



FREE TIME MANAGEMENT, LEISURE PARTICIPATION AND SATISFACTION IN UNIVERSITY STUDENTS

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Abstract

The aim of the study is to examine free time management, leisure participation, leisure satisfaction and life satisfaction in university students. Population consisted of 3665 students taking elective physical education courses. From the sampling formula ($n = \frac{Nt^2pq}{d^2(N-1) + t^2pq}$) sample size was 348 and 400 students were included in the study. For data collection "Free time management", "Leisure Satisfaction" and "Life Satisfaction" scales were utilized. Mann Whitney U test and Spearman Correlation Coefficient were used in statistical analyses. Life satisfaction scores showed positive correlation with Leisure Satisfaction and Free time management subscales ($p < 0.05$). Goal setting, evaluating and leisure attitude subscales showed positive correlations. Women participants achieved higher scores in psychological, relaxation subscales of leisure satisfaction and leisure attitude and programming subscales of free time management scales ($p < 0.05$). For future studies free time management can be associated with leisure concepts such as perceived freedom and leisure meaning.

Keywords: Recreation, Leisure, Free Time Management, Life Satisfaction, Leisure Satisfaction.

INTRODUCTION

Being defined as one of the six domains of satisfaction from life (Headey, Veenhoven, & Wearing, 1991), leisure is an important concept in an individual's life. A definition by Stebbins (2005) states that "leisure could be defined as uncoerced activity undertaken during free time where such activity is something people want to do and at a personally satisfying level using their abilities and resources, they succeed in doing" (Schmiedeberg & Schröder, 2017). In short leisure refers to use free time for participating various physical, spiritual or social activities (Liang, Yamashita & Brown, 2013). According to Robinson and Godbey (1999), free time provides a good opportunity to individuals to do what they want to do and derive pleasure, happiness and self-expression (Wang, Wu, Wu, & Huan, 2012). The utilization of free time in a positive way is important and may result in personal and social improvement meanwhile if used negatively this may cause individual and social problems (Karaküçük, 2008).

Literature Review

The concept of free-time management refers to the situation that individuals use this uncommitted time efficiently by making an arrangement about their goals and setting priorities among the planned activities. According to a study applied to university students in Taiwan, free time management and quality of life showed positive significant relationships (Wang, Kao, Huan, & Wu, 2011). In another study, free-time management showed negative correlations with leisure boredom. This is important because when individuals can not use their free time healthily and constructively they may kill their time or even participate in destructive activities (Wang, Wu, Wu, & Huan, 2012). According to Wang

and Kao (2006) free time management consists of steps like setting goals and priorities, adopting procedures, organizing and making schedules and cultivating an appropriate attitude towards free time. Besides all positive effects, the effective management of free time is expected to bring satisfaction with leisure which is the subjective valuation of leisure experience (Ateca Amestoy, Serrano-del-Rosal, Vera-Toscano, 2008). Leisure satisfaction is defined by Beard and Ragheb (1980) as the positive satisfaction or emotions an individual shows, achieves or obtains due to leisure participation. This is the satisfaction level that individual obtains from general leisure experiences. Beard and Ragheb (1980) suggested that it would be useful to inquire how satisfaction obtained from leisure choices relates to personal and social adjustment, mental health and overall happiness in order to improve quality of life of individuals (Ito, Walker, Liu, & Mitas, 2017). Beard and Ragheb (1980) measured leisure satisfaction in six dimensions such as psychologic, education, social, relaxation, pshysiologic and asthetic. The concept of leisure satisfaction was one of the main topics examined in leisure literature and was often connected with positive feelings referring to an individual's life. There were various studies giving evidences for the positive relationship of leisure satisfaction with subjective well being (Ito Walker, Liu, & Mitas, 2017), happiness (Kaya, 2016), psychological health (Pearson, 2008), psychological well-being (Shin & You, 2013). One of the main concepts that leisure satisfaction was related in leuire literature is life satisfaction. Life satisfaction is defined by Diener, Emmons, Larsen & Griffin (1985) as evaluation of an individual's own life by the criteria set by himself/herself. In various studies life satisfaction is found to be related with leisure satisfaction (Agyar, 2014; Brown & Frankel, 1993; Ercan, 2016; Huang & Carleton, 2003; Kim, Roh, Kim, & Irwin, 2016).

