Arts and the Perceived Quality of Life in British Columbia

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Abstract The aims of this investigation were (1) to measure the impact of arts-related activities on the perceived quality of life of a representative sample of British Columbians aged 18 years or more in the spring of 2007, and (2) to compare the findings of this study with those of a sample of 1,027 adults drawn from five B.C. communities (Comox Valley, Kamloops, Nanaimo, Port Moody and Prince George) in the fall of 2006. Seven hundred and eight British Columbians responded to a mailed out questionnaire, and the working data set was weighted by age and education to match the 2006 census statistics for the province, yielding a fairly representative sample. Speaking quite generally, about 62.0% of the results for the two samples are very similar. In particular, in both surveys we found that (a) among arts-related activities in which people participate relatively infrequently (i.e., participation is counted in *times per year* rather than in *hours per week*), live theatre is supreme in the strength of its positive correlation with respondents' perceived quality of life measured in 7 different ways, and (b) compared to 4 demographic variables (age, education, household income and body mass index), household income had the highest average, positive correlation with 7 different measures of respondents' overall life assessments, namely, self-assessed general health, satisfaction with life as a whole (single item), happiness, satisfaction with the quality of life, satisfaction with life as a whole (5-item index), contentment with life (5-item index) and subjective wellbeing (4-item index). Different results were found in the province-wide versus the five-communities survey for the following, among other things, (a) compared to all 7 life assessment measures, for the province, satisfaction with the quality of life and happiness had the largest number of significant correlations with arts-related activities measured in *hours per week* engaged, while for the five communities, the single measure of satisfaction with the quality of life had the largest number of significant correlations, and (b) For the province,

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compared to all 7 life assessment measures, satisfaction with the quality of life had the largest number of significant correlations with arts-related activities measured in *times per year* engaged; for the five communities, compared to all 7 life assessment measures, self-assessed general health had the largest number of significant correlations with arts-related activities measured in *times per year* engaged.

Keywords Quality of life · Happiness · Arts · British Columbia

1 Introduction

In Michalos and Kahlke (2008) we reported the results of a 2006 survey of 1,027 adults in five communities of British Columbia (Comox Valley, Kamloops, Nanaimo, Port Moody and Prince George). The aim of that survey was to measure the impact of arts-related activities on the perceived quality of respondents' lives. The sample was not drawn in any way that it could be regarded as representative of the whole provincial population. However, our plan was to undertake an independent survey in 2007 that would be representative of the whole province. This paper is a report of the results of that province-wide survey. Specifically, then, the aims of this investigation are (1) to measure the impact of arts-related activities on the perceived quality of life of a representative sample of British Columbians aged 18 years or more, and (2) to compare the findings of this study with those of the earlier study.

As in Michalos (2005b) and Michalos and Kahlke (2008), the term 'arts' is used here in a very broad sense to include such things as music, dance, theatre, painting, sculpture, pottery, literature (novels, short stories, poetry), photography, quilting, gardening, flower arranging, textile and fabric art. Although we regard 'culture' as a term with a broader connotation than 'arts' and many people seem to treat the two terms as synonyms, such distinctions should not create any confusion here because we will give a complete list of everything we consider to be an arts-related activity for the purposes of this study. Again following the strategy of the two earlier studies, we are not attempting any distinction between high/fine and low/popular art or culture.

The structure and analyses in this essay follow closely those of Michalos and Kahlke (2008). In the next Sect. 2 we describe our sampling technique and questionnaire, and in the section after that 3 we summarize the characteristics of the sample. The descriptive statistics resulting from the substantive items in the questionnaire are reviewed in Sect. 4. In Sect. 5 the results of a variety of bivariate analyses are presented, and variables shown to have statistically significant bivariate associations are used in multivariate analyses in Sect. 6. The concluding Sect. 7 provides an overview of our results compared to results from the earlier study.

2 Sampling Technique and Questionnaire

The 13-page questionnaire used in the survey undertaken for this investigation was a revised version of one used for the five-community survey described in Michalos and Kahlke (2008). In May 2007, 5,000 questionnaires were mailed out to a random sample of households across the whole province of British Columbia. The first three pages of the questionnaire listed 66 activities that are related in one way or another to the arts, e.g., listening to music, teaching painting or drawing, singing in a group, attending live theatre

performances. Because people participate in different artistic activities in very different time periods, from daily (e.g., listening to music) to a few times per year (e.g., attending live theatre performances), to properly estimate the amount of time committed to such activities, two different questions were included. For activities involving frequent participation, respondents were asked to estimate the average amount of time per week that they spent on them, in hours. If they never engaged in some particular activity, they were asked to write 0 for *hours per week*. For activities involving infrequent participation, respondents were asked to estimate the number of times per year that they participated in them. If they never engaged in some particular activity, they were asked to write 0 for *times per year*. For those activities in which they participated, they were asked to rate the average level of satisfaction obtained on a 7-point scale running from $1 =$ very dissatisfied, 2 or $3 =$ dissatisfied, $4 =$ even balance of satisfaction and dissatisfaction, 5 or $6 =$ satisfied, to $7 =$ very satisfied. The Appendix attached to this paper has a complete list of all the activities sorted and ordered by (1) the numbers of people participating in each, (2) the average number of hours per week people engaged in each and (3) the average number of times per year that people engaged in each. Copies of the questionnaire and detailed responses to all items are available from the corresponding author on request.

Following the frequency-of-participation items, there was a page of questions designed to get more information about the arts-related activity (out of the 66) that respondents perceived as "most important". For examples, there were questions about levels of satisfaction with their access to the activity, with the price of engagement and with the usual venue, and questions about where they first learned about the activity, e.g., in school, watching television, listening to a friend, and how old they were at the time.

The next two pages listed 45 statements culled from the literature describing people's beliefs and feelings about the arts, usually phrased in personal terms, e.g., My artistic activities help me preserve my cultural heritage, I engage in artistic activities to express my spirituality, I enjoy art for its own sake. Sometimes the phrasing was impersonal, e.g., Artistic activity strengthens a community, Good art needs no justification beyond itself. Respondents were given a 5-point Likert scale and asked to indicate for each item their level of agreement or disagreement, with strongly disagree $= 1$ and strongly agree $= 5$.

There were then two pages of standard questions about respondents' health and quality of life. These included questions about life as a whole and about specific domains and aspects of life, e.g., family relations, friendships, sense of meaning in life. Seven overall assessments of life were used as dependent variables in this study: (1) self-reported general health using a 5-point scale from poor to excellent, (2) satisfaction with life as a whole using a 7-point scale from very dissatisfied to very satisfied, (3) satisfaction with the overall quality of life using a 7-point scale from very dissatisfied to very satisfied, (4) happiness with life as a whole using a 7-point scale from very unhappy to very happy, (5) satisfaction with life as a whole using a 5-item index drawn from Diener et al. (1985), (6) contentment with life using a 5-item index drawn from Lavallee et al. (2007) and (7) subjective wellbeing using a 4-item index (Michalos et al. 2005). All measures of satisfaction with particular domains or aspects of life were formatted as 7-point scales running from very dissatisfied to very satisfied and these measures have been used around the world for over 30 years (Michalos 2005a).

Following these standard questions, there were two pages of questions designed to test some of the basic hypotheses of Multiple Discrepancies Theory (MDT, Michalos 1985), e.g., Considering your life as a whole, how does it measure up to your general aspirations or what you want out of life?, How does it measure up to the best in your previous

experience? This is only the second survey allowing some testing of MDT in the context of a wide variety of information about arts-related activities and the perceived quality of life.

Finally, there were 2 pages of demographic questions about, e.g., age, sex, marital status, income and education.

3 Sample Characteristics

A total of 708 (14.2%) useable questionnaires were returned, which form the working data-set for the survey. Table 1 summarizes the main features of the respondent sample.

Table 1 Sample demographics, unweighted and weighted numbers and % and census (Statistics Canada, *2006 Census Data*) values, numbers and %

Characteristic	Unweighted		Weighted		Census values	
	N	%	N	%	N	%
Gender						
Female	455	65.7	457	65.9	1,745,320	51.4
Male	238	34.3	236	34.1	1,649,585	48.6
Total	693	100.0	693	100.0	3,394,905	100.0
Age						
20–34	86	12.4	167	24.2	762,435	24.4
35–44	140	20.3	137	19.9	622,615	19.9
45–54	165	23.9	146	21.1	661,485	21.2
55–64	167	24.2	113	16.4	502,645	16.2
65 and over	133	19.2	127	18.4	572,420	18.3
Total	691	100.0	690	100.0	3,121,600	100.0
Education—highest level						
Secondary—incomplete	32	4.7	110	16.0	502,270	16.1
Secondary—complete	165	24.0	189	27.5	858,115	27.5
Diploma, certificate, etc.	165	24.0	205	29.7	924,820	29.6
Some university	100	14.5	40	5.8	182,695	5.9
University degree	226	32.8	144	21.0	653,700	20.9
Total	688	100.0	688	100.0	3,121,600	100.0
Employment status						
Unemployed	11	1.6	11	1.6	115,000	3.7
Employed	416	60.4	408	59.6	1,973,335	63.2
Not in the labour force	262	38.0	266	38.8	1,033,285	33.1
Total	689	100.0	685	100.0	3,121,620	100.0
Marital status						
Now married	406	58.2	395	56.6	1,728,875	54.7
Live-in partner	72	10.3	70	10.0	276,130	8.8
Single—never married	72	10.3	95	13.6	653,715	20.7
Divorced	73	10.5	68	9.8	212,535	6.7
Separated	19	2.7	20	2.9	92,705	2.9
Widowed	56	8.0	50	7.1	196,365	6.2
Total	698	100.0	698	100.0	3,160,325	100.0

The first substantive column of the table lists statistics for the unweighted sample, the second lists those statistics weighted by age and education according to the census of 2006 and the final column lists the 2006 census values for comparative purposes. All of our analyses are based on the weighted sample.

For the weighted sample, of those respondents who revealed their gender ($N = 693$), nearly two-thirds (65.9%) were female. Of 690 respondents answering the age question, 44.1% were aged 20–44 and 34.8% were 55 or older, ranging from 18 to 96. Twenty-one percent of 688 respondents held a university degree and another 29.7% held a diploma or certificate from a trade, technical, business or community college. Sixty percent of 685 respondents answering the question were employed full-time and 56.6% of 698 respondents were married, with another 10.0% having a live-in partner.

Comparing the figures for the weighted sample with those of the 2006 census, one finds that the age and education values are practically the same, the weighted sample has 3 percentage points fewer of employed people, 2 percentage points more of married people and 15 percentage points more of females than the census. Since some studies have found women to be generally more supportive than men of the arts (Decima 2002, p. 50, DiMaggio and Pettitt 1999, p. 34), the over-representation of women in our sample may create a bias in favour of arts-related activities. In fact, split-file analyses (not shown here) by gender revealed very few differences. If the weighted sample has a bias in favour of arts-related activities, it is a bias shared fairly equally among respondents regardless of their gender, i.e., it is a bias resulting from self-selection of respondents. Gender had no significant impact on any dependent variables in our multiple regression analyses (Sect. 6). In any event, with the exception of gender, our weighted sample is fairly representative of the total population of British Columbia.

4 Descriptive Statistics

Table 2 lists the top 10 arts-related activities by numbers and percent of participants, with average *hours per week* participation and mean levels of satisfaction. The activity with the highest percentage of participants was listening to music, followed by reading novels, short stories, plays or poetry. Eighty-four percent (593) reported listening to music an average of 14.0 h per week with a mean level of satisfaction of 6.0. Fifty-eight percent (412) reported reading novels, etc. an average of 7.4 h per week with a mean level of satisfaction of 6.1. The third and fourth activities with the highest percentages of participants were watching

Table 2 Top 10 arts-related activities by number and percent of participants, with average number of *hours per week* participation and mean levels of satisfaction

Activities	N	%	Hours per week	Mean sat.
Listening to music	593	83.8	14.0	6.0
Reading novels, etc.	412	58.2	7.4	6.1
Watching films, dvd	293	41.4	5.4	5.6
Singing alone	260	36.7	4.3	5.7
Reading to others	216	30.5	3.5	6.0
Telling stories	141	19.9	3.0	5.9
Gourmet cooking	124	17.5	4.6	6.2
Painting or drawing	120	17.0	5.0	5.9
Singing in a group	100	14.1	2.8	6.1
Watching TV art shows	92	13.0	3.7	5.6

films on dvd or video and singing alone, respectively. Forty-one percent (293) of respondents reported watching films on dvd or video on average 5.4 h per week with a mean level of satisfaction of 5.6. Thirty-seven percent (260) of respondents reported singing alone on average 4.3 h per week with a mean level of satisfaction of 5.7. The activity with the fifth highest percentage of participants was reading to others. Thirty-one percent (216) reported reading to others an average of 3.5 h per week with a mean level of satisfaction of 6.0. Comparing the figures in the first five rows of Table 2 with their counterparts in Exhibit 2 of Michalos and Kahlke (2008), one finds the same activities ordered in the same way, practically the same average levels of satisfaction, and a bit more disparity among percentages and hours per week of participation.

