Before the invention of the self-contained underwater breathing apparatus (SCUBA), diving (beyond breath-hold diving) was a gruelling and dangerous occupation (Osgerby, 2006). Early diving involved being heavily encumbered by air hoses supplying pumped air from the surface, feet shod in lead, the head encased in brass, and all connected by rubber and twill to form a watertight seal around the diver (Osgerby, 2006). Jacques-Yves Cousteau and Emile Gagnan’s creation of the aqualung (now termed SCUBA) allowed individuals to move beyond the brief underwater durations of breath-hold diving (Garrod & Gossling, 2008). Today, scuba equipment is used by people in many facets of society for various purposes, including recreational, technical, military, law enforcement, scientific, and commercial (Osgerby, 2006); of particular note in the current context is its use by recreationalists.

The participation in scuba diving as a leisure activity can be split into two facets: recreational scuba diving and technical scuba diving (Booth & Thorpe, 2007). Most certifying organisations tend to employ their own definition of recreational scuba diving. A generalised definition proposes that recreational scuba diving is the “ability to ascend directly to the surface without stopping from any point in the dive while breathing compressed air from a scuba tank” (p. 268). Exceeding any of these limits (e.g., entering a shipwreck or altering compressed airs’ gaseous ratios) moves the recreational scuba diver into the realm of technical scuba diving (Booth & Thorpe, 2007).

Tourist scuba divers can engage in both of these types of scuba diving. For technical scuba diving, the individual should have the requisite scuba diving certifications. An example is that a tourist dive operator may offer scuba diving using nitrox (altered compressed air) to appropriately certified scuba divers, and also may offer the speciality certification (e.g., Professional Association of Diving Instructors (PADI) enriched air diver (EAD)) to enable
scuba diving using nitrox. For recreational scuba diving, the individual should be certified to scuba dive. The tourist dive operator may provide certification courses that can range from entry level up to professional level.

Garrod and Gossling (2008) suggest that media, such as television and movies, have helped shape interest in the marine environment and, by association, scuba diving. This media portrayal has the marine environment as being simultaneously a dangerous and adventurous environment. The activity of scuba diving, then, contains a hint of machismo, while scuba divers are generally portrayed as being tough. These media-engendered images of scuba diving can be encountered at some dive destinations. Examples Garrod and Gossling (2008) provide involve the use of “powerful boat engines” (p. 9) and a seemingly militaristically organised dive expedition to emphasise the serious and tough aspect of the activity. The presence of such influences upon tourist scuba divers suggest scuba diving can go beyond being an activity that is “generally recognised as non-competitive... compris[ing] elements of fun, physical activity, and freedom” (Dimmock, 2007, p. 130), to an activity that could be considered serious leisure (Garrod & Gossling, 2008).

This chapter introduces the leisure activity of interest in this thesis (scuba diving), and the population of interest within scuba diving (tourist scuba divers). An overview of previous research investigating tourist scuba divers is provided and this background allows identification of areas this study can address with regard to tourist scuba divers, and a conceptual framework through which this study can be implemented. This introduction concludes with a statement of the research problem, research questions, and the organisation of this thesis.

1.2 Background

Scuba diving is one of the fastest growing recreational activities, with many tourists participating in recreational scuba diving (Benton & Glover, 2006; Davenport & Davenport,
For tourist scuba divers, warm-water destinations appear to hold the most attraction (Garrod & Gossling, 2008). For example, Tourism Queensland (nd), used the Australian international and national visitor survey to estimate that 189,750 tourists dived in North Tropical Queensland in the year ending March, 2007.

Data has been collected by a number of international and national scuba diving certifiers via the registration process (Garrod & Gossling, 2008). This process provides proof of course completion to the certifying organisation. Information provided by PADI (2008b) show, for the year 2007, that there were 536,580 new entrants, 392,174 continuing education certifications, and 133,562 new or renewed professionals. These statistics do not capture those who participate in a “try-dive” (or introductory dive). “Try-dive” is a programme that provides an individual with the opportunity to scuba dive without having to be certified (Garrod & Gossling, 2008). As interesting as these data may be, they do not provide information about tourist scuba divers’ attributes, such as needs, motives, expectations, and demographics (Garrod, 2008).

There appears to be a lot of literature that surrounds tourist scuba diving. Much of this literature, as Garrod (2008) suggests, is not about tourist scuba divers per se, but instead focuses on aspects related to scuba diving. There is literature with a medical focus (for example, see Edge, 2008; Ozdoba, Weis, Plattner, Dimhofer, & Yen, 2005), a focus on degradation of the marine environment (for example, see Hasler & Ott, 2008; Wielgus, Chadwick-Furman, & Dubinsky, 2004), and the economics of dive tourism (for example, see Asafu-Adjaye & Tapsuwan, 2008; Fabinyi, 2008). In this thesis, the literature about tourist scuba divers that is reviewed includes their characteristics, prowess, motivation, satisfaction, and in-water behaviour.

A variety of socio-demographic and dive participation data have been reported in various studies about tourist scuba divers. Indications are that only some of these socio-
demographic and dive participation variables have been regularly reported in quantitative studies, although the low number of published studies specifically on tourist scuba divers themselves may be part of the reason. Based on the studies that do exist, tourist scuba divers tend to be male, in their 30’s, have some form of tertiary education qualification, and be certified divers (Mundet & Ribera, 2001; Musa, 2002; Musa, Kadir, & Lee, 2006; Stolk, Markwell, & Jenkins, 2005; Thapa, Graefe, & Meyer, 2005, 2006). In terms of the total number of dives made by tourist scuba divers, Stolk et al. (2005) found that 50 percent of their sample had made more than 200 dives, Thapa et al. (2005, 2006) found that 61 percent of the sample had made more than 150 dives, and Uyarra, Watkinson, and Côté (2009) found 42 percent of their sample had more than 100 dives. Clearly, tourist scuba divers are not all novices; however, in general, they could not be described as expert divers.

Various quantitative measures have been employed to indicate the levels of tourist scuba diver prowess. Dearden et al. (2006) used certification level, years certified, number of dives in the past two years, number of countries dived in, extent of dive gear ownership, and field guide ownership to classify scuba divers into three levels of prowess: low, medium, and high. These authors found that the percentages of the divers across the levels were remarkably similar (34.8 percent, 34.6 percent, and 30.6 percent respectively). Meisel and Cottrell (2004) used a self-report single measure of ability level (beginner, intermediate, advanced, expert, and post-expert) with the first two levels containing 64 percent of their sample. This compares well with the aggregate of the first two levels of the Dearden et al. (2006) study. Thapa et al. (2005, 2006), using an additive specialisation index based on Recreation Specialisation (RS), suggest that tourist scuba divers may tend towards the lower levels of an ability index.

Certain studies have investigated attributes of the scuba diving trip. One such attribute is the tourist scuba diver’s motivation to dive. A variety of motives have been found: to explore, expand knowledge, as a social activity, and for photography, with the predominant motives relating to the desire to interact with marine wildlife (Dearden et al., 2006; Meisel &
Cottrell, 2004; Mundet & Ribera, 2001). Some motivations have been reported as increasing as scuba diver expertise increases; motivations positively correlated with expertise include engaging in underwater photography (Dearden et al., 2006), relaxation, and seeing shipwrecks (Meisel & Cottrell, 2004). Other motivations have been reported as decreasing as scuba diver expertise increased, including expanding knowledge, developing and challenging skills, taking part in social activity (Dearden et al., 2006), and self-enhancement and stimulation/excitement-seeking (Meisel & Cottrell, 2004).

Tourist scuba diver satisfaction, both overall and for specific aspects of the scuba diving experience, has been investigated using quantitative and qualitative methods. MacCarthy et al. (2006) suggest that quantitative satisfaction surveys generally address tangible elements of the scuba diving experience. Of these elements, the functional service factors, such as safety, and equipment reliability, appear to be important criteria. Other factors, such as marine life, water temperature, dive site access, boat services, and coral reef condition, have also been found to be determinants for satisfaction with the scuba diving experience (Musa, 2002; Musa et al., 2006). Scuba divers tend to bring together a myriad of tangible and intangible factors in determining their satisfaction and can include the dive’s physical environment (e.g., visibility and the abundance of marine life), seeing a rare species, testing mutual trust and support when submerged, camaraderie of fellow divers, experiencing problems with aspects of the dive, and the trip to and from the dive site (MacCarthy et al., 2006).

One avenue of investigation that incorporates the environment is tourist scuba diver behaviour with regard to the coral reef environment. Medio et al. (1997) and Barker and Roberts (2004) disagree on the effectiveness of an environmental component to the dive briefing to reduce contacts with coral. However, direct dive leader (e.g., Divemaster (DM)) intervention in-water dramatically reduced this scuba diving behaviour (Barker & Roberts, 2004). Thapa et al. (2006) report that coral contact behaviour appears to be associated with
the cognitive dimension (comprised of knowledge, skill, and setting attributes) of recreation specialisation.

Satisfaction and enjoyment are understood as being gained by tourist scuba divers from their participation in scuba diving and studies identify many sources that can contribute to tourist scuba diver satisfaction and enjoyment. Additionally, these studies about tourist scuba divers suggest an association between satisfaction and enjoyment and a continued involvement with scuba diving (Dearden et al., 2006; MacCarthy et al., 2006). However, it seems that any other benefits tourist scuba divers may gain from their participation in scuba diving have yet to be identified. The concept of serious leisure can assist in exploring what other benefits are attained, and whether or not they may contribute towards a continued involvement with scuba diving.

1.3 Conceptual Framework

One way to understand tourist scuba divers is to investigate their involvement with scuba diving. Involvement with an activity has been captured within the conceptual frameworks of Recreation Specialisation (RS) (see Bryan (1977, 1979, 2000) for more detail), Enduring Involvement (EI) (see Havitz and Dimanche (1990, 1997, 1999) for more detail), and Stebbins’ (1992, 2001, 2007, 2009) Serious Leisure Perspective (SLP). The SLP is the framework being used in the current study, as it seems to be a framework capable of addressing tourist scuba diver involvement with scuba diving, and whether or not additional benefits to satisfaction and enjoyment are being gained.

Added to this, Wearing and Wearing (2001) urge that a focus on tourists’ “subjective experience” (p. 151) be included in tourism theorising. This will provide a better construction of the tourist experience (Wearing & Wearing, 2001). Serious leisure incorporates the subjective within its defining characteristic of leisure career (Stebbins, 2001, 2007).
1.3.1 The Serious Leisure Perspective

As stated above, R. A. Stebbins’ Serious Leisure Perspective (SLP) is the theoretical framework being applied towards understanding tourist scuba divers’ involvement with scuba diving. Currently, the SLP is designed to be able to investigate Western leisure activities and experiences (Stebbins, 2006). Each leisure activity and accompanying experience resides within its own social psychological, social, cultural, and historic context, from which the SLP begins to classify and explain them (Stebbins, 2006). To enhance classification and explanation, other concepts (e.g., social worlds and identity theory) are drawn upon and melded into the SLP (Stebbins, 2007, see Chapter 2).

Classifying and explaining a Western leisure activity begins with determining which of three forms of the SLP (i.e., serious leisure, casual leisure, or project-based leisure) is appropriate for that leisure activity. Each form is distinctive; having interrelationships and similarities with another form. The form of the SLP being used to investigate tourist scuba divers is serious leisure. Serious leisure is defined as the:

[S]ystematic pursuit of an amateur, hobbyist, or volunteer core activity that people find so substantial, interesting, and fulfilling that, in the typical case, they launch themselves on a (leisure) career centered on acquiring and expressing a combination of its special skills, knowledge, and experience (Stebbins, 2007, p. 5).

The serious leisure form seems to be an appropriate concept to investigate tourist scuba divers’ involvement with scuba diving. Stebbins has provided a platform that can allow tourist scuba divers’ subjective interpretation of their involvement to be included. Employing all of serious leisure qualities to investigating tourist scuba diver involvement may provide a less narrow consideration of involvement with the activity of scuba diving. This may allow for serious leisure theory to be considered when assessing tourist scuba diver involvement.
1.4 Statement of the Problem

The purpose of this study is to investigate the extent of tourist scuba divers’ involvement with scuba diving and the perceived benefits scuba diving provides to tourist scuba divers, utilising the framework of the SLP to make sense of this information. The objective of this research is to provide understanding about the extent and benefit of tourist scuba divers’ involvement in the activity of scuba diving.

1.5 Research Questions

The specific questions being addressed by this study are:

- What are the characteristics of those who undertake tourist scuba diving?
  - Which characteristics differentiate tourist scuba divers degrees of involvement with respect to scuba diving?

- How involved are tourist scuba divers with the activity of scuba diving?

- What benefits do these tourist scuba divers perceive they realise?
  - To what extent do these benefits differentiate tourist scuba diver involvement?

1.6 Thesis Organisation

There are six chapters in this thesis. This chapter provides an overview of scuba diving, including statistics on participation levels and previous research about tourist scuba divers’ motivations and satisfaction with the activity. The framework being used to investigate tourist scuba divers is also introduced. The chapter concludes with a statement of the problem, and the research questions being investigated in this thesis. Chapter Two presents the SLP framework. In this chapter, also, the activity of scuba diving is positioned within the SLP framework. Chapter Three provides details on the research method. It begins by outlining the research approach, and includes a description of the quantitative research instrument used in
this study (Serious Leisure Inventory and Measure (SLIM)). This is followed by sections dealing with the selection of data, the analysis of data, and concludes with a sample description. Chapter Four presents the results of the survey, outlining the sampled tourist scuba divers’ interpretation of their involvement with scuba diving and the durable benefits being realised. Chapter Five discusses the important findings that arise from the data analysis, with regard to the tourist scuba divers sampled, in relation to the theory of Serious Leisure. Chapter Six concludes this thesis, finishing with a section on suggested future research.

1.7 Chapter Summary

Scuba diving as a touristic leisure activity has been pursued for about sixty years, made possible with the invention of SCUBA. Although the numbers of studies about tourist scuba divers is increasing, it is noted in the literature as still being in its infancy. Studies that have focused on tourist scuba divers have revolved around, for example, where satisfaction is derived from, motivations to pursue scuba diving, and scuba diving prowess. The focus of this study is on tourist scuba diver involvement, and the durable benefits perceived as being gained through the activity. The framework being used is the Serious Leisure Perspective (SLP), specifically the serious leisure part within this framework. This study aims to contribute to the understanding of tourist scuba divers, and add another activity to assist in expanding the use and understanding of the SLP.
Chapter 2

Literature Review

2.1 Introduction

The conceptual framework being employed to investigate tourist scuba divers is the Serious Leisure Perspective (SLP), and concentrates on the serious leisure form of the SLP. In this chapter, serious leisure is described in more detail; in particular, the qualities of serious leisure (i.e., leisure career, identification with pursuit, unique ethos, perseverance, significant effort, and durable benefits) are discussed. These qualities form the platform for the quantitative instrument being employed in the current study, which has been labelled the Serious Leisure Inventory and Measure (SLIM) by Gould, Moore, McGuire, and Stebbins (2008). Additionally, imported concepts appropriate to this study are also introduced. Throughout this chapter, scuba diving examples are provided to assist in positioning this leisure activity as one that can be classified as a serious leisure pursuit.

2.2 Serious Leisure

The conceptual presentation of the serious leisure form was first expressed by Stebbins in a 1982 journal article, and based on years of research. Serious leisure emerges from the idea that, for many individuals, leisure may supersede work for the attainment of such benefits as self-enrichment, self-image, and self-expression (Stebbins, 1982). Serious leisure provides a framework for the leisure that individuals may find for superseding work (Stebbins, 1982). The current definition of serious leisure is presented in Chapter One.

Serious leisure is one of the three forms of The Serious Leisure Perspective (SLP); the other two are casual leisure, and project-based leisure (Stebbins, 2007). Casual leisure is defined as a contrast to the serious leisure form, being an “immediately, intrinsically rewarding, relatively short-lived pleasurable core activity, requiring little or no special
training to enjoy it” (Stebbins, 1997a, p. 18). Project-based leisure is defined as a “short term, reasonably complicated, one-shot or occasional, though infrequent, creative undertaking carried out in free time, or time free of disagreeable obligation” (Stebbins, 2007, p. xii).

Central to the SLP is the idea of “core activity” (Stebbins, 2007). Stebbins (2007) states core activity represents the “interrelated actions or steps that must be followed to achieve an outcome or product that the participant finds attractive” (p. 1). Serious leisure has far more complex core activities than casual leisure. Project-based leisure is moderately complex (Stebbins, 2006). For example, in scuba diving, its complex core activity can be presented as being submerged underwater for a time period that requires SCUBA equipment. The possible actions or steps could be organise scuba equipment, dive briefing, travel to dive site, area orientation briefing, don scuba equipment, enter water, and submerge.

Some individuals pursuing a serious leisure activity can be categorised in terms of the casual leisure form of the SLP (Stebbins, 2007). As it is understood, pursuers can view a serious leisure activity either seriously or casually and respondents, in many serious leisure studies, acknowledge that there are casual leisure pursuers (i.e., dabblers) present (Stebbins, 1997a). This pursuit is labelled ‘play’ (Stebbins, 1997a). For example, PADI (2008a) present the Discover Scuba (DS) programme to provide individuals with an experience of scuba diving with little special training, yet still engaging in a highly complex core activity.

2.2.1 Types of Serious Leisure

Serious leisure is currently subdivided into three types: amateur pursuits, hobbyist activities, and career volunteering (Stebbins, 2007). Amateurs are, in part, defined by the relationships they have with professional counterparts and the public (Stebbins, 2007). This has been labelled the professional-amateur-public (PAP) system (Stebbins, 1992). Both the amateur and professional pursue the same activity, however, the professional relies on the activity as their source of income (Stebbins, 2007). The public can range from family and friends to fans in a stadium, on the periphery of participation yet interacting to some extent
with those participating in the activity (Stebbins, 1992). Various scuba diving organisations (e.g., Professional Association of Diving Instructors (PADI), National Association of Underwater Instructors (NAUI), and Scuba Schools International (SSI)) provide individuals via their certification programmes with the opportunity of being an amateur or a professional scuba diver.

The serious leisure type changes with a change in the professional/amateur association (Stebbins, 2007). If the professionals are not visible to the amateur, the professional component becomes irrelevant in the PAP system, which positions the activity in the sphere of the hobbyist activities type (Stebbins, 2007). Although there is no complete PAP system for hobbyists (either no professional counterparts, or ones that are not visible), there may be a commercial public that supplies materials to the hobbyist and buys their goods (Stebbins, 1992).

The last type of serious leisure is career volunteering. Stebbins (2004) defines career volunteering as being the “uncoerced help offered either formally or informally with no or, at most, token pay and done for the benefit of both other people and the volunteer” (p. 5).

The actions and steps needed to engage in the core activity of scuba diving are complex, requiring time and training to competently perform. Professional scuba divers are visible to the amateurs, fulfilling instruction and guiding roles for amateurs and professionals alike. In addition, there are examples of a public part in the PAP system (support from a non-scuba diving girlfriend or boyfriend, for example).

### 2.2.2 Qualities of Serious Leisure

Stebbins (2007) suggests that the six qualities of serious leisure differentiate serious leisure pursuits and their respective pursuers. Some of these qualities are underpinned by concepts evolving from various sociological or social psychological avenues of enquiry (Stebbins, 2007). These qualities are leisure career, identification with pursuit, unique ethos, perseverance, significant effort, and durable benefits (or durable outcomes) (Stebbins, 2007).
An aspect of serious leisure involves the relationships between the qualities (Stebbins, 2007), particularly in regards to defining the central component; they are a means of describing and explaining a particular serious leisure activity (Stebbins, 2007).

