

The Development of the Leisure Meanings Inventory

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Researchers face several challenges when designing psychometric scales for measuring leisure meaning. These include the need for a construct definition and operational indicators that conceptualizes the nature of the leisure meaning and specifies the content of different meanings. This study describes the development of the Leisure Meanings Inventory as a multi-dimensional scale for measuring four qualitatively different ways of experiencing the meaning of leisure: Passing Time, Exercising Choice, Escaping Pressure, and Achieving Fulfillment. Testing the scale with 475 Australian residents confirmed a four-factor structure and the multi-dimensional nature of experiences, and indicated a moderate level of internal consistency. Discussion of the results considers the strengths, limitations, and potential theoretical and practical applications of the instrument.

KEYWORDS: *Leisure meanings, leisure experience, phenomenography, measurement.*

Introduction

Researchers have developed a number of psychometric scales for measuring different leisure constructs. These include scales of leisure attitudes (Neulinger & Breit, 1969), motivations and satisfactions (Beard & Ragheb, 1980, 1983; Crandall & Slivken, 1980; Driver, 1975), perceived freedom (Witt & Ellis, 1984), flow experiences (Csikszentmihalyi & Larson, 1987), perceptions of boredom (Iso-Ahola & Weissinger, 1990), and feelings of leisure (Esteve, Martin & Lopez, 1999). Despite these contributions, researchers have given less attention to designing scales measuring the construct of leisure meaning (Mannell, 1980).

The lack of an effective scale underscores the potential role leisure meanings have for building theory and improving service provision. For example, the measurement of meanings would enable researchers to assess their distribution and changeability, both within the same person and across groups of people, and to study relationships between meanings, behaviors,

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and other outcome variables such as well-being and quality of life. From a practical perspective, measuring clients' meanings of leisure would help recreation managers and activity leaders evaluate the extent to which particular experiences satisfied their clients. Subsequently, if these benefits are to be realized, the construction of a psychometric scale measuring different meanings requires further consideration.

This paper introduces the Leisure Meaning Inventory as a scale for measuring four different ways of experiencing the meaning of leisure: Passing Time, Exercising Choice, Escaping Pressure and Achieving Fulfillment (Schulz, 2002). The scale derives from phenomenographic research reported by Watkins (1999, 2000) and adopts a relational perspective to assess qualitative difference in meanings. Before describing the development of the scale, the paper examines approaches used to study and measure meanings, and considers several challenges associated with designing leisure meaning scales.

Literature Review

In one of the first reported studies, Donald and Havighurst (1959) defined the meaning of leisure as the satisfactions individuals gain from their favorite leisure activities. The researchers collected statements of meaning from literature sources and pilot interviews, and then measured the importance of 16 meanings by having adult subjects rank their priority. The six most important meanings were for pleasure, change from work, new experience, contacts with friends, achieving something, and passing time. Analysis of meanings using personality and socio-demographic variables showed the meanings were relatively stable within the study population.

Other researchers have adopted the approach of measuring characteristics that individuals use to define the concept of leisure. For example, Iso-Ahola (1979a) examined theoretical models of leisure to identify the universal determinants of leisure definitions and then had university students rate the importance of different combinations of determinants on a 10-point scale from "not leisure at all" to "leisure at its best". Shaw (1984) combined literature sources and subject provided material from diaries and interviews to ascertain the perceptual factors adults used to describe the meanings of leisure and non-leisure situations. Descriptive procedures measured the discriminative power of various factors and helped to distinguish the factors that differentiated among situations. Mobily's (1989) study represents an interesting attempt to measure different linguistic meanings of leisure and recreation. One group of high school students had 60 seconds to write down their responses to the terms, while another group had 60 seconds to sit and think about their meanings before writing down seven words that best defined the terms. The collective results of studies using this approach, demonstrate the concept of leisure can be defined by characteristics such as perceived freedom, intrinsic motivation, a low work relation, self-expression, involvement, free-time, passive activity, and forms of positive affect including

enjoyment, fun and relaxation. Some of these definitional characteristics have proven to be consistent for different population sub-groups.

Another group of researchers has measured the experiences people report whilst they immediately engage in or recall about peak or memorable forms of leisure (Csikszentmihalyi, 1975; Gunter, 1987; Lee, Dattilo & Howard, 1994). Csikszentmihalyi and Lee et al. used innovative data gathering devices such as electronic pagers and self-initiated tape recordings in combination with closed ended surveys and open-ended interviews to measure the contents of experiences. This approach reveals that highly involving experiences are characterized by feelings of enjoyment and pleasure, separation and escape, fantasy and creativity, intellectual and physical stimulation, and timelessness and forgetting about oneself. To the extent that these characteristics infer meaning for subjects, the nature of meaning is transitory, spontaneous, dynamic, and displays an intensity and richness of feelings transcending routine forms of leisure.