University education is the last step towards the life of adulthood and the last step to gain habits and a healthy life style. Besides positive health and psychological efects (Carruters & Hood, 2004; Haines, 2001; Todd, Czynszczon, Carr & Pratt, 2009), leisure participation provides opportunities for students to get rid of the intensity of academic life and go beyond the borders of classrooms and laboratories (Balci & İlhan, 2006). So managing free-time and gaining awareness for the benefits of leisure is important for university students. According to the literature above mentioned the current study focuses on free-time management, leisure satisfaction and life satisfaction in university students

METHOD

This study is a descriptive and cross-sectional study. Population of the study consisted of 3665 students participating in elective physical education courses. Sample size of the study was calculated with the formula $n = Nt^2pq / d^2 (N-1) + t^2pq$ and a sample size of 348 was obtained. After considering the data loss, 400 voluntary university students were selected randomly. Mean age of participants were 22.03 ± 1.819 . Demographic information about participants were presented in Table 1.

Table 1: Demographic Information of the Participants

		n	%
Gender	Men	231	57.8
	Women	169	42.3
	Total	400	100
Place of Birth	City	358	89.5
	Town	33	8.3
	Village	9	2.3
	Total	400	100
Perceived Economical Status	Very Good	33	8.3
	Good	214	53.5
	Average	134	33.5
	Poor	17	4.3
	Very Poor	2	0.5
	Total	400	100

Level of Income			
	≤1000 TL.	14	3.5
	1001-2000 TL.	120	30.0
	2001-3000 TL.	62	15.5
	3001-4000 TL.	45	11.3
	4001-5000 TL.	124	31.0
	≥5001 TL	35	8.8
	Total	400	100.0

Data collection tool of the study is a questionnaire consisting of five parts. In the first part demographic information, in the second part recreational activity participation are inquired. The third part of the data collection tool is "Life Satisfaction" scale developed by Diener, Emmons, Larsen, & Griffin (1985) and adapted to Turkish language by Köker (1991). The scale consisted of 5 questions with 7 point Likert scale that make up one dimension. Köker (1991) stated that the test re-test reliability coefficient of the scale was $\alpha = 0.85$. The internal reliability of the scale was found as $\alpha = 0.903$ in this current study. The fourth part of the questionnaire consisted of "Leisure Satisfaction Scale" developed by Beard and Ragheb (1980) and adapted to Turkish by Karlı, Polat, Yılmaz, & Koçak (2008). After the reliability and validity analyses, the Turkish version had 39 items of Likert 5-type with six subscales (Psychologic, Education, Social, Relaxation, Physiological, Aesthetic). The variance explained by factors was %45.277 and Cronbach Alpha was $\alpha = 0.92$. In this current study the Cronbach Alpha was 0.946 and between 0.772-0.859 for subscales. In the fifth part of the questionnaire form, "Free Time Management" scale developed by Wang, Kao, Huan, & Wu (2011) and adapted Turkish by Akgül and Karaküçük (2015) was used. According to the validity analyses, 4 factors explaining the 61% of variance were found. The number of items was 15. Goodness of fit indexes validated the factor structure (RMSEA=0.056; S-RMR=0.076; CFI=0.97; GFI=0.90 and RFI=0.87). Cronbach alpha level was 0.83 and test re-test reliability was 0.86. In this current study alpha coefficients were between 0.761-0.887 for subscales.

Statistical Analysis: Statistical analyses were carried out by SPSS 18.0. Besides descriptive statistics, Mann Whitney U test was used as data showed non-parametrical distribution. Non-parametrical Spearman Correlation test was utilized.

FINDINGS

In the findings section of the study, findings concerning recreational activity participation, life satisfaction, leisure satisfaction and free time management of the participants are presented. In Table 2 participants were asked with whom and why they join recreational activities and they were allowed to mark more than one choice.

Table 2: Recreational activity participation: With whom and why they participate?

		Frequency of ticks	%	n
I participate in recreational activities...	Alone	289	72.3	400
	With friends	365	91.3	400
	With family	151	37.8	400
	Other	1	0.3	400
I participate in recreational activities because...	It is enjoyable	342	85.5	400
	I want to be with friends	264	66.0	400
	I want to relax	255	63.7	400
	I want to cope with stress	211	52.8	400

I want to enter a new environment	115	28.7	400
People around me motivate me	104	26.0	400
I want to cope with loneliness	98	24.5	400
I want to be happy	274	68.5	400
I want to learn new skills	159	39.8	400

According to Table 2, "participating with friends" was marked with highest frequency. Among 400 students 365 (91.3%) marked this choice. Additionally students were asked why they participate in recreational activities. Most of the ticks were for the choice "It is enjoyable" with 85.5% and "I want to be happy" with 68.5%. In Table 3 the level of participation in recreational activities are given.