Leisure Career

Goffman’s concept of the ‘moral career’ has influenced the construction of Stebbins’ quality of leisure career (Stebbins, 2007). Goffman (1968) states the term career has broadened beyond the idealised “respectable profession” (p. 119) to encompass “any social strand of any person’s course through life” (p. 119). This career component is considered by Stebbins (1992, 2001, 2007) as the defining characteristic of serious leisure. In the SLP framework, a leisure career is the subjective path an individual follows while pursuing a particular leisure activity (Stebbins, 2001). It is “shaped as it is by its own special contingencies, turning points, and stages of achievement or involvement” (Stebbins, 2007, p. 11). Contingences are events that affect pursuit of a particular leisure career and the progression of stages experienced (Stebbins, 1992), while a turning point is a specific instance where an individual can identify a significant change in the nature or direction of their leisure career (Stebbins, 1992). One type of turning point is that of beginning to specialise in an aspect of that serious leisure activity, referred to as recreation specialisation (Stebbins, 2005). For example, in scuba diving, gaining one of the PADI specialty certifications (e.g., enriched air diver or cavern diver) could be considered a turning point in a scuba diving leisure career.

Each individual’s leisure career is marked by stages of experience (Stebbins, 2007). The borders between stages tend to be fuzzy because an individual may move almost imperceptibly from one stage to another. These stages of experience are labelled as beginning (becoming interested in an activity), development (the routine pursuit of an activity), establishment (moving beyond learning the basic skills of the activity), maintenance (enjoying pursuit of an activity to its fullest), and decline (the exiting of one leisure career and possibly entering another) (Stebbins, 2007).
An individual’s seriousness of pursuit of a serious leisure activity can be identified and placed on a continuum (Stebbins, 2007). Incorporating Siegenthaler and O’Dell’s (2003) categorisation, this continuum consists of four types: dabbler, participant, moderate devotee, and core devotee. Stebbins (2007) indicates core devotees are the most dedicated in their pursuit, while dabblers seem to be cast as pursuers of casual leisure. There is also the recognition of individuals who fall outside of this continuum; these are labelled novices (Stebbins, 2007). Novices are those individuals who are learning the serious leisure activity, but have not yet considered pursuing the serious leisure activity in terms of a leisure career (Stebbins, 2001). An example of being a novice in scuba diving is when an adult is undertaking their initial certification in scuba diving, such as a PADI Open Water Diver (OWD) certification.

Identification with Pursuit

The quality of identification with a pursuit is concerned with the way the activity is used by an individual as forming part of their identity (Gould et al., 2008). Here, Stebbins (2007) is utilising identity theory to explain a leisure activity participant’s identity formation and expression. Identity theory is a “perspective on the relationship between the roles people play in society and the identities that such roles confer [focusing]…. on individual behavior as it is mediated by role identities” (Hogg, Terry, & White, 1995, p. 266). For example, an individual stating “I am a Divemaster” may then expand this declaration depending on their level of identification, through revealing their knowledge and experience in the pursuit. An example from MacCarthy et al.’s (2006) study also illustrates this concept; when one respondent is passionate about their scuba diving, this passion is evoked when the respondent talks about the many destinations dived and to be dived. Gillespie, Leffler, and Lerner (2002) suggest that an individual’s avocation (serious leisure activity) is a central component in life, given that it is “time, resource, and therefore identity intensive” (p. 286).
Unique Ethos

A serious leisure activity can have, or may be developing, its own *unique ethos* (Stebbins, 2007). This is a serious leisure quality that is centered around the concept of social worlds, which participants enter and engage with as part of their serious leisure experience (Stebbins, 2007). Scott and Godbey (1992) suggest that each social world is:

[A] unique scheme of life in which members share in a special set of meanings and in which various cultural elements – activities and events, conventions and practices, and specialized knowledge, technology, and language – are created and made meaningful by social world members and serve to set the social world apart from other social worlds (p. 49).

Unruh (1980) states there are four types based on involvement in a social world, and four features capturing that involvement. The four types based on involvement are *strangers*, who have low commitment, *tourists*, who persist if the activity remains diversionary, entertaining, or profitable, *regulars*, who are habitual and significantly committed participants, and *insiders*, who recruit new members and create and sustain activities. The four features related to each type are *voluntary identification*, related to voluntary participation with a greater degree of freedom for entry and exit than more formal groups; *partial involvement*, where an individual is limited in the knowledge s/he has about a social world; *multiple identification*, related to membership in multiple social worlds; and *mediated interaction*, whereby there is a reliance on channels of communication – not spatial relationships – that diminish with the size of the social world (Unruh, 1980).

Each social world has a common mode of communication that brings forth and disseminates that social world’s perspectives (Shibutani, 1955). Modes of communication for social world members can be personal, such as face-to-face (Granovetter, 1973), or involve intermediaries, which can include films, television, and concerts (Fine & Kleinman, 1979), magazines, and radio (Unruh, 1980), and the internet (Kazmer, 2007).

The interpersonal ties (information-carrying connections) within a social world can vary in strength (Granovetter, 1973). Granovetter (1973) indicates the strength of these
interpersonal ties are influenced by “a combination of the amount of time, the emotional
intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the
tie” (p. 1361). The strength of an interpersonal tie is rated as being weak, strong, or absent (no
relationship or of little significance) (Granovetter, 1973).

Social worlds at the club level have been explored for a number of activities, including
contract bridge (Scott & Godbey, 1992, 1994), tournament bass fishing (Yoder, 1997), dog
breeders (Baldwin & Norris, 1999), older womens’ lawn bowls (Heuser, 2005), and shag
dancing (Brown, 2007). Kane and Zink (2004) report that tourist kayakers seemed to create
their own social world during the two weeks spent together kayaking. The presence of sub-
worlds has been reported for some leisure activities, based upon casual and serious
participation (Brown, 2007; Derom & Taks, 2011; Heuser, 2005; Mackellar, 2009; Scott &
Godbey, 1992, 1994). The literature on serious leisure suggests two probable sources for
tourist scuba diving social worlds: being a member of a dive club, and/or the scuba diving
trip.

Live-aboard scuba diving trips may allow tourist scuba divers to interact within their
own social world. A live-aboard is a scuba diving trip that can span three to fourteen days
(Dearden, Bennett, & Rollins, 2007). In addition to the live-aboard, tourist scuba divers can
engage in trips that can last as long as a day (Dearden et al., 2007). The presence of short-
duration scuba diving expeditions (day-trips) does raise the question of whether a day-trip is
long enough for a social world to form. The work of MacCarthy et al. (2006) suggests that it
is. These researches, in comparing before-dive and after-dive interactions, describe the change
in one group of tourist scuba divers. This group of day-trip scuba divers proceeded out to the
dive site with little interaction. They then had a higher level of interaction after scuba diving;
no longer seeing each other as strangers. MacCarthy et al. (2006) suggest that increased
interactions between members of the scuba diving group were bounded by their shared
experience of the dive(s). This interaction possibly strengthened interpersonal ties between
those on the dive boat through allowing for intimacy (e.g., sharing of individual dive experiences), which provided for the establishment of a reciprocal service (e.g., detailing dive-sights others missed that could be seen the next time that individual dived that site) (MacCarthy et al., 2006).

**Perseverance**

The quality of perseverance involves overcoming occasional obstacles in order to continue participation in the leisure activity (Stebbins, 2007). MacCarthy et al. (2006), for example, note that some of their respondents had to deal with dive destination failure due to mechanical failure of the dive boat, but still made their dives; albeit in a less desirable place. Such external obstacles can become incorporated into an individual’s overall dive experience, which, for many, did not devalue their involvement with the activity of scuba diving (MacCarthy et al., 2006). Overcoming these obstacles while in pursuit of a leisure activity may create a more positive feeling towards involvement in this activity (Stebbins, 2007).

**Significant Effort**

Significant effort refers to the personal effort put into the acquisition and development of knowledge, skills, or abilities pertaining to a particular activity that shape an individual’s leisure career (Gould et al., 2008). For example, in scuba diving, even entry level certification (e.g., PADI OWD) requires individuals to undertake at least four days of theory and practically-based instruction. Other more advanced certifications require individuals to have amassed a certain number of dives in addition to the instruction (e.g., PADI requires 20 dives for Rescue Diver (RD)).

**Durable Benefits**

A durable benefit is an “agreeable outcome” that an individual obtains via their leisure participation (Stebbins, 2007, p. 11). A durable benefit can manifest itself in different ways (e.g., physical, social, and psychological), and is classed as a consequence of pursuing a serious leisure activity (Stebbins, 2007).
There are a range of durable benefits (also referred to as durable outcomes), depending on the activity, that result from participation in a serious leisure activity; in contrast, pursuers of casual leisure may register as few as two durable benefits (Stebbins, 2007). Stebbins (2007) indicates that durable benefits are not incentives that drive an individual to experience the distinctive rewards of that leisure activity. Instead, the quality of durable benefits is similar to the first of Driver’s (2003) three definitions for the concept of benefit, as a “change in a condition or state that is viewed as more desirable than the previously existing condition or state” (p. 31). Stebbins (2007) adds that these changes are not limited to anticipated benefits, but relate also to benefits that may not have been expected.

Gould et al. (2008) suggest that the quality of durable benefits identified by Stebbins may be subsequently subdivided into individual durable benefits and group durable benefits. The individual durable benefits include self-actualisation, self-enrichment (personal enrichment), self-expression, self-gratification, self-image (enhanced self-image), financial return, and re-creation (Gould et al., 2008). Self-actualisation occurs when a “deep, sustained, and disciplined” (p. 94), pursuit of a leisure activity utilises an individual’s full potential, talent, and capacity (Csikszentmihalyi & Kleiber, 1991). Self-enrichment is the accumulation of memorable experiences, which contribute to an individual’s “moral, cultural, or intellectual resources” (Stebbins, 1992, p. 95). Self-expression, derived from self-actualisation, enables an individual to express both their ability and individuality in the activity being pursued. Self-gratification is the pure enjoyment derived from pursuit of a leisure activity (Stebbins, 1992). This pure enjoyment is the combination of “superficial enjoyment and deep personal fulfilment” (Stebbins, 2007, p. 11). It is thought that serious pursuers attain a higher level of self-gratification, than casual pursuers (Stebbins, 2007). Self-image relates to an individual’s conception of themselves or their role, as enhanced through their pursuit of a serious leisure activity (Gould et al., 2008). Financial return consists of some form of remuneration for an individual, as a consequence of their participation in a serious leisure activity (Gould et al.,
Extrapolating from a definition of extrinsic motivation by Vallerand (2007), financial return could be viewed as an ‘extrinsic durable benefit’. This benefit is attained not from the activity itself, but is the result of a “means to an end [having not been done] for its own sake” (Vallerand, 2007, p. 258). Re-creation occurs when participation in a serious leisure activity provides an individual with a sense of regeneration (Stebbins, 2001).

The second subdivision Gould et al. (2008) propose for the quality of durable benefits is labelled group durable benefits. These durable benefits are group attraction, group accomplishment and group maintenance (Stebbins, 2001). Group attraction can occur when an individual associates with a social world present in that leisure activity. The quality of group accomplishment is attained by taking part in the group’s effort and accomplishment in a serious leisure activity (Stebbins, 2001). Group maintenance is the sense of having contributed to continuing the group’s development and cohesion (Gould et al., 2008). Both the durable benefits of group accomplishment and group maintenance may provide an individual with a sense of “helping, being needed, being altruistic” (Stebbins, 2001, p. 13).

**SLIM Definitional Addendums to Serious Leisure**

The Serious Leisure Inventory and Measure (SLIM) is an instrument that has been developed by Gould et al. (2008) to test the SLP. This measure is elaborated upon in more detail in Chapter Three. In the development of this instrument by Gould et al. (2008), additional definitions have been introduced into some of the qualities of serious leisure where two components are used to construct a quality (or durable benefit) instead of a single component (Gould et al., 2008). These additional definitions are for leisure career, self-expression, and self-gratification. The components for leisure career are career progress (the subjective view on the improvement of their leisure role in terms of skills, knowledge, and abilities), and career contingencies (the effect of unintended or chance events, while pursuing that activity, upon an individual’s leisure involvement). For self-expression the components are self-expression (abilities), which is defined as individuals showing the skill, ability, and
knowledge that pertains to a leisure activity, while engaged in this activity (Gould et al., 2008), and self-expression (individuality), which refers to representing through performance of the activity the expression of one’s role identity (Gould et al., 2008; Hogg et al., 1995). The components that compose self-gratification are self-gratification (satisfaction) - the aspect of self-gratification that Stebbins (2007) refers to as the deep personal fulfilment that is attained through pursuit of a serious leisure activity (Gould et al., 2008) - and self-gratification (enjoyment), which Stebbins (2007) refers to as the superficial enjoyment attained through pursuit of a serious leisure activity (Gould et al., 2008).

2.2.3 SLP Research

In addition to the academic publications that have so far been referenced, there are many more publications presenting research on leisure activities which refer to the serious leisure concept in some capacity. In this way, research on serious leisure has explored pursuits of running (Getz & Andersson, 2010; Goff, Fick, & Oppliger, 1997; Major, 2001; Shipway & Jones, 2007), Sports fans (Gibson, Willming, & Holdnak, 2002; Jones, 2000), athletics (Derom & Taks, 2011), tourism (Curtain, 2010; Worthington, 2005) volunteering (Orr, 2006; Worthington, 2005), sea cadets (Raisborough, 2006, 2007), adventure pursuits (Anderson & Taylor, 2010; Bartram, 2001; McQuarrie, 1999), ice-skating (McQuarrie & Jackson, 1996; McQuarrie, 1999), and many others (Bendle & Patterson, 2009; Elkington, 2011; Hunt, 2004; Jones & Symon, 2001; Mackellar, 2009; Rosenberg, 2011; Stalp, 2006).

2.2.4 Critiques of the Serious Leisure Perspective

Two critiques of the SLP that to this author’s knowledge have remained unaddressed by research, rebuttal, or both, are provided by Martin (2008) and Puddephatt (2007). Martin (2008) deems the boundaries between SLP forms to be blurry due to leisure’s complexity and nebulosity, and not matched by Stebbins’ bold boundaries. Bold boundaries with a focus on classifying leisure activities, Martin (2008) argues, leave the potential for misclassifying a leisure activity.
Puddephatt (2007) concludes that Stebbins ignores or at best only briefly mentions the “more latent aspects of leisure” (p. 1). Examples Puddephatt (2007) provides as being ignored include how leisure affects political awareness, consumerism, and maturity and moral development, while he acknowledges that gender, class, and social capital are examples that do receive some mention by Stebbins. Puddephatt argues that such latent aspects of leisure provide leisure its importance, as well making it interesting area of study (Puddephatt, 2007).

2.2.5 Serious Leisure and the Tourist Experience

Tourism is about experiences (Ryan, 1991). Stebbins incorporates tourism into the serious leisure perspective by arguing that mass tourism and cultural tourism are separate forms of tourism that reside in different areas of the SLP (Stebbins, 1996, 1997b). This is determined by the presence (cultural tourism) or absence (mass tourism) of the qualities of serious leisure, and by inference with recreational tourism. Recreational tourism, such as fishing, backpacking, and deep-sea diving, can be either amateur or hobbyist types of serious leisure. Yet, these categorisations of tourism (cultural, mass, or recreational) within the SLP may not be able to be applied to every tourism experience (Stebbins, 1996).

Csikszentmihalyi’s (1975, 1990, 1997) “flow”, and Perkins and Thorns’ (2001) “tourist performance” are approaches to the tourist experience that seem appropriate to be used to aid understanding of tourist scuba divers, and of tourist scuba diving as serious leisure. Flow is a concept Stebbins (2007) indicates as being relevant in understanding the various types of the SLP as serious leisure activities and work are most likely to provide flow for an individual (Stebbins, 2009). The basis for flow is that it occurs when an individual is satisfying intrinsic goals, not genetic goals or cultural goals which are deemed to be external goals (Csikszentmihalyi, 1975, 1990, 1997). For an individual to attain a flow experience, an activity needs to be of an appropriate complexity for that individual, and involve a challenging activity that requires skills, a merging of action and awareness, clear goals and feedback, concentration on the task at hand, loss of self-consciousness, and the transformation
of time (Csikszentmihalyi, 1990, see pp. 49-67 for detailed description). In this thesis, the most relevant part of Csikszentmihalyi’s (1975, 1990) concept of flow is that it aids in personal growth.

Csikszentmihalyi (1990) suggests that ‘self’ becomes more complex, growing after each flow experience. This is due to successfully combining the processes of differentiation (becoming more unique) and integration (becoming more similar), as compared to other people (Csikszentmihalyi, 1990). Stebbins (2009) suggests the durable benefits that tend to be associated with flow are self-enrichment, self-actualisation and self-expression, although each “serious leisure activity capable of producing flow does so in terms unique to it” (p. 16). Elkington (2011) advocates the use of the differentiation and integration process with regard to serious leisure producing flow experiences. It is possible that with the durable benefits of self-enrichment, self-actualisation, and self-expression, self-gratification and self-image could also be included with regard to the idea of differentiation of the self. For integration of the self, the durable benefits of group attraction, group accomplishments, and group maintenance seem appropriate candidates.

Perkins and Thorns (2001) developed the concept of the “tourist performance” in the context of tourism in New Zealand, and provide a metaphor that can better incorporate and examine the diversity found in the tourist experience. This concept involved a modification to Urry’s (1990, 2002) gaze metaphor, by incorporating the other senses. The tourist performance includes “ideas of active bodily involvement; physical, intellectual and cognitive activity and gazing” (Perkins & Thorns, 2001, p. 186, italics in original). The source for the tourist performance varies, depending on the activity and the social, cultural, and physical environments present (Perkins & Thorns, 2001). For example, when scuba diving on a Caribbean coral reef, participants are provided with the opportunity due to high water clarity to really be aware of three-dimensional space, or discerning shark species with its
implications for that scuba diver. Furthermore, the water pressure increases with depth, which can be physically felt by the scuba diver through the increase in inhalation exertion.

2.3 Chapter Summary

This chapter has summarised serious leisure theory. In describing the concept of serious leisure, examples relating to scuba diving, the domain of interest in this thesis, have been provided to position this leisure activity. Scuba diving is shown to have the requisite qualities (i.e., leisure career, identification with pursuit, unique ethos, perseverance, significant effort, and durable benefits) currently defining the concept of serious leisure, and thus the leisure activity of scuba diving can be classified as a serious leisure activity. Critiques of serious leisure highlight areas in which serious leisure could still benefit from relevant or additional research input at this time. The concepts of flow and tourist performance appear to be relevant concepts with regard to the tourist experience, and may aid in understanding tourist scuba diving as serious leisure.
Chapter 3

Method

3.1 Introduction

This chapter presents the research methods used in the investigation of tourist scuba divers’ involvement with scuba diving, and the benefits being gained from that involvement. The first section specifies the selection of a quantitative research method. The next sections go into detail about the quantitative research method being employed that include the quantitative tool being used (the self-administered questionnaire), the instrument used to determine tourist scuba diver involvement and the benefits gained (the Serious Leisure Inventory and Measure (SLIM) by Gould et al. (2008)), data collection site (Cairns, Australia), the procedure of collecting data, and ethical considerations. The method chapter concludes with section specifying the data analysis techniques that have been used.