Table 3 lists the top 10 arts-related activities by numbers and percent of participants, with average *times per year* participation and mean levels of satisfaction. The activity with the highest percentage of participants was going to films (cinema, movie theatres). Fifty-eight percent (409) reported going to films an average of 6.2 times per year with a mean level of satisfaction of 5.6. The activity with the second highest percentage of participants was going to concerts. Fifty-four percent (384) reported going to concerts an average of 3.5 times per year, with a mean level of satisfaction of 6.0. The activity with the third highest percentage of participants was attending community festivals. Fifty percent (353) of respondents reported attending community festivals an average of 2.9 times per year, with a mean level of satisfaction of 5.6. The activities with the fourth and fifth highest percentages of participants were going to historic, heritage sites and going to art museums and galleries, and the figures were similar. Forty-nine percent (348) reported going to historic, heritage sites an average of 3.0 times per year, with a mean level of satisfaction of 5.9, while 49% (345) reported going to art museums and galleries an average of 3.4 times per year, with a mean level of satisfaction of 5.7. Comparing the figures in the first five rows of Table 3 with their counterparts in Exhibit 3 of Michalos and Kahlke (2008), one again finds the same activities ordered in the same way, practically the same average levels of satisfaction, and a bit more disparity among percentages and times per year of participation.

Table 4 lists the percent of respondents indicating the first thing they think of when they hear the word 'arts' or the phrase 'artistic activity' and respondents' most important arts-related activity, with mean levels of satisfaction with nine aspects of that activity. The most frequently mentioned activity that respondents think of when they hear the word 'arts' or the phrase 'artistic activity' is painting and/or drawing. Thirty-eight percent of the sample gave that response. The most frequently mentioned "most important" arts-related activity

Table 3 Top 10 arts-related activities by number and percent of participants, with average number of *times per year* participation and mean levels of satisfaction

Activities	N	%	Times per year	Mean sat.
Go to movies	409	57.7	6.2	5.6
Go to concerts	384	54.2	3.5	6.0
Go to community festivals	353	49.9	2.9	5.6
Go to historic sites	348	49.2	3.0	5.9
Go to art museums	345	48.7	3.4	5.7
Go to other museums	295	41.6	2.3	5.7
Go to public library	295	41.7	8.2	5.6
Go to amateur theatre	264	37.3	2.4	5.8
Go to prof. theatre	254	35.8	2.7	6.2
Decorating a home	212	29.9	5.9	5.8

Table 4 Percent of respondents indicating first thoughts about the meaning of 'arts' or 'artistic activity', respondents' most important arts-related activity, place of and age at first encounter with the activity, and mean levels of satisfaction with aspects of that activity

Item	Activity, place, age, % and sat
First thoughts %	Painting, drawing 37.9%
Most important %	Music 35.8%
Place where first learned about it %	School 55.4%
Mean age when first learned about it	12 years
Mean level of satisfaction with	
Access to activity itself (N)	5.4 (599)
Access to information re activity (N)	5.3 (616)
Place where activity occurs (N)	5.2 (463)
Access to the activity facility (N)	5.0 (558)
Price ($) for participating (N)	4.8 (479)
City government support for activity (N)	4.1 (501)
Provincial government support (N)	3.8 (481)
Federal government support (N)	3.5 (474)
Other support for the activity (N)	4.4 (455)

is music in some form. Thirty-six percent gave that response. The most frequently mentioned place where respondents first learned about their most important arts-related activity is in school. Fifty-five percent gave that response. The mean age at which respondents first learned about their most important arts-related activity was 12.0 years. Mean satisfaction levels reported for respondents' access to information about their most important arts-related activity (5.3), access to the activity itself (5.4), access to the place where the activity occurs (5.0) and about the place itself (5.2) were all on the positive side of the 7-point satisfaction scale. For the remaining five items in the list, three items had mean satisfaction levels in the middle range and two were on the negative side. Mean satisfaction levels reported for the price ($) paid for participating in respondents' most important arts-related activity, for city government support and support from other sources for the activity were 4.8, 4.1 and 4.4, respectively. For the amount of provincial government support and federal government support, the mean satisfaction levels were 3.8 and 3.5, respectively. Comparing the items in Table 4 with their counterparts in Exhibit 4 of Michalos and Kahlke (2008), one again finds the same two activities ordered in the same way, the same age and place of first encounter, and practically the same average levels of satisfaction for all items.

Twenty-three of the 45 statements in our questionnaire about beliefs and feelings about arts-related activities were used to construct four indexes of beliefs and feelings that might motivate people to engage in arts-related activities. Since correlation coefficients cannot identify the direction of causality between significantly related variables, it is possible that significant correlations arise because the experience with arts-related activities leads to certain beliefs and feelings about the activities. Most likely, the causal arrows run in both directions although we are using the general label of 'motivational indexes' for the four. Table 5 lists each of the four indexes by name, gives the statements included in each, the percent of respondents agreeing or strongly agreeing with each statement, the item-total correlation of each statement with the index and Cronbach's Alpha Coefficient of Reliability. Each index is formed by simply summing the values of the variables included in it. Besides the four arts-related indexes, Table 5 also lists the same information for three overall life assessment indexes.

Table 5 Indexes of beliefs and feelings that might motivate arts-related activity, whole group, satisfaction with life scale (SWLS), contentment with life assessment scale (CLAS) and subjective wellbeing (SWB)

	% Agreeing or strongly agreeing	Item-total correlation
a. Index of arts as self-health enhancers, N = 648, α = .87[a]		
Description: My artistic activities…		
Have a positive effect on my life	90.0	.58
Help me to relax	89.8	.70
Help relieve stress	86.0	.72
Contribute to my emotional wellbeing	88.0	.80
Help me to stay healthy	66.8	.55
Contribute to my overall wellbeing	78.8	.70
b. Index of arts as self-developing activities, N = 642, α = .86[b]		
Description: My artistic activities…		
Give me self-confidence	76.1	.64
Help me to learn about myself	73.8	.65
Help me to reveal my thoughts, feelings or physical skills to others	72.3	.64
Contribute to my self-esteem	74.5	.71
Help me develop my social skills	59.9	.53
Help me express my personal identity	67.4	.69
c. Index of arts as community builders, N = 637, α = .82[c]		
Item		
My artistic activities help me to learn about other people	74.6	.55
My artistic activities help me to accept differences among people	71.4	.55
My artistic activities help me feel connected to this community	49.0	.53
Artists help build community solidarity	70.2	.59
Artistic activity strengthens a community	77.7	.61
Artistic activity in a community increases its social capital	62.9	.62
d. Index of arts and arts-related activities as ends in themselves, N = 639, α = .71[d]		
Item		
The appreciation of art is an art-lover's reward	66.2	.39
Good art needs no justification beyond itself	72.5	.51
I enjoy art for its own sake	88.3	.64
Without art, life would be very dull	84.1	.42
I engage in artistic activities for the sake of the activities themselves	68.2	.38
e. Satisfaction with life scale (SWLS), N = 667, α = .90[e]		
Item		
In most ways my life is close to my ideal	35.3	.78
The conditions of my life are excellent	42.3	.79
I am satisfied with my life	49.1	.83
So far I have gotten the important things I want out of life	52.6	.78
If I could live my life over, I would change nothing	34.5	.60

Table 5 continued

	% Agreeing or strongly agreeing	Item-total correlation
f. Contentment with life assessment scale (CLAS), N = 661, α = .87[f]		
Item		
Nothing is currently lacking in my life	32.5	.71
I am living my life to the fullest	32.8	.79
I am very content with my life	48.1	.76
When I examine my life as a whole, I feel that I am not meeting my aspirations. (Reverse coded)	29.2	.60
I feel dissatisfied because I'm not doing everything that I want to be doing in my life. (Reverse coded)	28.3	.64

	% Very or somewhat sat.	Item-total correlation
g. Subjective wellbeing (SWB), N = 675, α = .87 [g]		
Item		
How satisfied are you with		
Your life as a whole	67.2	.76
Your overall standard of living	64.7	.63
Your overall quality of life	65.8	.80

	% Very or somewhat hap.	Item-total correlation
How happy would you say you are?	76.4	.68

[a] Scale mean = 24.6, standard deviation = 3.7

[b] Scale mean = 22.8, standard deviation = 4.1

[c] Scale mean = 22.5, standard deviation = 3.6

[d] Scale mean = 19.7, standard deviation = 2.9

[e] Scale mean = 24.2, standard deviation = 6.7

[f] Scale mean = 22.2, standard deviation = 6.6

[g] Scale mean = 23.0, standard deviation = 4.1

Table 5a describes the *Index of Arts as Self-Health Enhancers*, which has six items and an Alpha Coefficient of α = 0.87. A good representative item is 'My artistic activities contribute to my emotional wellbeing', which has an item-total correlation of $r = 0.80$. Eighty-eight percent of respondents agreed or strongly agreed with this statement.

Table 5b describes the *Index of Arts as Self-Developing Activities*, which has six items and an α = 0.86. A good representative item is 'My artistic activities contribute to my self-esteem', which has an item-total correlation of $r = 0.71$. Seventy-five percent of respondents agreed or strongly agreed with this statement.

Table 5c describes the *Index of Arts as Community Builders*, which has six items and an α = 0.82. A good representative item is 'Artistic activity strengthens a community', which has an item-total correlation of $r = 0.61$. Seventy-eight percent of respondents agreed or strongly agreed with this statement.

Table 5d describes the *Index of Arts and Arts-Related Activities as Ends in Themselves*, which has five items and an α = 0.71. A good representative item is 'I enjoy art for its own sake', which has an item-total correlation of $r = 0.64$. Eighty-eight percent of respondents agreed or strongly agreed with this statement.

Table 5e describes the *Satisfaction With Life Scale* (SWLS) developed by Diener et al. (1985), which has five items and an α = 0.90. A good representative item is 'I am satisfied with my life', which has an item-total correlation of $r = 0.83$. Forty-nine percent of respondents agreed or strongly agreed with this statement.

Table 5f describes the *Contentment with Life Assessment Scale* (CLAS) developed by Lavallee et al. (2007), which has five items and an α = 0.87. A good representative item is 'I am very content with my life', which has an item-total correlation of $r = 0.76$. Forty-eight percent of respondents agreed or strongly agreed with this statement.

Table 5g describes the *Subjective Wellbeing Index* (SWB) developed by Michalos et al. (2005), which has four items and an α = 0.87. It is constructed by summing responses to four single-item overall life assessment statements concerning one's satisfaction with life as a whole, overall standard of living and quality of life, and one's happiness. Of the four items in the scale, satisfaction with one's overall quality of life has the highest item-total correlation, $r = 0.80$.

Table 6 lists the mean levels of domain and overall life satisfaction and happiness. Generally speaking, with the 7-point satisfaction scale and sample sizes of about 500, differences between mean scores of 0.3 or fewer percentage points are not statistically significant at the modest level of 0.05%, i.e., 19 times out of 20 one might find such differences appearing merely by chance. Of the 34 entries in the exhibit, 26 (77%) are on the positive side of the 7-point satisfaction and happiness scales. Of the 3 entries concerning satisfaction with government officials, two are the lowest of all the scores in the table. The scores for satisfaction with federal and provincial officials are the same, 3.6, which means a little dissatisfied. Satisfaction with local government officials just reaches the scale mid-point of 4.0. The mean score for satisfaction with one's living partner (6.1) is the highest in the table and the only one in the table above 6.0. Other items with mean scores clustered at the top of the list include overall happiness (5.9) and satisfaction with life as a whole (5.8). Ignoring the scores for government officials, the cluster of items at the bottom of the list include satisfaction with one's level of social and physical activity (each 4.6), local land pollution and primary and secondary schools (each 4.8), and amount of free time (4.9). Comparing the items in Table 6 with their counterparts in Exhibit 7 of Michalos and Kahlke (2008), one again finds striking similarities. In the five-communities study, 75% of 204 entries were on the positive side of the 7-point scales, with satisfaction with one's living partner again at the top (6.2), followed by overall happiness (5.9). The three government items were again at the bottom, only none reached the mid-point of the scale. Ignoring the scores for government officials, the cluster of items at the bottom of the list began again with satisfaction with one's level of social and physical activity (each 4.7), local land pollution and primary and secondary schools (each 4.8), and amount of free time and local air quality (each 4.9).