Table 3: Recreational Activity Participation of Participants

	Participation	Frequency	%
Weekly Duration of Participation	1-5 hours	90	22.5
	6-10 hours	227	56.8
	11-15 hours	54	13.5
	≥16 hours	29	7.2
	Total	400	100
Weekly Frequency of Participation	1-2 times	75	18.8
	3-4 times	210	52.5
	5-6 times	93	23.3
	≥7 times	22	5.5
	Total	400	100.0
Participation in Sport Activities	Active	328	82.0
	Passive	72	18.0
	Total	400	100.0
Participation in Social Activities	Active	342	85.5
	Passive	58	14.5
	Total	400	100.0
Participation in Cultural activities	Active	225	56.3
	Passive	175	43.8
	Total	400	100.0

When the findings in Table 3 is examined it is found out that participants mostly preferred to participate 6-10 hours (56.8%) and 3-4 times (52.5%) weekly. Active participation was preferred in sport activities (82.0%) and social activities (85.5%), and cultural activities (56.3%). In Table 4 descriptive statistics that participants obtained from scales are presented.

Table 4: Descriptive statistics obtained from scales

Scales	n	X	Sd
<i>Life satisfaction</i>			
TOTAL SCORE	400	4.75	1.20
<i>Leisure Satisfaction</i>			
Psychologic	400	3.93	0.68
Education	400	3.90	0.62
Social	400	3.78	0.64
Relaxation	400	4.13	0.78

Physiologic	400	3.88	0.69
Aesthetic	400	3.96	0.73
TOTAL SCORE	400	3.91	0.54
<i>Free Time Management</i>			
Goal setting and technique	400	3.12	0.98
Evaluating	400	3.66	0.79
Leisure Attitude	400	3.99	0.90
Scheduling	400	3.06	1.05
TOTAL SCORE	400	3.39	0.56

According to the results in Table 4, participants have more than an average level of life satisfaction (4.75 ± 1.20). When we consider leisure satisfaction scores the highest satisfaction is achieved from relaxation and aesthetic subscales. Among free time management subscales, leisure attitude has the highest score. This means that individuals consider leisure meaningful and important. In Table 5 the correlation between life satisfaction and leisure satisfaction is presented.

Table 5: Correlation Coefficients and Significance Levels for Life Satisfaction and Leisure Satisfaction

	Life Satisfaction
Life satisfaction	1
Leisure Satisfaction	<i>0.382***</i>
Psychologic	<i>0.350***</i>
Education	<i>0.277***</i>
Social	<i>0.235***</i>
Relaxation	<i>0.256***</i>
Physiologic	<i>0.308***</i>
Aesthetic	<i>0.346***</i>

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

When the correlation coefficients between life satisfaction and leisure satisfaction scales are examined it was found out that there are significant positive correlations for all subscales. The highest correlation was between life satisfaction and overall leisure satisfaction levels ($r = 0.382$, $p < 0.001$). In Table 6, correlation between life satisfaction and free time management is presented.

Table 6: Correlation Coefficients and Significance Levels for Life Satisfaction and Free Time Management

	Life Satisfaction
Life satisfaction	1
<i>Free Time Management</i>	<i>0.174***</i>
Goal setting and technique	<i>0.114***</i>
Evaluating	<i>0.258***</i>
Leisure Attitude	<i>0.288***</i>
Scheduling	<i>-0.119*</i>

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

When the correlation coefficients between life satisfaction and free time management are considered except scheduling subscale all the subscales had positive correlations with life satisfaction. The highest

correlation of life satisfaction was with leisure attitude ($r=0.288$, $p<0.001$). In Table 7, correlation between leisure satisfaction and free time management is presented.