3.2 Selection of Research Approach

To investigate tourist scuba divers’ involvement with scuba diving, a quantitative approach was chosen. There has been a range of qualitative research on serious leisure since Stebbins (1982) initial serious leisure conceptual statement. This includes research on runners (Getz & Andersson, 2010; Major, 2001; Shipway & Jones, 2007), adult ice skaters (F. McQuarrie & Jackson, 1996), sea cadets (Raisborough, 2006, 2007), bass fishing (Yoder, 1997), showing dogs (Baldwin & Norris, 1999), wild life tourists (Curtain, 2010), kayakers (Kane & Zink, 2004), sky divers and gun collectors (Anderson & Taylor, 2010), and also the numerous studies conducted by Stebbins himself. Gould et al. (2008) state that from this abundance of qualitative research there is a need to add a quantitative perspective to understanding serious leisure, which should distinguish between casual and serious pursuers of a serious leisure activity (Gould et al., 2008). Also, this quantitative approach will provide
knowledge across the six qualities of serious leisure (leisure career, identification with pursuit, unique ethos, perseverance, significant effort, and durable benefits), instead of qualitatively detailing only a few, which has been the focus of previous studies (Gould et al., 2008).

The quantitative method endeavours to determine, document, and explain general casual laws that influence events and relationships occurring in society (Sarantakos, 2005). Specific attributes of individuals can be documented, for example, in terms of quantity, extent, or strength. The guarantee that is associated with quantitative research is with regard to reliability, validity, objectivity, and replicability (Sarantakos, 2005). Reliability is evaluated with regard to the instrument used, that it will provide consistent results across time, groups of respondents, and indicators used to construct the instrument (Babbie, 2007; Sarantakos, 2005). Validity deals with how well an instrument measures what it purports to measure, hence, it is an important quantitative criteria that needs to be attained (Sarantakos, 2005). Another important criteria is that of objectivity, that the research being undertaken is free of researcher biases (Sarantakos, 2005). Reliability, validity, and objectivity lead on to replicability, in that can the quantitative approach used in the research be repeated by someone else (Burns, 2000). The rest of this method chapter outlines considerations and processes in collecting quantitative data in this study.

3.3 The Self-administered Questionnaire

There are various data collection techniques that can be employed in research. A researcher-distributed self-administered questionnaire was used for this study. The self-administered questionnaire is one form of the survey method (Nardi, 2006; Sapsford, 1999).

Strengths of the survey approach include uniformity in questions and epistemological objectivity (Sapsford, 1999; Sarantakos, 2005). The same questions being asked of each respondent eliminates the chance of variations in questions, which also reduces researcher
bias influencing answers (Nardi, 2006; Sapsford, 1999; Sarantakos, 2005). There is also the ease in replicating a study, in comparing research with studies employing similar questions, and the ability to address multiple topics (Nardi, 2006). In this thesis, there are the topics of scuba diving and each quality and durable benefit of serious leisure being investigated.

In addition to the strengths of the survey method, the strengths of using a face-to-face self-administered questionnaire include that it is less expensive, an assurance of anonymity, and the collection of data can be achieved quickly (Sapsford, 1999; Sarantakos, 2005). Data is being collected from respondents who are on holiday and are most likely to be international tourists; other questionnaire delivery methods (e.g., mail or web based) seem too unreliable in reaching the target population.

The self-administered questionnaire used in this research (see Appendix D) was constructed using four sections. The first section consisted of questions to obtain information regarding dive-related characteristics of tourist scuba divers (e.g., certification, number of dives, and time been a scuba diver), through open and closed-ended questions. Section Two presented the SLIM. As Gould et al. (2008) list items (and hence qualities) as generally encountered in serious leisure theory description, and do not specifically indicate an item order for use in research. Research indicates that there is no apparent difference to reliability and validity with regard to item order (e.g., Sparfeldt, Schilling, Rost, & Thiel, 2006). Hence, an order was chosen by the researcher. Section Three included three prompter questions, where respondents could write if they wanted to in their own words about their involvement in scuba diving. The last section consisted of open-ended and closed socio-demographic questions (e.g., age, sex, and nationality).
3.4 Serious Leisure Inventory and Measure

The only tool found that is specifically tasked for measuring serious leisure is the SLIM by Gould et al. (2008). This eliminated the need for creating an instrument for this quantitative study about tourist scuba divers with regard to serious leisure. At the time of writing, the SLIM has been used in two journal articles, one detailing the SLIM with model confirmation by Gould et al. (2008) and a second one focussing on model confirmation, involving chess players by Gould et al. (2011).

The SLIM is used in this study to obtain data to determine tourist scuba divers’ involvement in scuba diving, and the benefits gained at each level of involvement. The SLIM measures an individual’s seriousness in regard to the pursuit of a particular activity (Gould et al., 2008). Five of the qualities of serious leisure (leisure career, identification with pursuit, unique ethos, perseverance, and significant effort) distinguish levels of seriousness (involvement) with an activity. The sixth quality – durable benefits – is used to explore which durable benefits are gained at each involvement level. Gould et al. (2008) note that interpretation of the SLIM should be through theory (the Serious Leisure Perspective) and context (the activity being investigated).

There are two forms of the SLIM. The full version consists of 72 items, and the short form consists of 54 items. Each of the forms of the SLIM follows the same component format:

- There are single components representing identification with pursuit, unique ethos, perseverance, and significant effort. These are referred to as qualities.
- The quality of leisure career is represented by two components, career progress and career contingencies.
- There are single components representing self-actualisation, self-enrichment, self-image, financial return, re-creation, group attraction, group accomplishment and group maintenance. These are referred to as durable benefits.
• The durable benefit of self-expression is constructed by summing two components, self-expression (abilities) and self-expression (individuality).

• The durable benefit of self-gratification is constructed by summing two components, self-gratification (satisfaction) and self-gratification (enjoyment).

Gould et al. (2008).

The only difference between the full version and short form of the inventory is the number of items used to construct a component, four for the full version with three for the short form. Additionally, the short form was used so as to keep the questionnaire to a more manageable size for potential respondents. Each item was measured using a nine point Likert-type response format, (negative four = casual to positive four = serious).

Gould et al. (2008) report good reliability and good fit between the SLIM and its theoretical basis. In order to test this, they asked an expert panel to critique definitions and potential items (n = 120) for the inventory. The expert panel added a further twenty-one items. These items were then tested on two samples: a convenience sample (students) and targeted pursuits (adventure racing, trail running, and kayaking) sample. Confirmatory factory analysis was used in the development of the SLIM (72 items), and SLIM short form (54 items) (Gould et al., 2008).

The short form of the SLIM has been used to assess tourist scuba divers’ involvement, and the benefits realised with the activity of scuba diving in this research. Gould et al. (2008) report that the short form SLIM had better fit indices than the full SLIM. The Comparative Fit Index (CFI) for the short form is .95 (a good fit) as compared to .91 for the 72-item full SLIM. In a second model confirmation research note, (Gould et al., 2011) report a CFI for the short form of .91 for both a trait factors Confirmatory Factory Analysis (CFA) and common method factor CFA. On review of the 54 items of the short form SLIM, modifications to three items were made. This replaced the word ‘that’ with the word ‘who’ for the questions two, 28, and 37 (see Appendix D, Section Two of the questionnaire).
3.4.1 Additive Index

Tourist scuba diver involvement category scores were calculated using an additive process, which is the method suggested by Gould et al. (2008). This process added the five qualities, resulting in an index containing respondents’ score for seriousness with the activity. Gould et al. (2008) do not recommend a scoring system, so it was decided that each item’s scale ranges from negative four to positive four would reflect the idea of casual (negative) and serious (positive) orientations indicated by Gould et al. (2008).

Each component is constructed by summing three items. This provides a range of -12 to +12 for possible scores. This was done for the qualities constructing involvement and the durable benefits assessing involvement, although for the quality leisure career and the durable benefits of self-expression and self-gratification two components were summed to construct them, then halved so as to allow the same range as all others. Finally, all the components being used to construct involvement were added to form the overall index, which ranges from -72 to +72. All through this additive process, a negative score continued to represent a casual orientation, and a positive score to represent a serious orientation towards the activity of scuba diving. Categories representing the various levels of these tourist scuba divers’ involvement with scuba diving occupy specific ranges within the overall SLIM index’s range.

The next step was to identify novices within the serious orientation category of the sample. The term “novice” refers to an individual who is learning a serious leisure activity, and is yet to have a leisure career, but has exceeded the criteria for casual orientation status (Stebbins, 1992, 2001). Given these criteria, the novice category for scuba diving could be defined, for example, as those participants undertaking a PADI open water diver (OWD) certificate or equivalent. However, tourist scuba divers have a wide range of diving opportunities that do not necessarily entail certification, and it is quite possible for scuba divers with no certification and very few dives to qualify for the serious orientation. To address this problem, the definition of novices was restricted to scuba divers with no
certification and those with less than four dives, while still possessing an overall serious orientation.

Initial determinations of tourist scuba diver involvement with scuba diving start with the orientations classification. The categories consisting of the casual orientation (scores from -72 to zero) and the serious orientation (scores from positive one to +72) described by Gould et al. (2008).

For the second stage, Gould et al. (2008) does not provide a process for the demarcation of the SLIM into Stebbins’ serious leisure categorisations (i.e., dabbler, participant, moderate devotee, and core devotee). It was decided initially, therefore, to split the serious orientation into three categories of equal ranges: participant (scores from positive one to +24), moderate devotee (scores from +25 to +48), and core devotee (scores from +49 to +72) and leave the casual orientation as a single category.

3.5 Selection of Data Collection Site

For tourist scuba divers, warm-water destinations hold the most attraction (Garrod & Gossling, 2008). Sites that have been used to collect data about tourist scuba divers in the past include Southern Florida (Meisel & Cottrell, 2004; Thapa et al., 2005, 2006), Phuket (Dearden et al., 2006, 2007; MacCarthy et al., 2006), Malaysia (Musa, 2002; Musa et al., 2006), The Great Barrier Reef Marine Park (MacCarthy et al., 2006; Rouphael & Inglis, 2001) the Medes Islands (Mundet & Ribera, 2001), the Red Sea (Medio et al., 1997), and the Caribbean (Barker & Roberts, 2004; Uyarra et al., 2009). This study also utilised a warm-water destination, the Great Barrier Reef. The site associated with the destination is the Esplanade foreshore of Cairns, located in the North Tropical Queensland of Australia (16° 55´ S, 145° 46´ E).

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2 Research analysed destination rankings on a popular website http://www.scubatravel.co.uk/topdiveslong.html
Cairns was chosen as the location to collect data for this study for a number of reasons. First, tourism statistics with regard to scuba diving indicated there is a potentially large study population from which to obtain a sample. Cairns is one of many entry points onto the Great Barrier Reef for tourist scuba divers. There are many different scuba diving packages that are available to tourists along the Great Barrier Reef and specifically from Cairns (e.g., day trip diving, multi-day live-aboards, introductory diving, and dive certification), potential providing a quite diverse tourist scuba diver population. Cairns is also one of the closest and most easily accessible warm water scuba diving destination to Lincoln University, with relatively cheap airfares to the destination and short travelling time. The time of year data collection occurred (from early August to early September) is also the European holiday period and is considered part of the Cairns tourist high season meaning a wide diversity and high numbers of tourist divers were in the region at the time.

Surveying was conducted on the Esplanade foreshore in Cairns. The Esplanade foreshore is elevated above the natural Cairns foreshore of tidal mudflats (see Figure 3.1). Elements of this public park environment include an artificial saltwater lagoon with sandy beach, picnic/barbeque areas, natural and artificial shade, grassed areas bisected by footpaths, and a walkway fronting the Esplanade at the boundary between it and the natural foreshore. Most of the Cairns city foreshore is mudflats/mangroves, with a few beaches much further north of the city. The Esplanade is therefore a popular public place for tourists to visit and/or congregate during the day, and was also the most accessible area to the researcher.
Figure 3.1 Cairns Foreshore

3.6 Sampling Procedure

Potential participants were approached between 10:00 and 16:00, on the days Monday to Saturday, over approximately a month’s time. The park and artificial lagoon area was marked into zones, using the footpaths as borders (see Figure 3.2). Those people being in these zones were initially set as a sample of convenience. Through the day the researcher moved from one zone to the next. Potential participants were selected through the use of a
coin toss (heads indicating selection). Potential participants could also elect not to participate themselves as potential participants. This could occur before the approach of the researcher, when potential participants appear to be asleep in the sun, eating lunch, or have moved on out of the data collection area. New individuals entering and staying in the zone the researcher was in were randomly selected, using the coin toss technique, as potential participants. Generally, each zone was utilised as a data collection area once each day.

Potential participants who indicated they were interested in taking part were asked a filter question: Have you scuba dived while you have been on holiday? If potential participants answered yes, then, the researcher proceeded with the following data gathering procedure. First, each potential participant was provided with a research information sheet and a questionnaire information sheet. Next, the researcher asked the potential participant if they understood the information provided and if they had any questions at this point in the process. Then, potential participants still wanting to take part were provided with the consent form to read, sign, and date. Finally, the self-administered questionnaire was provided for the potential participant to complete. All through this process the researcher stayed in the vicinity and so could answer any questions that arose during the completion of the survey. The questionnaires were collected by the researcher upon completion by the participant. Participants retained the research information sheet and questionnaire information sheet, which included contact details of the researcher and research supervisor.
3.6.1 Ethical Considerations

Ethical guidelines are put in place to “ensure that the researcher conducts ethically responsible research with respect to the treatment of individuals, the methodology used and the soundness of the findings” (Jennings, 2001, p. 104). In the case of this research, the study was assessed and approved by the Lincoln University Human Ethics Committee (HEC).

Figure 3.2 Example of Paths Dissecting Esplanade Park Area

(Source: Author)
Potential participants were fully informed through a research information sheet (see Appendix E) and questionnaire information sheet (see Appendix F), as well as the researcher answering all questions they raised. Those potential participants agreeing to participate in the research read, and signed a consent form (see Appendix G) before undertaking the self-administered questionnaire. Respondents could withdraw their participation in this research at any time, though only up to the specified withdrawal end date.

3.7 Data Analysis

A number of data analysis techniques were employed using the Statistical Package for the Social Sciences (SPSS) software. Techniques used to analyse the data included multivariate analysis of variance (MANOVA) with follow-up analysis of variance (ANOVA), Pearson $\chi^2$, and descriptive statistics. These were applied as appropriate for answering the research questions.

3.7.1 Descriptive Analyses

The following statistical descriptor’s have been used: valid number of cases (n), mean (M), standard deviation (SD) and percentages. These descriptive statistics appear in the sample description section, as well as in the results of other analysis techniques.

Some of the resulting statistical descriptions underwent additional processing. Income statistics are reported in New Zealand dollars, after having multiplied income using the following exchange rates at the beginning of the data collection period: Australian Dollar (1.22726), Brazilian Real (0.780371), Canadian Dollar (1.31103), Danish Krone (0.279684), Euro (2.08180), Pound Sterling (2.36837), Swedish Krona (0.14547), Swiss Franc (1.37567), and the American Dollar (1.42971). There are a number of national and international scuba diving certifying organisations, each with their own certifying structure and nomenclature. This variety of certifications were evaluated and placed into the following categories (loosely based on PADI, the most predominant certifying organisation present in the sample): open
water diver (OWD), all other non-professional certificates (advanced), and all professional certifications (professional). For some variables, five percent trimmed means are reported, to reduce the effect of extreme values on a measure of central tendency (Coakes, Steed, & Price, 2008). Respondent nationalities have been collapsed into regional categorisations that have been determined by the United Nations (2009). The variety of occupations being reported have been collapsed into Level One occupation classifications, as indicated by Statistics New Zealand Tatauranga Aotearoa (2009). The Level One occupation classification is presented, by Statistics New Zealand Tatauranga Aotearoa (2009), as the most generalised occupation classification.

3.7.2 Pearson chi-square

Though this test of significance is nonparametric, it can be an appropriate test when dealing with nominal and ordinal level data (Coakes et al., 2008). The use of two-way contingency analysis enables testing for independence between variables, with a significant finding indicating the variables are dependent (Green & Salkind, 2005). Depending on the number of categories in the variables, either Phi or Cramér’s V is calculated and used as a measure of strength (Field, 2000).

3.7.3 Multivariate Analysis of Variance

One factor with multiple dependent variables are used in the one-way MANOVA analysis (Green & Salkind, 2005). The hypothesis being tested is that all levels of a factor have the same means on each dependent variable, which would also be the same for any linear combination of dependent variables. A significant multivariate test for the one-way MANOVA indicates that means differ across the factors’ groups by dependent variable, as well as linear combinations of dependent variables (Coakes et al., 2008). On a significant one-way MANOVA, simultaneous follow-up ANOVA’s are conducted to assess each individual dependent variable (Green & Salkind, 2005). Field (2000) indicates there is still debate over conducting a MANOVA with follow-up ANOVA’s, though one reason for conducting these
is that a significant MANOVA protects follow-up ANOVA’s from Type 1 error inflation (Field, 2000).

3.8 Chapter Summary

This study sets out to determine tourist scuba diver involvement with scuba diving, and the durable benefits that are associated with this involvement. The Esplanade along the city of Cairns foreshore was the site where data were collected, using a quantitative approach. This approach involved administering a self-administered questionnaire, which contained a qualitative section providing respondents an ability to also subjectively report their involvement with scuba diving. A variety of quantitative analysis techniques were employed so as to better understand these tourist scuba divers’ involvement and durable benefit assessment. These analysis techniques and results are reported in Chapter Four.
Chapter 4

Results

4.1 Introduction

Results from the sampling of tourist scuba divers in Cairns, Australia begin in the first section with a demographic profile. The second section presents these tourist scuba divers’ reported involvement with the serious leisure activity of scuba diving. Involvement begins with the orientation classification, as outlined by Gould et al. (2008). This orientation classification is then expanded upon with regard to the serious leisure classifications indicated by Stebbins (2007), in Stebbins’ serious leisure classification. It will be shown that mean scores for all qualities of involvement increase as tourist scuba diver involvement increases in seriousness. The third section presents findings for the durable benefits in relation to tourist scuba diver involvement outlined by the orientation and Stebbins’ serious leisure classifications. Following on from the durable benefits are analyses of tourist scuba diving characteristics with regard to each of the tourist scuba diver involvement classifications. These tourist scuba diver characteristics encompass dive-related and socio-demographic items. The final section describes novice tourist scuba divers with regard to the two serious leisure classifications. Details of the various analysis techniques used, and the initial calculation of the qualities and durable benefits are presented in Chapter Three (pp. 29, 35-37).

4.2 Demographic Profile of SCUBA Divers in Cairns

Data were collected from two hundred tourist scuba divers. This represents a 78 percent response rate. All participants (n = 200) are retained, although missing values may lead to lower numbers of valid cases in a particular analysis.
Of these retained cases, 56.5 percent were female and 43.5 percent were male. The respondents’ ages (n = 199) ranged between sixteen and fifty-two years (M = 24.93 years, SD = 5.69 years). From those reporting nationality (n = 200), eight regions are represented in Table 4.1.

Table 4.1 Region of Nationality

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Europe</td>
<td>41.5</td>
</tr>
<tr>
<td>Western Europe</td>
<td>40.5</td>
</tr>
<tr>
<td>North America</td>
<td>8.5</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>4.0</td>
</tr>
<tr>
<td>South America</td>
<td>2.0</td>
</tr>
<tr>
<td>Eastern Asia</td>
<td>1.5</td>
</tr>
<tr>
<td>Southern Europe</td>
<td>1.5</td>
</tr>
<tr>
<td>Western Asia</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Of those reporting their occupation (n = 103), six level one occupation classifications are present and are shown in Table 4.2.