Whereas the previous approaches tend to ignore the situated nature of meanings (Coalter, 1997; Hemingway, 1995; Henderson, 1996), another approach has investigated the personal and social context of leisure meanings. Henderson and Rannells (1988) used oral histories to study meanings of leisure and work for women farmers. Their findings showed that distinctions between leisure and work made little sense to the women as they could experience leisure in their daily roles as farm workers and mothers. Freysinger (1995) studied leisure meanings in the context of gender difference and developmental needs in middle age. In-depth collaborative interviews revealed a single multidimensional meaning of leisure as "change that was chosen or lacked necessity" (and) "that resulted in feelings of relaxation, enjoyment, and rejuvenation" (p. 69). Although the dimensions of meaning were common to both women and men, gender distinctions indicated women understood the idea of choice differently compared with men. This was because women had comparatively fewer choices to access leisure. Furthermore, whereas women used leisure as a change from family work to develop their needs for self-determination, men used leisure as a change from paid work to develop their family relationships. In a final example, Dupuis and Smale (2000) employed conversational interviews in conjunction with personal logs to examine the leisure meanings of female caregivers in institutional settings. Three categories of meaning emerged: leisure as a constriction in opportunity, as brief moments in the obligatory social role of caring, and as a source of reclaiming one's identity outside of caregiving. These meanings reflected the underlying meanings given to care giving and evolved in a pattern consistent with the notion of a career of meanings. While the approach used in these studies demonstrates that leisure and non-leisure meanings can overlap, that different meanings attach to the same dimensions of leisure, and that different contexts produce different but interrelated meanings, these results have been difficult to translate into the highly operationalized and numerical requirements of psychometric scales.

A final approach has centered on the development and testing of psychometric scales. Several instruments such as Neulinger and Breit's (1969)

survey of leisure attitudes, Drivers' (1975) recreation experience preference scale, Crandall and Slivken's (1980) leisure satisfaction scale, and the Esteve, Martin and Lopez (1999) leisure feelings scale, have been associated by their proponents with the measurement of meanings (see also Graefe, Ditton, Roggenbuck & Schreyer, 1981). However, the relationship between the constructs measured by these scales and the construct of leisure meanings is conceptually unclear given their tendency to equate meanings with a superordinate psychological or cognitive construct such as attitudes, motivations, or satisfactions. Perhaps more accurately, current instruments provide indirect measures of meaning rather than direct measures of the essence or perhaps essences of leisure meaning.

Measurement Challenges

From this review, a number of challenges emerge that confront attempts to design scales that measure leisure meanings. One challenge concerns the need to formulate a construct definition of leisure meaning that both specifies and encompasses a range of meanings. Mannell and Iso-Ahola (1987) and Ellis and Witt (1991), have observed that definitions framed around the determinants and satisfactions of experience are appropriate for measuring the antecedents and outcomes associated with leisure definitions. These scholars also note, however, that definitions of leisure relating to the subjective meanings of experience fall short of specifying the actual typography or direct personal meanings given by individuals to their definitions of leisure. Methodologies proposed to expand the study of leisure such as phenomenology (Harper, 1981), hermeneutics (Sylvester, 1990) and grounded theory (Hultsman & Anderson, 1991) might be expected to provide alternative conceptualizations and descriptions of leisure meaning to overcome this deficiency. However, apart from a few studies (e.g., Dupuis & Smale, 2000; Podilchack, 1991), these methodologies have not yet produced information that can help with the task of formulating alternative construct definitions or elaborated content for use in a leisure meanings scale.

A second challenge is the need to locate a set of operational indicators with the capacity to measure different meaning and that maximizes the opportunity for individuals to assert their own subjective meanings in preference to those influenced by theory or highly constrained by data gathering procedures. Several scholars have suggested phenomenology as an appropriate methodology to identify these operational indicators on the grounds of providing direct access to the lived experience of leisure (Harper, 1981; Mannell, 1980). When understood from a Husserlian perspective, phenomenology refers to describing the universal or invariant essence of experience. Moreover, Husserl argued that researchers could rely on studying their own experience, as the essence of a phenomenon would reveal itself through intuition or philosophical introspection (Polkinghorn, 1983). Consequently, although a phenomenological investigation may result in a set of indicators that enable researchers to operationalize a single comprehensive meaning

of leisure experience, the ability of phenomenology to provide operational indicators of different meanings with a high level of subjective determination may have limited utility if the purpose of a scale is to measure difference in meaning.

A third challenge relates to how researchers might measure different meanings in a manner that reflects the influence of situational contexts. Ellis and Witt (1991) have suggested the semantic differential technique as a method for measuring meanings that enables comparisons across differing personal and environmental contingencies. This method would require the development of scale items consisting of bipolar adjectives to measure different evaluative, affective and activity components of meaning. Sub-group analysis could then determine the distribution of particular components. However, similar to the nature of phenomenological data, semantic differential scales provide descriptions of unanalyzed and decontextualized knowledge that de-emphasize the relational qualities of meanings. Moreover, sub-group analysis would only allow for broad inter-individual comparisons. In other words, the technique may be suited to measuring different characteristics of meaning, but not how individuals understand the meanings of these characteristics relative to their situational contexts and how meanings are distributed and change within the same and different individuals.