Table 7: Correlation Coefficients and Significance Levels for Leisure Satisfaction and Free Time Management

Leisure Satisfaction	
Leisure satisfaction	1
Free Time Management	0.410***
Goal setting and technique	0.165**
Evaluating	0.499***
Leisure Attitude	0.557***
Scheduling	-0.016

* $p<0.05$; ** $p<0.01$, *** $p<0.001$

When the correlation coefficients between leisure satisfaction and free time management are considered except scheduling subscale all the subscales had positive correlations with leisure satisfaction. The highest correlation of leisure satisfaction was with leisure attitude ($r=0.557$, $p<0.001$). In Table 8 comparisons of life satisfaction, leisure satisfaction and free time management according to sport participation are given

Table 8: Comparisons according to active and passive sport participation

	Active Participants (n=328)		Passive Participants (n=72)		Z	p
	\bar{x}	Sd	\bar{x}	Sd		
Life satisfaction						
TOTAL SCORE	4.82	1.16	4.46	1.37	-2.035	0.042
Leisure Satisfaction						
Psychologic	3.97	0.69	3.74	0.64	-3.044	0.002
Education	3.94	0.61	3.76	0.62	-2.292	0.022
Social	3.80	0.64	3.67	0.65	-1.900	0.057
Relaxation	4.16	0.77	3.98	0.81	-1.66	0.097
Physiologic	3.92	0.68	3.71	0.72	-2.155	0.031
Aesthetic	3.98	0.72	3.87	0.76	-1.140	0.254
TOTAL SCORE	3.94	0.54	3.76	0.55	-2.743	0.006
Free Time Management						
Goal setting and technique	3.07	0.98	3.32	0.93	-1.972	0.049
Evaluating	3.66	0.79	3.67	0.84	-0.165	0.869
Leisure Attitude	4.01	0.88	3.92	1.01	-0.490	0.624
Scheduling						
TOTAL SCORE	3.38	0.56	3.43	0.55	-0.553	0.581

Comparisons were made in life satisfaction, leisure satisfaction and free time management according to sport participation. Life satisfaction, overall leisure satisfaction, psychologic, education and physiologic levels are higher in active sport participants ($p<0.05$). When free time management scores are considered, goal setting and technique was lower in active sport participants ($p<0.05$).

Table 9: Comparisons according to gender

	Males (n=231)		Females (n=169)		Z	p
	\bar{x}	Sd	\bar{x}	Sd		
<i>Life satisfaction</i>						
TOTAL SCORE	4.61	1.16	4.87	1.25	-1.541	0.123
<i>Leisure Satisfaction</i>						
Psychologic	3.84	0.71	4.06	0.62	-3.011	0.003
Education	3.86	0.65	3.96	0.57	-1.287	0.198
Social	3.76	0.65	3.80	0.64	-0.427	0.669
Relaxation	4.05	0.76	4.22	0.79	-2.739	0.006
Physiologic	3.85	0.72	3.92	0.64	-1.047	0.295
Aesthetic	3.92	0.74	4.02	0.70	-1.535	0.125
TOTAL SCORE	3.86	0.57	3.97	0.51	-1.765	0.077
<i>Free Time Management</i>						
Goal setting and technique	3.06	1.03	3.18	0.90	-0.971	0.331
Evaluating	3.60	0.81	3.74	0.77	-1.770	0.077
Leisure Attitude	3.94	0.86	4.07	0.96	-2.116	0.034
Scheduling	2.98	1.04	3.17	1.07	-2.159	0.031
TOTAL SCORE	3.33	0.57	3.46	0.53	-2.950	0.003

Comparisons were made in life satisfaction, leisure satisfaction and free time management according to gender and significant results were obtained. Life satisfaction, overall leisure satisfaction, psychologic, relaxation, overall free time management levels, leisure attitude, scheduling are higher in female participants ($p < 0.05$).