Table 4.2 Occupations

<table>
<thead>
<tr>
<th>Level One classification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionals</td>
<td>43.7</td>
</tr>
<tr>
<td>Technicians and trade workers</td>
<td>24.3</td>
</tr>
<tr>
<td>Community and personal service workers</td>
<td>21.4</td>
</tr>
<tr>
<td>Clerical and administrative workers</td>
<td>5.8</td>
</tr>
<tr>
<td>Managers</td>
<td>2.9</td>
</tr>
<tr>
<td>Sales workers</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The highest educational qualification attained (n = 193) by respondents is presented in Table 4.3, where six groups were derived from the responses.
Table 4.3 Education

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor degree</td>
<td>39.9</td>
</tr>
<tr>
<td>High School</td>
<td>22.3</td>
</tr>
<tr>
<td>Post-graduate degree</td>
<td>13.5</td>
</tr>
<tr>
<td>At university</td>
<td>11.9</td>
</tr>
<tr>
<td>Tertiary diploma</td>
<td>8.3</td>
</tr>
<tr>
<td>Trade certificate</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Those respondents indicating they received an income (n = 105), reported gross annual incomes ranging between $NZ 200 to $NZ 400,000 (M = $NZ 63,501.43, SD = $NZ 59,715.80).

For scuba diving characteristics of tourist scuba divers, there is an initial split into ninety-seven certified scuba divers, fifty-one non-certified, and fifty-one novice scuba divers. Of the certified tourist scuba divers three levels of certification and five certifying organisations are represented. The breakdown of certification levels is as follows: 62.9 percent OWD level, 29.9 percent advanced level, and 7.2 percent professional level. The frequency for each certifying organisation is presented in Table 4.4.

Table 4.4 Certifying Organisation Breakdown

<table>
<thead>
<tr>
<th>Organisation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>PADI</td>
<td>79</td>
</tr>
<tr>
<td>SSI</td>
<td>7</td>
</tr>
<tr>
<td>CMAS</td>
<td>6</td>
</tr>
<tr>
<td>ANMP</td>
<td>3</td>
</tr>
<tr>
<td>AUSI</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
</tr>
</tbody>
</table>

Only 25.8 percent of certified scuba divers indicated having a specialty certification, such as enriched air diver.

There are scuba diving characteristics applicable to all tourist scuba divers. The approximate number of dives made by these tourist scuba divers ranged between one and ten-thousand dives, with a five percent trimmed M = 7.72 dives. The length of time respondents

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3 Novice scuba divers set as non-certified serious pursuers with four or less dives, see pp. 29-30
have been associated with scuba diving, since first experience, ranged from one day to twenty-four years, with a five percent trimmed $M = 1.77$ years. Most tourist scuba divers (88.5 percent) indicated never having been a member of a scuba diving club, with 6.5 percent being no longer members of a scuba diving club, and only five percent indicated being currently members of a scuba diving club.

4.3 Tourist Scuba Diver Involvement

Though the novice category ($n = 51$) is not a theoretically discrete serious leisure involvement category, they are treated separately in terms of serious leisure in this thesis, and are excluded from quantitative analyses on tourist scuba diver involvement and durable benefit assessment. Those that are serious pursuers (or even casual pursers) of scuba diving are the focus of this thesis. Also, the serious leisure form of Stebbins (2007) and the Serious Leisure Inventory and Measure (SLIM) of Gould et al. (2008) target such individuals. A limited separate analysis is performed. This used the serious categories of Stebbins’ serious classification to at least outline the novices with regard to the qualities used to construct involvement and durable benefits they perceived they have attained.

Investigating these tourist scuba divers’ involvement (except novices) progressed through two classification stages. The first stage is labelled as the orientation classification, described by Gould et al. (2008). The second stage is undertaken to assess the data collected with regard to Stebbins’ categories of pursuit of serious leisure (casual pursuer, participant, moderate devotee, and core devotee). This second stage is labelled Stebbins’ serious leisure classification.

4.3.1 Involvement Using the Orientation Classification

In the current study, the number of participants falling in the casual orientation ($n = 47$) was about half the number of those in the category of the serious orientation ($n = 90$). Novices
(n = 51) and missing values (n = 12) account for the remaining cases. The mean quality scores for these two orientations are shown in Figure 4.1.

Turning to the qualities associated with serious orientation, one sees that there are four qualities that each has a positive lower limit on their confidence intervals. These are perseverance (which involves individuals overcoming occasional obstacles in order to continue participation in the leisure activity (Stebbins, 2007)), significant effort (the extent of personal effort made to acquire and develop the knowledge, skills, or abilities pertaining to a particular activity that shape an individual’s leisure career (Gould et al., 2008)), leisure career (the subjective path individuals follow while pursuing a particular leisure activity (Stebbins, 2001)), and unique ethos (representing participants’ entry and engagement in a social world as part of their serious leisure participation (Stebbins, 2007)). Additionally, the first three qualities mentioned above have little separating their means. The qualities of unique ethos and identification with pursuit separate away from the other qualities, decreasing towards a more casual consideration. In addition, identification with pursuit has a confidence interval with a negative lower limit, straddling the boundary between orientations.

The qualities associated with casual orientation will be dealt with next. Significant effort, unique ethos, and identification with pursuit each have a negative upper limit on its confidence level, and the means for these three qualities are quite far apart. The quality of leisure career, while having a negative mean, does have a positive upper limit on its confidence interval, straddling the boundary between casual and serious orientations. The quality of perseverance differs from the other qualities constructing the casual orientation; it has the only positive mean. Perseverance has a confidence interval with a negative lower limit, only just straddling the boundary between orientations. As in the serious orientation, the quality of identification with pursuit is separate from the other qualities.
Respondents’ subjective reporting of involvement suggests that casual orientation may be more than a single category. Written responses about involvement with scuba diving can be divided into three types. Firstly, some responses indicate an understanding that scuba diving is becoming, or will become, more seriously pursued by the respondent in future. These respondents are moving beyond a mere casual leisure interpretation, but not as far as attaining the status of a serious pursuer of scuba diving. This viewpoint is shown when one respondent stated:

I just did my first dive two days ago and real[l]y enjoyed it, so I did a second one the same day. I decided to dive again, because I liked the point of view you get under water! You can see so much more than from the surface. If possible I [would] like to do my scuba diving licence in Asia later this year.
Secondly, other tourist scuba divers’ responses suggest a shift towards a project-based leisure viewpoint. Project-based leisure is the third form in the SLP, alongside serious leisure and casual leisure (Stebbins, 2007). This form details leisure that is engaged in infrequently, or has been engaged in only once (Stebbins, 2007). Their involvement with scuba diving was a cursory diversion, as in the following comment from a respondent: “I just gave it a try. I didn’t like it so much. But now I make (sic) it and maybe will do it one more time”. Finally, some of these tourist scuba divers’ indicated that they regarded the pursuit of scuba diving strictly as casual leisure. An example of this is below:

I enjoy scuba diving but I wouldn’t say it is at the top of my recreational activities. [If] I do it once every couple of years then I’d be happy.

4.3.2 Involvement Using Stebbins’ Serious Leisure Classification

The results for the casual orientation suggest this category does go beyond Stebbins’ (2007) criteria for the dabbler category, and, in this study, it has been re-labelled casual pursuer to reflect this difference. Stebbins’ serious leisure classification system used in this thesis yielded the following frequencies: casual pursuer (n = 47), participant (n = 33), moderate devotee (n = 44), and core devotee (n = 13). Novices (n = 51) and missing values (n = 12) brings the total to 200 cases.

The involvement qualities distinguished these categories quite well. The only exception was perseverance, which showed an overlap in confidence intervals for moderate devotees and core devotees, and had a positive mean in the category of casual pursuer. In addition, the category of participant had one quality, identification with pursuit, with a negative mean.

Of equal interest is the range of scores present for the qualities in each involvement category. Of the three serious categories, only the category of core devotee has both its minimum and maximum in the positive for all qualities, although moderate devotees show a negative lower limit only in the identification with pursuit quality. Moderate devotee achieves a positive minimum and maximum with the component quality labelled “career progress”.
The category of casual pursuer has only one quality, identification with pursuit, not posting a positive maximum. For readers wishing to see greater detail for these results, please see the scatter-plots for the five qualities presented in Figures A.1 to A.5, Appendix A.

These broad results present a beginning in understanding the categories for tourist scuba diver involvement with scuba diving. More detailed results for the qualities constructing involvement are presented in the sections that follow.

**Leisure Career**

The score for the quality known as leisure career is computed by adding the scores of two component qualities (Gould et al., 2008). These component qualities are career progress and career contingencies (Gould et al., 2008). The findings for leisure career and its component qualities are shown in Figure 4.2. There is a considerable distance between categories until reaching the moderate and core devotee categories, which are much closer to overlapping. Each of the two components that construct leisure career is somewhat distinct in its contribution to distinguishing involvement. In the lowest serious category (participant) the two components have a very large separation, with the component of career contingencies increasing steadily to close the distance with career progress. Career progress trajectory flattens from moderate devotee to core devotee. The quality of leisure career is closer to career progress in the participant and moderate devotee categories, while near equal in distance from both components in the core devotee category.

As with the quality of leisure career, all means for the component career progress were positive and increased as the category indicating tourist scuba diver involvement in scuba diving increases. Wide confidence intervals appear to be the norm except for the category of moderate devotee, which is totally encompassed by the category of core devotee; these two categories cannot be reliably distinguished from one another on this measure. Further, there is a clear demarcation between a casual and serious orientation of these tourist scuba divers towards scuba diving.
The results of the analysis of *career contingencies* are quite a contrast to those of *career progress* - all scores are much lower - although the career contingencies component does still have its means increasing as involvement in scuba diving increases. Additionally, all Stebbins’ serious leisure classification categories have quite wide confidence intervals, with an overlap between the casual pursuer and participant. There is also no clear demarcation between a casual and serious orientation.

![Figure 4.2 Leisure Career and Components by Stebbins’ Serious Leisure Category](image)

**Figure 4.2 Leisure Career and Components by Stebbins’ Serious Leisure Category**

*Identification with Pursuit*

The extent of the expression of identification with scuba diving can be seen in Figure 4.3. Two of the four categories, casual pursuer and participant, have negative means, with both of these categories also having a negative upper limit on their confidence interval. The moderate devotee category has a low positive mean, yet its confidence interval does maintain a positive lower limit. As well, all four Stebbins’ serious leisure categories are reliably distinct on this measure, although it should be noted that the participant category has a negative mean that reflects a more casual orientation. The separation between the categories
of moderate devotee and core devotee involves a very large jump between these means. This suggests any meaningful identification with scuba diving is with the core devotee category, perhaps influenced by those respondents that have a professional certificate (see Table 4.7).

![Figure 4.3](image-url)  

**Figure 4.3 Identification with Pursuit by Stebbins’ Serious Leisure Category**

*Unique Ethos*

The mean scores for this quality are shown in Figure 4.4. The level of social world entry and engagement increases through the categories of involvement in nearly uniform steps. The negative mean exhibited by casual pursuers suggests this category has little engagement with, or entry into, any meaningful social world in connection with scuba diving. Though maintaining a barely positive mean, the participant category straddles the boundary between casual and serious orientations.
A few responses indicate there is a desire to meet other people who were also associated with scuba diving. These responses could be interpreted as searching for a scuba diving social world while on holiday. For example, one respondent (moderate devotee) wrote: “It is a way to meet new people with the same interests that I have”. In a similar vein another respondent (core devotee) reports: “I also enjoy being in a group of people who share the same passion!”

The respondents aim to congregate with individuals that have a similar interest in scuba diving, suggesting there is potential for a scuba diving social world to develop when this aim is achieved. Another consideration is that these examples may suggest that some individuals may use additional avenues for identifying with scuba diving.

**Perseverance**

Findings for the quality of perseverance are shown in Figure 4.5. All the means are positive, with the casual pursuer category again straddling the boundary between casual and serious orientations. The narrow spread of the means has nearly all of the categories at the
point of overlapping with adjacent categories. A substantial overlap occurs between moderate and core devotee categories, suggesting that these two categories differ little with respect to the degree to which their members persevere in the face of scuba diving challenges.

![Figure 4.5 Perseverance by Stebbins’ Serious Leisure Category](image)

**Figure 4.5 Perseverance by Stebbins’ Serious Leisure Category**

One challenge that has been noted by some respondents is the expense of participating in (tourist) scuba diving. For some of these tourist scuba divers, it appears to be an on-going obstacle that limits participation. For example, it was expressed by one respondent from the casual pursuer category that:

> I dived because I wanted to see how it is under[water], see another world. I think diving is too expensive, and if it could be cheaper I would do it more often.

Another challenge to involvement in (tourist) scuba diving reported by a few respondents was with regard to overcoming personal fears. One respondent, situated in the moderate devotee category, wrote
It was something I really wanted to do, but I was surprised how difficult I found it at first. I persevered and have my certified status and have dived without guide or instructor. It represents overcoming my own fears. I felt a great sense of achievement.

**Significant Effort**

The extent of personal effort is shown in Figure 4.6. There is a large jump between the negative mean of casual pursuer up to the positive mean of participant, placing quite a clear demarcation between casual and serious orientations. Significant effort increases in quite uniform steps across the serious categories.

![Significant Effort by Stebbins’ Serious Leisure Category](image)

**Figure 4.6 Significant Effort by Stebbins’ Serious Leisure Category**

**4.4 Durable Benefits**

The original twelve components representing durable benefits in the SLIM were reduced to the ten benefits currently identified in the serious leisure quality literature (Gould et al., 2008). For this study, the durable benefits of self-expression and self-gratification are
constructed from two components each, while the other eight durable benefits are single components. All components consists of three items apiece (Gould et al., 2008).

The durable benefits are *self-enrichment* (the accumulation of memorable experiences, which contribute to an individual’s “moral, cultural, or intellectual resources” (Stebbins, 1992, p. 95)), *self-gratification* (the pure enjoyment derived from pursuit of a leisure activity (Stebbins, 1992), *re-creation* (the extent an individual has felt a sense of regeneration, renewal, or invigoration, from their participation in a leisure activity (Stebbins, 2001)), *self-actualisation* (when an individual utilises their full potential, talent, and capacity in pursuit of a leisure activity (Csikszentmihalyi & Kleiber, 1991)), *self-expression* (the extent an individual shows their skills, ability, knowledge, and individuality while performing their activity (Gould et al., 2008; Stebbins, 2007)), *self-image* (an individual’s conception of themselves or their role, which is enhanced through their pursuit of a serious leisure activity (Gould et al., 2008)), *financial return* (receiving some form of remuneration as a result of having participated in a serious leisure activity (Gould et al., 2008)), *group attraction* (an individual’s association, in some form, with a social world present in that leisure activity (Stebbins, 2001)), *group accomplishments* (being part of that group’s effort and accomplishment in a serious leisure activity (Stebbins, 2001)), and *group maintenance* (the sense of having contributed towards continuing the group’s development and cohesion (Gould et al., 2008)).

Gould et al. (2008) propose that the ten durable benefits can be used to explore the SLIM. This is initially set by Gould et al. (2008) for the orientation classification, but does not limit analysis to the orientation classification. The Stebbins’ serious leisure classification is also assessed with the ten durable benefits set forth in this thesis.

**4.4.1 Assessing the Orientation Classification**

A one-way multivariate analysis of variance (MANOVA) was conducted to determine whether the two orientations are distinguishable in each of the ten durable benefits.
Significant differences were found for orientations on the dependent measures, Pillai’s trace = .487, F (10, 111) = 10.56, p < .001. The multivariate $\eta^2$ based on Pillai’s trace was moderately strong ($\eta^2 = .48$).

Analyses of variance (ANOVA) for each dependent variable were conducted as follow-up tests to the significant MANOVA (see Table 4.5). All ten durable benefits registered a significant relationship with the orientations, although financial return and self-enrichment had weak effect sizes. Tables B.1 to B.2 (in Appendix B) contain the means and standard deviations of each significant ANOVA on the dependent variable for the two orientations for tourist scuba diver involvement.

### Table 4.5 ANOVA Results from a Significant MANOVA ( Orientations )

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-actualisation</td>
<td>1</td>
<td>41.144</td>
<td>.001</td>
<td>.25</td>
</tr>
<tr>
<td>Self-enrichment</td>
<td>1</td>
<td>21.194</td>
<td>.001</td>
<td>.15</td>
</tr>
<tr>
<td>Self-expression</td>
<td>1</td>
<td>58.891</td>
<td>.001</td>
<td>.33</td>
</tr>
<tr>
<td>Self-gratification</td>
<td>1</td>
<td>42.327</td>
<td>.001</td>
<td>.26</td>
</tr>
<tr>
<td>Self-image</td>
<td>1</td>
<td>54.284</td>
<td>.001</td>
<td>.31</td>
</tr>
<tr>
<td>Group Attraction</td>
<td>1</td>
<td>56.814</td>
<td>.001</td>
<td>.32</td>
</tr>
<tr>
<td>Group Accomplishments</td>
<td>1</td>
<td>51.286</td>
<td>.001</td>
<td>.30</td>
</tr>
<tr>
<td>Group Maintenance</td>
<td>1</td>
<td>58.495</td>
<td>.001</td>
<td>.32</td>
</tr>
<tr>
<td>Financial return</td>
<td>1</td>
<td>6.235</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>Re-creation</td>
<td>1</td>
<td>30.794</td>
<td>.001</td>
<td>.20</td>
</tr>
<tr>
<td>Error</td>
<td>120</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results indicate that the categories of involvement in the orientation classification differ reliably on mean scores for each benefit. For convenience, most durable benefits are assigned into either the ‘self’ or ‘group’ cluster with regard to the orientation classification, although financial return and re-creation do not fit either cluster and are examined separately. The extent to which a durable benefit is realised emerges when comparing the two orientations (casual and serious).

Those durable benefits in the ‘self’ orientated category (in Figure 4.7) only partially have the ability to differentiate these tourist scuba divers’ involvement, with regard to the
casual and serious orientation presentation. The serious orientation shows all ‘self’ durable benefits; all have confidence intervals with a positive lower limit. The casual orientation shows only two ‘self’ durable benefits; both have confidence intervals with a positive lower limit. The reverse is true for the remaining three ‘self’ durable benefits of self-actualisation, self-expression, and self-image, which also differentiate the two orientations.

Figure 4.7 ‘Self’ Durable Benefits by Orientation Category

Results for the ‘group’ durable benefits are provided in Figure 4.8. The ‘group’ super-category strongly differentiates orientations. For the serious orientation, all ‘group’ durable benefits have confidence intervals with a positive lower limit. The casual orientation only has two ‘group’ benefits (group accomplishments and group maintenance) that have confidence intervals with a negative upper limit. Only in group attraction do some tourist scuba divers in the casual orientation report that they realise this durable benefit. This suggests that association with a scuba diving social world becomes more apparent through experiencing more than a few dive expeditions.
The remaining two durable benefits (see Figure 4.9) differ in their ability to separate the orientations. Financial return is the only durable benefit to have a confidence interval with a negative upper limit for both orientations and has an overlap between the two orientations. The durable benefit of re-creation also has confidence intervals with a positive lower limit for both orientations, though with a much wider separation between means than shown by self-enrichment and self-gratification. The result for re-creation iterates Stebbins’ (2007) assertion that it is a durable benefit most casual and serious pursuers attain.

**Figure 4.8 ‘Group’ Durable Benefits by Orientation Category**

The remaining two durable benefits (see Figure 4.9) differ in their ability to separate the orientations. Financial return is the only durable benefit to have a confidence interval with a negative upper limit for both orientations and has an overlap between the two orientations. The durable benefit of re-creation also has confidence intervals with a positive lower limit for both orientations, though with a much wider separation between means than shown by self-enrichment and self-gratification. The result for re-creation iterates Stebbins’ (2007) assertion that it is a durable benefit most casual and serious pursuers attain.
4.4.2 Assessing Stebbins’ Serious Leisure Classification

A MANOVA was conducted to determine whether the four categories of Stebbins’ serious leisure are distinguishable in each of the ten durable benefits. Significant differences were found among the four categories of tourist scuba diver involvement on the dependent measures, Pillai’s trace = .772, F (30, 333) = 3.85, p < .001. The multivariate $\eta^2$ based on Pillai’s trace was moderately strong ($\eta^2 = .25$).