To sum up, the discussion of measurement challenges suggests it would be desirable for a scale measuring leisure meanings to possess several characteristics. The first characteristic is the need to locate a construct definition that relates directly to the subjective meanings of experience and that specifies the content of meanings. Secondly, it would be an advantage if the indicators or scale items contained within the instrument had the capability of operationalizing different meanings. Thirdly, the method for presenting scale items to subjects should enable them to respond with some sense of personal or social context.

The Conceptual Foundations of the Leisure Meanings Inventory

One methodology with the potential to provide the characteristics of a leisure meanings scale outlined above is the novel research specialization of phenomenography. Several features of the methodology reported in an earlier paper (cf. Watkins 2000) highlight these characteristics. The first feature is that phenomenography does not focus on the meaning of phenomena per se, but on how individuals' experience the meanings of phenomena. Phenomenographers therefore express a preference for referring to ways of experiencing things not the thing itself. This distinction contains three assumptions. These are (1) individuals can experience meanings in both similar and different ways given they share overlapping and dissimilar contexts, (2) personal and social characteristics of these contexts provides experiences with their relational qualities, and (3) individuals have a capability for learning to experience different relational qualities, and consequently, to experience different meanings of phenomena. Thus, one of the primary char-

acteristics of phenomenography is that it privileges the idea of subjective difference whilst acknowledging the potential for similarity in meaning.

A second feature of phenomenography is that it provides researchers with a construct definition of leisure meaning that is different to cognitively informed constructs. This occurs through adopting the concept of an internal relation to describe a meaning of leisure as the relationship formed between an individual and an object held in his or her awareness (e.g., an event or situation described as leisure). Internal relations confer meaning for the individual through the relational qualities attached to different parts forming the contents of experience and to the overall meaning of the experience. From this relational perspective, leisure meanings are not defined as cognitive constructs that derive from internal psychological processes, nor are they defined as social constructs generated from external sources, nor are they a product of either. More simply, the construct of leisure meaning defines the particular ways experiences of leisure are constituted by individuals in their awareness of leisure.

A third feature of phenomenography is that the particular ways of experiencing the meaning of leisure provide the operational indicators of a leisure meaning scale. Phenomenographic research seeks to clarify the experiential field of meanings, therefore operational indicators are initially unspecified pending their description through preliminary research. In order to identify these experiences, the researcher uses data gathering procedures and analytic procedures to explore and describe a limited number of qualitatively different meanings.

Open-ended interviews that are both conversational and diagnostic in nature are the preferred method of data collection in phenomenographic studies as they provide direct access to experience and opportunity for elaboration and checking of understandings. Interviews result in grounded descriptions of experience and emanate from two sources: the subject's description of his or her experience of meaning and the researcher's understandings of this description, and from the collection of subjects' descriptions and the researcher's understandings of these descriptions. In effect, the subjects and researcher co-constitute meaning initially at an individual level and then at a collective level of description. Analysis of the interviews focus on the most salient or critically significant differences in experience and is achieved by iterative comparison of different meanings and by elaborating different parts that compose the content of meanings. These parts are often similar across different meanings, but take on different relational qualities. The outcome, therefore, is to provide a set of contextualized dimensions that translate into individual scale items and collections of dimensions that combine in the one instrument to represent different ways of experiencing the meaning of leisure.

As noted earlier, the phenomenographic study of leisure meanings reported by Watkins (1999) provided the source of operational indicators for the LMI. This study involved thirty-three open-ended interviews with Australian leisure studies undergraduate students. Each interview explored the student's life history, current understanding, and the context of meanings that

they associated with their leisure experiences. Analysis of the interviews consisted of generating descriptive categories and dimensions comprising meanings. The analysis identified four ways of experiencing the meaning of leisure: Passing Time, Exercising Choice, Escaping Pressure, and Achieving Fulfillment. Although these meanings come from a limited sample of individuals, the unpublished results of additional interviews conducted by the second author of this paper as part of a longitudinal study, have since confirmed the existence of the meaning. These experiences are briefly summarized from Watkins study along with the dimensions forming leisure meanings.

Experiencing the meanings of leisure as Passing Time relates to having spare time when there is nothing more important to do and using time to relax and keep oneself entertained. An extract from one of the interviews illustrates this experience:

... leisure to me means being the time after you've done everything else, like going to Uni and sleeping and eating, that extra time you have and you do something that's relaxing and fun. So, it's the time that's left over from doing everything else that's more important.

In comparison, Exercising Choice focuses on the experience of using free time to do what one wanted to do and what one enjoyed doing. An example of this experience is:

... leisure to me is something that I don't feel obligated to do or I have to do for somebody else. By obligation, I mean things you feel you have to do because people expect you to do them. A lot of things I do can be classed as leisure; it depends on what context I do them. I have to cook a lot of meals in my house and I don't enjoy that, but if I make something I want, that to me is leisure.

In the third experience, leisure as Escaping Pressure emphasizes the role of using leisure to escape from the pressures of life by getting away and relaxing the mind. For instance:

... leisure is a break, a change. I was studying for a childcare certificate and we had an assignment and it was really hard and I couldn't work it out. So I went for a run and really just erased it from my mind . . . It was pleasurable to feel the rain on me when I ran. When I came back in I felt rejuvenated and got out the problem easily.