Table 7 lists mean scores on respondents' lives compared to seven different self-assessment standards. Mean scores reveal that respondents were on the positive side of two of the seven scales. On average, respondents scored 5.5 on the have-want scale, indicating that all things considered, their lives provided more than half of what they wanted. They also thought that their lives provided more than the lives of the average person of their sex and age in their local area (5.1). This sort of ego-centric bias has been reported by many researchers, e.g., see Michalos (1991), pp. 123–4. Regarding the other 5 standards, their scores were only in the middle range, though on the favourable side. Comparing their lives to what they expect to have in 5 years, they scored 4.8; compared to what they need, they scored 4.7. For the remaining three comparisons, they scored each the same, 4.6. Comparing the items in Table 7 with their counterparts in Exhibit 8 of Michalos and Kahlke

Table 6 Number of respondents and mean levels of domain and life assessment satisfaction and happiness

Satisfaction with	N	Mean sat.
Your house, apartment, mobile home	694	5.7
Your neighbourhood	693	5.7
Your city, town or rural area	692	5.6
Your family relations, generally	687	5.7
Your living partner	575	6.1
Your job	572	5.4
Your life as a whole	688	5.8
Your friendships	691	5.7
Your physical health	693	5.1
Your psychological health	690	5.4
Your religion or spiritual fulfillment	658	5.2
Your overall standard of living	693	5.6
Your financial security	691	5.0
Your recreation activities	692	5.1
Your level of physical activity	694	4.6
Your level of social activity	689	4.6
Air quality where you live	693	5.2
Drinking water quality where you live	689	5.5
Land pollution where you live	680	4.8
Your sense of meaning in life	690	5.5
Your self-esteem	690	5.5
Your amount of free time	686	4.9
Local primary and secondary schools	613	4.8
Your personal safety near your home	688	5.6
Federal government officials	676	3.6
Provincial government officials	677	3.6
Local government officials	670	4.0
Your overall quality of life	690	5.7
How local people treat you	692	5.7
Your access to health care	687	5.2
What you achieve in life	689	5.3
Your future security	686	5.1
Feeling part of your community	688	5.0
Your overall happiness	690	5.9

(2008), one again finds the same two clusters above and below the positive side of the scale, with the same two items at the top in the same order.

5 Bivariate Relationships

The main task of this section is to review 8 sets of correlational studies to discover connections among all our survey variables that seem to be interesting in themselves, suggestive of other likely relationships and potentially useful for the even more interesting multivariate investigations in the following section.

Table 7 Number of respondents and mean scores on respondents' lives compared to diverse standards

Your life now compared to	N	Mean
What you want from life	687	5.5
What others your age and sex have	692	5.1
What you deserve	684	4.6
What you need	686	4.7
What you expected it would be now	687	4.6
What you expect it to be in 5 years	688	4.8
The best in your previous experience	690	4.6

Table 8 Correlations among average number of *hours per week* engaged in arts-related activities and levels of satisfaction with each activity (Act.Sat.) and seven life assessment variables: general health (GH), life satisfaction (Lsat), happiness (hap), satisfaction with overall quality of life (qolsat), satisfaction with life scale (SWLS), contentment with life assessment scale (CLAS) and subjective wellbeing (SWB)

Activity	Act.Sat.	GH	Lsat	hap	qolsat	SWLS	CLAS	SWB	N≥
Age	–	ns	.11	.09	.09	.16	.19	.15	657
Education	–	.22	ns	ns	ns	.09	ns	.09	654
House/income	–	ns	.09	.11	.16	.15	.12	.19	504
Body Mass Index	–	−.18	ns	ns	ns	ns	ns	ns	623
Listening/music	.09	ns	ns	ns	ns	ns	ns	ns	566
Reading novels	.28	ns	ns	ns	ns	ns	ns	ns	390
Re/nov/sat	1.00	.12	.15	.16	.12	ns	ns	.15	390
Watch films dvd	ns	−.14	ns	ns	ns	ns	ns	ns	281
Singing alone	.25	ns	−.12	ns	ns	ns	ns	ns	248
Singing alone sat	1.00	ns	ns	.21	.13	ns	.19	.14	248
Read to others	.26	ns	ns	ns	ns	ns	ns	ns	206
Read others sat	1.00	ns	ns	.19	ns	ns	ns	ns	206
Telling stories	.22	ns	ns	ns	ns	−.22	−.18	ns	135
Tell stories sat	1.00	ns	ns	.21	ns	ns	ns	ns	135
Gourmet cooking	.26	ns	ns	ns	ns	ns	ns	ns	115
Gour/cook/sat	1.00	ns	ns	.36	ns	ns	ns	.19	115
Painting, drawing	.25	ns	ns	ns	−.19	ns	ns	ns	116
Paint/draw/sat	1.00	.18	ns	.20	ns	ns	ns	ns	116
Watch TV art	ns	.33	ns	ns	.24	ns	ns	ns	87
Watch TV art/sat	1.00	ns	ns	ns	ns	ns	−.23	ns	87
Play/music/inst.	.27	ns	ns	−.26	ns	ns	ns	ns	66
Knit/crochet/sat	1.00	ns	ns	ns	.30	ns	ns	ns	56
Take/kids/arts	ns	−.39	ns	ns	ns	ns	ns	ns	51
Take/kids/arts/sat	1.00	ns	−.34	ns	−.28	ns	−.28	−.31	51
Arranging flowers sat	1.00	ns	ns	.35	.36	.36	.37	.34	44
Make clothes sat	1.00	ns	ns	ns	.39	ns	ns	.41	35

$P < 0.05$

Table 8 lists results of correlating the average number of *hours per week* engaged in each of 22 arts-related activities *and* each activity's corresponding mean level of satisfaction (44 items total) *with* mean scores on our seven overall assessments of life, i.e.,

self-reported general health (GH), satisfaction with life as a whole (Lsat), happiness with life as a whole (Hap), satisfaction with the overall quality of life (qolsat), satisfaction with life as a whole index (SWLS), contentment with life assessment scale (CLAS), and subjective wellbeing (SWB). As well, the average number of *hours per week* engaged in each of the arts-related activities is correlated with each activity's corresponding mean level of satisfaction (Act. Sat. in column one of the table). We arbitrarily selected $N = 30$ as a cutoff figure and examined all zero-order linear associations (Pearson Product Moment Correlations) for activities involving that many respondents or more. The last column in the table gives the minimum sample size involved in each of the correlations for each row. The first four rows of the table give the results of correlating 4 demographic variables (age, education, household income and Body Mass Index) with the seven overall life assessments.

Our review of the results in Table 8 will begin with a discussion of correlations between each demographic and life assessment variable. Second, we will consider correlations between the average amount of time invested in each arts-related activity and the average amount of obtained satisfaction from that investment (results in column under Act.Sat.). Third, we will examine correlations between time invested and satisfaction obtained for each arts-related activity on the one hand with each of the seven life assessment variables on the other, taking each of the latter variables one at a time. Finally, we will give special attention to some of the variables for time invested and satisfaction obtained that had a relatively extensive impact on most of the seven life assessment variables.

Twenty-eight (4×7) associations between the demographic and life assessment variables were measured, and 16 (57.1%) were found to be statistically significant at the $P < 0.05$ level. (To simplify the discussion, we arbitrarily decided to use a single level of significance throughout the study.) No demographic variable was significantly correlated with every life assessment variable, although age and household income were significantly correlated with 6 of the 7. General Health scores were not correlated with age or household income, which is unusual and inconsistent with results reported in Michalos and Kahlke (2008, Exhibit 9). On average, age was correlated with the 6 life assessment variables at $r = 0.13$, with a high of $r = 0.19$ for the Contentment with Life Assessment Scale (CLAS) and a low of $r = 0.09$ for happiness (Hap) and satisfaction with the overall quality of life (qolsat). Education and the Body Mass Index were significantly correlated with three and one of the seven life assessment variables, respectively. Generally speaking, the 4 demographic variables had weaker associations with the 7 life assessment variables in the British Columbia sample than in the five-communities sample.

Since we began with 22 arts-related activities that had at least 30 people engaged in them and each activity produced its own corresponding mean level of satisfaction, there were $22 \times 2 = 44$ distinct variables to correlate with 7 life assessment variables, giving a possible 308 significant correlation coefficients. Besides these 308 coefficients, there might have been 22 more indicating significant associations between each arts-related activity and its corresponding mean level of satisfaction. The fact that there are only 22 rows of arts-related activities and/or corresponding satisfaction items in Table 8 shows that 22 (50.0%) of the 44 distinct variables had no significant correlations with any of the life assessment variables and/or a corresponding level of satisfaction variable. Considering only the 22 variables listed in Table 8, if every measurement had produced a statistically significant result then there would have been 154 (22×7) cells with numerical values indicating significant associations between arts-related activities and/or corresponding levels of satisfaction with each of the 7 life assessment variables plus 8 more values indicating significant associations between each activity variable and its corresponding satisfaction variable, rather than the 45 values displayed in the table. Thus, for our sample

of 708 respondents, subtracting the 8 values listed in the column headed Act.Sat., there are only 37 cases out of our original possible 308 (12.0%) of the time-spent on activities variables and/or variables indicating the satisfaction obtained from those activities that had significant correlations with our 7 life assessment variables. Considering only the 22 variables listed in Table 8, there are 37 of 154 (24.0%) cases that had significant correlations with the 7 life assessment variables.

Since a person's engagement in arts-related activities is usually voluntary, one might expect a statistically significant positive correlation between the time spent engaged in arts-related activities and the level of satisfaction obtained from the engagement. Although there are no negative correlations in the Activity Satisfaction (Act.Sat.) column, 3 associations were not statistically significant. However, because the average number of hours per week engaged in 11 of the original 22 arts-related activities did not have statistically significant associations with any other variables, including their corresponding measures of satisfaction, these 11 are not listed in the exhibit. There were, then, a total of 14 (63.6%) activities (3 listed in the table and 11 not listed) with statistically insignificant correlations with their corresponding mean levels of satisfaction. In all these cases, apparently the average satisfaction obtained from participation in arts-related activities cannot be the sole or even primary motivator of engagement. A similar anomaly appears in Table 9 regarding arts-related activities with engagement measured in number of times per year, and it was also reported in Michalos and Kahlke (2008) for the corresponding tables (Exhibits 9 and 10).

A casual glance at Table 8 suggests that there is a great variety of relationships between the average number of hours per week engaged in arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement on the one hand, and the seven life assessment variables on the other. If one tried to measure the impact of arts-related activities on the perceived quality of people's lives using only one of these seven scales as one's dependent variable, one would inevitably underestimate that impact. Nine (41.0%) of the 22 arts-related activities and/or corresponding mean levels of satisfaction resulting from engagement in those activities had a significant correlation with only one life assessment variable, and five (22.7%) more had such a correlation with two life assessment variables.

Close inspection of the seven life assessment columns in Table 8 reveals that the satisfaction with life index (SWLS) had the fewest number (2) of significant associations with the average number of hours per week engaged in the 22 arts-related activities and/or the corresponding mean levels of satisfaction resulting from that engagement. Two life assessment variables had 8 significant correlations with the 22 arts-related activities and/or the corresponding mean levels of satisfaction resulting from that engagement, namely, the single item measure of satisfaction with the overall quality of life (qolsat) and the single item happiness measure (Hap). On average, for the eight significant correlations with qolsat, $r = 0.13$, and with Hap, $r = 0.18$. Regarding happiness, correlation coefficients ran from a positive high of $r = 0.35$ for the satisfaction obtained from arranging flowers to a negative low of $r = -0.26$ for the average number of hours per week playing music. Regarding satisfaction with the overall quality of life, correlation coefficients ran from a positive high of $r = 0.39$ for the satisfaction obtained from making clothes to a negative low of $r = -0.28$ for the satisfaction obtained from taking children to arts-related activities.

While we were prepared to find that the average amount of *time invested* in some arts-related activities was negatively associated with one or another life assessment variable (cf. Michalos and Kahlke 2008, Exhibit 9), we were surprised to find that the average level of *satisfaction obtained* from engaging in some arts-related activities could have negative associations. Nevertheless, Table 8 shows that there were five such cases, involving the

Table 9 Correlations among average number of *times per year* engaged in arts-related activities and levels of satisfaction with each activity (Act.Sat.) and life assessment variables: general health (GH), life satisfaction (Lsat), happiness (hap), satisfaction with overall quality of life (qolsat), satisfaction with life scale (SWLS), contentment with life assessment scale (CLAS) and subjective wellbeing (SWB)

Activity	Act.Sat.	GH	Lsat	hap	qolsat	SWLS	CLAS	SWB	N≥
Go to movies	.22	ns	ns	ns	ns	ns	−.12	ns	390
Go concerts	.15	ns	ns	ns	ns	ns	ns	ns	367
Go concert sat	1.00	ns	.16	.17	.13	ns	ns	.17	367
Go his/her site	.15	ns	ns	ns	.15	.11	ns	.14	333
Go his/her sat	1.00	ns	ns	ns	.14	ns	.15	.13	333
Go art museum	.10	ns	ns	ns	ns	ns	ns	ns	330
Go art museum sat	1.00	.15	.20	.19	.17	.16	.14	.22	330
Go other museum sat	1.00	.15	.23	.19	.21	.22	.17	.26	284
Go public library	.29	ns	ns	ns	ns	ns	ns	ns	283
Go public library sat	1.00	ns	.14	ns	ns	.14	ns	ns	283
Go amateur theatre	.23	.14	ns	ns	ns	ns	ns	ns	251
Go amateur theatre sat	1.00	.14	.34	.22	.31	.32	.23	.35	251
Go prof theatre sat	1.00	ns	.29	.25	.23	.26	.23	.29	243
Decorating home	.14	ns	ns	ns	ns	ns	ns	ns	201
Decorating home sat	1.00	ns	.15	.17	ns	ns	ns	ns	201
Go to school plays sat	1.00	ns	.22	.23	.17	.22	.18	.24	204
Buy art work	.14	ns	ns	ns	ns	ns	ns	ns	198
Buy art work sat	1.00	ns	.22	.15	.24	ns	.17	.22	198
Des. Garden sat	1.00	ns	ns	ns	.15	ns	.20	ns	187
Go dancing	.15	ns	ns	ns	ns	ns	ns	ns	173
Go dancing sat	1.00	ns	ns	ns	.18	ns	ns	ns	173
Wk com. Fes sat	1.00	ns	ns	.25	ns	ns	ns	ns	90
Give art dona sat	1.00	ns	.22	ns	ns	.32	.29	ns	84
Figure skating	.33	ns	ns	ns	ns	ns	ns	ns	35
Figure skating sat	1.00	ns	ns	.39	ns	ns	ns	ns	35

$P < 0.05$

satisfaction obtained from watching art shows on television and taking children to arts-related activities. Remarkably, the only statistically significant associations these four arts-related satisfaction variables had with any overall life assessment variables were negative. What's more, neither of the two arts-related satisfaction variables had significant associations with the average number of hours per week invested in the corresponding arts-related activities, e.g., there was no significant correlation between the average number of hours per week spent watching art programs on television and satisfaction obtained from such activity. So, some respondents spent some time engaged in arts-related activities that generated immediate satisfaction that had no significant association with the activities themselves but was significantly and negatively related to some overall life assessment variables. How can we explain engagement in such activities and the negative impact that satisfaction from such engagement has on life assessment variables?

