

Correlation Study between Positive Emotion and Leisure Negotiation

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ABSTRACT. *Researchers have noticed that past studies concentrates on “leisure constraints” and neglects “leisure negotiation”. It is well documented that leisure participation does not result from the absence of leisure constraints, but from the process of leisure negotiation. The purpose of this study was to explore the correlation between positive psychology and leisure negotiation. A sample of 385 college students was collected applying questionnaires of Positive Emotion and Leisure Negotiation. Results from joyfulness and flow experience exhibited medium to high significant positive correlations with all of the college students negotiation strategies used as time management (-0.56), skill development (-0.91), personal relations (-0.48), budget (-0.43), and physical fitness (-0.64). Furthermore, findings from flow has medium significant positive correlations with college students’ negotiation strategies of time management (0.77), and joyfulness had significant negative correlations with time management (-0.73). Future studies may further explore the role of different dimensions of positive emotions in the leisure negotiation process*

Keywords: *leisure negotiation and canonical correlation, positive emotion,*

1. Introduction

The focus of positive psychology is on "positive prevention". Seligman (2002) held that imparting positive thinking to school-age children could help them to stay away from

depression, enhance their achievement and health, and bring them new self-understanding. Past studies have shown that the traditional psychology inherited the anti-happiness philosophy in culture and learned about such negative emotions as sadness, fear and pain, but had a limited understanding of such positive emotions as love, trust and laughter. (Seligman, 1972; Seligman & Maier, 1967). Therefore, the new psychology attaches importance to the treatment and repair of personal psychology and mental illness, and to the comprehensive development of people and society. Positive emotions, in fact, had greater preventive effects and were beneficial to physical and mental well-being (Salovey, Rothman, Detweiler & Steward, 2000). Pankepp (1988) suggested that the previous studies concentrated primarily on the physical and mental impact of negative psychological state. However, the present focus was on positive emotion, since positive emotion was not only conducive to physical and mental well-being, but could help to prevent diseases as well (Rogers, 1961; Maslow, 1968; Jahoda, 1958; Van Dierendonck, 2004; Deci & Ryan, 1985; Ryff & Singer, 2006; Vaillant, 2003).

Leisure negotiation means the negotiation strategies adopted in the face of leisure constraints in order to reduce leisure constraints and thus achieve the goal of leisure participation. The results of successfully negotiating leisure constraints may be leisure participation (Hubbard & Mannell, 2001; Ma, 2008; Loucks-Atkinson & Mannell, 2007). Crawford, Jackson, & Godbey (1991) viewed that the majority of the previous studies stressed why leisure constraints would lead to non-participation, an old thinking which should be renovated. The leisure negotiation strategies should be explored. They also thought that when people had leisure, their participation was not determined by constraints, but by whether the "negotiation" process was conducted, through which people decided non-participation, start of participation or continuity of participation. Tons of studies have shown that when people felt leisure constraints, they would not passively accept the situation of inability to participate, but rather they would take certain negotiation strategies to attain the goal of leisure (Hsieh, 2001; Lai, 2002; Crawford et al, 1991; McQuarrie & Jackson, 2002; Ma, 2008).

The main objective of this study is to explore if there is a connection between two dimensions of "the present positive emotion" (i.e., joyfulness and flow) and five dimensions of leisure negotiation strategies (i.e. time management, skill learning, money negotiation, interpersonal relationship negotiation and physical fitness negotiation), and whether the positive emotion caused by the past participation experience will affect the participation motivation, hence resulting in the willingness to solve leisure constraints. These are the important directions of this study.

2. Literature Review

2.1 Positive emotion

Positive psychology emphasizes that not only does psychology study the existing human or social problems, but studies the positive dimensions and factors of human heart. Therefore, many researchers focus on the study on exploring psychology in positive views, involving subjective well-being (Diener, 1984), psychological well-being (Ma, Tan, & Ma, 2012), happiness (Seligman, 2002), flow (Csikszentmihalyi 1975), etc. Instead of passively studying how to prevent the harm brought by negative factors, we should more actively promote positive thinking. Seligman & Csikszentmihalyi (2000) illustrated positive psychology from positive emotions, positive individual traits and positive institutions.