The fourth experience of Achieving Fulfillment, describes the meaning of leisure as an opportunity to feel happy and contented, and related to deep emotional responses. A student working with an intellectually disabled child describes this experience:

I started working with a little girl, she was born brain injured. That's leisure for me. I've got a lot out of it, becoming really close to her . . . I'm giving something back and I find that fulfilling. Leisure makes me feel very relaxed and happy, very sort of at one with myself . . . if you're not happy with yourself, you know, this is me, I am who I am, I've accepted that.

Analysis of these experiences revealed six common dimensions relating to the context; intention; time; action; emotion and outcome of leisure (see

Table 1). In each experience, a different relational value expresses the quality of meaning for each dimension. For example, across the four experiences, the meaning of the context in which leisure occurs, varies from having spare time, to confronting obligations, to managing pressure, to finding opportunities for leisure. Similarly, each experience refers to a dimension of time, although the meaning of time varies from left over time, to free time, to time-out, to timelessness.

In summary, the LMI represents an attempt to develop a leisure meanings scale using two research paradigms. The first paradigm adopts an interpretive approach in the form of phenomenography research to clarify the experiential foundation of leisure meanings and the second paradigm uses a logical positivist approach to develop a quantitative measure of qualitatively different ways of experiencing the meaning of leisure.

Although new to leisure research, scholars in other fields have adopted phenomenography as a measurement approach to develop psychometric scales. For instance, Trigwell and associates (Trigwell & Prosser, 1996; Trigwell, Prosser, & Waterhouse, 1999) created a Likert scale measuring relationally different meanings of teaching, while Stephanou (1999) constructed a Rasch scale to model students' meanings of scientific concepts. Their applications produced reliable and valid instruments that have enabled researchers to test relationships between meanings and behaviors of teaching or to evaluate the impact different classroom experiences have had on broadening students' scientific knowledge. The success of these studies further supports the potential for using phenomenography to develop a leisure meanings scale.

TABLE 1
Experiences of Leisure Meanings and their Dimensions

Category	Dimensions					
	Context	Intention	Time	Act	Emotion	Outcome
Passing Time	Spare Time	To fill time	Left over	Sedentary	Physical-relaxation fun	Self entertainment
Exercising Choice	Obligations	To gain control	Free time	Autonomy	Emotional-relaxation Enjoyment	Self determination
Escaping Pressure	Pressures	To get away	Time out	Disengage	Mental-relaxation pleasure	Self maintenance
Achieving Fulfillment	Opportunities	To be content	Timeless	Reflection	Happiness	Self actualization

Adapted from Watkins (1999)

The Development of the Leisure Meanings Inventory

The construction of the LMI followed procedures suggested by Kline (2000) and Ragheb (1996), and was similar to the Trigwell studies (Trigwell & Prosser, 1996; Trigwell, Prosser, & Waterhouse, 1999) mentioned previously. These procedures involved two stages: Inventory Creation and Inventory Verification. Inventory Creation consisted of generating item pools and a pilot test. Inventory Verification field tested the inventory using a larger more heterogeneous sample, which enabled the researchers to further examine the structure, reliability, and validity of the LMI.

Inventory Creation

The original transcripts from Watkins' (1999) research provided the operational indicators for the four experiences of leisure meaning and their respective dimensions. From these transcripts, four pools of items reflecting different methods of presenting scale items were constructed. Pool 1 contained 49 items consisting of short single phrases. For example, "Leisure just occurs in my spare time" and "I find my leisure experiences begin spontaneously". Pool 2 contained 20 longer sentences consisting of contextually linked ideas typifying each category; such as: "To me leisure is having my time free of responsibilities, to do what I want to do and not the things I am obliged to do". From a grammatical perspective, items with two or three parts appear to be double barreled and consequently considered inappropriate for psychometric testing. Conceptually they are single barreled as the two or more phrases combine to form a unified concept. Fragmenting the concept into two single statements may decontextualize the item and consequentially change the meaning. Bucholz (1976) provides support for the approach with the suggestion that combining phrases gives subjects a more meaningful way to respond to the context of the items. Further support comes from Schwarz (1990) who argued that when responding to written statements, subjects "respond to the gist of the question rather than to its exact wording" (p. 101). Therefore, the longer items may provide subjects with the opportunity to respond more favorably than they do to shorter items that might fragment particular ideas about leisure.

Pool 3 used the same 49 statements from Pool 1. However, Pool 3 sequentially grouped items to reflect the structural order of relationships within each experience (e.g., as shown previously in Table 1). Watkins (1999) research suggests the context and order of the early items informs the understanding of subsequent questions. The final pool of items, Pool 4, comprised four detailed paragraphs each depicting one of the experience categories. Other researchers have adopted the technique of using longer contextualized items. For example, Iso-Ahola (1979b) used long written scenarios to test Neulinger's Leisure Model, while Driver, Tinsley and Manfredro (1991) and Tinsley and Kraus (1978) used the PAL (paragraphs about leisure) format with some success.