One might argue that one of the two arts-related activities is not a case of engaging in art at all, i.e., driving kids to some kind of artistic event or facility is not engaging in art. So, for present purposes the negative associations between satisfaction obtained from such

activities and life assessment measures is irrelevant. Unfortunately, this does not address the problem that some kinds of satisfaction have a negative impact on other kinds of satisfaction. It is generally assumed, in the bottom-up explanatory model of perceived life satisfaction for example, that satisfaction from diverse sources and possibly of diverse kinds are routinely combined to produce satisfaction with life as a whole. While it is easy to understand how the time invested in driving one's kids to an art class might have a negative impact on one's life satisfaction (although we have no evidence that it did), it is far from clear why the satisfaction obtained from driving one's kids to the class should have a negative impact. Why should feeling good about driving one's kids to class have a negative impact on how one feels about one's life as a whole? Apparently the activity is some kind of a mixed blessing. One drives the kids to art class feeling pretty good about it because it makes the kids happy and is the right thing to do. Nevertheless, that pretty good feeling is not measurably significantly associated with the activity itself but has the unintended consequence of depressing one's satisfaction with the overall quality of life. The actor performs an act somewhat begrudgingly and the modest level of satisfaction obtained from it takes a heavy negative toll on the actor's overall life assessment.

There clearly are associations between time invested in activities and satisfaction obtained from the investment that were too weak to be captured by some of our measuring instruments, e.g., we have reported satisfaction obtained from arranging flowers and although it had no significant association with the time invested in the activity, it had significant correlations with several overall life assessment variables. It is theoretically possible that the reported satisfaction obtained from arranging flowers is really an effect of some kind of genetically hard-wired core affect that is somehow (wittingly or unwittingly) connected to the activity of arranging flowers. Davern et al. (2007) and Cummins et al. (2007) made an interesting case for such phenomena, although Moum (2007) and Land (2007) were not persuaded. While there must be some genetic connection to people's experiences and feelings, it is far from clear why one's genes would produce certain effects with some arts-related activities and not others. In any event, at this point we have no good genetically-based explanation for the oddities just reported.

Inspection of all the figures in the 22 rows concerning arts-related activities and corresponding levels of satisfaction reveals that there are only two cases in which as many as five significant correlations with life assessment variables appear, namely, for the satisfaction obtained from reading novels, etc. and the satisfaction obtained from arranging flowers. On average, for the five significant correlations with the satisfaction obtained from reading novels, etc., $r = 0.14$, and with the satisfaction obtained from arranging flowers, $r = 0.36$. While the flower arrangers got a much bigger average boost than the readers of novels, etc. in their life assessment scores, there may have been as few as only 44 of the former compared to as few as 390 of the latter. Regarding the satisfaction obtained from reading novels, etc., correlation coefficients ran from a high of $r = 0.16$ for happiness to a low of $r = 0.12$ for general health and satisfaction with the overall quality of life. Regarding the satisfaction obtained from arranging flowers, correlation coefficients ran from a high of $r = 0.37$ for the contentment with life assessment scale (CLAS) to a low of $r = 0.34$ for subjective wellbeing.

Considering the relative number of arts-related activities engaged in fairly frequently and/or their corresponding levels of satisfaction that were significantly correlated with Hap and/or qolsat, it seems that if one were looking for associations between such activities and/or their corresponding satisfaction *with* the perceived quality of life, one's chances for finding such associations would be maximized by using either of these two measures and

minimized by using either SWLS or Lsat. Still, one's best strategy would be to use several dependent variables.

As we found in our earlier study, there was some evidence that producing art was more highly correlated with immediate satisfaction than consuming art. Of the eight variables indicating the average number of hours per week engaged in arts-related activities with significant associations, 5 referred to production (i.e., singing alone, gourmet cooking, painting and drawing, playing a musical instrument and telling stories) and 3 referred to consumption (i.e., listening to music, reading novels, etc., and reading to others). On average, the productive activities correlated at $r = 0.25$ while the consumptive activities correlated at $r = 0.21$ with the corresponding immediate satisfaction. In the most extreme case, the average number of hours per week engaged in listening to music had a correlation of $r = 0.09$ with its corresponding satisfaction, compared to the correlation of $r = 0.27$ between playing a musical instrument and its corresponding satisfaction. Of course, many more respondents could listen to music (at least 566) than produce it (possibly as few as 66).

Table 9 lists results of correlating the average number of *times per year* engaged in each of 19 arts-related activities and each activity's corresponding mean level of satisfaction (38 items total) *with* mean scores on our 7 overall assessments of life, and correlating the average number of times per year engaged in each of the 19 activities with each activity's corresponding mean level of satisfaction (Act.Sat.). Our cutoff figure for measuring associations was $N = 32$ simply because the activity with the next lowest number of participants had only $N = 8$. Our review of the results in this table will follow the pattern established for Table 8.

Beginning with 19 arts-related activities that had at least 32 respondents engaged in them and each activity's corresponding mean level of satisfaction, there were $19 \times 2 = 38$ distinct variables to correlate with 7 life assessment variables, giving a possible 266 significant correlation coefficients. Besides these 266 coefficients, there might have been 19 more indicating significant associations between each arts-related activity and its corresponding mean level of satisfaction. The fact that there are only 25 rows of arts-related activities and/or corresponding satisfaction items in Table 9 shows that 13 (34.2%) of the 38 distinct variables had no significant correlations with any of the life assessment variables and/or a corresponding level of satisfaction variable. Considering only the 25 variables listed in Table 9, if every measurement had produced a statistically significant result then there would have been 175 (25 × 7) cells with numerical values indicating significant associations between arts-related activities and/or corresponding levels of satisfaction with each of the 7 life assessment variables plus 10 more values indicating significant associations between each activity variable in the table and its corresponding satisfaction variable, rather than the 72 values displayed in the table. Thus, for our sample of 708 respondents, subtracting the 10 values listed in the column headed Act.Sat., there are only 62 cases out of our original possible 175 (35.4%) time-spent on activities variables and/or variables indicating the satisfaction obtained from those activities that had significant correlations with our 7 life assessment variables. Although this is not a particularly high percentage, it is larger than that concerning arts-related activities with frequency of participation counted in *hours per week*. What is perhaps even more interesting is the fact that there is only one negative correlation in Table 9. In our earlier study, we found that all the time spent on and the satisfaction obtained from the arts-related activities listed in the *times per year* table made a positive contribution to one or more of the overall life assessments. Here we find that only the time invested in going to movies has a negative association with one overall life assessment index, i.e., for CLAS, $r = -0.12$.

There are 10 out of a possible 19 (52.6%) statistically significant correlations in the Act.Sat. column, with an average value of $r = 0.19$, ranging from a high of $r = 0.33$ for the average number of times per year respondents engaged in figure skating (How Canadian!) to a low of $r = 0.10$ for the average number of times per year respondents went to art museums. Of course, many more people reported going to art museums (at least 330) than engaging in figure skating (perhaps as few as 35). There is again (as in Table 8) a great variety of relationships (i.e., heterogeneity of effects) between the average number of times per year engaged in the 19 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement on the one hand, and the 7 life assessment variables on the other.

Inspection of the 7 life assessment columns in Table 9 reveals that General Health (GH) had the fewest number of significant associations with the average number of times per year engaged in the 19 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. Three of the 4 correlations with GH are with activity satisfaction variables that have significant and positive associations with *each* of the 7 life assessment variables. On average, the mean level of satisfaction obtained from visiting art museums has a correlation of $r = 0.18$ with the 7 life assessment variables, ranging from a high of $r = 0.22$ for subjective wellbeing (SWB) to a low of $r = 0.14$ for CLAS. The mean level of satisfaction obtained from visiting other museums has an average correlation of $r = 0.20$ with the 7 life assessment variables, ranging from a high of $r = 0.26$ for SWB to a low of $r = 0.15$ for GH. The mean level of satisfaction obtained from going to amateur theatre performances has an average correlation of $r = 0.27$ with the 7 life assessment variables, ranging from a high of $r = 0.35$ for SWB to a low of $r = 0.14$ for GH.

Satisfaction with the overall quality of life (qolsat) had the largest number of significant and positive associations with the average number of times per year engaged in the 19 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. The 11 significant correlations in the qolsat column have an average of $r = 0.19$, with a high of $r = 0.31$ for the satisfaction obtained from going to amateur theatre performances to a low of $r = 0.13$ for the satisfaction obtained from going to concerts. In our earlier study, General Health had the largest number of significant and positive associations with *times per year* and corresponding satisfaction variables.

Considering the facts that the average level of satisfaction obtained from going to live amateur, professional and school theatre performances are significantly and positively correlated with 7, 6 and 6 of the life assessment variables, respectively, such theatre performances should be given special recognition. As we discovered and emphasized in our earlier study, among the 19 arts-related activities in which people participate relatively infrequently (i.e., participation is counted in times per year rather than in hours per week), live theatre is supreme in the strength of its correlation with respondents' perceived quality of life measured in diverse ways. If this is any reflection of the contribution of dramatists to the quality of human existence for over 2,500 years, they may be justifiably proud of it.

Table 10 lists results of correlating our 7 life assessment variables with 21 domain satisfaction variables. Three of the domain satisfaction variables are combinations of some of those listed in Table 6. Values for the health satisfaction variable appearing in Table 10 were obtained by calculating the mean of the scores on the physical and psychological health satisfaction variables. Similarly, values for the environmental satisfaction variable appearing in Table 10, were obtained by calculating the mean of the scores on the air, water and land quality satisfaction variables, and values for the government satisfaction variable were obtained by calculating the mean of the scores on the federal, provincial and

Table 10 Correlations of domain satisfaction scores with life assessment variables: general health (GH), life satisfaction (Lsat), happiness (hap), satisfaction with overall quality of life (qolsat), satisfaction with life scale (SWLS), contentment with life assessment scale (CLAS) and subjective wellbeing (SWB)

Domain sat with	GH	Lsat	hap	qolsat	SWLS	CLAS	SWB	Mean
Your house, apartment	.11	.43	.38	.44	.39	.38	.51	0.38
Neighbourhood	.12	.36	.34	.41	.37	.32	.47	0.34
City, town or rural area	.11	.34	.28	.38	.33	.30	.40	0.31
Family relations	.11	.46	.37	.41	.40	.33	.49	0.37
Living partner	.18	.46	.37	.44	.43	.32	.49	0.38
Job	.20	.53	.37	.40	.46	.43	.51	0.41
Friendships	.25	.59	.47	.53	.43	.43	.60	0.47
Health	.63	.66	.51	.62	.56	.53	.68	0.60
Religion/spirit fulfill	.26	.43	.34	.44	.43	.40	.47	0.40
Financial security	.25	.44	.44	.55	.48	.46	.64	0.47
Recreation activities	.39	.49	.45	.60	.46	.43	.61	0.49
Environment	.18	.28	.27	.37	.28	.25	.36	0.28
Sense of meaning in life	.23	.65	.54	.61	.58	.57	.68	0.55
Self-esteem	.29	.66	.63	.63	.61	.63	.71	0.59
Amount of free time	ns	.35	.32	.40	.32	.33	.39	0.35
Personal safety by home	.19	.41	.35	.50	.38	.31	.50	0.38
Government officials	.11	.18	.15	.29	.19	.21	.24	0.20
How locals treat you	.25	.56	.44	.63	.50	.48	.64	0.50
Access to health care	.21	.27	.26	.38	.32	.24	.36	0.29
Future security	.25	.50	.51	.62	.54	.54	.67	0.52
Feel part of your comm.	.19	.54	.49	.58	.54	.51	.63	0.50

$N \geq 553$; $P < 0.05$

local government officials satisfaction variables. All of the 147 correlations listed in this table are significant and positive. In the corresponding table of Michalos and Kahlke (2008, Exhibit 11), all of the correlation coefficients are also positive and significant. Examination of the mean values of each row in the table reveals that on average for our respondents, satisfaction with one's health (mean $r = 0.60$), self-esteem (mean $r = 0.59$) and the sense of meaning in life (mean $r = 0.55$) have the largest correlations with the 7 life assessment variables. These were also the top three in our earlier study, with the same order and similar correlation coefficients, i.e., $r = 0.64$, $r = 0.57$ and $r = 0.54$, respectively. Smallest correlations on average were for satisfaction with government officials (mean $r = 0.20$), access to health care (mean $r = 0.29$) and the environment (mean $r = 0.28$).