In recent years, people began to pay attention to the feelings of individuals, and then to the issues concerning emotional psychology (Seligman, 2002; Seligman & Csikszentmihalyi, 2000). However, the research into positive emotion is still in its infancy, so different experts and scholars entertain different interpretations of positive emotion. When defining positive emotions, this study adopts the positive emotions interpreted by the current authority Seligman in the domain of positive psychology. Seligman classified the positive emotions into the past, the present and the future based on different periods of time. In case of negative emotions in a time point, life would become drab. Only by mastering the skills of continuing happiness could the opinions about the past be changed. Only by cherishing hope for the future, experiencing the present and guiding ourselves to positive emotions could we maintain sound psychological quality (Seligman, 2002). In accordance with the dimensions of building "the present positive emotion" of Seligman, this study divides the "present positive emotion" into "joyfulness" and "flow", on the basis of which the measurement dimensions form.

2.2 Leisure negotiation

Jackson (2000) conducted a literature review on leisure constraints, and found that after 2000, the trend of studies on leisure constraints would no longer focus on the probe into constraints, but should concentrate on how to surmount these constraints and to search for some ways to attain the goal of leisure participation after they were felt. This kind of concept is referred to as leisure negotiation. In the earliest study, Jackson, Crawford & Godbey (1993) put forward the leisure negotiation hypothesis included in the hierarchical constraints model, holding that the leisure participation did not take place without constraints, but was a process through leisure negotiation. Researchers have proposed detailed and comprehensive arguments of leisure negotiation, thinking that leisure participation did not occur "without constraints", but the participation was changed "through negotiation". Rather than giving up of participation, the participation was often achieved regardless of leisure constraints (Ma,

2008; Son, Mowen., & Kerstetter, 2008).

The situation of personal leisure participation will be affected by time, financial status, leisure skills, companions and other causes. In other words, the leisure negotiation strategies adopted by individuals will also produce different results. In the light of the findings of the studies of Jackson & Rucks (1995) on leisure constraints and leisure negotiation strategies of the US high school students, the leisure negotiation strategies can be divided into cognition and behavior. The behavior strategies totaled 79 aspects, including 7 major constraints negotiation strategies, namely, time management, skill learning, changing interpersonal relationship, changing financial standing, physical therapy, changing leisure expectations and others. The cognition strategies, due to the differences in constraints, encompass 11 aspects: accepting incompleteness and doing the best, making ourselves more confident, not thinking about this event, forgetting its existence, trying to ignore it, ignoring the idea of parents or arguing with parents, neglecting the existence of problems, making ourselves more aggressive, contemplating the significance of schools, trying to be confident and having fun, but the strategies are not classified. The results show that most people choose negotiation strategies of behavior, with only a few people choosing the cognition strategies. Jackson et al. (1993) suggested that the start and result of constraints negotiation process was determined by the motivation of participating in leisure activities and the perceived constraints. In other words, in the event of a balanced relationship between the leisure constraints and the motives, leisure participation behavior will occur, and the extent of motives and of the constraints will affect the leisure negotiation strategies.