An integral part of the item selection process was to determine the way in which subjects would respond to each question. Several approaches considered were the Thurstone, Guttman, Rasch, and Likert scales. In the Thurstone (1925) scale, a panel of experts gives the items a weight or value. However, in the context of the current research, having a panel of experts evaluate and then weigh each item would invalidate the grounded approach adopted in the original analysis of the interview transcripts and consequently, this method of scaling was discounted. Guttman scales work well for objective information such as participation in particular activities, but are less useful when the phenomena of interest are more subjective (DeVellis, 2003). Similarly, Kline (2000) argued the Rasch technique is more applicable to ability and attainment tests than it is to less observable cognitive processes such as meanings.

The most flexible alternative was the Likert scale as it allowed subjects to evaluate each item separately. Furthermore, the Likert scale allowed individual examination of each item and the unique relationship between all items (DeVellis, 2003; Loewenthal, 1996). The LMI used a five-point scale, ranging from strongly disagree (1) to strongly agree (5), as this form provided an adequate distribution of responses without overwhelming subjects with too many options (Comrey, 1988).

The four pools of items were administered to a number of convenience samples of Australian university students and participants at a youth conference (Pool 1, $N = 220$; Pool 2, $N = 167$; Pool 3, $N = 220$; Pool 4, $N = 220$). Each of the pools was subjected to a variety of item analyses. Firstly, each item's individual distribution was inspected. An item was rejected if it lacked variance or was overly skewed. It was at this stage that Pool 4 was discontinued as the responses to the paragraphs did not provide adequate variance and therefore appeared to have limited potential. In the next stage of the item analysis each of the items were grouped in their theoretical category and then each category's internal reliability was inspected. Items were deleted if they adversely affected the overall alpha. Pool 3 was discontinued at this stage after demonstrating both poor variance and unsuitable alpha levels.

Following the inspection of the internal reliability, the suitability of the data for factor analysis was assessed. The Kaiser-Meyer-Olkin values of Pool 1 (.77) and Pool 2 (.76) exceeded the recommend value of .60 (Kaiser, 1974) and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (Pool 1: $\chi^2 = 3735.85$, $df = 1176$, $p < 0.01$; Pool 2: $\chi^2 = 998.76$, $df = 190$, $p < 0.01$). An exploratory Principal Components Analysis of Pool 1 using SPSS version 12 revealed the presence of six components with eigenvalues exceeding 1. An inspection of the scree plot revealed a clear break after the fourth component and therefore using Cattell's (1966) scree test criteria it was decided to retain four components for further investigation. To aid in interpretation of these four components a Varimax rotation was performed. The orthogonal rotation was chosen as the four categories were considered relatively independent of each other. Items were removed if they had a factor

loading of less than 0.5 or if items loaded on two or more factors (without 0.1 separations). A similar exploratory Principal Components Analysis of Pool 2 revealed the presence of seven components with eigenvalues exceeding 1. However, an inspection of the scree plot revealed clear breaks after the second and fourth component. Once again, using Cattell's (1966) scree test, it was decided to retain four components for further investigation and to aid in interpretation of these four components a Varimax rotation was performed. The most promising 27 items from Pools 1 and 2 were selected for a revised LMI (see Table 2). These items were chosen if they a) retained in the item and factor analyses or b) if they contributed significant elements that would otherwise be missing to the theoretical content of the inventory.

Pilot Test

The 27-item LMI was pilot tested in a regional Australian city to provide a broader application and test of the revised scale. A systematic stratified sampling technique resulted in a sample size of one hundred and fifty-one individuals, with just over half (55%) being female. The age of subjects ranged from 18-90 years with a mean of 44 years. Once again, the LMI was subjected to a variety of item analyses by examining each item's distribution and by examining the internal reliability of the items when grouped in their theoretical categories. Furthermore, the data's suitability for factor analyses was examined. Both the Kaiser-Meyer-Olkin value (.69) and Barlett's Test of Sphericity ($\chi^2 = 917.36$, $df = 253$, $p < 0.01$) suggested the data was suitable.

The next stage in the examination of the data from the pilot stage involved a confirmatory Principal Components Analysis using SPSS version 12. A four-component solution was selected as it corresponded with the theoretical foundations of the inventory. (The solution was also confirmed following inspection of the scree slope and the eigenvalues). As before, a Varimax rotation was selected to help interpret the solution. In the final solution, each of the components corresponded to one of the four experiences of leisure. The overall Cronbach alpha coefficient of the LMI was .74, with alpha coefficients for the individual factors respectively being .71, .71, .76, and .71. These coefficients met the .70 level recommended by Kline (2000) for an internally consistent scale.