Table 11 lists the correlations among the 7 life assessment variables, all of which are significant and positive as expected. On average and as usual, General Health (GH) has the lowest levels of association with the others, indicating that respondents recognize important differences between having good health and having a good life, generally speaking. Because happiness (Hap), satisfaction with life as a whole (Lsat) and satisfaction with the overall quality of life (qolsat) are constituents of subjective wellbeing (SWB), the former three variables have on average the highest levels of association with the latter. Considering the facts that (1) respondents recognize a difference between good health and a good life, and (2) qolsat had the greatest number of significant correlations with

Table 11 Correlations among seven life assessment variables: general health (GH), life satisfaction (Lsat), happiness (hap), satisfaction with overall quality of life (qolsat), satisfaction with life scale (SWLS), contentment with life assessment scale (CLAS) and subjective wellbeing (SWB)

Variable	GH	Lsat	hap	qolsat	SWLS	CLAS
GH	1.00					
Lsat	.38	1.00				
Hap	.32	.67	1.00			
Qolsat	.40	.72	.64	1.00		
SWLS	.40	.68	.68	.66	1.00	
CLAS	.31	.64	.66	.61	.80	1.00
SWB	.41	.87	.83	.88	.76	.72

$N \geq 639$; $P < 0.05$

arts-related activities involving *infrequent* engagement and tied with Hap for having the greatest number of significant correlations with arts-related activities involving *frequent* engagement, it seems fair to say that if one were looking for associations between such activities and the perceived quality of life and if one could only have a single dependent variable, then one's chances for finding such associations would be maximized by using qolsat as that single variable.

Tables 12 and 13 display results of measuring associations among our four indexes that might provide motives for people engaging in arts-related activities, might summarize beliefs and feelings that arise as effects of experiences with arts-related activities or, as suggested earlier, most likely both. We will need longitudinal studies with panels of participants in order to properly assess these issues. Our review of these two tables will be parallel to our reviews of Tables 8 and 9, with Table 12 involving engagement in arts-related activities measured in *hours per week* and Table 13 involving engagement in arts-related activities measured in *times per year*.

Table 12 lists results of correlating the average number of *hours per week* engaged in each of 22 arts-related activities *and* each activity's corresponding mean level of satisfaction (44 items total) *with* mean scores on our four motivational indexes. The fact that there are only 17 rows of arts-related activities and/or corresponding satisfaction items in Table 12 shows that 27 (61%) of the 44 distinct variables had no significant correlations with any of the motivational indexes. For this table, 16 associations between the 4 demographic variables and 4 motivational indexes were also measured, and 10 (62.5%) were found to be statistically significant at the $P < 0.05$ level. Household income does not appear in the table because it did not have any significant correlations with the four motivational indexes. Education and the Body Mass Index were significantly correlated with each index, positively with an average of $r = 0.13$ for the former and negatively with an average of $r = -0.20$ for the latter. Age was negatively correlated with 2 of the 4 indexes, averaging $r = -0.10$. Thus, for example, believing and/or feeling that engagement in arts-related activities make a positive contribution to one's health is significantly negatively correlated with age ($r = -0.08$) and Body Mass Index ($r = -0.22$), and positively correlated with education ($r = 0.16$). So, as respondents' age and BMI increased, the strength of their avowal of such beliefs and/or feelings decreased, and as their achieved level of education increased, the strength of their avowal of such beliefs and/or feelings increased, and vice versa.

Table 12 Correlations among average number of *hours per week* engaged in arts-related activities and levels of satisfaction with motivational indexes: index of arts as self-health enhancers (Health), index of arts as self-developing activities (S-Dev), index of arts as community builders (Comb), index of arts as ends in themselves (Ends), and demographics

Activity	Health	S-Dev	Comb	Ends	$N\geq$
Age	−.08	−.11	ns	ns	629
Education	.16	.09	.15	.13	628
Body Mass Index	−.22	−.21	−.21	−.14	604
Listening to music	.10	.13	ns	.13	545
Listening to music satisfaction	.28	.24	.17	.22	545
Reading novels satisfaction	ns	.12	.15	ns	380
Singing alone satisfaction	.32	.33	.15	.16	249
Reading to others satisfaction	.25	ns	ns	ns	206
Gourmet cooking	ns	ns	ns	−.20	117
Gourmet cooking satisfaction	.25	ns	ns	ns	117
Painting or drawing	ns	ns	ns	.25	113
Painting or drawing satisfaction	.27	.24	ns	.20	113
Singing in a group satisfaction	.26	ns	ns	ns	91
Watching TV art satisfaction	.24	ns	ns	ns	84
Playing musical instrument sat.	.33	ns	.31	ns	64
Arranging flowers	ns	ns	ns	.33	43
Arranging flowers satisfaction	.37	.40	ns	ns	43
Writing novels…etc. sat	ns	.48	ns	ns	30
Making clothes	ns	ns	ns	.53	35
Teaching painting/drawing sat	ns	ns	.37	ns	29

$P < 0.05$

Considering only the 17 non-demographic variables listed in Table 12, if every measurement had produced a statistically significant result then there would have been 68 (4 × 17) cells with numerical values, rather than the 30 values displayed in the table. Thus, only 44% of the time-spent on activities variables and/or variables indicating the satisfaction obtained from those activities had significant correlations with our 4 motivational indexes. (There is no comparable figure from the earlier study because the number and composition of arts-related variables and motivational indexes are different.) Inspection of the 4 motivational index columns in this table reveals that the Index of Arts as Community Builders (Comb) had the fewest number of significant associations with the average number of hours per week engaged in the 17 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. The 5 significant correlations in the column have an average of $r = 0.23$, with a high of $r = 0.37$ for the satisfaction obtained from teaching painting or drawing to a low of $r = 0.15$ for the satisfaction obtained from reading novels, etc. and singing alone. The Index of Arts as Self-Health Enhancers (Health) had the largest number of significant associations with the average number of hours per week engaged in the 17 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. The 10 significant correlations in the Health column have an average of $r = 0.27$, with a high of $r = 0.37$ for the satisfaction obtained from arranging flowers to a low of $r = 0.10$ for the average number of hours per week spent listening to music.

Table 13 Correlations among average number of *times per year* engaged in arts-related activities and levels of satisfaction with motivational indexes: index of arts as self-health enhancers (Health), index of arts as self-developing activities (S-Dev), index of arts as community builders (Comb), index of arts as ends in themselves (Ends)

Activity	Health	S-Dev	Comb	Ends	$N\geq$
Going to movies	ns	.14	.13	.12	384
Going to movies satisfaction	.11	.10	ns	.16	384
Going to concerts	.12	.17	.17	.15	358
Going to concerts satisfaction	.16	.13	.18	.19	358
Attending community festivals	.12	.16	ns	ns	330
Attending community festivals sat	.16	.19	.20	.12	330
Visiting historic, heritage sites	ns	.12	ns	ns	333
Visiting historic, heritage site sat	.15	.15	ns	.13	333
Going to art museums, galleries	.13	.16	ns	ns	324
Go…art museums, galleries sat	.23	.22	.26	.20	324
Go…other museums	.15	ns	ns	ns	282
Go…other museums sat	.22	.19	.24	.13	282
Visiting public library sat	.14	ns	ns	ns	280
Go…amateur live theatre	ns	.22	.16	ns	245
Go…amateur live theatre sat	ns	.13	.26	ns	245
Go…prof. live theatre sat	.14	ns	ns	.16	234
Decorating a home sat	.23	.17	ns	ns	200
Volunteering in the arts sat	ns	ns	.46	ns	200
Go to school plays satisfaction	.15	.16	.27	ns	198
Buying works of art sat	.17	ns	ns	.18	200
Designing a garden sat	.23	ns	ns	ns	188
Making donations to arts sat	.22	ns	ns	ns	82

$P < 0.05$

Two arts-related variables in Table 12 had significant and positive associations with each of the 4 motivational indexes, and 2 had significant and positive associations with 3 of the 4. Satisfaction obtained from singing alone had an average correlation of $r = 0.24$ with the 4 motivational indexes, with a high of $r = 0.33$ for S-Dev and a low of $r = 0.15$ for Comb. Thus, for example, as respondents' average levels of satisfaction obtained from singing alone increased, the strength of their beliefs and/or feelings that arts-related activities contributed to their health, self-development, community building and were also enjoyed as ends in themselves increased. Satisfaction obtained from listening to music had an average correlation of $r = 0.23$ with 4 motivational indexes, with a high of $r = 0.28$ for Health and a low of $r = 0.17$ for Comb. Satisfaction obtained from painting or drawing had an average correlation of $r = 0.24$ with 3 of the 4 motivational indexes (missing Comb), with a high of $r = 0.27$ for Health and a low of $r = 0.20$ for Ends. Average number of hours per week engaged in listening to music had an average correlation of $r = 0.12$ with 3 of the 4 motivational indexes (again missing Comb), with a high of $r = 0.13$ for S-Dev and Ends, and a low of $r = 0.10$ for Health.

Table 13 lists results of correlating the average number of *times per year* engaged in each of 19 arts-related activities and each activity's corresponding mean level of satisfaction with mean scores on our four motivational indexes (38 items total). If every measurement for

Table 13 had produced a statistically significant result then there would have been 152 (4 × 38) cells with numerical values, rather than the 52 values displayed in the exhibit. Thus, for our sample of 708 respondents, 52 of 152 (34.2%) time-spent on activities variables and/or variables indicating the satisfaction obtained from those activities had significant correlations with our four motivational indexes. One should notice first that there are no negative correlations in Table 13. Whether the causal arrows running from the time spent on the 19 kinds of arts-related activities and the satisfaction obtained from the engagement to beliefs and/or feelings about the arts are stronger, the same or weaker than the arrows running in the opposite direction, if there is any influence at all, it is positive.

Inspection of the four motivational index columns in Table 13 reveals that the Indexes of Arts as Community Builders (Comb) and as Ends in Themselves (Ends) had the fewest number of significant associations (10) with the average number of times per year engaged in the 19 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. The Index of Arts as Self-Health Enhancers (Health) had the largest number of significant associations (17) with the average number of times per year engaged in the 19 arts-related activities and the corresponding mean levels of satisfaction resulting from that engagement. The 17 significant correlations in the Health column have an average of $r = 0.17$, with a high of $r = 0.23$ for the satisfaction obtained from going to art museums, decorating a home and designing a garden to a low of $r = 0.11$ for the satisfaction obtained from going to movies.

Five arts-related time-engaged or satisfaction variables had significant correlations with all four motivational variables, and 4 more of the former had such correlations with 3 of the latter 4. First among the five, satisfaction obtained from going to art museums had an average of $r = 0.23$ for the 4 motivational indexes, with a high of $r = 0.26$ for Comb and a low of $r = 0.20$ for Ends. Satisfaction obtained from going to other kinds of museums ran second, with an average of $r = 0.20$ for the 4 motivational indexes, a high of $r = 0.24$ for Comb and a low of $r = 0.13$ for Ends. First among the 3 out of 4 group, satisfaction obtained from going to school plays had an average of $r = 0.19$ for Health, S-Dev and Comb.

Table 14 lists the correlations among the 4 motivational indexes themselves and Table 15 lists the correlations among these 4 indexes and our 7 life assessment variables. The four motivational indexes in Table 14 are fairly strongly related, with the lowest coefficient at $r = 0.53$ between Ends, S-Dev and Comb. The Index of Arts as Community Builders was modestly significantly correlated with 6 of the 7 life assessment variables at $r = 0.15$, with a high of $r = 0.24$ for General Health and a low of $r = 0.09$ for happiness (Table 15). General Health (GH) was the only life assessment variable significantly associated with all 4 motivational indexes.