Analyses of variance (ANOVA) for each dependent variable were conducted as follow-up tests to the significant MANOVA (see Table 4.6). All ten durable benefits registered a significant relationship with the independent variable (Stebbins serious leisure categories). Of note is that, as with the orientations analysis, only financial return had a weak effect size ($\eta^2$). Tables B.3 to B.4 (in Appendix B) contain the means and standard deviations of each significant ANOVA on the dependent variable for the four categories of tourist scuba diver involvement.
Continuing on from the results obtained for orientations, results for Stebbins’ serious leisure classification also indicate that all durable benefits are being realised, but to a differing extent, for these tourist scuba divers. The super-categories of ‘self and ‘group’ are still a convenient way to consider these durable benefits. These durable benefits are presented individually. This is due, in part, to the components of self-expression and self-gratification being shown, and to allow easier examination with regard to Stebbins’ four pursuit categories.

Table 4.6 ANOVA Results from the Significant MANOVA (Stebbins’ Serious Leisure)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>df</th>
<th>F</th>
<th>p&lt;</th>
<th>(\eta^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-actualisation</td>
<td>3</td>
<td>31.831</td>
<td>.001</td>
<td>.44</td>
</tr>
<tr>
<td>Self-enrichment</td>
<td>3</td>
<td>11.096</td>
<td>.001</td>
<td>.22</td>
</tr>
<tr>
<td>Self-expression</td>
<td>3</td>
<td>46.500</td>
<td>.001</td>
<td>.54</td>
</tr>
<tr>
<td>Self-gratification</td>
<td>3</td>
<td>18.658</td>
<td>.001</td>
<td>.32</td>
</tr>
<tr>
<td>Self-image</td>
<td>3</td>
<td>30.325</td>
<td>.001</td>
<td>.43</td>
</tr>
<tr>
<td>Group Attraction</td>
<td>3</td>
<td>31.155</td>
<td>.001</td>
<td>.44</td>
</tr>
<tr>
<td>Group Accomplishments</td>
<td>3</td>
<td>33.761</td>
<td>.001</td>
<td>.46</td>
</tr>
<tr>
<td>Group Maintenance</td>
<td>3</td>
<td>33.423</td>
<td>.001</td>
<td>.46</td>
</tr>
<tr>
<td>Financial return</td>
<td>3</td>
<td>5.482</td>
<td>.01</td>
<td>.12</td>
</tr>
<tr>
<td>Re-creation</td>
<td>3</td>
<td>15.687</td>
<td>.001</td>
<td>.28</td>
</tr>
<tr>
<td>Error</td>
<td>118</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-actualisation**

Findings regarding self-actualisation are shown in Figure 4.10. Two categories, casual pursuers and participant, have negative means. Overlaps occur between the categories casual pursuer and participant, and moderate devotee and core devotee, indicating that there are only two broader categories of involvement reliably distinguished on this measure. It appears that utilising one’s full potential, talent, and capabilities in scuba diving occurs more for the moderately to strongly involved tourist scuba diver.
Figure 4.10  Self-actualisation by Stebbins’ Serious Leisure Category

*Self-enrichment*

On the durable benefit of *self-enrichment* all four categories have positive means (see Figure 4.11). Additionally, self-enrichment shows wide confidence intervals in each category. Self-enrichment shows the same reliability for distinguishing two broader categories, as is shown in self-actualisation. Participants and casual pursuers collapse into one category, and moderate devotees and core devotees collapse into another. The indication is that (tourist) scuba diving provides memorable experiences to most scuba divers, increasing from the casual pursuer category.
Figure 4.11 Self-enrichment by Stebbins’ Serious Leisure Category

**Self-expression**

The durable benefit of self-expression is computed by adding two component qualities: self-expression (abilities), and self-expression (individuality) (Gould et al., 2008). The scores used in Figure 4.12 for the overall self-expression durable benefit are obtained from the mean of these two components. All categories are distinguishable by levels of the durable benefit of self-expression. The category of casual pursuer has the only negative mean. The category of participant straddles the boundary between casual and serious orientations. There are large steps between category means, increasing in size with each upward increase in Stebbins’ serious leisure classification category. It appears that expressing one’s abilities and individuality in scuba diving is more of a benefit for the moderately to strongly involved tourist scuba diver.
Each component quality of self-expression is somewhat distinct in its contribution to distinguishing involvement. The self-expression (abilities) component shows the category of casual pursuer has the only negative mean, yet also straddles the boundary between casual and serious orientations. All categories of Stebbins’ serious leisure classification have distinguishable levels of this component of self-expression. For self-expression (individuality), both the categories of casual pursuer and participant have negative means, though only the category of participant straddles the boundary between casual and serious orientations. Only the categories of casual pursuer and participant have an overlap of confidence intervals. Despite having a relatively wide confidence interval, the category of core devotee is still distinct from the category of moderate devotee, which has a lower mean and narrower confidence interval than the other categories.

Figure 4.12 Self-expression and Components by Stebbins’ Serious Leisure Category
**Self-gratification**

Self-gratification (see Figure 4.13) is constructed by finding the mean of two components: self-gratification (satisfaction), which reflects the extent a deep personal fulfillment is attained through pursuit of a serious leisure activity, and self-gratification (enjoyment) that is the superficial enjoyment attained through pursuit of a serious leisure activity (Gould et al., 2008). For the durable benefit of self-gratification, all the categories of Stebbins’ serious leisure classification present positive means and a separation of involvement categories. This suggests that most tourist scuba divers, at least, attain satisfaction and enjoyment from their tourist scuba diving experience, which becomes greater with increased involvement.

Both of the component qualities of self-gratification have mean scores that are positive across all the categories of Stebbins’ serious leisure classification. Confidence intervals are comparatively wide for the category of casual pursuer, but narrow as categories increase in their seriousness of involvement. The overlap in confidence intervals for the satisfaction component is between the categories of casual pursuer and participant.

Self-gratification (enjoyment) reduces in variability as categories increase in seriousness of involvement. Overlap occurs between the categories representing serious leisure involvement. The categories of participant and core devotee are close to overlapping; suggesting (tourist) scuba diving provides only so much superficial enjoyment for the serious pursuer. There is a clear distinction only between the general categories of casual and serious involvement with this serious leisure activity.
Across all the categories of Stebbins’ serious leisure classification, the written responses from many of these tourist scuba divers reiterate the quantitative findings of the durable benefit of self-gratification. For example, a respondent from the casual pursuer category (casual orientation) expressed:

I enjoy diving for the experience of exploring the wild under water. Diving is a wonderful experience unlike anything you can experience on land.

Echoing findings from previous studies, the marine environment appears to be an important aspect in providing an enjoyable and satisfying scuba diving experience (Dearden et al., 2006; MacCarthy et al., 2006; Musa, 2002; Musa et al., 2006). A ‘moderate devotee’ respondent explained:

Scuba diving enables me to see a whole new world. I love diving and seeing all the sea life. I like learning about marine life and it’s great to be part of it whilst scuba diving.
Self-image

Casual pursuers are the only group to show a negative mean for the category of self-image (see Figure 4.14). Participants, with a barely positive mean, once again cross the boundary between casual and serious orientations. The width of the core devotee confidence interval engulfs the category of moderate devotee, which suggests that these two categories cannot be reliably distinguished in terms of this durable benefit. It appears only moderately to strongly involved tourist scuba divers perceive that their conception of themselves incorporates (tourist) scuba diving.

![Figure 4.14 Self-image by Stebbins’ Serious Leisure Category](image)

Figure 4.14  Self-image by Stebbins’ Serious Leisure Category

Financial Return

Given that professionals are, by definition, the only ones to receive remuneration for scuba diving, the expectation for financial return (see Figure 4.15) was that only categories containing professionally certified scuba divers (i.e., moderate devotee and core devotee)
would score higher than -12 on the index. In terms of the durable benefit, professional certified scuba divers should be the only individuals gaining financially from their scuba diving participation. Interestingly, the categories of casual pursuer and participant register means that are greater than negative twelve, but do not contain any certified professional scuba divers (see Table 4.7). This suggests there may be other influences on this benefit; these are elaborated upon in Chapter 5. Each category has a negative mean with wide confidence intervals. The category of core devotee has an extremely wide confidence interval that engulfs the category of moderate devotee, and overlaps with all remaining categories.

![Figure 4.15 Financial Return by Stebbins’ Serious Leisure Category](image)

**Figure 4.15 Financial Return by Stebbins’ Serious Leisure Category**

*Re-creation*

The durable benefit of re-creation (see Figure 4.16) has positive means for all categories of Stebbins’ serious leisure classification. Additionally, all confidence intervals have positive lower limits. Categories of tourist scuba diver involvement appear as reliably distinct
categories only in relation to distal categories, as all categories of Stebbins’ serious leisure classification overlap those adjacent to them. The sense of being regenerated by scuba diving appears to be attained by most tourist scuba divers, increasing upwards from the casual pursuer category.

![Bar chart showing re-creation by Stebbins’ Serious Leisure Categories](chart.png)

**Figure 4.16 Re-creation by Stebbins’ Serious Leisure Category**

It seems that most of these tourist scuba divers also consider their involvement with scuba diving to be regenerative or providing them a sense of renewal, as exemplified by the following moderate devotee respondent:

> I feel peaceful and at ease diving, for that time diving I forget any problems/troubles and I’m taken away to another world. I would dive every day of my life in an ideal world.

Similarly, another respondent (participant) writes; “I dive cause (sic) I feel better in the water and it’s relaxing being underwater, have no need to talk, being separated from the rest”.
**Group Attraction**

For the durable benefit of group attraction (see Figure 4.17), the category of casual pursuer has the only negative mean, although this group shows a confidence interval with a positive upper limit. All categories except those of moderate devotee and core devotee show significantly different means from one another on this measure. It appears that moderately to strongly involved tourist scuba diver associate with a scuba diving social world that is present.

![Bar chart showing group attraction by Stebbins' Serious Leisure Category](image)

**Figure 4.17 Group Attraction by Stebbins’ Serious Leisure Category**

**Group Accomplishments**

For this durable benefit (see Figure 4.18), the category of casual pursuer shows the only negative mean, with a negative upper limit on its confidence interval. The mean for participants is just above zero. However, as with many of the other benefits, this category shows a mix of positive and negative scores. The category of core devotee has a wide
confidence interval, which, like the financial returns benefit, greatly overlaps the category of moderate devotee. An overlap also occurs between the categories of casual pursuer and participant. This is yet another durable benefit that moderately to strongly involved tourist scuba divers attain, which in this case comes from the scuba diving groups accomplishments.

![Mean Group Accomplishments](image)

**Figure 4.18** Group Accomplishments by Stebbins’ Serious Leisure Category

*Group Maintenance*

Group maintenance (see Figure 4.19) is another durable benefit where the category of casual pursuer has the only negative mean, while the category of participant straddles the boundary between casual and serious orientations. Once again, the category of core devotee has a wide confidence interval, which overlaps with the category of moderate devotee. It appears that mainly moderately to strongly involved tourist scuba divers feel they contribute to a scuba diving group.
4.5 Tourist Scuba Diver Characteristics

Each of the two methods for classifying tourist scuba diver involvement (orientations, and Stebbins’ serious leisure) was examined in relation to eleven characteristics. Of these characteristics, six pertain directly to scuba diving (number of dives, time as a scuba diver, certification level, certifying organisation, speciality certification, and dive club membership) and five are socio-demographic variables (age, sex, education, occupation, and income). The ratio-level characteristics (number of dives made, time as a scuba diver, age, and income) are examined using a one-way MANOVA; all other variables were nominal-level and therefore examined using Pearson’s chi-square.

4.5.1 MANOVA Analyses of Involvement Using Characteristics

There were two one-way MANOVA analyses conducted using tourist scuba diver characteristics, where each involvement classification is used once: orientation (casual and serious), and Stebbins’ serious leisure (dabbler, participant, moderate devotee, and core...
devotee). The analyses were to determine whether the categories for an involvement classification are distinguishable by the number of dives made, time as a scuba diver, age, and income. There were no significant differences found between the categories for any involvement classification and the dependent measures: for orientations (Pillai’s trace = 1.302, F (4, 64) = .08, n.s.), and Stebbins’ serious leisure classification (Pillai’s trace = .244, F (12, 192) = 1.41, n.s.).

4.5.2 Chi Square Analyses of Involvement Using Characteristics

A number of two-way contingency table analyses were conducted. These analyses involved evaluating the two classifications (orientations and Stebbins’ serious leisure involvement categories), with the remaining seven characteristics (dive certification, speciality certification, certifying organisation, dive club membership, sex, education, and occupation).

The two-way contingency table analyses examining the characteristic of dive certification (no certification, OWD, advanced, and professional (see Table 4.7 for count)) produced a significant relationship on both involvement classifications but, because of very low expected cell count percentages, these results should be treated with caution. The results for the two classifications were as follows: orientations ($\chi^2 (3, 136) = 85.54, p < .001$, Cramér’s $V = .79$, with 25 percent of the cells containing less than an expected count of five); and Stebbins’ serious leisure ($\chi^2 (9, 136) = 108.79, p < .001$, Cramér’s $V = .51$, with 37.5 percent of the cells containing less than an expected count of five).
Table 4.7 Level of Dive Certification by Category of Involvement

<table>
<thead>
<tr>
<th>Orinators</th>
<th>Casual</th>
<th>No Certification</th>
<th>OWD</th>
<th>Advanced</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>38</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
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<td>19.3</td>
<td>9.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Serious</td>
<td>Count</td>
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<td>49</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>28.5</td>
<td>37.7</td>
<td>19.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Stebbins’ Serious Leisure</td>
<td>Casual Pursuer</td>
<td>Count</td>
<td>38</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
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<td>19.3</td>
<td>9.8</td>
<td>2.4</td>
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<td>Participant</td>
<td>Count</td>
<td>2</td>
<td>22</td>
<td>9</td>
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<tr>
<td></td>
<td>Expected Count</td>
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<td>7</td>
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<td>Moderate Devotee</td>
<td>Count</td>
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<td>24</td>
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<tr>
<td></td>
<td>Expected Count</td>
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<td>18.4</td>
<td>9.4</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Core Devotee</td>
<td>Count</td>
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<td>3</td>
<td>6</td>
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<td></td>
<td>Expected Count</td>
<td>4.1</td>
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<td>2.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

The characteristic of speciality certification (yes or no) also produced a significant relationship in the two-way contingency table analysis with the categories of Stebbins’ serious leisure classification, \(\chi^2 (3, 93) = 15.85, p < .01, \) Cramér’s \(V = .41\) with 25 percent of cells with an expected cell count less than 5). This also should be considered very speculative due to expected cell count percentages. The orientation classification two-way contingency table analysis did not produce any significant relationship \(\chi^2 (1, 93) = 3.66, n.s.\).

Dive club membership showed a significant relationship with the orientation classification, \(\chi^2 (2, 137) = 7.69, p < .05, \) Cramér’s \(V = .23\) with 33.3 percent of cells with an expected cell count less than five). As with previous significant results, though, this should be considered with caution due to low expected cell count percentages. The Stebbins’ serious leisure classification two-way contingency table analysis did not produce any significant relationship \(\chi^2 (6, 137) = 15.90, n.s.\). All other two-way contingency table analyses produced no significant relationships (see Table 4.8).
Table 4.8 Demographic Information in Relation to Stebbins’ Categories

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>df</th>
<th>n</th>
<th>$\chi^2$</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certifying organisation</td>
<td>4</td>
<td>93</td>
<td>1.265</td>
<td>n.s.</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>.203</td>
<td>n.s.</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td>1.464</td>
<td>n.s.</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>8.550</td>
<td>n.s.</td>
</tr>
<tr>
<td>Stebbins’ serious leisure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certifying organisation</td>
<td>12</td>
<td>93</td>
<td>7.622</td>
<td>n.s.</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>5.169</td>
<td>n.s.</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td>8.982</td>
<td>n.s.</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>27.288</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

4.6 Novice Tourist Scuba Divers

This group of tourist scuba divers is composed of those who have positive scores in the serious orientation, but have no dive certification and have had less than four dives. These novices are likely in the process of becoming serious pursuers of scuba diving, as compared to those scoring below zero on the SLIM scored involvement index. Interestingly, novice tourist scuba divers were found in all three serious involvement categories of Stebbins’ serious leisure classification, although their numbers dropped rapidly from participant (n = 32) to moderate devotee (n = 15) and core devotee (n = four).

As with the four categories of involvement, novice tourist scuba divers (see Figure 4.20) also present a range of scoring for each quality constructing involvement. However, only novices in the core devotee category have confidence intervals with positive lower limits in all qualities.

There are similarities in the results for the novices and the serious orientated scoring for the qualities used to construct involvement. Most noticeable is the quality of identification with pursuit and how it trends across the categories, closely resembling the positioning with the serious orientated categories. There is also a similar trend to that shown by the participant and moderate devotee categories, with the lower-ranked qualities being more separated, than the top-ranked qualities. Finally, there is also little separating the qualities in the core devotee (novice) category, echoing the results of the serious orientation core devotee category.
Each novice category differs in the pattern of ranking of their top three qualities (perseverance, significant effort and leisure career), which differs from what is seen with serious pursuers on Stebbins’ serious leisure classification. The qualities of unique ethos and identification with pursuit always maintain their fourth and fifth ranks respectively.

**Figure 4.20 Scoring for each Quality by Novices’ Category**

A one-way MANOVA was conducted to determine whether the categories of novice tourist scuba divers are distinguishable in each of the ten durable benefit measures. Significant differences were found among these three novice categories of tourist scuba diver involvement on the dependent measures, Pillai’s trace = .846, F(20, 74) = 2.72, p < .01. The multivariate $\eta^2$ based on Pillai’s Trace was strong ($\eta^2 = .42$).

Analyses of variance (ANOVA) for each dependent variable were conducted as follow-up tests to the significant MANOVA. Only seven of the ten durable benefits registered a significant relationship with the independent variable. Of particular note are the durable benefits of self-expression, self-image, and group maintenance, which are the ones showing...
moderate or stronger effect sizes ($\eta^2$). Table 4.9 contains the results of the ANOVAs conducted, while Tables C.1 to C.7 (in Appendix C) contain the means and standard deviations of each significant ANOVA on the dependent variable for the four categories of tourist scuba diver involvement.

**Table 4.9 ANOVA Results of Durable Benefits for the Novice Category**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice tourist scuba divers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-actualisation</td>
<td>2</td>
<td>4.211</td>
<td>.05</td>
<td>.15</td>
</tr>
<tr>
<td>Self-enrichment</td>
<td>2</td>
<td>3.489</td>
<td>.05</td>
<td>.13</td>
</tr>
<tr>
<td>Self-expression</td>
<td>2</td>
<td>11.586</td>
<td>.001</td>
<td>.34</td>
</tr>
<tr>
<td>Self-gratification</td>
<td>2</td>
<td>3.845</td>
<td>.05</td>
<td>.14</td>
</tr>
<tr>
<td>Self-image</td>
<td>2</td>
<td>7.013</td>
<td>.01</td>
<td>.23</td>
</tr>
<tr>
<td>Financial Return</td>
<td>2</td>
<td>.984</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Re-creation</td>
<td>2</td>
<td>3.128</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Group Attraction</td>
<td>2</td>
<td>4.150</td>
<td>.05</td>
<td>.15</td>
</tr>
<tr>
<td>Group Accomplishments</td>
<td>2</td>
<td>2.251</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Group Maintenance</td>
<td>2</td>
<td>10.488</td>
<td>.001</td>
<td>.31</td>
</tr>
<tr>
<td>Error</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**4.7 Chapter Summary**

This chapter has presented the results from the various analyses conducted on the data obtained through the self-administered questionnaire. The extent to which these tourist scuba divers are involved with scuba diving was calculated using an additive index. Since it is an additive index results were presented with regard to each quality used to construct the index, for the categories appearing in each involvement classification.