Inventory Verification

The inventory verification involved the assessment of the structure, reliability, and validity of the LMI using a sample of residents from an Australian state capital city. A systematic stratified sampling technique resulted in the selection of 475 subjects. These subjects consisted of 275 females (58.5%) and 200 males (41.5%), and ranged in age from 15 to 91 years with a mean age of 44 years. The marital status of subjects showed that 55% were married, 24% were single, and the remainder separated or widowed. Forty-four per-

TABLE 2
Items Contained in the Leisure Meaning Inventory

1	To me leisure stops being leisure when other people put pressure on me to perform.
2	To me leisure stops being leisure when it needs to meet the expectations of others.
3	To me leisure is all about doing inactive things.
4	Sometimes I get so relaxed during my leisure it is almost spiritual and that is satisfying.
5	Sometimes I get so engrossed that I forget about time and forget about myself.
6	Sometimes during my leisure, I get so absorbed that I don't feel the time passing.
7	Most of my leisure usually involves lazing around and doing passive things.
8	Leisure to me, is having my time free of responsibilities, to do what I want to do and not the things I am obliged to do.
9	Leisure serves just to fill the extra time in my life.
10	Leisure occurs when I am able to take time out and get away from everyday life.
11	Leisure occurs in all aspects of my life and can occur anytime in my day.
12	Leisure just occurs in my spare time.
13	Leisure is the time when I get to disengage from normal life.
14	Leisure is the time when I can be in control and do not have to meet the expectations of others.
15	Leisure is the time left over, when everything else in my life is completed.
16	Leisure is doing nothing.
17	Leisure is a way of clearing my mind and I don't have to think about anything.
18	Leisure for me is a break, a change from life's usual routine.
19	Leisure allows me to feel connected to something outside of myself.
20	Leisure allows me to escape the pressure of my daily routine.
21	I often find leisure is a time to reflect on life and discover a lot about myself.
22	I find my leisure experiences begin spontaneously.
23	For me leisure is often a spur of the moment thing because all the other obligations in my life have been fulfilled.
24	**Leisure provides me a chance to rejuvenate.
25	**Leisure is when I get to sit back and relax.
26	**Leisure gives me a chance to ignore what others think and really enjoy myself.
27	**I like to get a benefit out of my leisure, like gaining a sense of accomplishment or achievement.

**These items were excluded during the item analysis of the final version

cent of subjects had completed secondary education and 56% had a tertiary or trade qualification. Two thirds of subjects were in employment; with 44% being white-collar workers and 23% being blue-collar workers. Comparison of subjects' backgrounds with Australian Bureau of Statistics population parameters revealed the sample was generally representative of the broader community, although females were slightly over-represented.

Structure

Analysis of the LMI's psychometric properties occurred in the same manner as in previous stages. An initial analysis of the distribution and in-

ternal consistency of the overall inventory suggested that the internal consistency would improve (from .80 to .81) if four items were removed. Following the removal of the items, the data was considered suitable for factor analysis as both the Kaiser-Meyer-Olkin value (.79) and Barlett's Test of Sphericity ($\chi^2 = 2708.06$, $df = 253$, $p < 0.01$) were sufficient. The LMI was then subjected to a confirmatory Principal Components Analysis. This resulted in the selection of a four-component solution. This was again confirmed by an examination of the scree slope. To aid in interpretation of these four components a Varimax rotation was performed. The rotated solution corresponded to the four categories of leisure meaning and collectively accounted for 54.2% of the variance (see Table 3). Each component was named after its theoretical counterpart. Passing Time explained 15.7% of the variance and comprised five items reflecting leisure as the time left over when individuals did nothing or engaged in relatively inactive behaviors. Escaping Pressure with 13.3% of the variance comprised three items describing leisure as a way of to disengage and take a break from work and everyday life. Exercising Choice with 12.7% of the variance comprised four items reflecting the experience of managing obligations and exercising control in life. The fourth experience, Achieving Fulfillment, accounted for 12.5% of the variance and comprised four items describing leisure as an opportunity for self-discovery and personal growth.

Reliability

The internal reliability of the LMI was assessed by inspecting the Cronbach (1951) alpha coefficients of the overall inventory and the alpha coefficients of each of the sub-scale. Alphas of .70 and above were usually considered acceptable; however, both Nunnally (1978) and Kline (2000) argued that in the social sciences alphas between .60 and .70 were also acceptable for exploratory research. Furthermore, Cattell (1973) argued that high internal reliability is antithetical to validity and should be used with caution. Cattell stated that too high internal reliability could lead to measurement of rather narrow and psychologically trivial variables. The internal reliability of the final 23-item LMI was encouraging (alpha = .81). While each of the individual category coefficients were lower (Passing Time = .74, Exercising Choice = .66, Escaping Pressure = .74, and Achieving Fulfillment = .69) they were still considered adequate for exploratory research. Furthermore, the lower coefficients were to be expected given the broad range of dimensions within each category. Table 4 provides the intercorrelations between each of the leisure meaning categories.