DISCUSSION AND RESULTS

The aim of the study was to evaluate the findings of recreational activity participation, life satisfaction leisure satisfaction and free time management in university students. When demographic findings are considered, the group consisted of individuals who were 57.8% males, mostly born in cities, perceiving themselves with good and average socio-economic status. When the situation of participation in recreational activities is considered it was found out that students preferred to join activities with friends and they join the activities because they find activities enjoyable. Students preferred to join activities weekly 6-10 hours and 3-4 times a week. They participate sport, social and cultural activities actively. Life satisfaction level of the participants was above average level. When leisure satisfaction derived from leisure participation is considered the highest scores were obtained from «Relaxation» subscale. In a study conducted to students who had played digital games in Taiwan «Psychological» subscale had the highest score (Hou, Tu, & Young, 2007). Among free time management subscales, leisure attitude has the highest score. This means that individuals consider leisure meaningful and important. Life satisfaction had positive and significant correlations with all subscales of leisure satisfaction. It can be concluded that the positive perceptions derived from leisure participation has a significant relationship with the satisfaction one derives from his/her life according to the criteria he/she sets. In leisure literature there are many studies with parallel results to these findings. There are studies where leisure satisfaction has positive correlation with life satisfaction. Griffin & McKenna (1998) and Gökçe (2008) found a significant relationship between life satisfaction and leisure satisfaction, Brown & Frankel (1993), Huang & Carleton (2003) and Agyar (2014) reported that there was a positive linear relationship between these two satisfactions. In this study positive perceptions of leisure such as leisure satisfaction showed positive correlation with free-time-management subscales except scheduling. In a study by Wang, Wu, Wu, and Huan (2012) negative perceptions of leisure such as leisure boredom showed negative correlations with free time



management in university students in Taiwan. In this current study life satisfaction showed positive correlations with goal setting and technique, evaluating and leisure attitude, while in a study by Akgül, Senol, and Karaküçük (2016), additionally scheduling subscale showed a positive correlation with life satisfaction. Wang, Kao, Huan, and Wu (2011) found positive correlation with quality of life for university students in Taiwan. According to the results women participants had higher scores from most of the leisure satisfaction subscales. There are studies parallel to these results (Gökçe, 2008; Vong Tze, 2005). But there are also studies which could not find any differences between genders concerning leisure experiences (Lu & Hu, 2005; Siegenthaller & O'Dell, 2000). When free time management is considered in this current study leisure attitude and scheduling was higher in females. In a study by Akgül, Senol and Karaküçük (2016) females had higher scores in scheduling. One of the limitations of the study was the size and representation of the sample. A sample representing the university students of Turkey would enable us to make generalizations. Further validity studies are recommended for leisure satisfaction scale. These concepts could be further used in relation with other psychological variables such as psychological well-being, self esteem and other perceptions of leisure activity participation. University education is the last step towards the life of adulthood and the last step to gain habits and a healthy life style. Gaining awareness for the benefits of leisure is also important. Therefore the literature concerning university students shows importance.

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REFERENCES

- Agyar, E. (2014). Contribution of perceived freedom and leisure satisfaction to life satisfaction in a sample of Turkish Women, *Social Indicators Research*, 116, 1-15.
- Akgül, B.M., Senol, G., & Karaküçük, S. (2016). An examination on the recreational use of Internet by research assistantants off-duty or off-education according to several variables. *Universal Journal of Educational Research*, 4(1), 181-191.
- Ateca-Amestoy, V. & Serrano-del-Rosal, R. & Vera-Toscano, E. (2008). The leisure experience. *The Journal of Socio-Economics*, 37(1), 64-78.
- Balcı, V., & İlhan, A. (2006). The determination of student's participation levels to recreational activities in universities of Turkey. *SPORMETRE Physical Education and Sport Sciences Journal*, 4(1), 11-18.
- Beard, J.G. & Ragheb, M.G. (1980). Measuring leisure satisfaction. *Journal of Leisure Research*, 12, 20-33.
- Brown, B.A. & Frankel, B.G. (1993). Activity through the years: Leisure, leisure satisfaction and life satisfaction. *Sociology of Sport Journal*, 10, 1-17.
- Carruthers, C.P. & Hood, C.D. (2004). The power of the positive. Leisure and well-being. *Therapeutic Recreation Journal*, 38(2), 225-245.
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.