According to literature on the importance of casual disposal of leisure participation behavior, when people are confronted with leisure constraints, they will find a way to eliminate these constraints in order to attain the goal of leisure participation, the link of "leisure negotiation strategies" to which the above scholars attach the greatest importance. There is often no direct influence between leisure constraints and leisure participation. For instance, the proportion of high leisure constraint group is higher than that of the low leisure constraint group, since the former is more willing to face the constraints than the latter, and more actively participates in handling leisure constraints. As a result, when constraints are perceived in participation in leisure activities, the result is not necessarily prevention of participation, but depends entirely on the participants' response to the constraints. Specifically, leisure negotiation strategies can be divided into cognitive strategy and behavioral strategy. Jackson and Rucks (1995) further subdivided the behavioral strategy into seven categories, namely, time management, skill learning, improving interpersonal relationship, improving financial situation, physical therapy, changing leisure desire and other seven categories. The study will summarize, in accordance with the previous literature

concerning leisure negotiation (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Ma, 2008), the leisure negotiation strategies as "time management", "skill learning", "improving interpersonal relationship", "improving financial situation" and "physical fitness", which form the basis for measurement dimensions.

3. Research Method

3.1 Research Subjects

The subjects of this study are four-year university students from all colleges of National Pingtung University of Science and Technology (NPUST). This study employed stratified random sampling to collect samples. A total of 450 questionnaires were distributed, including 125 copies to College of Agriculture, 125 copies to College of Engineering, 100 copies to College of Management and 100 copies to College of Humanities and Social Sciences. After invalid 65 copies were deducted, the valid questionnaires collected were 385, with a valid response rate of 86%. The number and percentage of subjects in each group are presented in Table 1:

Table 1. Statistical Table of Questionnaires Collected from Subjects in All Colleges

	Distributed Questionnaires	Valid Questionnaires
College of Agriculture	125	100
College of Engineering	125	103
College of Management	100	95
College of Humanities and Social Sciences	100	87
Total	450	385

3.2 Research tools and scoring of scale

This study used the "Positive Emotion Scale" prepared by Hou (2006) and the "Leisure Negotiation Scale" prepared by Ma (2008) as the research tools. Specifically, positive emotion was divided into two dimensions, namely, "joyfulness" and "flow". A total of 16 questions were asked. 5-point Likert scale was adopted for measurement. The subjects answered the questions based on their agreement of actual feeling. Besides, leisure negotiation was divided into "time management", "skill learning", "money handling", "interpersonal relationship handling" and "physical fitness handling". A total of 32 questions were asked. 6-point Likert scale was adopted for measurement. The subjects answered the questions based on their agreement of actual feeling. The reliability and validity of the two

scales are within an acceptable range.

3.3 Data analysis

This study aims at understanding whether there is a correlation between positive emotion and leisure negotiation strategies. The data obtained were analyzed by using the SPSS for Windows 17.0 statistical software. Pearson correlation and canonical correlation were used to analyze whether there is a correlation between positive emotion and all dimensions of leisure negotiation. The level of significance of all statistical values was set at $\alpha = .05$.

4. Research Results

4.1 Descriptive statistics of variables

The results show that the subjects in this study had an average level of 3.47 in the basic descriptive statistics of all variables, variables of positive emotion and joyfulness, while that of flow was 3.62. This indicates that all subjects tend to have a medium to high joyfulness and flow experience. In respect of the variables of leisure negotiation strategies, the averages of time management, skill learning, improving interpersonal relationship, improving financial situation and physical fitness were 3.41, 3.57, 3.53, 3.11 and 3.30 respectively. This suggests that all subjects have a medium to high degree in the scale of six leisure negotiation strategies, as shown in Table 2.

Table 2. Summary Table of Descriptive Statistics of Variables

Variables	Number of Subjects	Average	Standard Deviation
Joyfulness	385	3.47	0.61
Flow	385	3.62	0.52
Time management	385	3.41	0.54
Skill learning	385	3.57	0.60
Money negotiation	385	3.53	0.64
Interpersonal relationship negotiation	385	3.11	0.63
Physical fitness negotiation	385	3.30	0.61