Validity

The initial evidence for the validity of the LMI comes from the use of the descriptions of the four experiences reported by Watkins (1999) and from the use of the original transcripts from which these descriptions were developed. Paying particular attention to the relational meanings of words

TABLE 3
Rotated Solution following the Principal Component Analysis of the Leisure
Meaning Inventory

Factors and Items	Loading			
	1	2	3	4
Passing Time				
Leisure is doing nothing	.81			
To me leisure is all about doing inactive things	.77			
Most of my leisure usually involves lazing around and doing passive things	.67			
Leisure just occurs in my spare time	.59			
Leisure serves just to fill the extra time in my life	.58			
Escaping Pressure				
Leisure occurs when I am able to take time out and get away from everyday life		.80		
Leisure is the time when I get to disengage from normal life		.79		
Leisure for me is a break, a change from life's usual routine		.70		
Exercising Choice				
To me leisure stops being leisure when other people put pressure on me to perform			.78	
To me leisure stops being leisure when it needs to meet the expectations of others			.72	
Leisure is the time when I can be in control and do not have to meet the expectations of others			.67	
Leisure to me is having my time free of responsibilities, to do what I want to do and not the things I am obliged to do			.49	
Achieving Fulfillment				
I often find leisure is a time to reflect on life and discover a lot about myself.				.77
Sometimes I get so relaxed during my leisure it is almost spiritual and that is satisfying.				.76
Leisure allows me to feel connected to something outside of myself.				.64
Sometimes I get so engrossed that I forget about time and forget about myself.				.55
eigenvalue	3.77	1.91	1.81	1.17
% of variance explained	15.7	13.3	12.7	12.5
Cumulative % of variance	15.7	29.0	41.7	54.2

Note: Loadings below .3 are not reported

TABLE 4
Inter-correlations of the LMI categories

	Passing Time	Exercising Choice	Escaping Pressure	Achieving Fulfillment
Passing Time	1.00	.218 ($p < 0.01$)	.223 ($p < 0.01$)	.123 ($p < 0.01$)
Exercising Choice		1.00	.429 ($p < 0.01$)	.107 ($p < 0.01$)
Escaping Pressure			1.00	.283 ($p < 0.01$)
Achieving Fulfillment				1.00

used by subjects, and reflecting these meanings in the writing of individual items, enhances the likelihood that the LMI approximates different experiences of the leisure construct.

Assessment of the content validity of the LMI occurred by aligning the items retained in the final factor analysis with the description of the four experiences and their dimensions provided by Watkins (1999). In the case of the LMI, the 16 highest loading items represented a majority of dimensions within each experiential category. The strongest dimensions in respective order reflected the act of leisure, the time in which leisure occurred, the intention associated with leisure, the context or situation in which leisure occurred and the outcome or consequences of leisure. However, the affective dimension in the inventory appeared to be weak. Furthermore, the confirmation of the structure by the factor analysis supports the validity of the inventory.

Partial assessment of the concurrent validity of the LMI occurred by comparing relationships between three experiences measured by the LMI with similar aspects measured in other leisure scales. These scales were the Self-determination Scale (Coleman, 2000); the Leisure Needs Scale (Iso-Ahola & Allen, 1982); and the REP Scale (Graefe, Ditton, Roggenbuck & Schreyer, 1981). Analysis indicated that while all relationships are in the expected direction, they are generally weak or at best moderate (see Table 5). Low correlations, however, were expected given the divergent character of scales in respect to using different definitions of leisure meaning. Kline (2000) stated that often the best that can be done with a new construct is to correlate the test with whatever tests that are available, often these imperfectly measure the variable and correlations of around .4 or .5 are all that can be expected. When considering this form of validity in conjunction with the content validity and the factor analyses, the overall validity of the LMI appeared adequate.

Discussion

The study results illustrate the viability of adopting a measurement approach that conceptualizes leisure meaning as a relational phenomenon, and

TABLE 5
Correlation of the LMI to other Leisure Constructs

	Coleman (1999) Self determination: self	Coleman (1999) Self determination: external control	Iso-Ahola & Allen (1982) Escape from daily routine	Graefe et al. (1981) Stress	Graefe et al. (1981) Achievement
Exercising Choice	$r = 0.21$ ($p < 0.01$)	$r = 0.22$ ($p < 0.01$)			
Escaping Pressure		$r = 0.25$ ($p < 0.01$)	$r = 0.40$ ($p < 0.01$)	$r = 0.55$ ($p < 0.01$)	
Achieving Fulfillment					$r = 0.60$ ($p < 0.01$)

creating a scale that quantifies several different ways of experiencing the meanings of leisure. Passing Time and Escaping Pressure were the strongest experiences measured by the LMI, although the relatively equal contribution made by Exercising Choice and Achieving Fulfillment to the total explained variance suggests the four experiences are significant to measuring an experiential field of meanings. More generally, the results confirm the four experiences generated using interpretive methods are useful when presented in the form of a psychometric scale that measures a limited number of different leisure meanings.

In comparison with existing instruments operationalizing leisure meaning as a cognitive construct, and that imply the operation of mental states, the construct operationalized in the LMI reflects an experiential or embodied state of being at leisure. This finding was evident by items with high factor loadings that express meaning in terms of modes of action. Furthermore, measuring different ways of experiencing the meaning of leisure appears to be inclusive of dimensions capturing a breadth of content relating to the context, intention, time, action, and outcome of leisure.