Table 14 Correlations among motivational indexes: Index of Arts as Self-Health Enhancers (Health), Index of Arts as Self-Developing Activities (S-Dev), Index of Arts as Community Builders (Comb), Index of Arts as Ends in Themselves (Ends)

Index	Health	S-Dev	Comb
Health	1.00		
S-Dev	.73	1.00	
Comb	.57	.65	1.00
Ends	.59	.53	.53

$N \geq 618$; $P < 0.05$

Table 15 Correlations among motivational indexes and seven life assessment variables

Index	GH	Lsat	hap	qolsat	SWLS	CLAS	SWB
Health	.21	ns	.10	.08	.08	ns	ns
S-Dev	.17	ns	.08	ns	ns	ns	ns
Comb	.24	.14	.09	.14	.13	ns	.13
Ends	.17	.09	ns	ns	ns	ns	ns

$N \geq 614$; $P < 0.05$

6 Multivariate Relationships

Stepwise multiple regression was applied to explain the variation in scores for our 7 overall life assessment variables, and each of the next 7 tables (16–22) is laid out in the same format, with three exceptions in which one or two columns were omitted for lack of significant entries. When all columns are included, the lefthand column lists the names of the predictors. Then there is a column headed 'Demog.' containing the standardized regression coefficients (Beta values) resulting from regressing a life assessment (dependent) variable on the four demographic (explanatory, predictor or independent) variables. Standardized regression coefficients have means of zero and standard deviations of one, making comparisons of their relative influence on dependent variables easy to discern. Because standardization is sensitive to the particular variance of the variables employed in any sample, one cannot infer that relationships appearing in one sample must appear in others. The second column of figures is headed 'Mot. Index' and it contains the Beta values resulting from regressing the same life assessment variable on our four motivational indexes. The third column of figures is headed 'Hrs/act.sat.' and it contains the results of regressing the same life assessment variable on the set of hours-spent and satisfaction-obtained variables from Table 8 that had statistically significant correlations with that life assessment variable. The fourth column of figures is headed 'Times/sat.' and it contains the results of regressing the same life assessment variable on the set of times-spent and satisfaction-obtained variables from Table 9 that had statistically significant correlations with that life assessment variable. The fifth column of figures is headed 'Domain sat.' and it contains the results of regressing the same life assessment variable on the 8 variables indicating satisfaction obtained from some domain or aspect of life listed in Table 10 that had the largest correlation coefficients with that life assessment variable. Finally, the sixth column of figures is headed 'All Pred' and it contains the results of regressing the same life assessment variable on all of the predictors that achieved statistical significance in the previous five regressions. Because the introduction of *any* arts-related additional predictors to the set of significant domain satisfaction predictors drastically reduced the sample size (N) for the regression equation, instead of introducing these variables all together, each one was introduced separately. If it achieved statistical significance, it was maintained while the next variable was introduced and if not, it was dropped.

A quick inspection of the seven tables reveals that only two arts-related predictors achieved statistical significance in a final regression equation and only in the regression involving General Health. As well, only one demographic variable achieved statistical significance in a final equation and that was also in the regression involving General Health. This was somewhat similar to the regression results reported in Michalos and Kahlke (2008). In the latter study only the Indexes of Arts as Self-Health Enhancers and Spirit-Building (not used in this study) achieved statistical significance in the final equation of one

Table 16 Regressions of General Health on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot.Index	Hours/act.sat.	Domain sat.	All Pred
N	507	596	199	678	241
% of variance expl	8	7	4	17	20
Predictors	β	β	β	β	β
Education	.25	*	*	*	**
Body Mass Index	−.14	*	*	*	−.13
Comm. Building Ind	*	.19	*	*	.14
Health enhance Ind.	*	.10	*	*	**
Watching films dvd	*	*	−.17	*	−.13
Reading novels sat.	*	*	.14	*	**
Recreat act. sat.	*	*	*	.33	.25
Self-Esteem sat.	*	*	*	.15	.19

* Not in equation, ** significance level too low to enter equation

life assessment variable, namely, satisfaction with the overall quality of life (qolsat). In that study, on five occasions some demographic variable achieved statistical significance.

The first column of figures in Table 16 shows that two of our four demographic predictors remained statistically significant when pressed into service together and that collectively they explained 8.0% of the variation in self-reported General Health (GH) scores. The most influential was education, with a Beta value of $\beta = .25$, followed by the Body Mass Index at $\beta = -0.14$. Thus, figuratively speaking, for example, one could say that on average, for every increase of a full unit step (i.e., one standard deviation unit) of education, respondents got an increase of 25.0% of a step in self-reported General Health, with the values of all other predictors held constant. The second column of figures shows that when the four motivational indexes were used together as predictors, two remained statistically significant and they explained 7.0% of the variance in General Health scores. The Index of Arts as Community Builders (Comb) was most influential, with a Beta value of $\beta = .19$. The third column of figures shows that two arts-related variables from the *hours per week* set of predictors remained statistically significant and explained 4.0% of the variance in General Health scores, with the mean level of satisfaction obtained from watching dvd films having the most influence at $\beta = -0.17$. The fourth column of figures shows that two of the domain satisfaction predictors remained statistically significant and together they explained 17.0% of the variance in General Health scores. (Because the dependent variable for this table is self-reported General Health and such reports are highly correlated with satisfaction with one's own health (Michalos 2004), the latter variable was not used as a predictor of General Health.) Reported satisfaction with respondents' recreational activities was most influential, with a $\beta = .33$, followed by satisfaction with respondents' own self-esteem, $\beta = .15$. In the final column, we see that five predictors combined to explain 20.0% of the variance in General Health scores ($N = 241$), with satisfaction with respondents' recreation activity appearing most influential ($\beta = .25$), followed by self-esteem satisfaction ($\beta = .19$). Two arts-related predictors remained statistically significant in the last regression. The Index of Arts as Community Builders (Comb) had a $\beta = .14$ and the average number of hours per week spent watching dvd films had a $\beta = -0.13$. In Michalos and Kahlke (2008) we were able to explain 32.0% of the variance in GH scores, with satisfaction with respondents' recreational activities most influential, ($\beta = .28$).

Table 17 Regressions of life satisfaction on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot. Index	Hours/act.sat.	Times/sat.	Domain sat.	All Pred
N	500	593	430	223	550	550
% of varience expl	1	2	3	7	66	66
Predictors	β	β	β	β	β	β
Household income	.09	*	*	*	*	**
Comm. Building Ind	*	.15	*	*	*	**
Reading novels sat.	*	*	.18	*	*	**
Go other museums sat.	*	*	*	.16	*	**
Go concert sat.	*	*	*	.16	*	**
Future security sat.	*	*	*	*	.10	.10
Job sat.	*	*	*	*	.20	.20
Friendship sat	*	*	*	*	.21	.21
Health satisfaction	*	*	*	*	.25	.25
Sense/mean life sat.	*	*	*	*	.16	.16
Self-esteem sat.	*	*	*	*	.15	.15

* Not in equation, ** significance level too low to enter equation

The first column of figures in Table 17 shows that only one of our four demographic predictors remained statistically significant and it explained 1.0% of the variation in satisfaction with life as a whole (Lsat) scores. Household income had a Beta value of $\beta = .09$. The second column of figures shows that one of the 4 motivational indexes remained statistically significant when the 4 were used together and that by itself that one explained only 2.0% of the variance in life satisfaction scores, with the Index of Arts as Community Builders (Comb) having a Beta value of $\beta = .15$. The third column of figures shows that one arts-related variable from the *hours per week* set of predictors remained statistically significant and explained 3.0% of the variance in life satisfaction (Lsat) scores. Respondents' mean levels of satisfaction obtained from reading novels, etc. had a $\beta = .18$. The fourth column of figures shows that two arts-related variables from the *times per year* set of predictors remained statistically significant. Satisfaction obtained from going to concerts and non-art museums each had a $\beta = .16$, and together explained 7.0% of the variance in life satisfaction scores. The fifth column of figures shows that six of the domain satisfaction predictors remained statistically significant and together they explained 66.0% of the variance in life satisfaction scores. The most influential explanatory variable was satisfaction with one's own health ($\beta = .25$), followed by satisfaction with respondents' friendships ($\beta = .21$). The final column shows that the addition of each of the demographic and arts-related predictors (one at a time with replacement) to the six significant domain satisfaction predictors from the fifth column produced no change in our explanatory power. All the figures in columns five and six are the same, but the 5 double asterisks in the sixth column mean that in the presence of the 6 domain satisfaction predictors, no explanatory power was added by the demographic and arts-related predictors. In our earlier study, we were able to explain 71.0% of the variance in Lsat scores, with satisfaction with one's own health again most influential, ($\beta = .24$).

The first column of figures in Table 18 shows that one demographic predictor remained statistically significant and it explained 1.0% of the variation in happiness (Hap) scores. Household income had a $\beta = .12$. The second column of figures shows that when the four

Table 18 Regressions of happiness on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot. Index	Hours/act.sat	Times/sat.	Domain sat.	All Pred
N	505	595	235	378	669	669
% of variance expl	1	1	2	3	45	45
Predictors	β	β	β	β	β	β
Household income	.12	*	*	*	*	**
Health enhance Ind.	*	.11	*	*	*	**
Singing alone sat.	*	*	.15	*	*	**
Go art museum sat.	*	*	*	.19	*	**
Future security sat.	*	*	*	*	.18	.18
Recreation act. sat.	*	*	*	*	.10	.10
Friendships sat.	*	*	*	*	.10	.10
Health sat.	*	*	*	*	.10	.10
Self-esteem sat.	*	*	*	*	.35	.35

* Not in equation, ** significance level too low to enter equation

motivational indexes were used together as predictors, only one remained statistically significant and by itself explained 1.0% of the variance in happiness scores. The Index of Arts as Self-Health Enhancers had a $\beta = .11$. The third column of figures shows that a single arts-related variable from the *hours per week* set of predictors remained statistically significant and it explained 2.0% of the variance in happiness scores, with the mean level of satisfaction obtained from singing alone having a $\beta = .15$. (Notice, then, that while the average number of hours per week invested in singing alone decreased respondents' satisfaction with life as a whole (Table 8), the mean level of satisfaction obtained from singing alone increased their happiness Tables 8 and 18). The fourth column of figures shows that one arts-related variable from the *times per year* set of predictors remained statistically significant. The satisfaction obtained from going to art museums ($\beta = .19$) explained 3.0% of the variance in happiness scores. The fifth column of figures shows that 5 of the domain satisfaction variables remained statistically significant and explained 45.0% of the variance in happiness scores. The most influential explanatory variable was satisfaction with respondents' own self-esteem, $\beta = .35$, followed by satisfaction with their future security, $\beta = .18$. Again, the final column shows that the addition of each of the demographic and arts-related predictors (one at a time with replacement) to the 5 significant domain satisfaction predictors from the fifth column produced no change in our explanatory power. In our earlier study, we were able to explain 51.0% of the variance in Hap scores, with satisfaction with one's own health most influential, $\beta = .33$.

The first column of figures in Table 19 shows that one of our four demographic variables remained statistically significant and explained 2.0% of the variation in satisfaction with the overall quality of life (qolsat) scores. Household income had a $\beta = .16$. The second column of figures shows that one of the four motivational indexes remained statistically significant and explained 2.0% of the variance in satisfaction with the overall quality of life scores, i.e., the Index of Arts as Community Builders, $\beta = .14$. The third column of figures shows that a single arts-related variable from the *hours per week* set of predictors remained statistically significant, satisfaction obtained from singing alone, $\beta = .13$, and it explained 1.0% of the variance in satisfaction with the overall quality of life scores. The fourth column of figures shows that a single arts-related variable from the

Table 19 Regressions of satisfaction with the overall quality of life on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot. Index	Hours/act.sat.	Times/sat.	Domain sat.	All Pred
N	504	596	236	361	664	664
% of variance expl	2	2	1	3	60	60
Predictors	β	β	β	β	β	β
Household income	.16	*	*	*	*	**
Comm. Building Ind	*	.14	*	*	*	**
Singing alone sat.	*	*	.13	*	*	**
Go historic sites sat.	*	*	*	.19	*	**
Local treatment sat.	*	*	*	*	.22	.22
Health satisfaction	*	*	*	*	.19	.19
Finance security sat.	*	*	*	*	.09	.09
Future security sat.	*	*	*	*	.15	.15
Sense meaning sat.	*	*	*	*	.14	.14
Recreation sat.	*	*	*	*	.17	.17
Feel part comm sat.	*	*	*	*	.07	.07

* Not in equation, ** significance level too low to enter equation

times per year set of predictors remained statistically significant, satisfaction obtained from going to historical sites, $\beta = .19$, and it explained 3.0% of the variance in satisfaction with the overall quality of life scores. The fifth column of figures shows that 7 of the domain satisfaction predictors remained statistically significant and together they explained 60.0% of the variance in satisfaction with the overall quality of life scores. The most influential explanatory variables were satisfaction with respondents' treatment by local residents, $\beta = .22$, followed by satisfaction with respondents' health, $\beta = .19$. Again, the final column shows that the addition of each of the demographic and arts-related predictors to the 7 significant domain satisfaction predictors from the fifth column produced no change in our explanatory power. In our earlier study, we were able to explain 63.0% of the variance in qolsat scores, with satisfaction with respondents' health, financial security and sense of meaning in life most influential, each $\beta = .16$.