4.2 Relevant analysis of positive emotion and leisure negotiation strategies

4.2.1 Product-moment correlation of positive emotion and leisure negotiation

The summary of the Pearson product-moment correlation of all dimensions of positive

emotion and leisure negotiation strategies are shown in Table 3. The "joyfulness dimension" has a significant positive correlation with all dimensions of leisure negotiation strategies, and its correlation with the "skill learning" is the highest ($r = .21$), followed by "physical fitness" ($r=.17$), "improving interpersonal relationship" ($r = .12$) and "improving financial situation" ($r = .10$). The correlation coefficients ranged from .10 to .21. The "flow dimension" has a significant positive correlation with all dimensions of leisure negotiation strategies, and its correlation with the "skill learning" is the highest ($r = .29$), followed by "time management" ($r=.22$), "physical fitness" ($r=.20$), "improving financial situation" ($r=.16$) and "improving interpersonal relationship" ($r=.15$). The correlation coefficients ranged from .15 to .29.

Table 3. Summary Table of Correlation Analysis of Positive Emotion and Leisure Negotiation Strategies

Name of Dimensions	Joyfulness	Flow
Time management	.04	.22**
Skill learning	.21**	.29**
Interpersonal relationship negotiation	.12**	.15**
Physical fitness negotiation	.17**	.20**
Money negotiation	.10*	.16**

* $p<.05$ ** $p<.01$

4.2.2 Canonical correlation of positive emotion and leisure negotiation

This study uses canonical correlation analysis of all factor dimensions of positive emotion and those of leisure negotiation strategies (correlation analysis of variables in multiple groups) as a way to verify the relationship between positive emotion and leisure negotiation. This study regarded all factor dimensions of positive emotion as the control variables (X variables), and all factor dimensions of leisure negotiation as criterion variables (Y variables). The control variables include "joyfulness" and "flow", while the criterion variables involve "time management", "skill learning", "interpersonal relationship", "money management" and "physical fitness".

Two pairs of canonical correlation analysis coefficients in this study reach the level of significance ($p<.05$). For the first pair of canonical correlation coefficients, their Wilk's Λ is .869, canonical correlation coefficient is .392 and the variable explained by eigenvalue is 83.626%. For the second pair of canonical correlation coefficients, their Wilk's Λ is .976, canonical correlation coefficient is .204 and the variable explained by eigenvalue is 16.374%.

Therefore, the correlation between the control variables and the criterion variables can be effectively explained by using the two pairs of canonical correlation analysis. It is found from the empirical study that the hypothesis in this study is supported. In other words, there is a correlation between positive emotion and leisure negotiation.

Table 4. Test Result Table of Canonical Correlation of Positive Emotion and Leisure Negotiation Strategies

Positive Emotion (X variables)	Canonical Correlation Factors		Leisure Negotiation Y variables	Canonical Correlation Factors	
	X1	X2		Y1	Y2
Joyfulness	- 0.686*	- 0.727*	Time management	- 0.563*	0.776*
Flow	- 0.954*	0.325*	Skill learning	- 0.916*	0.023
			Interpersonal relationship	- 0.483*	- 0.050
			Financial situation	- 0.432*	- 0.035
			Physical fitness	- 0.646*	- 0.189
Percentage of explained variance	69.047	30.953	Percentage of explained variance	39.886	12.858
Overlap percentage	10.633	1.300	Overlap percentage	6.142	0.540
Canonical Correlation Coefficients	0.392	0.204	Canonical correlation coefficient 2	0.154	0.042

Note: When the absolute value of canonical loading is greater than 0.30, L * value is marked with *. The level of significance of canonical correlation coefficient, * $p < .05$

As shown in Table 4, the two sub-dimensions of positive emotion (control variable) affect the five sub-dimensions of leisure negotiation strategies (dependent variable) mainly through these two canonical variances ($\chi_1 \rightarrow \eta_1$; $\chi_2 \rightarrow \eta_2$). If the absolute value of the canonical loading (L) was greater than 0.30, this indicates that the sub-dimensions of such variable was important (Huang, 1999). To facilitate analysis, Table 4 (Canonical Correlation Analysis Table of Positive Emotion) was converted and developed into Figure 1 (Road Map of Canonical Correlation Analysis of Sub-dimensions of Positive Emotion and Sub-dimensions of Leisure Negotiation Strategies). The road map of significant variables was

indicated in solid line (i.e. $L > 0.30$ persons), whereas the road map of unimportant sub-dimensions was shown in dotted line (i.e. $L < 0.30$).