- Ercan, P. (2016). An analysis on the level of leisure satisfaction and the level of satisfaction with life of young people who attend sport education camps in nature. *Educational Research and Reviews*, 11(8), 834-841.
- Gokce, H. (2008). *Examining of the leisure satisfaction with the relation between life satisfaction and socio-demographic variables*. Unpublished Master Thesis, Pamukkale University, Denizli, Turkey.
- Griffin, J. and McKenna, K. (1998). Influences on leisure and life satisfaction of elderly people. *Physical & Occupational Therapy in Geriatrics*, 15(4), 1-16.
- Haines, D.J. (2001). Undergraduate student benefits from university recreation. *NIRSA Journal*, 25, 25-33.
- Headey, B., Veenhoven, R., & Wearing, A. (1991). Top-down versus bottom-up theories of subjective wellbeing. *Social Indicators Research*, 24, 81-100.
- Hou, J.J., Tu, H.H.-J., & Yang, M-F. (2007). Agreeableness and leisure satisfaction in the context of online games. *Social Behaviour and Personality*, 35(10), 1379-1384.
- Huang, C.Y., & Carleton, B. (2003). The relationships among leisure participation, leisure satisfaction and life satisfaction of college students in Taiwan. *Journal of Exercise Sciences and Fitness*, 1(2), 129-132.
- Ito, E., Walker, G.J., Liu, H. & Mitas, O. (2017) A cross-cultural national study of Canadian, Chinese and Japanese university students' leisure satisfaction and subjective well-being. *Leisure Sciences*, 39(2), 186-204.
- Karaküçük, S. (2008). *'Rekreasyon' boş zamanları değerlendirme*, Ankara: Gazi Kitabevi.
- Karlı, Ü., Polat, E., Yılmaz, B., & Koçak, S. (2008). Reliability and validity of leisure satisfaction scale (LSS-long version). *Hacettepe Sport Sciences Journal*, 19(2), 80-91.
- Kaya, S. (2016). The relationship between leisure satisfaction and happiness among college students. *Universal Journal of Educational Research*, 4(3), 622-631.
- Kim, J., Roh, E.Y., Kim, G., & Irwin, L. (2016). Understanding the relationships between leisure satisfaction, self-esteem, family satisfaction and life satisfaction among Korean individuals with intellectual disability. *Therapeutic Recreation Journal*, 4, 265-267.
- Kovacs, A. (2007). *The leisure personality. Relationships between personality, leisure satisfaction and life satisfaction*. Unpublished doctoral dissertation, Indiana University.
- Koker, S. (1991). *Comparison of the level of life satisfaction of normal adolescents and adolescents with problems*. Unpublished Master Thesis, Ankara University, Ankara, Turkey.
- Liang, J., Yamashita, T., & Brown, J.S. (2013). Leisure satisfaction and quality of life in China, Japan and South Korea: A Comparative study using AsiaBarometer 2006. *Journal of Happiness Studies*, 14, 753-769.
- Lu, L. and Hu, C. H. (2005). Personality, leisure experiences and happiness. *Journal of Happiness Studies*, 6(3), 325-342.
- Pearson, Q. M. (2008), Role overload, job satisfaction, leisure satisfaction and psychological health among employed women. *Journal of Counseling & Development*, 86, 57-69.



Robinson, J. P., & Godbey, G. (1999). *Time for life: the surprising ways Americans use their time*. State College, PA: The Pennsylvania State Univer. Press

Schmiedeberg, C., Schröder, J. (2017). Leisure activities and life satisfaction: An analysis with German panel data. *Applied Research Quality Life*, 12, 137-151

Siegenthaler, K. L. & O'Dell, I. (2000). Leisure attitude, leisure satisfaction and perceived freedom in leisure within family dyads. *Leisure Sciences*, 22, 281-296.

Shin, K., You, S. (2013). Leisure type, leisure satisfaction and adolescents' psychological wellbeing. *Journal of Pacific Rim Psychology*, 7(2), 53-62.

Stebbins, R. A. (2005). Choice and experiential definitions of leisure. *Leisure Sciences*, 27(4), 349–352.

Todd, M.K., Cayszczon, G., Carr, J.W. & Pratt, C. (2009). Comparison of health and academic indices between campus recreation facility users and nonusers. *Recreation Sport Journal*, 33, 43-53.

Vong Tze, N. (2005). Leisure satisfaction and quality of life in Macao, China. *Leisure Studies*, 24(2), 195-207.

Wang, W-C, & Kao, C-H. (2006). An exploration of the relationships between free time management and the quality of life of wage-earners in Taiwan. *World Leisure Journal*, 48(1), 24-33.

Wang, W-C, Kao, C-H, Huan, T-C, & Wu, C-C. (2011), Free time management contributes to better quality of life: A study of undergraduate students in Taiwan. *Journal of Happiness Studies*, 12, 561-573.

Wang, W-C, Wu, C-C, Wu, C-Y, & Huan, T-C. (2012). Exploring the relationships between free-time management and boredom in leisure. *Psychological Reports*, 110(2), 416-426.