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Craig Ravesloot Ph.D.

University of Montana Rural Institute - Research and Training Center on Disability in Rural Communities

University of Montana Rural Institute
scholarworks-reports@mso.umt.edu

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Research Report

Meaningful Activity and Adaptation to Spinal Cord Injury: An Empirical Investigation of a Cognitive-Existential Measure

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Abstract

Objective: To examine a measure of meaningful activity and purpose attributions for predicting disability outcome in adults with spinal cord injury (SCI). **Study Design:** Cross-sectional survey correlational design using multiple regression to examine the relationship between the meaningful activity scale and other disability outcome measures. **Participants:** Adults with spinal cord injury living independently in a community setting (n = 73). **Main Outcome Measures:** Sense of Coherence, the Centers for Epidemiological Studies of Depression Scale, the Hope Scale, the Health Promoting Lifestyle Inventory and the Life Satisfaction Scale. **Results:** Significant and substantial variation in each of the outcome measures was attributable to the purpose attribution subscale of the meaningful activity scale. Concurrent validity with both the Sense of Coherence Meaningfulness subscale and the Health Promoting Lifestyle Inventory Personal Growth Orientation subscale was good. **Conclusions:** The Meaningful Activity Scale provides an alternative approach to assessing disability outcome and quality of life. The cognitive existential conceptual model for the measurement instrument may be useful for developing interventions to help adults with SCI improve their long-term adaptation and outcome following injury.

Introduction

Variation in disability outcome is complex and difficult to predict in both short and long term studies. In their search for variables and concepts that might explain variation in adaptation to disability, a number of researchers have looked to attribution theory. The attribution and disability literature has focused predominantly on causal attributions for negative events such as events related to injury and failure to return to work after vocational rehabilitation (Bordieri & Kilbury, 1991; Bulman & Wortman, 1977; Richards, Elliot, Shewchuk & Philip, 1997; Silver, Wortman, & Klos, 1982; Wortman, Panciera, Shusterman, & Hibscher, 1976). From an intervention perspective, the assumption behind this line of research is that a strong association between causal attribution and adaptation may lead to interventions that can help people restructure their causal attributions and thereby improve adaptation by reducing symptoms caused by the attributions.

Like most attribution research, the adaptation and attribution literature focuses on causal attributions people make for specific events (e.g. the cause of injury). Attributions may not be limited solely to causal attributions for specific events, however. People may make attributions for recurrent self-initiated activities as well (Ravesloot, 1995). For this paper, we will distinguish causal attributions for specific events from "purpose" attributions for on-going, self-initiated activity. One framework for examining "purpose" comes from existential psychology.

In his existential psychology textbook, Yalom (1980) suggested a dynamic model of psychological functioning based on existential principles. He posited four ultimate existential concerns that may be useful for describing clinical manifestations and therapeutic techniques. These four concerns are death, freedom, isolation and meaninglessness. Within the meaninglessness domain, he suggested people could derive a sense of meaning from a variety of different life activities that he categorized into one of five areas: altruism, dedication to a common cause, creativity, hedonism and self-actualization. He posits that personal existential meaning is derived through activities representing each of these categories.

Following diagnosis of impairments that typically lead to disability, many people begin to experience the loss of valued activities. For individuals with permanent injuries like spinal injury, these losses occur during the initial months after acquiring the impairment (Wright, 1983). Activity limitation that begins to infringe on regular work, family, and social activities paves the way for isolation, depression and loss of purpose in life. Yalom (1980) suggests, that without a cosmic sense of meaning, the road to purpose and sense of meaning is through engagement. He writes, "On this one point most western theological and atheistic existential systems agree: it is good and right to immerse oneself in the stream of life."

To the extent that rehabilitation is not successful in helping people with impairments return to their pre-impairment activities, long-term rehabilitation outcomes may depend on the development of activities that serve similar existential functions to those activities that have been lost. Yalom's (1980) categories may provide a useful framework in this regard. For example, an individual who played sports before a disabling injury may have engaged in sports for a variety of reasons including his or her commitment to the teams' success (i.e. dedication to a common cause) or for his or her own personal development as an athlete (i.e. self-actualization). In either case, understanding the existential function of the activity for the individual may provide direction for future positive development of the individual. Based on

this premise, we used Yalom's categories for scale construction in this study.