The four meanings of leisure and their constituent dimensions reflect similar meanings and characteristics described by previous research. One has to go back to the early work of Donald and Havighurst (1959), however, to find the most direct reference to some of these meanings, notably passing time and achieving something. Moreover, this study complements the description of a single multi-dimensional category of meaning described by Freysinger (1995) and the several categories of interrelated meanings proposed by Dupuis and Smale (2000), but indicates the empirical existence of several multi-dimensional categories that capture variations in experience. Of the different dimension, the three most capable of measuring these variations emphasized the meanings assigned to the act of leisure, the period of time in which leisure occurs and the intentions associated with leisure.

Other dimensions were either partially represented or in the case of the emotional dimension, virtually non-existent.

Presenting four groups of subjects with four different pools of items showed the best approach to presenting leisure meanings was through a combination of short phrases and longer sentences, rather than through ordering items or using extended paragraphs. Whilst the approach falls short of representing a highly contextualized description of meaning in the form of logically sequenced or comprehensive descriptions, the existence of several long sentence items that link two contextually related ideas (e.g., taking time out and getting away) indicates the LMI conveys some degree of contextual relevance in the presentation of different meanings to subjects.

When compared with instruments measuring other leisure constructs, the psychometric properties of the LMI are generally comparable, although they clearly fall toward the lower end of reliability estimates in terms of the overall scale and for individual subscales. Principal Component Analysis confirmed the four-factor structure, which proved to be relatively robust using a variety of populations during each stage of development and testing. The validity of the LMI is therefore encouraging.

The conclusions reached above, need to be considered against a number of limitations with the LMI. First, the proportion of explained variance in the final factor structure of 54%, suggests the scale does not identify or explain other factors of leisure meanings. Whilst this level is comparable to other psychometric leisure scales, which range from 38% for the Neulinger and Breit (1971) scale up to the high 50 percent level for other scales (cf. Bucholz, 1976; Neulinger & Breit, 1969; Beard & Ragheb, 1983), the LMI maybe limited in its breadth by the nature of the construct used to operationalize leisure meanings. Given the conceptual framework used in the study focused on describing the most significant differences in meaning along with Mannell's (1980) observation that operational definitions may only tap a few different aspects of leisure, this is an understandable outcome. Nevertheless, the result indicates the need to develop and test additional items and experiences of leisure meaning in an attempt to improve the explained variance and internal consistency of the scale. Further research is also required to establish the long-term stability of the LMI using test-retest procedures to examine the reliability of the instrument with varying populations.

A notable problem with the LMI concerned the operationalization of the emotion dimension. Participants found it difficult to distinguish between relational meanings of physical, emotional, or mental relaxation, and meanings of enjoyment such as fun, satisfaction, pleasure, or happiness. It is interesting to note, however, that they did make sense of the relational meanings of other dimensions, and that Achieving Fulfillment, which conveys the strongest emotional qualities of the four experiences, included an item measuring spiritual relaxation and satisfaction. Other researchers have identified the problem and related it to the inability of psychometric methods to quan-

tify subtle nuances of meaning (e.g., Mannell, 1980; Havitz & Dimanche, 1997). Perhaps emotional concepts are one area where this is more noticeable. Nevertheless, to claim the LMI represents a breadth of meaning without sufficiently accounting for the rich emotional qualities of meaning is an aspect requiring attention.

Bearing in mind these limitations, the LMI offers several applications touched upon at the beginning of the paper. For leisure researchers the four experiences and dimensional framework serves as a basis for constructing a model around several multi-dimensional meanings. This model would permit the distribution of meanings to be investigated within the same person and over different periods of their life course, to subsequently confirm whether meanings are stable or transitory (cf. Mannell, 1980) and whether meanings follow a career like trajectory (cf. Dupuis and Smale (2000). Comparison of sub-groups on variables such as age, gender, and marital and employment status, would indicate how meanings are more broadly distributed and how they may reflect the situational contingencies of individuals. The model would also enable researchers to investigate empirical relationships between leisure meanings and measures of behavior (e.g., activity preferences, participation levels, and dropout rates), well-being (e.g., feelings of boredom, depression, and happiness), and quality of life (e.g., attachment to social networks and civic engagement).

From a service delivery perspective, managers may find the LMI useful in conjunction with cluster analysis to create client profiles based on combinations of meanings, socio-demographic variables, and consumer behavior variables for marketing purposes. For activity staff, the LMI represents an assessment tool for understanding the meanings clients bring to leisure settings. For example, in the context of clients involved in a rock climbing activity, individuals who perceive leisure as exercising choice may place greater emphasis on developing their competency through learning climbing techniques rather than clients who seek to escape the pressure of work or home through the adrenaline rush of hanging precariously from cliffs. The choice of location and form of instruction would be different for each of these clients based on their underlying meanings. Evaluating experiences for their potential to foster individual' capabilities for experiencing different and perhaps more inclusive and empowering meanings, is an additional and intriguing application (cf. Hemingway, 1995).

In summary, the LMI provides a relatively reliable and valid instrument that conceptualizes leisure meanings as an experiential construct with relational qualities. The significance of the scale is that it complements existing instruments by providing a direct measure of several different leisure meanings in terms of experiences that embody different ways of being at leisure, and provides an avenue to study the relationships between leisure meanings, behaviors, and outcomes.

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