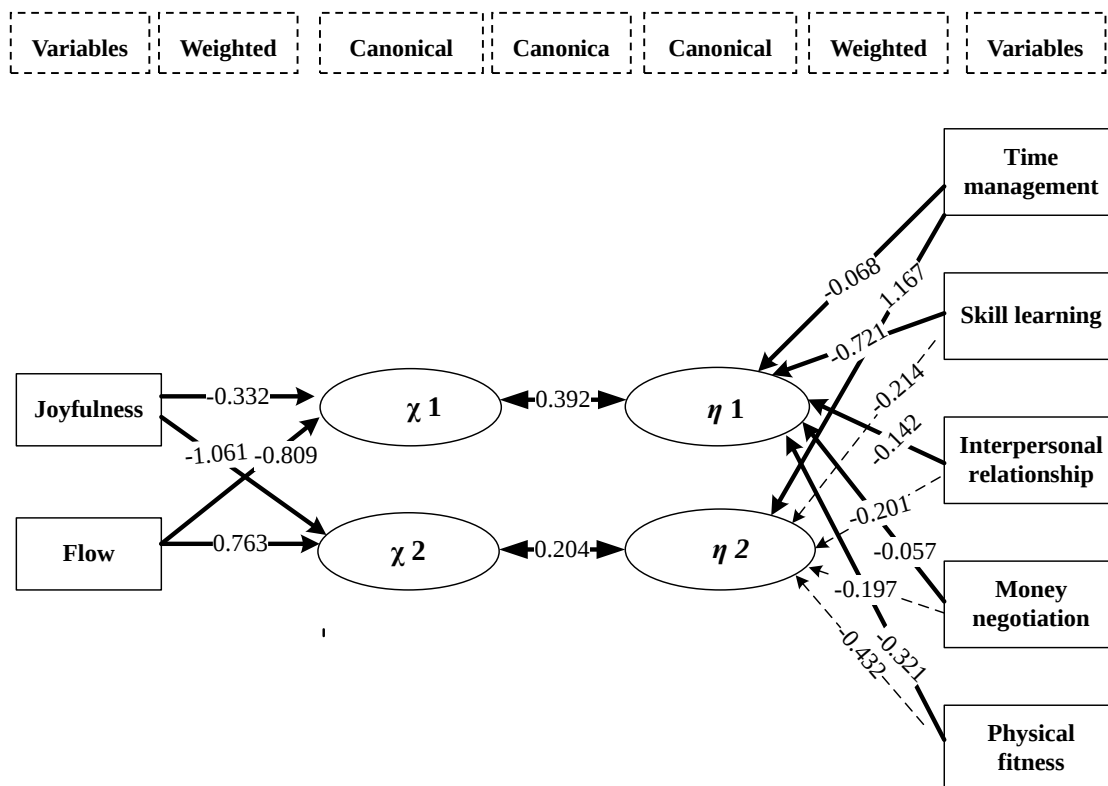


Figure 1. Road Map of Canonical Correlation Analysis of Positive Emotion and Leisure Negotiation Strategies

Note: The dotted line suggests the absolute value of canonical loading is less than .300