Results indicate that these tourist scuba divers’ involvement with scuba diving does not completely agree with aspects of serious leisure theory. Serious leisure theory indicated that only the serious pursuers should report attain the qualities constructing involvement. Thus, the expectation was that only the serious pursuer categories will show means that are greater than zero. However, what was observed in the analysis of the data did not conform to theoretical expectation. The casual orientation (casual pursuer) has the quality of perseverance showing a
mean greater than zero. Also, the participant category has the quality of identification with pursuit showing a confidence interval that is less than zero.

In addition to this, each classification was assessed by the current array of durable benefits that are part of the SLIM. The most reliable durable benefits being realised through the classification changes for these tourist scuba divers are self-gratification, self-enrichment, and re-creation. The durable benefits that are the most reliable in differentiating categories of involvement are self-gratification and self-expression.

Socio-demographic and dive related data were also analysed with regard to each involvement classification. For these tourist scuba divers these data had little to add in the way of distinguishing discrete involvement categories. Subjective reporting from various respondents is also included to provide some depth to various quantitative analyses. Discussion of these results is undertaken in the next chapter.
Chapter 5

Discussion

5.1 Introduction

Following a recommendation from Gould et al. (2008), this discussion is directed by context (the activity of scuba diving) and theory (i.e., serious leisure and its imported concepts). The chapter contains sections that discuss tourist scuba diver characteristics, involvement in scuba diving, and durable benefits. It begins with tourist scuba diver characteristics (socio-demographic and dive related). The next section examines tourist scuba divers involvement with scuba diving, and discrepancies arising between empirical data and theoretical criteria. Both involvement classification schemes (i.e., orientation and Stebbins’ serious leisure) are examined, and discrepancies that have been identified are discussed. Following this, the next section presents possibilities that may contribute towards resolving identified discrepancies. Characterising involvement with scuba diving for these tourist scuba divers concludes the section. The last section assesses tourist scuba diver involvement in terms of the ten durable benefits identified in serious leisure theory. Throughout all the sections of this chapter, unless specifically stated, discussion concerns only those tourist scuba divers sampled.

5.2 Tourist Scuba Diver Characteristics

The socio-demographic and dive related characteristics of this sample are somewhat similar to other studies about tourist scuba divers. Briefly, the statistics for these characteristics are as follows: the mean age is 24.93 years, 56.5 percent of respondents were female, most respondents were international tourists, 39.9 percent gained at least a bachelor degree, and 11.5 percent indicated membership with a scuba diving club. For a full description of these and the other characteristics, see Chapter Two. Characteristics that differ
from other studies include higher percentages of their respondents being male (Meisel & Cottrell, 2004; Mundet & Ribera, 2001; Musa, 2002; Thapa et al., 2005, 2006) though Musa et al. (2006) indicate there seems to be a growing attraction to scuba diving amongst females. Previous studies have also reported that respondents are generally older than in the current sample (Mundet & Ribera, 2001; Musa, 2002; Musa et al., 2006; Thapa et al., 2005, 2006), are mostly domestic tourists (Meisel & Cottrell, 2004; Thapa et al., 2005, 2006), and most scuba divers indicated membership with a scuba diving club (Mundet & Ribera, 2001). The similarities with other studies are that more than half of respondents have university degrees, and that a wide range of nationalities are represented (Musa et al., 2006). There are some dive-related characteristics that cannot be compared (scuba diving ability and experience) as differing definitions and measures have been employed through the various studies.

Most tourist scuba diver characteristics were not reliably associated with involvement, although three dive-related characteristics were. These characteristics are dive certification (with both classification systems), specialty certification (only with Stebbins’ serious leisure classification), and dive club membership (only with the orientation classification). The expected cell counts indicate caution is necessary when interpreting these results. Overall though, these results indicate support for Dimmock’s (2007) assertion that the tourist scuba diver population has become heterogeneous. However, the results of this study suggest that such socio-demographics and scuba diving characteristics provide little in the way of explanation for these tourist scuba divers’ level of involvement with scuba diving.

### 5.3 Discrepancies with Tourist Scuba Divers’ Involvement

From the beginning of the data collection, there were noticeable discrepancies between tourist scuba diver reports and theoretical criteria derived from the serious leisure literature. In particular the qualities of perseverance and identification with pursuit, both of which are part of constructing tourist scuba diver involvement. To delve into these discrepancies, two
avenues are explored. The first relates to issues with the characterisation of tourist scuba diver involvement categories via the serious leisure qualities. The second is the association each quality related to involvement has with (tourist) scuba diving; this issue is more closely examined in sub-section 5.4.2.

Within the Serious Leisure Perspective (SLP), part of the criteria set for casual leisure and serious leisure are the qualities of serious leisure outlined in Chapter Two (Stebbins, 2007). The qualities used to construct involvement, and therefore serious leisure orientation, were leisure career, identification with pursuit, unique ethos, perseverance, and significant effort (Gould et al., 2008). The scoring for the various qualities used to construct involvement set various numerical expectations. The first is that a score greater than zero indicates the presence of a quality used to construct involvement (i.e., a serious interpretation), while a number that is zero or less than zero represents a casual interpretation. The same is true in terms of whether or not a durable benefit is being realised.

Serious leisure theory posits that there are three serious pursuit categories and one casual pursuit category (Stebbins, 2007). The expectation was that the means of the qualities used to construct involvement would reflect serious leisure theory; qualities would have negative means in the casual pursuer category, and positive means in the participant category. Moderate devotee and core devotee categories would have qualities with confidence intervals showing positive lower limits.

In the orientation classification system, most of the qualities in both categories adhere to these theoretical expectations. One quality that does not is perseverance, with many casual tourist scuba divers reporting high levels of perseverance in relation to scuba diving. Additionally, the quality of leisure career shows that some tourist scuba divers in the casual orientation category report a serious orientation for leisure career. Conversely, some in the serious orientation category reported a casual orientation for the quality of identification with pursuit. This suggests that some tourist scuba divers in the casual orientation may have been
serious scuba divers in the past, the stage of experience termed ‘decline’ by Stebbins (2007). Some tourist scuba divers may be beginning to exit scuba diving, possibly adopting another serious leisure career. For the quality of identification with pursuit, some tourist scuba divers in the serious orientation could be at the stage of experience termed ‘beginning’ by Stebbins (2007). They have become interested in scuba diving, yet may have only been involved for mere days and may have not attained any real identification with scuba diving.

Considering the Stebbins’ serious leisure classification system provides further clarity for qualities in the serious orientation, especially identification with pursuit. The initial thought was that very few seriously orientated tourist scuba divers would not identify with scuba diving. However, if one breaks the serious orientation into the three serious leisure categories (participant, moderate devotee, and core devotee), the data cast this into doubt. Most tourist scuba divers in the participant category, and some from the moderate devotee category, report a more casual orientation.

Clearly, the findings do not completely reflect the expectation derived from theoretical criteria. This suggests that different interpretations can be elicited from the casual orientation (casual pursuer) involvement category, which is somewhat mirrored by the participants’ open responses. Some tourist scuba divers’ considered their pursuit of scuba diving as casual leisure, others as more than casual yet not at a serious level of pursuit, and some can be interpreted as pursuing project-based leisure. For serious pursuers, there are many respondents that clearly interpret identifying with scuba diving as not a necessary criterion to be a serious scuba diver. Only those associated as core devotees showed a strong identification with the pursuit. However, the setting of categories along an additive index does raise a question: To what extent do these tourist scuba diver involvement categories actually represent discrete entities?

The degree to which involvement categories can be distinguished from one another changes between the orientation and Stebbins’ serious leisure classification systems. For the
orientations classification system (casual orientation and serious orientation), none of the qualities used to construct involvement overlap; the casual and serious orientations are discrete involvement entities for these tourist scuba divers. Consisting of four involvement categories, examining tourist scuba divers using Stebbins’ serious leisure classification nearly allows for all categories to be discrete entities. The only place in which categories overlap is on the quality of perseverance, and then only for moderate and core devotees. These findings support the idea that discrete involvement categories exist within serious leisure. Yet, there still remain discrepancies between the theoretical concepts and this study’s empirical findings.

5.4 Resolving Discrepancies with Involvement

There are three potential approaches that could be used to resolve discrepancies identified with these tourist scuba divers. The first approach is to accept the findings as shown by either the orientation or Stebbins’ serious leisure classification systems. If so, then it is the nature of the activity of scuba diving that produces these results. Such discrepancies have been presented for some serious leisure activities studied. For example, Heuser (2005) divided women lawn bowlers into social bowlers and serious bowlers, and Brown (2007) studied two casual and three serious orientated categories of shag dancers. Each category of involvement had the qualities of serious leisure present to varying extents (Brown, 2007; Heuser, 2005).

The casual orientation (casual pursuer) category, then, does not support Stebbins’ (2007) association of the casual category with the ‘play’ type from the casual leisure form. Additionally, not all qualities in the categories of casual pursuer and participant (Stebbins’ serious leisure classification) are shown as being present.

The utility of the first approach cannot be explored without further samples of tourist scuba divers. One study using the SLIM with regard to tourist scuba divers, in its current incarnation cannot provide unequivocal evidence that it is the nature of the activity of touristic scuba diving; replication and extension is required. Other approaches, however, can be...
explored, and may be useful in conjunction with the earlier approach. One such approach involves the qualities as documented in the SLIM that are used to construct involvement with regard to scuba diving. The last approach begins to explore tourist scuba diver involvement by adjusting the range each involvement category occupies along the SLIM, so that both theoretical criteria and this study’s empirical findings can agree. This last approach is presented later in this chapter (Section 5.6).

5.4.1 The Qualities of Involvement

Both the orientation and Stebbins’ serious leisure classification systems show there are problems with the fit between qualities and involvement. Only significant effort seems to remain intact for its fit with involvement. These insights arise when comparing empirical data (tourist scuba divers’ interpretations) with theoretical criteria (serious leisure theory). Initially, for the orientation and Stebbins’ serious leisure classifications, the theory did not match data in some involvement categories. It is possible that the qualities (as detailed in the SLIM) did not completely capture tourist scuba divers’ involvement with scuba diving. Each quality is explored in more detail.

Leisure Career

The quality of leisure career neatly distinguishes each tourist scuba diver category of involvement on both the orientation and Stebbins’ serious leisure classifications. However, the components of career progress and career contingencies do not always completely distinguish categories of involvement for a classification. There is a clear distinction between casual and serious involvement orientations in career progress, but there is little distinctiveness amongst the serious categories of Stebbins’ serious leisure classification system. As seen in Table 4.7, the casual pursuer category is composed of predominantly non-certified tourist scuba divers, while the opposite is true for the serious orientated categories, which suggests a non-certified and certified tourist scuba diver dichotomy.
The potential influence of this mix of non-certified and certified tourist scuba divers can be seen in career progress and it seems associated with the separation of casual pursuer and participant categories in the Stebbins’ serious leisure classification. It may be that the non-certified scuba divers tend towards assessing themselves as not having progressed, as seen in the negative scoring in the casual pursuer category. Green and Jones (2005) indicate that the appropriate tangible assets, such as certification, can be valuable resources. These may aid these tourist scuba divers’ subjective assessment of their scuba diving progress, as well as being a resource to obtain symbolic capital. This type of capital was part of what was used by kayakers to identify with their leisure activity (Kane & Zink, 2004), and is written about by Bourdieu (1990).

The component of career contingencies, which is the effect of unintended or chance events while pursuing that activity upon an individual’s leisure involvement (Gould et al., 2008), seems definitive with regard to a casual versus serious pursuit of scuba diving. The overlap of confidence intervals between casual pursuer and participant indicates that there is an overall casual grouping. Serious categories of involvement are distinct from this casual grouping. This suggests that for these tourist scuba divers, career contingencies become more identifiable as experience with scuba diving increases (e.g., from certification increases, dive destinations visited, and the number of dives).

Identification with Pursuit

All four categories of involvement of Stebbins’ serious leisure classification were easily separable when measured along the quality of identification with pursuit. Only tourist scuba divers in the core devotee category saw themselves as possessing any substantial scuba diving identity. Even the adjacent serious-orientated category of moderate devotee only musters a low level of identification. Though scuba diving can be quite time and resource intensive (The Scuba Centre, 2005b), these tourist scuba divers appear not to fulfil Gillespie, Leffler, and Lerner’s (2002) assertion that an avocation, a serious leisure activity, is identity intensive.
Based on previous research, it would be expected that Stebbins’ (2007) serious involvement categories would produce positive scoring from these tourist scuba divers. Other studies examining tourists engaged in serious leisure activities, for example, kayakers (Kane & Zink, 2004) and runners (Shipway & Jones, 2007), report those tourists being serious pursuers; quite intensely identifying with their chosen serious leisure activity. Only those tourist scuba divers positioned in the casual pursuer category would be expected to lack identification with scuba diving. However, in this study, this lack of identification is found in the participant category, as well. The study by MacCarthy et al. (2006) provides instances that can be interpreted as part of the process of individuals obtaining symbolic capital. Yet, the findings indicate most serious orientated tourist scuba divers exhibit little identification with the activity of scuba diving.

It is possible that the very seriously involved scuba diver (the devotee) may not scuba dive using Cairns as their entry point onto the Great Barrier Reef, as this may be seen as being too ‘commercial’. In Cairns there are dive operators that can take out large numbers of scuba divers on day trips to the Great Barrier Reef (as an example, see Dive The Reef (2011) webpage), although, some of these dive operators also provide the option of live-aboard dive excursions from Cairns that explore less populated areas of the Great Barrier Reef, which may appeal more to devotee tourist scuba divers (see e.g., The Scuba Centre (2005a) webpage). Specifically surveying tourist scuba divers on the various boats and excursions is an option that could elaborate on the position of devotee scuba divers and the Cairns locale as an entry point.

An explanation for why there is little identification with scuba diving from these tourist scuba divers may reside with the SLIM statements used. For these tourist scuba divers, the SLIM statements, set by Gould et al. (2008), for the quality of identification with pursuit seem orientated towards ascertaining a score via those not associated with the leisure activity (in
this case, scuba diving). All three statements could be interpreted to refer only to individuals outside of the leisure activity of scuba diving. The statements used were:

Others that know me understand that scuba diving is part of who I am.

I am often recognised as one devoted to scuba diving.

Others recognise that I identify with scuba diving.

However, Kane and Zink (2004) found that tourist kayakers obtained symbolic capital from different sources, some associated with the activity of kayaking, and some with no association with the activity kayaking. In each circumstance, different approaches were used to obtain symbolic capital (Kane & Zink, 2004). Obtaining symbolic capital from within and outside of the activity of scuba diving could also be the situation for these tourist scuba divers’ identification with scuba diving.

Perhaps creating two components for this quality, as with leisure career, may provide a better indication for identification with pursuit; one could use statements measuring identity related to an activity in one component, and unrelated to an activity in the other component. This would allow respondents to purposively consider two settings separately, within and outside of the leisure activity. Examples of statements for within and outside of the activity of scuba diving could be:

Scuba divers recognise that I identify with scuba diving.

Non-scuba divers recognise that I identify with scuba diving.

Perseverance

Perseverance is the only quality in which all category means are in the positive half of the index and with low separation between categories of involvement. One interpretation of this is that the perseverance statements were measuring what Gould et al. (2008) determined for the quality of perseverance; “persistence in a goal-directed behavior over time” (p. 49). This seems different to Stebbins’ (2007) usage, where perseverance involves overcoming occasional obstacles in order to continue participation in the leisure activity.
Scuba diving does take place in a hostile alien environment, to which human physiology is poorly suited (Benton & Glover, 2006). For many individuals, an obstacle can be immersion in a liquid environment (an ocean or lake) while continuing to breathe (Benton & Glover, 2006). This immersion introduces potential hazards to all scuba divers, including the following: drowning, hypothermia, physical exhaustion, and the well-known “bends” (Benton & Glover, 2006). Avoiding such hazards requires the scuba divers’ continual attention (DeGorordo, Vallejo-Manzur, Chanin, & Varon, 2003), no matter what their orientation to the activity.

Environment hazards aside, other obstacles and/or adversity (e.g., dive boat breakdown) are accepted by some as part of the touristic scuba diving experience (MacCarthy et al., 2006). Some may even actively encourage such instances (MacCarthy et al., 2006). There appears to be the expectation, or at least acceptance, that there are many obstacles and/or adversity in scuba diving that require perseverance. The suggestion is that perseverance scoring has included measuring scuba diving normality, not Stebbins’ (2007) “occasional need to persevere” (p. 11) for these tourist scuba divers. This raises the possibility that perseverance may have been an inappropriate addition to the construction of these tourist scuba divers’ involvement index.

Unique ethos

Unique ethos represents the varying extent of participants’ entry and engagement in a social world as part of their serious leisure participation (Stebbins, 2007). The consideration for having entered and engaged in a scuba diving social world is positive scoring. Results of this research suggest entry and engagement with a scuba diving social world is being acknowledged within all three serious orientated tourist scuba diving involvement categories.

One environment that can encourage social world scoring is through membership in clubs dedicated to that serious leisure activity; for example, contract bridge clubs (Scott & Godbey, 1992) and kennel clubs (Baldwin & Norris, 1999). However, dive club membership
seems not to be the source for these divers’ social world as most tourist scuba divers were not members of a scuba diving club.

A more likely environment is the tourist scuba diving expedition. This echoes Kane and Zink’s (2004) findings for tourist kayakers. However, compared to Kane and Zink’s (2004) two weeks for social world development, these tourist scuba divers would likely have had less time on the tourist scuba diving expedition. Touristic scuba diving expeditions can range from half-day trips (West End Divers, 2010) to a seven-day, live-aboard trip (The Scuba Centre, 2005b).

Yet, there seems to be potential for social world development in a time period as short as half a day or a day. Since social worlds tend to be amorphous (Unruh, 1980), each separate experience of touristic leisure might provide the opportunity to enter and engage in a new social world. A developing scuba diving social world is hinted at in descriptions of scuba diving trips by MacCarthy et al. (2006). There tends to be a change from being strangers before the dive to being in a form of community (social world) after the dive. It appears that this change includes the shared experience of the dive (MacCarthy et al., 2006).

** Significant Effort  

There is a clear demarcation in significant effort between those tourist scuba divers with a casual orientation and those with a serious orientation. A possible explanation resides with the non-certified and certified tourist scuba diver dichotomy. Most of the tourist scuba divers with an involvement index score below zero (represented by casual orientation or casual pursuer categories completely) have no scuba diving certification. This means that most of these tourist scuba divers undertook introductory scuba diving. For example, in PADI, there is the Discover Scuba (DS) option where, under the supervision of an instructor, an individual learns some basic skills and gains some experience of the underwater environment (PADI, 2008a). In comparison, most of the tourist scuba divers with a serious orientation are certified scuba divers.
In terms of the quality of significant effort, a lot more is required to achieve an OWD than to undertake a short, underwater experience of the introductory dive. This is reflected in both the orientations classification and Stebbins’ serious leisure classification. For the three serious involvement categories of participant, moderate devotee, and core devotee, the quality of significant effort increases with seriousness of pursuit. The change in the number of certified professional scuba divers also increases with the seriousness of pursuit in Stebbins’ serious leisure classification.