The first column of figures in Table 20 shows that 3 of 4 demographic variables remained statistically significant and collectively explained 4.0% of the variation in scores on the 5-item Satisfaction With Life Scale (SWLS). Of the three predictors, the most influential were household income and education, each $\beta = .12$. The second column of figures shows that only one of the 4 motivational indexes remained statistically significant and that explained 2.0% of the variance in SWLS scores. The Index of Arts as Community Builders (Comb) had a $\beta = .14$. The third column of figures shows that a single arts-related variable from the *times per year* set of predictors remained statistically significant, satisfaction obtained from going to non-art museums, $\beta = .21$, and it explained 4.0% of the variance in SWLS scores. The fourth column of figures shows that 6 of the domain satisfaction predictors remained statistically significant and together they explained 51.0% of the variance in SWLS scores. The most influential explanatory variables were satisfaction with respondents' sense of meaning in life and self-esteem, each $\beta = .21$, followed by satisfaction with respondents' health, $\beta = .17$. Again, the final column shows that the addition of each of the demographic and arts-related predictors to the 6 significant domain

Table 20 Regressions of satisfaction with life scale (SWLS) on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot. Index	Times/sat.	Domain sat.	All Pred
N	487	582	308	534	534
% of variance expl	4	2	4	51	51
Predictors	β	β	β	β	β
Household income	.12	*	*	*	**
Education	.12	*	*	*	**
Age	.11	*	*	*	**
Comm. Building Ind	*	.14	*	*	**
Go other museums sat.	*	*	.21	*	**
Sense meaning sat.	*	*	*	.21	.21
Job sat.	*	*	*	.09	.09
Health satisfaction	*	*	*	.17	.17
Finance security sat.	*	*	*	.15	.15
Feel part comm sat.	*	*	*	.09	.09
Self-esteem sat.	*	*	*	.21	.21

* Not in equation, ** significance level too low to enter equation

Table 21 Regressions of contentment with life assessment Scale (CLAS) on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Times/sat.	Domain sat.	All Pred
N	493	353	538	538
% of variance expl	3	2	50	50
Predictors	β	β	β	β
Age	.12	*	*	**
Household income	.13	*	*	**
Singing alone sat.	*	*	*	**
Go historic site sat.	*	.15	*	**
Job satisfaction	*	*	.12	.12
Health satisfaction	*	*	.10	.10
Self-esteem sat.	*	*	.26	.26
Future security sat.	*	*	.18	.18
Sense meaning sat.	*	*	.16	.16
Recreation act sat.	*	*	.09	.09

* Not in equation, ** significance level too low to enter equation

satisfaction predictors from the fourth column produced no change in our explanatory power. In our earlier study, we were able to explain 48.0% of the variance in SWLS scores, with satisfaction with one's financial security most influential, $\beta = .22$.

The first column of figures in Table 21 shows that two demographic variables remained statistically significant and explained 3.0% of the variation in scores on the 5-item Contentment with Life Assessment Scale (CLAS). Of the two predictors, the most influential was household income, $\beta = .13$. The second column of figures shows that a single arts-related variable from the *times per year* set of predictors remained statistically significant, satisfaction obtained from visiting historic and heritage sites, $\beta = .15$, and explained 2.0%

of the variance in CLAS scores. The third column of figures shows that 6 of the domain satisfaction variables remained statistically significant and together explained 50.0% of the variance in CLAS scores. The most influential explanatory variables were satisfaction with respondents' self-esteem, $\beta = .26$, followed by satisfaction with respondents' future security, $\beta = .18$. Again, the final column shows that the addition of each of the demographic and arts-related predictors to the 6 significant domain satisfaction predictors from the third column produced no change in our explanatory power. In our earlier study, we were able to explain 71.0% of the variance in CLAS scores, with satisfaction with respondents' financial security most influential, $\beta = .19$.

The first column of figures in Table 22 shows that two demographic variables remained statistically significant and explained 4.0% of the variation in scores on the 4-item Subjective Wellbeing Index (SWB). Of the two predictors, the most influential was household income, $\beta = .17$. The second column of figures shows that one of the 4 motivational indexes remained statistically significant and explained 2.0% of the variance in SWB scores. The Index of Arts as Community Builders had a $\beta = .14$. The third column of figures shows that a single arts-related variable from the *hours per week* set of predictors remained statistically significant, satisfaction obtained from reading novels, etc., $\beta = .15$, and explained 2.0% of the variance in SWB scores. The fourth column of figures shows that one arts-related variable from the *times per year* set of predictors remained statistically significant and explained 3.0% of the variance in SWB scores. Satisfaction obtained from going to art museums had a $\beta = .17$. The fifth column of figures shows that 9 of the domain satisfaction predictors remained statistically significant and together explained 75.0% of the variance in SWB scores. The most influential explanatory variables were satisfaction with respondents' financial security, $\beta = .20$, followed by satisfaction with respondents' health, $\beta = .19$. Again, the final column shows that the addition of each of

Table 22 Regressions of Subjective Wellbeing (SWB) on demographics, motivation indexes, hours/times engaged and satisfaction obtained from arts-related activities and domain satisfaction

Dependent variables	Demog.	Mot. Index	Hours/act.sat.	Times/sat.	Domain sat.	All Pred
N	491	583	423	374	644	644
% of variance expl	4	2	2	3	75	75
Predictors	β	β	β	β	β	β
Education	.10	*	*	*	*	**
Household income	.17	*	*	*	*	**
Comm. Building Ind.	*	.14	*	*	*	**
Reading novels sat.	*	*	.15	*	*	**
Go art museum sat.	*	*	*	.17	*	**
Local treatment sat.	*	*	*	*	.10	.10
Friendships sat.	*	*	*	*	.11	.11
Future security sat.	*	*	*	*	.13	.13
Health satisfaction	*	*	*	*	.19	.19
Finance security sat.	*	*	*	*	.20	.20
Sense meaning sat	*	*	*	*	.12	.12
Self-esteem sat.	*	*	*	*	.14	.14
Recreation act sat.	*	*	*	*	.12	.12
Feel part comm sat.	*	*	*	*	.06	.06

* Not in equation, ** significance level too low to enter equation

Table 23 Regressions of seven life assessment variables on seven mean discrepancy scores

Dependent variables	GH	Lsat	hap	qolsat	SWLS	CLAS	SWB
N	657	656	657	656	641	636	645
% of variance explained	16	39	43	43	59	51	58
Predictors, your life compared to	β	β	β	β	β	β	β
What you want from life	.17	.42	.43	.34	.43	.41	.46
What others your age & sex have	.18	.12	.08	.21	.15	*	.17
What you deserve	−.12	*	*	*	.08	.09	.09
What you need	*	*	*	.11	.10	.08	.09
What you expected it to be now	*	*	.11	*	*	.19	.10
What you expect it to be in 5 years	*	*	*	*	*	*	*
The best in your past experience	.23	.22	.18	.15	.20	.13	.13

* Significance level too low to enter equation

the demographic and arts-related predictors to the 9 significant domain satisfaction predictors from the fifth column produced no change in our explanatory power. In our earlier study, we were able to explain 79.0% of the variance in SWB scores, with satisfaction with respondents' financial security most influential, $\beta = .25$.

Table 23 lists results of regressing our 7 life assessment variables on 7 mean respondent-calculated discrepancy scores. Although the predictors are drawn from multiple discrepancies theory (MDT), the whole theory is not applied here. All we have done is use the 7 basic discrepancy variables of MDT in a simple bottom-up type of linear regression of the sort applied to produce Exhibits 16–22. On average, the 7 MDT variables explained 44.0% (vs. 48.0% in the earlier study) of the variation in life assessment scores, with a high of 59.0% for SWLS and a low of 16.0% for GH. Without GH, the average variance explained was 49.0%. The difference between the power of the MDT variables to explain General Health versus the other 6 life assessment variables (replicating results in our earlier study) suggests again that respondents recognized a difference between a healthy life and a good life, all things considered. Setting aside the GH column, in every column, the most influential variable is that indicating the perceived discrepancy between what respondents have now and what they want. On average, the Beta value for this variable is $\beta = .42$, with a high of $\beta = .46$ for SWB and a low of $\beta = .34$ for qolsat. The only other MDT predictor with a significant association with each of the 7 life assessment variables in the presence of all other MDT predictors is that for the gap between what respondents have now and the best they ever had in the past. On average, this predictor had a $\beta = .18$.

Since in every case of Tables 16–22, the set of domain satisfaction predictors explained the greatest amount of variance in our life assessment variables, the column headed 'Domain sat.' in these tables is the appropriate column to compare with the results in Table 23 in order to assess the relative explanatory power of both sets of predictors, i.e., domain satisfaction versus discrepancy predictors. On average for the 7 life assessment variables, domain satisfaction predictors clearly explained a greater percent of the variance than discrepancy predictors, 52.0 versus 44.0% (compared to 57 and 48% in the earlier study). This is not particularly surprising or satisfying since, after all, in the former case one is using only domain satisfaction predictors to explain some sort of a more general level of satisfaction. Much more analysis will be required to make a comprehensive comparison of the relative power of MDT versus a simple domain satisfaction, bottom-up approach to explaining the variation of overall life assessment scores in the context of a plausible theory that includes arts-related variables.

7 Conclusion

The aims of this investigation were (1) to measure the impact of arts-related activities on the perceived quality of life of a representative sample of British Columbians aged 18 years or more in the spring of 2007, and (2) to compare the findings of this study with those of a sample of 1,027 adults drawn from 5 B.C. communities (Comox Valley, Kamloops, Nanaimo, Port Moody and Prince George) in the fall of 2006. In May and June 2007, 708 British Columbians responded to a 13-page mailed out questionnaire. The working data set was weighted by age and education to match the 2006 census statistics for the province, yielding a fairly representative sample.

Since we were aiming to get some baseline provincial figures as well as to replicate findings obtained from specifically targeted communities in different parts of the province, the best way to summarize our results is with a double column review. This is provided in Table 24. In broad strokes, out of 37 pairs of entries in this table, there are 10 (27.0%) in which the province-wide and five-communities results are the same. There are another 13

Table 24 Comparisons between province-wide (2007, $N = 708$) and five-communities (2006, $N = 1,027$) results

Province-wide sample	Five-communities sample
Top 5 arts-related *hours per week* activities: listening to music; reading novels, short stories, plays or poetry; watching films on dvd; singing alone; reading to others	Same
Top 5 arts-related *hours per week* activities: average hours per week engaged = 6.9	7.0
Top 5 arts-related *hours per week* activities: average levels of satisfaction = 5.9	Same
Top 5 arts-related *times per year* activities: go to movies, concerts, community festivals, historic sites, art museums	Same
Top 5 arts-related *times per year* activities: average times per year going = 3.8	3.9
Top 5 arts-related *times per year* activities: average levels of satisfaction = 5.8	Same
First thoughts about 'arts' = painting, drawing	Same
Most important arts = music	Same
Place where first learned about arts = school	Same
Mean age when first learned = 12	12.7
Mean level of satisfaction with access to activity, information, place, access to place, price = 5.1	5.3
Mean level of satisfaction with support from city, provincial, federal government and others = 4.0	Same
Index of arts as self-health enhancers $\alpha = .87$	.88
Index of arts as self-developing activities $\alpha = .86$	.89
Index of arts as community builders $\alpha = .82$	.86
Index of arts as ends in themselves $\alpha = .71$	.77
Satisfaction with life scale (SWLS) $\alpha = .90$	.89
Contentment with life assessment scale (CLAS) $\alpha = .87$	.86

Table 24 continued

Province-wide sample	Five-communities sample
Subjective wellbeing index (SWB) $\alpha = .87$	.88
Average level of satisfaction on 30 domain/aspect items = 5.3	5.4
Average level of satisfaction with life as a whole, standard of living, quality of life and happiness = 5.8	Same
Top 2 discrepancy items = have/want, have/others have	Same
Demographic variable with highest average correlation with 7 life assessment variables = household income, $r = 0.12$	$r = 0.20$
Hours per week arts-related variables with highest and second highest average correlations with 7 life assessment variables: satisfaction obtained from arranging flowers, $r = 0.25$; satisfaction obtained from taking kids to arts-related activities, $r = -0.17$	Satisfaction obtained from playing a musical instrument, $r = 0.25$; satisfaction obtained from singing in a group, $r = 0.17$
Life assessment variable with largest number of significant associations with *hours per week* arts-related variables: satisfaction with the overall quality of life *tied* with happiness	Satisfaction with the overall quality of life
Times per year arts-related variables with highest and second highest average correlations with 7 life assessment variables: satisfaction obtained from going to amateur theatre performances, $r = 0.27$; satisfaction obtained from going to professional theatre performances, $r = 0.22$	Satisfaction obtained from going to non-art museums, $r = 0.14$; satisfaction obtained from going to amateur theatre performances, $r = 0.13$
Life assessment variable with largest number of significant associations with *times per year* arts-related variables: satisfaction with the overall quality of life	General health
Domain/aspect satisfaction items with highest and second highest average correlations with 7 life assessment variables: satisfaction with one's own health, $r = 0.60$; satisfaction with one's self-esteem, $r = 0.59$	Satisfaction with one's own health, $r = 0.64$; satisfaction with one's self-esteem, $r = 0.57$
Percent of variation explained in general health scores by all predictors = 20.0%, with most influential predictor = respondents' satisfaction with their recreation activities, $\beta = .25$	Percent of variation explained in general health scores by all predictors = 32.0%, with most influential predictor = respondents' satisfaction with their recreation activities, $\beta = .28$
Percent of variation explained in satisfaction with life as a whole scores (Lsat) by all predictors = 66.0%, with most influential predictor = respondents' satisfaction with their own health, $\beta = .25$	Percent of variation explained in satisfaction with life as a whole scores (Lsat) by all predictors = 71.0%, with most influential predictor = respondents' satisfaction with their own health, $\beta = .24$
Percent of variation explained in happiness scores by all predictors = 45.0%, with most influential predictor = respondents' satisfaction with their own self-esteem, $\beta = .35$	Percent of variation explained in happiness scores by all predictors = 51.0%, with most influential predictor = respondents' satisfaction with their own health, $\beta = .33$