Table 4 and Figure 1 show that the canonical correlation coefficient of the first group is 0.392, and two sub-dimensions of "positive emotion" are associated with five sub-dimensions of "leisure negotiation strategies". The first canonical variable ($\chi 1$) of control variables in this study can explain 15.4% of the total variance of the first canonical variable ($\eta 1$) in the criterion variables. The first canonical variable ($\eta 1$) in the criterion variables can account for 39.886% of the total variance of criterion variables. The overlap of the control variables and the criterion variables is 6.142%. In other words, the control variables can explain 6.142% of the total variance of criterion variables through the first canonical variable ($\chi 1$ and $\eta 1$). The results also suggest that: in terms of sub-dimensions of the control variable "positive emotion", the university students, who obtain "joyfulness" leisure experience (-0.686) and "flow" leisure experience (-0.954) from participation in leisure activities, regarding sub-dimensions of "leisure negotiation strategies", show time management (-

0.563), skill learning (- 0.916), improving interpersonal relationships (- 0.483), improving financial situation (- 0.432) and physical fitness (- 0.646). In other words, in case of low positive emotion, the leisure negotiation of university students is accordingly low. As a result, if the university students gain relatively low positive emotion from participation in leisure activities, their willingness to address the leisure constraints is relatively low. The "positive emotion" and the "leisure negotiation strategies" are positively correlated. As can be observed from this finding, the university students, who fail to gain a pleasant experience from participation in leisure activities, their ability and willingness of leisure negotiations such as time management, skill learning, improving interpersonal relationship, improving financial situation and physical fitness are relatively low. Additionally, the university students, who fail to gain flow experience from participation in leisure activities, have a relatively poor capacity of the five leisure negotiation dimensions.

The canonical correlation coefficient of the first group is 0.204, and two sub-dimensions of "positive emotion" are associated with "time management" of "leisure negotiation strategies". Besides, the second canonical variable (χ^2) of control variables in this study can explain 4.2% of the total variance of the second canonical variable (η^2) in the criterion variables. The second canonical variable (η^2) in the criterion variables can account for 12.858% of the total variance of criterion variables. The overlap of the control variables and the criterion variables is 0.54%. In other words, the control variables can explain 0.54% of the total variance of criterion variables through the second canonical variable (χ^2 and η^2). The results also suggest that: in terms of sub-dimensions of the independent variable "positive emotion", the university students, who obtain "joyfulness" leisure experience (- 0.727) and "flow" leisure experience (0.325) from participation in leisure activities, regarding sub-dimensions of "leisure negotiation", show time management (0.776). In other words, if university students gain a higher flow experience from participation in leisure activities, their leisure negotiation willingness of time management will be accordingly higher. By contrast, university students who cannot gain pleasant leisure experience from participation in leisure activities also have greater willingness to address the leisure constraints in time management. It is found from this result that when university students acquire a high flow experience or a low joyfulness experience from participation in leisure activities, they have higher greater willingness to address the leisure constraints in time management.

5. Conclusion and Suggestions

5.1 Discussion

The canonical correlation analysis revealed that there are two groups of canonical correlation reach the level of significance among the two variables of positive emotion and leisure negotiation. The canonical correlation equations in the first group show that if the university students cannot have relatively high joyfulness experience and flow experience from participation in leisure activities, their willingness to cope with such leisure constraints as "time management", "skill learning", "improving interpersonal relationship", "improving financial situation" and "physical fitness" will be relatively lower. This finding can verify the broad and build theory proposed by Fridrickson in 2001, demonstrating that positive emotion has a positive association with positive emotion, individuals and behaviors. Fridrickson and Joiner (2002) further confirmed that people with high positive emotion will have better response strategies. Furthermore, positive emotion can encourage people's approach behaviors (Cacioppo, Gardner, & Berntson, 1999; Watson, Wiese, Vaidya, & Tellegen, 1999) or continuous behaviors (Carver & Scheier, 1990). On the other hand, the second group of canonical correlation, however, shows that the university students, who can gain a higher flow experience or cannot gain pleasant leisure experience from participation in leisure activities, their leisure negotiation willingness of "time management", will be greater. In other words, if university students gain a flow experience from participation in leisure activities, they have greater willingness to cope with leisure constraints through time management. However, the university students, who cannot gain joyfulness experience from participation in leisure activities, they also have greater willingness to cope with leisure constraints through time management.