Stebbins’ (1982) stance is that there is a link between significant effort and the quality of leisure career, which is shaped by the effort (significant effort) applied to the pursuit. There appears to be an association between leisure career and significant effort in regard to these tourist scuba divers. When considering the serious pursuit for the two classifications (orientations and Stebbins’ serious leisure) of scuba diving involvement the qualities of leisure career and significant effort are always close in their respective category means. This does not occur with leisure career and the other qualities used to construct these tourist scuba divers’ involvement index.

5.4.2 Characterising Involvement for these Tourist Scuba Divers

Findings for the orientation and Stebbins’ serious leisure classifications of involvement indicate these tourist scuba divers’ are not adequately described by the categories of the SLP forms. This provides some support for Stebbins (2007) view that there are two coexisting, definitional aspects. The first is in the positioning of the activity and the second aspect concerns participants’ interpretation of their involvement with the activity. For scuba diving, the activity appears to possess mainly serious leisure qualities (i.e., leisure career, unique ethos, identification with pursuit, perseverance, and significant effort). Interpretations of involvement by tourist scuba divers in this study range from casual to serious. Interestingly, those tourist scuba divers interpreting their involvement as pursuing casual leisure are not pursuing a casual leisure activity; they are casually pursuing a serious leisure activity.
The evidence from this study suggests a response to Martin’s (2008) critique of the SLP. Findings in this study indicate that boundaries representing levels of pursuit appear to be fuzzy, but not with regard to misclassifying a leisure activity, as pointed to by Martin (2008). In this study, (tourist) scuba diving is placed in the serious leisure form, amateur type. As Stebbins (1997a) notes, individuals can pursue a serious leisure activity both casually and seriously. The extent to which these tourist scuba divers are involved with scuba diving ranges from the few that have tried scuba diving once and may never experience scuba diving again, to those that are currently seriously involved. When categorisation is needed, another portrayal of involvement for these tourist scuba divers can be provided: dabbler, participant, and devotee (see Section 5.6).

5.5 Durable Benefits

The durable benefits perceived to be obtained by these tourist scuba divers does depend on the type of pursuit (i.e., as casual leisure or serious leisure), and which leisure activity is being pursued (Stebbins, 2007). Stebbins (2007) expects that those that are casual pursuers of a leisure activity attain at least the durable benefits of self-gratification and re-creation, while those pursuing the activity as serious leisure are likely to attain more in the way of durable benefits. For these tourist scuba divers, self-enrichment can clearly be added as a durable benefit being realised by both casual and serious pursuers as all categories (orientation and Stebbins’ serious leisure classifications) have confidence intervals with a positive lower limit. This is understood as meaning that most respondents in this study perceive they gain self-enrichment from their pursuit of scuba diving.

All the means for the durable benefits measured by the SLIM increase as the category of tourist scuba diving involvement increases. This suggests tentative support for the incorporation of Driver’s (2003) first definition of benefit. A durable benefit can only be considered as being realised by an involvement category when that mean is a positive number.
Results indicate that all the durable benefits vary with regard to being realised and differentiating involvement, when involvement classification systems are compared.

5.5.1 Durable Benefits Assessing Involvement

Only four durable benefits show consistency across involvement classification systems with respect to being realised. Self-gratification, self-enrichment, and re-creation are perceived as being realised through all involvement categories. Conversely, financial return is not realised by any involvement category. On differentiating distinct involvement categories, only financial return does not show distinct casual and serious categories. This suggests the relevancy of financial return in this research is minimal, as it is indicated in this thesis as being the only extrinsic durable benefit (see Chapter Two) and seems relevant to those employed or have been employed in scuba diving. Self-gratification is the only durable benefit to show four discrete categories in Stebbins’ serious leisure classification system.

Self-gratification

Scuba diving is considered by many tourist scuba divers to be a fun and satisfying activity (Dearden et al., 2006; MacCarthy et al., 2006; Musa, 2002; Musa et al., 2006). The indication is that most of these tourist scuba divers tend towards considering their involvement in scuba diving to at least be a satisfying and enjoyable touristic leisure activity. It is not surprising, then, that all involvement categories (orientation and Stebbins’ serious leisure classifications) for self-gratification and components have confidence intervals with a positive lower limit.

Concurrent with all having positive lower limits is that all the involvement categories for the durable benefit of self-gratification are discrete entities. MacCarthy et al. (2006) report a large, but not exhaustive, list of what aspects of touristic scuba diving provided their respondents with satisfaction. Similar satisfaction and/or enjoyment lists have also been reported by Musa (2002), Musa et al. (2006), and Uyarra et al. (2009). Dearden et al. (2006) indicate with regard to scuba diver specialisation that the number of aspects that provided
satisfaction decreased as specialisation increased. Yet, from all the items Dearden et al. (2006) tested, none are reported showing the reverse. Possibly those that could were not identified for testing. Since specialisation in a leisure activity is incorporated into serious leisure by Stebbins (2007), it is possible the same could be considered with regard to the involvement categories for self-gratification presented in this thesis. However, in this thesis the level of self-gratification increases as involvement increases. A suggestion is that each involvement category may be distinctive with regard to what the tourist scuba divers incorporated to determine their level of self-gratification. These specifics, especially those providing decreasing self-gratification, may not have been completely identified yet, and is beyond the current designed use of self-gratification in this thesis.

Self-enrichment

Self-enrichment is about individuals accumulating memorable experiences from their pursuit of a serious leisure activity (Stebbins, 1992). Such experiences would add to each individual’s resource set (moral, cultural, or intellectual) (Stebbins, 1992). The results indicate that most of the tourist scuba divers perceived they attained self-enrichment from their pursuit of scuba diving. The mean level of self-enrichment for categories of involvement also increased with the increase in involvement represented by a category.

As an experience unfolds, a story evolves for recounting as their memory of that experience (Moscardo, 2010). For example, in a study by MacCarthy et al. (2006), there are reports of tourist scuba divers comparing their experiences of the just-completed dive. Those authors also report that tourist scuba divers talk about past dive experiences. The results and that individuals recount stories representing memorable experiences adds weight to Stebbins (1992) assertion that as more memorable experiences accumulate the more an individual can be enriched, including those that are not serious pursuers in this study.

Memorable experiences may have additional uses. An example of a respondent’s personal scuba diving experience is suggestive of being transferred into what Bourdieu (1986,
1990) describes as ‘social capital’. This respondent from the casual pursuer category conveyed:

I had the chance to go for an introductory dive at the Great Barrier Reef. I think that’s probably one of the best spots to dive in the whole world, that’s why I didn’t want to miss the opportunity. In the end I’m glad that I had this experience and I made some nice underwater photo’s (sic), which I will show to my relatives at home.

Re-creation

Re-creation refers to the sense of regeneration retained by an individual from their participation in a leisure activity (Stebbins, 2001). Similar to the durable benefit self-gratification, most involvement categories for re-creation have confidence intervals with a positive lower limit. Subjective reporting by respondents also indicates that scuba diving is considered a relaxing and/or regenerative leisure activity which, for some tourist scuba divers, is one of many reasons to participate (Dearden et al., 2006; Meisel & Cottrell, 2004).

Self-expression

The durable benefit of self-expression presents similar results to self-actualisation and self-image. Results from the orientation and Stebbins’ serious leisure classifications correspond to Chang and Gibson’s (2011) findings with regard to self-expression, in that serious pursuers tend to have higher scores of self-expression.

The component of self-expression (abilities) appears to be linked with the non-certified and certified tourist scuba diver dichotomy. As with other components, the difference emerges with having a scuba diving certificate. Most non-certified scuba divers are in the casual orientation (casual pursuer) category, with most certified scuba divers being in the serious orientation (participant, moderate devotee, and core devotee). In this instance, there is then a tangible asset that potentially can be used as evidence to legitimise their self-expression of their scuba diving abilities.

For tourist scuba divers in this study, the expression of scuba diving individuality appears limited to the categories of moderate devotee and core devotee. There is some
potential in the participant category, as reflected in the confidence interval’s positive upper limit. This component seems to be showing whether or not a tourist scuba diver considers s/he differentiates oneself from others when presenting this is who I am. This was also explicitly incorporated within self-expression by Chang and Gibson (2011) by the item “Paddling says a lot about who I am” (p. 170). Results suggest that (tourist) scuba diving is providing such a platform for many tourist scuba divers in the moderate devotee and core devotee categories. Kane and Zink (2004) report that the kayakers equipment is overtly displayed, suggesting an effort to show their individuality from others but also an identification with their chosen pursuit. There may be an association with the quality of identification with pursuit and the durable benefit component of self-expression (individuality). For many tourist scuba divers, it is possibly by way of the dive certification card, though more than likely not as overtly displayed as the kayakers in Kane and Zink’s (2004) study.

**Self-Actualisation and Self-Image**

For these tourist scuba diver respondents, both durable benefits show good fit with Stebbins’ (2007) model. The orientation classification system shows two discrete, yet different, orientations with regard to these two durable benefits. Most tourist scuba divers in the serious orientation perceive they realise the durable benefits of self-actualisation and self-image, while the opposite appears to true for the casual orientation. However, only two and three distinct involvement categories, respectively, appear as a better presentation instead of the four categories provided by Stebbins’ serious leisure classification.

**Financial Return**

The durable benefit of financial return is the only one to be neither realised by any involvement category nor to differentiate categories of involvement in any classification. Financial return appears to be the only durable benefit not directly realised from participation in the leisure activity, potentially being obtained from any external source related to scuba diving (e.g., the owner of a dive operation).
Although the durable benefit of financial return does not differentiate the involvement categories, it has produced some unexpected results. In scuba diving, professionally certified tourist scuba divers are the most likely to have been remunerated for their activity. The only involvement categories that contain professionally certified tourist scuba divers are moderate devotee and core devotee. Yet the results suggest that some non-professional tourist scuba divers have received some form of remuneration; or, at least, perceive that they have done so.

A possible explanation emerges from the synthesis of various researchers and theorists by Loughead (1989), in that leisure being pursued may enhance that individual’s career development. Examples Loughead (1989) suggests include gathering self-knowledge, developing teamwork or leadership skills, or developing a sense of competency. This is further reinforced in the study by McQuarrie (1999), where some respondents reported a positive affect from their leisure participation upon work careers. Some of the examples reported by respondents in McQuarrie’s (1999) study include increased concentration and attention to detail, higher productivity, better teamwork and leadership skills, and greater self-confidence. Some non-professional tourist scuba divers may have, for example, received promotion, and hence a pay rise, due to the development of some of the above mentioned skills. A respondent from the moderate devotee category without a professional certificate explained:

[That scuba diving] answers questions I have about the other world (sea life) and gives me more understanding and peace of mind about the unknown, not to mention challenges my ability to adjust to extreme circumstances and improve decision making abilities.

This hints at the potential for this respondent to use what has been attained in other areas of this respondent’s life, including the workplace. Whether this has or will lead to any form of remuneration is not known. Others may have been envisioning that pursuing (tourist) scuba diving will, or may, lead to such a financial outcome. However, it is also possible that a few respondents misinterpreted the statements, or inadvertently circled a different number from the intended one.
Group Durable Benefits

The durable benefits of group attraction, group accomplishments, and group maintenance are associated with the quality of unique ethos (Gould et al., 2008; Stebbins, 2001). Involvement in a social world present in the leisure activity being pursued is necessary for these group durable benefits (Gould et al., 2008; Stebbins, 2001). Each group durable benefit tends to be perceived as being attained by serious pursuers of scuba diving. In the participant category of Stebbins’ serious leisure classification, some tourist scuba divers do not perceive they gain group accomplishments or group maintenance.

The findings suggest that the association being stipulated between unique ethos and the group durable benefits is present. Furthermore, the mean scores for the group durable benefits tend to be higher than that of unique ethos from the categories of casual pursuer to moderate devotee. For the core devotee the reverse is true; the mean scores for the group durable benefits are lower. The items used to explore the group durable benefits seem more targeted towards the respondents’ experience of a group while engaging in scuba diving, whereas they may have interpreted unique ethos as referring to a wider scuba diving community. It is possible that experience of a wider scuba diving community is more limited as compared to the experience of a group from a dive trip. Those that have worked, or at least trained and have a professional certificate, do experience a wider scuba diving community; for example, other professionals from the many competing dive operations at a locale with the numerous tourist scuba divers they meet.

5.5.2 Engaging in Touristic Scuba Diving

The tourist performance by Perkins and Thorns (2001) seems applicable in this study, which can add to understanding the findings related to the durable benefits these scuba divers experienced. The memorable experiences obtained by many of these tourist scuba divers can contribute to an individual’s resources. For example, one respondent (core devotee) explained:
It allows me to enter a different world. A quiet, peaceful one without hustle and bustle of daily life. I also love nature and volunteer at a local animal sanctuary so this gives me further involvement with the natural world. An experience such as touching a sea turtle on the [Great] Barrier Reef is one that will stay with me until the day. I can’t say that about a lot of other activities.

This respondent writes about an environment that is not only gazed upon, but one which they also physically interact with. There were a few written responses concerning the physical sensations of weightlessness, and breathing underwater. Other examples written by respondents reflect Perkins and Thorns (2001) “active bodily involvement” (p. 186) of the tourist performance. There is the physical: “I love the water and it’s a[n] adrenalin kick!”; the cognitive: “[C]hallenges my ability to adjust to extreme circumstances and improve decision making abilities”; and the affective: “I enjoy the peace and quietness around me when diving.”

It seems that Perkins and Thorns’ (2001) modification of the definition of ‘tourist gaze’ to provide more scope for the non-ordinary is applicable to these tourist scuba divers. These responses demonstrate that at least some serious pursuers of scuba diving find non-ordinary elements within scuba diving’s tourism context. Perkins and Thorns (2001) modes for the tourist experience aids in elaborating upon what other ways, besides locale, serious pursuers may be drawn to engage in touristic scuba diving. It is possible that some respondents perceive that certain experiences they desire are easier to obtain from tourist scuba diving, which would allow them to build upon previously attained levels of the appropriate durable benefits.

Through their scuba diving tourist experience, some serious pursuers are possibly adding to what Csikszentmihalyi (1975, 1990) called personal growth. The findings suggest that most of the tourist scuba divers classified as serious pursuers under the orientation and Stebbins’ serious leisure classification systems attain at least the ‘self’ (i.e., self-actualisation, self-expression, self-enrichment, self-gratification, and self-image) and ‘group’ (i.e., group
attraction, group accomplishments, and group maintenance) durable benefits. It seems Csikszentmihalyi’s (1990) criteria for building upon the uniqueness of the individual may be more attainable with all the ‘self’ durable benefits contributing. The same is also possible for the ‘group’ durable benefits contribution with regard to the integration process. As Csikszentmihalyi (1990) asserts, personal growth is accomplished when there is a successful combination of the differentiation and integration processes.

From Csikszentmihalyi’s (1990) definition of flow, this does not exclude those casually pursuing tourist scuba diving from having a flow experience. However, without the differentiation and integration process, it seems unlikely personal growth can be reliably achieved for those casual pursuers of tourist scuba diving who had a flow experience. This could also be the case for those serious pursuers that are not successful in combining the two processes.

It seems those serious tourist scuba divers that perceive they are attaining the ‘self’ and ‘group’ durable benefits are at least equipped for personal growth. What draws a serious scuba diver to engage in touristic scuba diving to allow them the potential to increase various durable benefits, could lead to personal growth. It is possible, then, that some may start exiting (the decline stage of leisure career) from a serious leisure pursuit due to having attained what they can in terms of personal growth. This seems to allow personal growth to add to an explanation for the results of the durable benefits. However, the ability to explore this any further is limited as results are grouped and data are not available that details ‘self’ and ‘group’ durable benefits through the careers of tourist scuba divers.

5.6 Adjusting Categories of Involvement

Results from the orientation and Stebbins’ serious leisure classification analyses suggest an adjustment may be warranted, as serious leisure theory and empirical data were not matching. This adjustment will move categories of involvement until the requirements of the
theory can be met. It was decided to begin with the categories of involvement in the orientation classification – the simplest differentiation of casual versus serious pursuit. Stebbins (2007) sets serious leisure as having all the qualities present; while casual leisure has none of the qualities present (see Chapter Two).

The determination of each category’s range has, at this point, only been applied individually to those qualities not meeting theoretical criteria. On the initial attempt, both the casual and serious orientations had their ranges reduced by one. Each orientation maintains its end of the index (-72 for casual and +72 for serious). By adjusting the range each orientation covers on the SLIM, a space is created between them. Thus, three categories of tourist scuba diver involvement are distinguished. The resulting categories of dabbler, participant, and devotee with regard to the initial two qualities are assessed. The casual (dabbler) and serious (devotee) ranges are continually reduced by one and assessed until theoretical criteria is meet, or as close as the data will allow. The final range for each involvement category will be the best fit, with regard to meeting theoretical criteria, across all five qualities used to construct tourist scuba diver involvement.

The first qualities that have been adjusted with regard to the positioning of the casual and serious orientation categories on the SLIM are perseverance (see Figure 5.1) and identification with pursuit (see Figure 5.2). These two qualities seemed to show the greatest discrepancies, and would need the most adjustment for an orientation to meet theoretical criteria.

Currently, in this alternative classification system, the casual orientation is labelled the dabbler category (representing Stebbins’ (2007) classification), and is defined as occupying the range of -72 to -19 (an adjustment from the original -72 to zero range for the casual orientation involvement category). The serious orientation is labelled the devotee category, and is defined as occupying the range of +11 to +72 (an adjustment from the original positive one to +72 range for the serious orientation involvement category). The gap between the two
orientations (-18 to +10) is labelled the *participant* category. This category suggests a transition zone between the casual and serious pursuit of scuba diving. There are tourist scuba divers that are neither completely casual (i.e., dabbler category) nor very serious (i.e., devotee category) about their pursuit of scuba diving. It is possible those tourist scuba divers in the participant category are in the process of changing from either casual to serious pursuit of scuba diving, or vice versa.

![Figure 5.1 Perseverance by Adjusted Category](image-url)

**Figure 5.1 Perseverance by Adjusted Category**
However, while some discrepancies are rectified, other discrepancies are being created through this adjustment. The quality of identification with pursuit does not contribute to these involvement categories being discrete entities, as the dabbler and participant categories overlap. Both qualities show quite wide confidence intervals, although this may be due to the small number of respondents in this category (n = nine). This alternative way of classifying tourist scuba diver involvement with scuba diving is still being investigated.

5.7 Chapter Summary

This chapter has discussed differentiating tourist scuba diver involvement, and the durable benefits assessing that involvement. Beginning with the demographic and dive-related characteristics of tourist scuba divers, most did not significantly differentiate involvement in scuba diving, and a few dive-related characteristics that are significant should be viewed with
caution. The demographic tourist scuba diver characteristics provide support for Dimmock’s (2007) assertion that the tourist scuba diver population is heterogeneous.

The current portrayal of tourist scuba diver involvement under each classification system does indicate things about these tourist scuba divers, including the fact that individuals casually pursuing (i.e., scoring zero on the five qualities used to construct involvement) the serious leisure activity of scuba diving are prevalent in the sample population. Tourist scuba divers can nearly be differentiated into categories in Stebbins’ serious leisure classification, only on perseverance to involvement categories overlap.

Results of what tourist scuba divers perceive they gain from their involvement in scuba diving expands upon the elements of satisfaction and enjoyment (self-gratification), identified in literature about tourist scuba divers. Also, these tourist scuba divers expand upon what casual pursuers of this serious leisure activity realise by including self-enrichment. Many serious pursuers attain the other ‘self’ and ‘group’ durable benefits. Aspects within the dive seem to contribute towards at least serious pursuers undertaking touristic scuba diving, to potentially build upon durable benefits. Realising various ‘self’ and ‘group’ durable benefits may have the potential to assist some of these (tourist) scuba divers in their personal growth.