Table 24 continued

Province-wide sample	Five-communities sample
Percent of variation explained in satisfaction with the overall quality of life scores (qolsat) by all predictors = 60.0%, with most influential predictor = respondents' satisfaction with their treatment by local residents, β = .22	Percent of variation explained in satisfaction with the overall quality of life scores (qolsat) by all predictors = 63.0%, with most influential predictors = respondents' satisfaction with their own health, financial security and sense of meaning in life, each β = .19
Percent of variation explained in satisfaction with life scale scores (SWLS) by all predictors = 51.0%, with most influential predictor = respondents' satisfaction with their own self-esteem and sense of meaning in life, β = .21	Percent of variation explained in satisfaction with life scale scores (SWLS) by all predictors = 48.0%, with most influential predictor = respondents' satisfaction with their financial security, β = .22
Percent of variation explained in contentment with life assessment scale scores (CLAS) by all predictors = 50.0%, with most influential predictor = respondents' satisfaction with their own self-esteem, β = .26	Percent of variation explained in contentment with life assessment scale scores (CLAS) by all predictors = 71.0%, with most influential predictor = respondents' satisfaction with their financial security, β = .19
Percent of variation explained in subjective wellbeing index scores (SWB) by all predictors = 75.0%, with most influential predictor = respondents' satisfaction with their financial security, β = .20	Percent of variation explained in subjective wellbeing index scores (SWB) by all predictors = 79.0%, with most influential predictor = respondents' satisfaction with their financial security, β = .25
Average percent of variation explained in 7 life assessment variables by all domain/aspect predictors = 52.0%	Average percent of variation explained in 7 life assessment variables by all domain/aspect predictors = 57.0%
Average percent of variation explained in 7 life assessment variables by 7 MDT predictors = 44.0%	Average percent of variation explained in 7 life assessment variables by 7 MDT predictors = 48.0%

(35.0%) in which the results are very nearly the same. So, we have a total of 23 (62.0%) pairs with considerable similarity. While plenty of differences were identified in many of the tables in our main text, suggesting that there remains a great deal of diversity yet to be understood, the broad similarities seem to be quite remarkable.

In the light of results from our two samples and in the context of all our predictors, based on the relative impact of all the arts-related activities and the satisfaction obtained from those activities on the seven overall life assessment variables, it is fair to say that such activities and their corresponding satisfaction contributed relatively little. As remarked in our earlier study, it is important to keep in mind the initial condition, "in the context of all our predictors" and the qualifier "relatively". In that context, even the usually powerful explanatory variables concerning interpersonal relations (i.e., satisfaction with one's living partner, family and friendships) had very little impact. Of the three, only satisfaction with one's friendships appeared in any final regression equation for the provincial sample and only for Lsat, Hap and SWB. This was quite different from the five-communities sample. In the latter, satisfaction with one's living partner appeared in the final equations for 6 of the 7 dependent variables (excluding General Health), satisfaction with family relations appeared in the final equations for Lsat and Hap, and satisfaction with friendships appeared in the final equations for Lsat, qolsat and SWB.

Considering domain/aspect predictors, what did most of the explanatory work for the 7 life assessment variables? Two samples with 7 final regression equations and no ties would

have given us 14 possible most influential predictors. Since we had one regression with a 3-way tie for most influential predictor and one with a 2-way tie, we have 17 entries. One way to answer our question is to count the relative frequency with which various predictors occur. Using this crude measure, one finds that satisfaction with financial security had 5 firsts, followed by 4 firsts for satisfaction with respondents' own health and 3 firsts for satisfaction with respondents' own self-esteem. These predictors are understandably and often relatively heavy hitters in such exercises. Still, granting the difficulties of displacing any of the relatively heavy hitters from our final explanatory equations, it remains unclear why even arts-related activities with engagement measured in the average number of *hours per week* or *times per year* and the satisfaction obtained from such engagement were relatively weak predictors in the context of only such arts-related activities and satisfaction. Hopefully, others will be able to solve this problem in the future.

Appendix: BC Arts and Quality of Life Survey, May 2007

See Table 25

Table 25 Time spent on and levels of satisfaction with artistic activities (Total $N = 708$, unweighted data)

Particular activities	Ordered by N	Hours/Week	Satisfaction
T1. Listening to music	608	13.22	6.01
T17. Reading novels, etc.	441	7.67	6.17
T37. Watching movies on video	278	4.96	5.60
T8. Singing alone	239	4.58	5.70
T21. Reading to others	195	3.27	6.03
T46. Gourmet cooking	136	4.60	6.18
T20. Telling stories	122	2.76	5.92
T5. Painting or drawing	118	5.86	5.97
T9. Singing in a group	103	2.67	6.11
T50. Watching art shows on TV	94	2.68	5.66
T2. Playing a musical instrument	85	4.91	6.05
T40. Artistic photography	66	3.11	6.34
T27. Knitting or crocheting	64	4.98	6.45
T42. Arranging flowers	57	1.37	6.38
T67. Other	50	10.00	6.65
T52. Watching concerts on TV	48	2.17	5.93
T12. Taking children to arts activities	46	2.35	5.96
T19. Writing novels, etc.	45	6.18	5.89
T28. Embroidery, needlepoint	38	5.95	6.31
T16. Making quilts	32	9.75	6.29

Table 25 continued

Particular activities	Ordered by N	Hours/Week	Satisfaction
T15. Making clothes	30	4.27	6.07
T6. Teaching painting or drawing	23	5.13	6.05
T51. Watching live theatre on TV	23	2.48	5.42
T7. Teaching singing	21	3.90	6.05
T56. Attending a class-artistic work	20	3.65	6.39
T14. Designing clothes	17	2.47	5.94
T49. Graphic designing	17	16.29	5.63
T4. Teaching—to play an instrument	15	4.27	5.20
T24. Teaching people to dance	14	2.29	5.85
T43. Creating jewelry	14	2.64	5.56
T11. Creating sculptures	13	5.38	6.30
T47. Teaching gourmet cooking	13	2.85	6.30
T53. Watching opera on TV	12	3.17	5.38
T10. Creating pottery or ceramics	11	7.00	5.78
T18. Attending a book club	11	4.45	6.00
T60. Working for pay in the arts	10	26.80	6.22
T22. Teaching creative writing	9	2.33	5.63
T3. Writing music	7	4.43	5.57
T62. Acting as an advocate for the arts	7	1.71	6.33
T58. Selling works of art	6	2.33	5.83
T25. Weaving textiles	4	13.75	6.67
T35. Non-acting work—amateur theatre	2	2.50	6.50
T26. Weaving baskets	1	4.00	7.00
T34. Acting—amateur theatre	1	6.00	–
T48. Making artistic videos or movies	1	10.00	7.00
T61. Serving as a judge for the arts	1	2.00	–
T33. Acting—professional theatre	0		
T13. Teaching sculpture	0		

Particular activities	Ordered by N	Times/Year	Satisfaction
T36. Going to movies	439	5.97	5.53
T29. Going to concerts	417	3.75	6.01
T38. Going to art museums/galleries	384	3.65	5.84
T65. Visiting historic, heritage sites	367	2.97	5.93
T54. Attending community festivals	365	2.89	5.61
T39. Going to other museums	319	2.39	5.84
T66. Visiting the public library	307	9.18	5.61
T30. Going to amateur live theatre	296	2.56	5.90
T31. Going to professional live theatre	293	2.80	6.14
T57. Buying works of art	224	2.33	6.12
T44. Decorating a home	220	6.08	5.75
T32. Going to school plays	211	2.13	6.00

Table 25 continued

Particular activities	Ordered by N	Times/Year	Satisfaction
T23. Dancing	199	5.48	5.52
T41. Designing a garden	190	4.19	6.07
T63. Making donations to the arts	111	2.62	5.79
T55. Working on community festivals	98	2.43	5.77
T59. Volunteering in the arts	53	4.94	5.94
T64. Designing, crafting furniture	49	4.16	6.02
T45. Figure skating	32	5.22	5.50
T67. Other	25	9.52	6.48
T61. Serving as a judge for the arts	8	3.00	6.14
T33. Acting—professional theatre	7	2.00	6.14
T34. Acting—amateur theatre	6	1.67	6.50

Particular activities	N	Ordered by Hours/Week	Satisfaction
T60. Working for pay in the arts	10	26.80	6.22
T49. Graphic designing	17	16.29	5.63
T25. Weaving textiles	4	13.75	6.67
T1. Listening to music	608	13.22	6.01
T67. Other	50	10.00	6.65
T48. Making artistic videos or movies	1	10.00	7.00
T16. Making quilts	32	9.75	6.29
T17. Reading novels, etc.	441	7.67	6.17
T10. Creating pottery or ceramics	11	7.00	5.78
T19. Writing novels, etc.	45	6.18	5.89
T34. Acting—amateur theatre	1	6.00	–
T28. Embroidery, needlepoint	38	5.95	6.31
T5. Painting or drawing	118	5.86	5.97
T11. Creating sculptures	13	5.38	6.30
T6. Teaching painting or drawing	23	5.13	6.05
T27. Knitting or crocheting	64	4.98	6.45
T37. Watching movies on video	278	4.96	5.60
T2. Playing a musical instrument	85	4.91	6.05
T46. Gourmet cooking	136	4.60	6.18
T8. Singing alone	239	4.58	5.70
T18. Attending a book club	11	4.45	6.00
T3. Writing music	7	4.43	5.57
T4. Teaching—to play an instrument	15	4.27	5.20
T15. Making clothes	30	4.27	6.07
T26. Weaving baskets	1	4.00	7.00
T7. Teaching singing	21	3.90	6.05
T56. Attending a class-artistic work	20	3.65	6.39
T21. Reading to others	195	3.27	6.03
T53. Watching opera on TV	12	3.17	5.38

Table 25 continued

Particular activities	N	Ordered by Hours/Week	Satisfaction
T40. Artistic photography	66	3.11	6.34
T47. Teaching gourmet cooking	13	2.85	6.30
T20. Telling stories	122	2.76	5.92
T50. Watching art shows on TV	94	2.68	5.66
T9. Singing in a group	103	2.67	6.11
T43. Creating jewelry	14	2.64	5.56
T35. Non-acting work—amateur theatre	2	2.50	6.50
T51. Watching live theatre on TV	23	2.48	5.42
T14. Designing clothes	17	2.47	5.94
T12. Taking children to arts activities	46	2.35	5.96
T22. Teaching creative writing	9	2.33	5.63
T58. Selling works of art	6	2.33	5.83
T24. Teaching people to dance	14	2.29	5.85
T52. Watching concerts on TV	48	2.17	5.93
T61. Serving as a judge for the arts	1	2.00	–
T62. Acting as an advocate for the arts	7	1.71	6.33
T42. Arranging flowers	57	1.37	6.38
T33. Acting—professional theatre	0		
T13. Teaching sculpture	0		

Particular activities	N	Ordered by Times/Year	Satisfaction
T67. Other	25	9.52	6.48
T66. Visiting the public library	307	9.18	5.61
T44. Decorating a home	220	6.08	5.75
T36. Going to movies	439	5.97	5.53
T23. Dancing	199	5.48	5.52
T45. Figure skating	32	5.22	5.50
T59. Volunteering in the arts	53	4.94	5.94
T41. Designing a garden	190	4.19	6.07
T64. Designing, crafting furniture	49	4.16	6.02
T29. Going to concerts	417	3.75	6.01
T38. Going to art museums/galleries	384	3.65	5.84
T61. Serving as a judge for the arts	8	3.00	6.14
T65. Visiting historic, heritage sites	367	2.97	5.93
T54. Attending community festivals	365	2.89	5.61
T31. Going to professional live theatre	293	2.80	6.14
T63. Making donations to the arts	111	2.62	5.79
T30. Going to amateur live theatre	296	2.56	5.90
T55. Working on community festivals	98	2.43	5.77
T39. Going to other museums	319	2.39	5.84
T57. Buying works of art	224	2.33	6.12
T32. Going to school plays	211	2.13	6.00

Table 25 continued

Particular activities	N	Ordered by Times/Year	Satisfaction
T33. Acting—professional theatre	7	2.00	6.14
T34. Acting—amateur theatre	6	1.67	6.50

Most activities had some people indicating they spent a certain number of hours per week on it, while other people only did it a few times per year. The hours per week activities are listed first, followed by the times per year activities. The activities are listed in two orders—first from the largest number of people responding to the least and then from the largest average hours/week (or times/year) to the smallest

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