In summary, the results of this study find that there is a connection between university students' positive emotion and their leisure negotiation. To be specific, "joyfulness" and "flow" in positive emotion has a positive correlation with "time management", "skill learning", "improving interpersonal relationship", "improving financial situation" and "physical fitness" in leisure negotiation. To put it in another way, the higher the positive emotion university students have, the greater their willingness to resolve leisure constraints is. In addition, for university students, their "time management" dimension in leisure negotiation is positively related to the "flow" dimension in positive emotion, but is negatively linked to the "joyfulness" dimension. In other words, if the university students have higher flow experience, they will have a greater willingness to cope with leisure constraints through time management, while those with relatively low joyfulness experience also tend to do so through time management. Nevertheless, even if the canonical correlation coefficient in the second group reached the level of significance, the overlap index only

reached 0.540%, failing to reach the threshold criterion of 5% (Wu and Lin, 2001), indicating that the canonical variables cannot comprehensively explain the variance of the predicted variables. Yet, the information about canonical correlation in the second group is greatly interesting and can be used as references.

5.2 Conclusion

This study employed the statistical method of canonical correlation to verify the relationship between university students' positive emotion and leisure negotiation. According to the results, the higher the "joyfulness experience" and "flow experience" in the sub-dimensions of "positive emotion" are, the higher and more positive the "time management", "skill learning", "improving interpersonal relationship", "improving interpersonal relationship", "improving financial situation" and "physical fitness" in the sub-dimensions of "leisure negotiation" are. As can be observed from the canonical correlation analysis, the canonical correlation coefficients, which were 0.392 and 0.204 respectively, reach the statistically significant level. Moreover, the overlap index satisfies the general requirements, suggesting that this linear combination has explanatory power.

5.3 Suggestions

5.3.1 Recommendations on practice

The results of this study show that university students with a higher positive emotion are more willing to address leisure constraints. Therefore, it is recommended that colleges set a set of physical education courses which should be diverse for students' choices and that a graduation threshold should be established. For instance, in PE courses, several credits must be obtained before graduation is permitted. Or students should acquire relevant certificates in exchange for credits. This allows students to be more exposed to leisure activities at university, and to develop leisure preferences or improve positive emotion during participation, ultimately encouraging them to spontaneously make efforts to attain goals. Another recommendation is that parents should have their children more exposed to various talents, sports and leisure activities in order to cultivate leisure preferences. Besides, children not only gain "joyfulness" from the learning, but develop the "flow" experience. In this way, they will develop positive emotions, so their willingness to cope with time management will be greater when they are confronted with leisure constraints in the future.

Additionally, university students are suggested to develop an interest and stress the significance of joyfulness, enabling them to directly feel happiness and to spontaneously attend leisure activities. They can enhance their positive emotion and hence are willing to directly cope with the constraints. Invisibly, their frequency of participating in leisure

activities is increased and they can keep continuously attending sports. However, even if the time of participating in leisure sports is extremely short, they are willing to make use of time management, thus addressing the constraints they confront.

5.3.2 Recommendations on follow-up studies

This study regarded the students from NPUST as the primary subjects to probe into the connection between "positive emotion" and "leisure negotiation strategies". Owing to different lifestyles of colleges and universities, the follow-up researchers are suggested to include the students from the central and northern colleges and universities for exploration and to compare the results of this study for variance analysis. Furthermore, this study mainly explore the correlation analysis of all variables from the positive emotion's dimensions, namely, "joyfulness" and "flow" and from the leisure negotiation strategies' five dimensions, namely, "time management", "skill learning", "improving interpersonal relationship", "improving financial situation" and "physical fitness". The follow-up scholars are recommended to increase variables for discussion, to analyze a wide range of constraints and to figure out the methods and feasibility of addressing leisure constraints.

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