Tourist scuba diver involvement did not completely fulfil theoretical criteria when presented by both the orientation and Stebbins’ serious leisure classification systems. Adjusting either a category’s range or a qualities statement, or both, may be possible solutions with this discrepancy.
Chapter 6

Conclusion

6.1 Introduction

As Garrod (2008) indicates, there has been little research applied towards understanding tourist scuba divers. The avenue selected to better understand tourist scuba divers in this research is through the conceptual framework of the Serious Leisure Perspective (SLP). By using the SLP, direction was provided in refining the research questions being addressed in this thesis. These questions are:

- What are the characteristics of those who undertake tourist scuba diving?
  - Which characteristics will differentiate tourist scuba divers degrees of involvement with respect to scuba diving?
- How involved are tourist scuba divers with the activity of scuba diving?
- What benefits do these tourist scuba divers perceive they realise?
  - To what extent do these benefits differentiate tourist scuba diver involvement?

The first section of this chapter details the key findings of this thesis, which enables answers to be provided for the research questions shown above. Limitations of this study are highlighted in the second section. The last section presents suggestions for future research, which have developed as a result of undertaking this research.

6.2 Key Findings

This study contributes to what is known about tourist scuba divers, the concept of serious leisure, and the quantitative instrument the Serious Leisure Inventory and Measure (SLIM). Knowledge is increased regarding tourist scuba diver characteristics, involvement with scuba diving, and the durable benefits perceived as being realised.
The demographic tourist scuba diver characteristics provide support for Dimmock’s (2007) assertion of a heterogeneous tourist scuba diver population. Analyses were conducted to determine whether or not tourist scuba diver characteristics (demographic and dive-related) differentiated involvement. For demographic characteristics, it was found that sex (56.5 percent were female), age (ranged between sixteen and fifty-two years), education, occupation, and income (ranging between $NZ 200 to $NZ 400,000) were not significant with regard to differentiating involvement. The dive-related characteristics of dive certification, speciality certification, and dive club membership provided some significant results, but in this thesis should be considered very speculative due to low expected cell count percentages. The other dive-related characteristics of dives made (ranged between one and 10,000 dives), time as a scuba diver (one day to 24 years), and certifying organisation were also not significant. Overall, the demographic characteristics examined in this thesis provide little in the way of explaining these tourist scuba divers’ involvement with scuba diving.

Results from this study indicate that individuals casually pursuing a serious leisure activity may be more prevalent than has so far been acknowledged. In both classification systems there are a large number of tourist scuba divers in the casual orientation (casual pursuer) involvement category. It is possible that the more seriously inclined scuba diver may have eschewed the Cairns area, and may not be as well represented in this study as in the wider population of tourist scuba divers.

Results of what tourist scuba divers perceive they gain from their involvement in scuba diving expands upon the elements of satisfaction and enjoyment, identified in literature about tourist scuba divers. The durable benefits of self-enrichment, self-gratification, and re-creation are perceived as realised by most tourist scuba divers in this thesis. These tourist scuba divers perceive their involvement in scuba diving to be an enjoyable (fun) and satisfying experience, iterating what has been reported in other studies (for example, Dearden et al., 2006; MacCarthy et al., 2006; Musa, 2002; Musa et al., 2006). Conversely, financial return is the
only durable benefit not to be realised by any involvement category in the classification systems.

The durable benefits of self-gratification and self-expression are the most reliable in differentiating tourist scuba diver involvement categories. Both of these durable benefits were able to differentiate involvement categories in each classification system. Self-expression also distinguished between casual and any serious categories of involvement, in that the casual pursuit category showed a mean below zero.

Overall, tourist scuba divers interpretations continue Stebbins’ (2007) positioning of self-gratification and re-creation as commonly perceived benefits from at least casual pursuit of a leisure activity. The durable benefit of self-enrichment should be added with regard to the tourist scuba diver respondents in this thesis. As Stebbins (2007) and Gould et al. (2008) note, durable benefits being attained by serious pursuers may differ with leisure activity, and may also be a consideration with regard to casual pursuit of an activity. This has what has been ascertained only for this sample of tourist scuba divers from the Cairns data collection site.

The orientation and Stebbins’ serious leisure classification systems were used as templates to construct involvement categories for these tourist scuba divers. Both presented discrepancies between theoretical criteria and empirical data. The discrepancy for the quality of leisure career was that the casual orientation (casual pursuer) category showed a confidence interval with an upper limit above zero. For perseverance on the same category as leisure career showed a mean that was above zero. Identification with pursuit showed a confidence interval with a lower limit below zero with the serious orientation category of the orientation classification. The change to Stebbins’ serious leisure classification has the identification with pursuit showing the participant category as being completely below zero along with the lower limit of the confidence interval for moderate devotee.

To address the issues between theoretical criteria and empirical data, a start has been made into investigating an alternative classification system (dabbler, participant, and devotee
categories). The alternative classification system suggests two categories representing basic theoretical criteria, a casual pursuit category (labelled dabbler) and a serious pursuit category (labelled devotee). The third involvement category (labelled participant) is neither completely casual nor completely serious according to theoretical criteria, a transition zone. It seems this has the potential for being simpler and allowing flexibility.

If an alternate classification does not or incompletely rectifies discrepancies between theoretical criteria and empirical data, then another direction that can be considered is adjusting the instrument. It is suggested that perhaps the discrepancy between qualities and benefits of serious leisure and the findings in this study is the way in which the qualities and benefits were measured, in other words, the statements used in this survey. Only the quality of significant effort appears to be in agreement with theory with regard to these tourist scuba divers. The impact any changes to the qualities constructing tourist scuba divers’ involvement is not known.

As far as it can be ascertained, this is the only quantitative serious leisure thesis that has employed the SLIM on tourist scuba divers. Findings in this thesis, then, may be either an aberration pertaining only to these tourist scuba divers or may eventually contribute to the ever developing understanding of the serious leisure concept.

6.3 Limitations of This Study

A recognised limitation concerns the ability to generalise beyond these tourist scuba divers. In this study, generalising remained with the sampled tourist scuba divers, unless otherwise stated (iterated through Chapters 1 and 5). Future sample populations of tourist scuba divers will more than likely differ from this study’s sample population. Differences between sample populations can be attributed to a variety factors. The first is the dive destination used to obtain the sample. There are different types of dive destinations where some do require at least a PADI Advanced diving certificate. Also, some dive destinations
may not attract serious touristic scuba diver, with the reverse also being possible. This is further influenced by where at that dive destination interviewing is conducted (e.g., on shore versus on dive boat sampling).

Another is the dive season during which a sample is obtained. A destination’s high season is different from other periods. It is possible the Northern Hemisphere holidaying period may, or may not, coincide with a destination’s high season. Environmental conditions at dive sites change through the year. These could change the ratios with regard to Stebbins’ four pursuit categories, influencing results obtained by the Serious Leisure Inventory and Measure. This study’s sample was gathered during a one month period of a much longer high season for tourist scuba diving. To acquire a better understanding about tourist scuba diver involvement with scuba diving, and the durable benefits being realised, there is a clear need for additional studies.

The use of a self-administered questionnaire has the potential for being limiting factor in this study as there are weaknesses in this approach, which Sarantakos (2005) states can include being unable to probe for further detail on a certain question, being unable to check if question order is followed, being unable to collect additional information, and partial completion of the questionnaire. Also a few respondents may not be totally forthcoming with some answers, for example, their annual income.

There are issues that may arise from the use of the SLIM. As an explanation for certain findings, some statements in the SLIM may have either been inappropriate or needed expanding upon with regard to these tourist scuba divers. Additional research concerning the SLIM is needed to clarify whether or not statements have been a limitation on the refinement of these tourist scuba divers’ involvement with scuba diving.
6.4 Suggested Future Research

Analyses of tourist scuba diver responses on their involvement (and perceived durable benefits attained) with scuba diving suggest avenues that could be explored. These suggestions may advance understanding in the leisure activity of (tourist) scuba diving, and the concept of serious leisure (including imported concepts).

One suggestion is determining whether or not discrepancies between the empirical and theoretical criteria obtained in this thesis were an aberration. The first approach can be through comparing other samples of tourist scuba divers. These comparisons could also allow for repeated comparisons to be made, for example, between locales, sections of the dive season, types of divers (day-trip versus live-aboard). There is the potential also of adjusting statements in the Serious Leisure Inventory and Measure (SLIM) to determine whether or not qualities constructing involvement will better capture information from respondents.

Use of the SLIM has also provided results suggesting qualitative investigation would be beneficial, as a qualitative approach will provide more in-depth analysis (Jennings, 2001). For example, do social worlds exist for tourist scuba divers (especially day-trip scuba divers); identifying tourist scuba divers source(s) for identification with scuba diving, and do more serious pursuers of scuba diving have different durable benefit sources.

6.5 Chapter Summary

The conclusions presented in this chapter reveal that while scuba diving is an amateur type of serious leisure, those that pursue it may not consider themselves to be a serious pursuer of the activity. A range of durable benefits are perceived as being realised by many serious pursuers, which is reduced in number for casual pursuers. However, theoretical criteria and empirical data were not completely in agreement, suggesting either adjusting a category’s range or statements in the SLIM may be needed. It is possible that the full range of
those that seriously pursue scuba diving may not have been captured due to locale data was collected. Therefore, more studies about tourist scuba divers are needed.
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Appendices

Appendix A Scatter-plots of Qualities Constructing Involvement

Figure A. 1 Scatter-plot of Leisure Career by Involvement Index

Figure A. 2 Scatter-plot of Significant Effort by Involvement Index
Figure A. 3 Scatter-plot of Identification with Pursuit by Involvement Index

Figure A. 4 Scatter-plot of Unique Ethos by Involvement Index
Figure A. 5 Scatter-plot of Perseverance by Involvement Index

$R^2$ Linear = 0.423
Appendix B Scatter-plots of Durable Benefits

Figure B. 1 Scatter-plot of Self-expression by Involvement Index

Figure B. 2 Scatter-plot of Self-actualisation by Involvement Index
Figure B. 3 Scatter-plot of Group Accomplishments by Involvement Index

Figure B. 4 Scatter-plot of Group Attraction by Involvement Index
Figure B. 5 Scatter-plot of Group Maintenance by Involvement Index

Figure B. 6 Scatter-plot of Self-image by Involvement Index
Figure B. 7 Scatter-plot of Self-gratification by Involvement Index

Figure B. 8 Scatter-plot of Re-creation by Involvement Index
Figure B. 9 Scatter-plot of Self-enrichment by Involvement Index

Figure B. 10 Scatter-plot of Financial Return by Involvement Index
## Appendix C Mean and Standard Deviations of Significant ANOVA

### Table C.1 $\overline{M}$ and SD for Individual Durable Benefits (Orientations) ANOVA

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Table C.3 $\overline{M}$ and SD for Individual Durable Benefits (Stebbins’ Serious Leisure)

ANOVA

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### Table C.4 \( \bar{M} \) and SD for Group Durable Benefits (Stebbins’ Serious Leisure) ANOVA

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Appendix D Self-administered Questionnaire

This is the self-administered questionnaire used to gather data; it has been adapted to fit this manuscript.

Questionnaire

Section 1:
1) Have you participated in introductory scuba diving?
   □ No
   □ Yes

“Introductory scuba diving” is no-experience-needed scuba diving in which you are guided by an instructor.

2) Are you currently undertaking a scuba diving certification program?
   □ No
   □ Yes  (Please specify certification)

3) If you are a certified scuba diver, please answer the questions in the box immediately below. Otherwise, please go to Question 4.

3A) Which scuba diving organisation are you certified with? __________________________

3B) How many years have you been a certified scuba diver? ________________

3C) What is your uppermost dive certification that you have attained?
   (Please specify) ____________________________________________________________

3D) Do you have any specialty or technical scuba diving certifications?
   □ No  □ Yes  E.g. Cave diving, deep diving, enriched air diving, wreck diving, or underwater photography

Please continue to Question 4.

4) Approximately how many times have you scuba dived? ________________

5) How long have you been scuba diving? ________________

6) How often do you scuba dive outside your home country?
   □ First time  □ Once every six months  □ Once a month
   □ Once a year  □ Other (Please specify)

7) Are you a member of a scuba diving club?
   □ Currently a member  □ No longer a member  □ Never been a member

Please Turn over
**Section 2:**  
*Please indicate the extent you agree or disagree with the following statements by circling the appropriate number.*

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<th>Moderately agree</th>
<th>Slightly agree</th>
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<td>Others who know me understand that scuba diving is a part of who I am.</td>
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<td>3</td>
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<td>The development of my scuba diving group is important to me.</td>
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<td>I have been enriched by scuba diving.</td>
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<td>I enjoy interacting with other scuba diving enthusiasts.</td>
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<td>I feel renewed after scuba diving time.</td>
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<td>My image of self has improved since I began scuba diving.</td>
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<td>Scuba diving provides me with a profound sense of satisfaction.</td>
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<td>Scuba diving is enjoyable to me.</td>
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<td>12</td>
<td>Scuba diving for me is an expression of myself.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>13</td>
<td>Financially, I have benefited from my scuba diving involvement.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>14</td>
<td>I make full use of my talent when scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>15</td>
<td>A sense of group accomplishment is important to me in scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>16</td>
<td>For me, there are certain scuba diving related events that have influenced my scuba diving involvement.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>17</td>
<td>I share many of the sentiments of my fellow scuba diving devotees.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>18</td>
<td>I try hard to become more competent in scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>19</td>
<td>Scuba diving has enhanced my self-image.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>20</td>
<td>My scuba diving experiences are deeply gratifying.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>21</td>
<td>Scuba diving is fun to me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>22</td>
<td>My individuality is expressed in scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>23</td>
<td>I demonstrate my skills and abilities when scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>24</td>
<td>I feel revitalized after scuba diving time.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>25</td>
<td>I have received financial payment as a result of my scuba diving efforts.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>26</td>
<td>I reach my potential in scuba diving.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>27</td>
<td>Scuba diving has added richness to my life.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
</tbody>
</table>

*Please turn to the next page*
Section 2 (continued): Please indicate the extent you agree or disagree with the following statements by circling the appropriate number.

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Mostly agree</th>
<th>Moderately agree</th>
<th>Slightly agree</th>
<th>Neither agree nor disagree</th>
<th>Slightly disagree</th>
<th>Moderately disagree</th>
<th>Mostly disagree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
<td>-4</td>
</tr>
</tbody>
</table>

28. I value interacting with others who are also devoted to scuba diving.  
29. Having helped my scuba diving group accomplish something makes me feel important.  
30. There are defining moments within scuba diving that have significantly shaped my involvement in it.  
31. Since I began scuba diving, I have improved.  
32. I contribute to the unification of my scuba diving group.  
33. Other scuba diving enthusiasts and I share many of the same ideals.  
34. I practice to improve my skills in scuba diving.  
35. By persevering, I have overcome adversity in scuba diving.  
36. I am often recognized as one devoted to scuba diving.  
37. I prefer associating with others who are devoted to scuba diving.  
38. My scuba diving experiences have added richness to my life.  
39. Scuba diving is intensely gratifying to me.  
40. I have received monetary compensation for my scuba diving expertise.  
41. Scuba diving has enabled me to realize my potentials.  
42. I feel important when I am part of my scuba diving group’s accomplishments.  
43. Others recognize that I identify with scuba diving.  
44. I share many of my scuba diving group’s ideals.  
45. Scuba diving is invigorating to me.  
46. I overcome difficulties in scuba diving by being persistent.  
47. There have been certain high or low points for me in scuba diving that have defined how involved I am in scuba diving.  
48. Scuba diving has improved how I think about myself.  
49. I am willing to exert considerable effort to be more proficient at scuba diving.  
50. I enjoy scuba diving.  
51. It is important that I perform duties which unify my scuba diving group.  
52. My knowledge of scuba diving is evident when participating.  
53. Scuba diving allows me to express who I am.  
54. I feel I have made progress in scuba diving.
Section 3: (Please write, in the box below, any answers you may have to the following questions)

1) What place does scuba diving have in your life? Why do you dive, or want to dive?

Section 4:

1) Sex  □  Female  □  Male

2) Age  __________ (years)

3) What country are you from? ________________________________

4) If you are from Australia, what city do you reside in? ________________________________

5) What is your highest educational qualification? ________________________________

6) If you are employed, what is your occupation? ________________________________

7) What is your approximate gross yearly income? _______________  

   Please write in the currency you’re paid in Eg: US$, AU$, NZ$, €, £, ¥

Thank you for completing this questionnaire
Appendix E Research Information Sheet

This is the Research Information Sheet used to inform potential participants about the research being conducted; it is adapted to fit this manuscript.

Lincoln University

Faculty of Environment, Society, and Design

Research Information Sheet

You are invited to participate as a subject in a project entitled:

An investigation of tourist scuba divers’ involvement with scuba diving.

The aim of this project is to look at the level of involvement that tourist scuba divers’ have in the activity and to identify the benefits gained from scuba diving. This research is being undertaken as part of the thesis component of my Masters degree.

Your participation in this project will involve completing a brief questionnaire about you as a scuba diver and your scuba diving participation. The questionnaire will take approximately 10 minutes of your time.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: the identity of participants will not be made public without their consents. To ensure anonymity and confidentiality the following steps will be taken:

- Unique participant ID numbers will be used instead of names in the data files.
- Presentation of the study’s findings will appear as combined results, no individual’s information will be made public without their consent.
- Consent forms and self-administered questionnaires will be kept in a secure storage facility at Lincoln University, with the electronic data kept in an encrypted file.

The project is being carried out by Kyran Tranter-Watson.

Contact details:
FESD,
P.O. Box 84,
Lincoln University,
Canterbury,
New Zealand.

email: Kyran.TranterWatson@lincolnuni.ac.nz

He will be pleased to discuss any concerns you have about participation in the project. If you choose, you may also contact his main thesis supervisor Dr. Gary Steel.

Contact Details: Dr. Gary Steel
FESD,
P.O. Box 84,
Lincoln University,
Canterbury,
New Zealand.

email: steelg@lincoln.ac.nz

The project has been reviewed and approved by Lincoln University Human Ethics Committee.
Appendix F Questionnaire Information Sheet

This is the Questionnaire Information Sheet used to inform potential participants about the self-administered questionnaire to be completed; it is adapted to fit this manuscript.

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Questionnaire

Name of Project: An investigation of tourist scuba divers’ involvement with scuba diving.

You are invited to participate in a project called an investigation of tourist scuba divers’ investment with scuba diving by completing the following questionnaire.

The aim of this project is to look at the level of involvement that tourist scuba divers’ have in the activity and to identify the benefits gained from scuba diving.

The questionnaire is anonymous, and you will not be identified as a respondent (although the researcher will be aware of your identity). You may withdraw the information you have provided before 01\textsuperscript{st} October 2009, when results are first presented. If you complete the questionnaire, however, it will be understood that you have consented to participate in the project and consent to publication of the results of the project with the understanding that anonymity will be preserved.
Appendix G Consent Form

This is the Consent Form, read and signed by potential participants; it is adapted to fit this manuscript.

Consent Form

Participant ID: ________

Name of Project: An investigation of tourist scuba divers’ investment with scuba diving.

I have read and understood the description of the above-named project. On this basis I agree to participate as a subject in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I understand also that I may withdraw from the project, including withdrawal of any information I have provided, before 01st October 2009, when results are first presented.

Name: ____________________________________________

Signed: _________________________________________ Date: _______________