Researchers have conceptualized and measured adaptation to disability and rehabilitation outcome in numerous ways. Many authors have used depression as an indicator of rehabilitation outcome (Cook, 1979; Davidoff et al., 1990; Elliott, Witty, Herrick, & Hoffman, 1991; Fedoroff et al., 1991; Frank, Elliott, Corcoran, & Wonderlich, 1987; Hancock, Craig, Dickson, Chang, & Martin, 1993; Judd, Brown, & Burrows, 1992; Judd, Stone, Webber, Brown, & Burrows, 1989; MacDonald, Nielson, & Cameron, 1987; Turner, & Noh, 1988). This symptom-based approach defines the presence of depression as a poor indicator of disability outcome. Alternatively, others consider quality of life and subjective well-being measures useful for assessing disability outcome (Bryant, 1998; Diener, Emmons, Larsen, & Griffin, 1985; Fuhrer, 1994; Laman & Lankhorst, 1994; Noreau & Shephard, 1995; Patrick, 1998; Rimmer, 1999). Finally, the degree to which individuals take care of their general health needs might be a third orientation for assessing outcome (Krause, Coker, Charlifue, & Whiteneck, 1999; Pruitt, Wahlgren, Epping-Jordan, & Rossi, 1998). In this study, we chose to represent adaptation to disability from a number of different perspectives including: sense of coherence, absence of depression, life satisfaction, hope and level of health promoting behavior.

This study is an investigation of the relationship between adaptation to disability among adults with spinal injury and the level of meaning people with spinal cord injury derive from their daily activities. We hypothesized positive associations between adaptation to disability, the level of meaning in people's self-reported activities and the attributions they make for engaging in those activities.

Methods

Participants and Procedures

We mailed surveys to 138 people with Spinal Cord Injury (SCI) living in two US states (Montana

and Kansas) who were on the mailing list of one of eight community-based service agencies that serve people with disabilities. These individuals received a survey about their lifestyle and secondary conditions as part of a larger study on preventing and managing secondary conditions of physical disability. Two weeks following the initial mailing, we sent a postcard reminder to return the survey to participants who had not yet responded. Participants were offered 10 dollars in exchange for their participation. We received useable questionnaires from 73 individuals for a 53 percent response rate.

Of those returning surveys, 48 (66.7%) were men, 24 (33.3%) were women. The sample was 84.9% Caucasian (n=62), 6.8% Black American (n=5) and 6.8% American Indian (n=5). Participants were on average 39.9 years old ($SD = 11.4$) and reported the onset of their impairment occurred on average, 13.7 ($SD = 12.3$) years prior to the survey. They had a median educational level of 14 years and a median annual income of 14,500 dollars. Nearly half, 49.3% (n=36) reported tetraplegia and the other half reported paraplegia (46.6%, n=34; 4.1% (n=3) did not report level of injury). Finally, 50.7% (n=37) reported their injury was complete with 32.9% (n=24) reporting incomplete injuries and 13.7% (n=10) not reporting.

Measures

We developed the Meaningful Activities Scale (MAS) for this study (Appendix A). To complete this scale subjects select eight leisure activities from a list of 55. Next, they select a purpose attribution for each activity selected. Two scales are computed: one scale for the meaning of subject's purpose attributions (MAS-P) and one for the level of meaning of their activities (MAS-A). Each of these scale scores represent a simple summation of the activity and attribution meaning weights.

The meaning weights, or level of meaning inherent in each activity and in each purpose attribution, came from a series of scaling studies that are fully described elsewhere (Ravesloot, 1995). Briefly, a list of 12 purpose attributions was developed based on Yalom's (1980) taxonomy of existential meaning.

This list of attributions was put into a paired-comparison format (Nunnally & Bernstein, 1994) and administered to a convenience sample of university students to scale the purpose attributions along a continuum of meaning. Students were asked to choose from each potential pair the reason for engaging in an activity that would result in the greatest sense of meaning for "most people." Table 2 lists the meaning weights for each attribution using this paired-comparison procedure. The Meaningful Activity Purpose Attribution subscale (MAS-P) is the summation of meaning weights for the attributions selected.

In the same scaling studies, the sample rated the level of meaning "most people" derive from engaging in each of 55 different leisure activities. For this rating, we used a five-point anchored Likert-type scale with extreme anchors representing "no sense of meaning at all" and "extreme sense of meaning" representing values from zero to four. The average rating of these activities became the Meaningful Activity Scale - Activity subscale (MAS-A).

To assess validity, the direct Likert-type scaling used for scaling activities was compared to an indirect method of scaling. The indirect method summed subjects' purpose attribution weights for each activity they selected. The Spearman rank-order correlation coefficient of the direct and indirect scaling procedures was .64 ($p < .01$) suggesting good concurrent validity for the MAS.

In addition to the MAS, we used five other measurement scales in this study. The Sense of Coherence Questionnaire (SOCQ) measures comprehensibility, manageability, and meaningfulness (Antonovsky, 1987). The Centers for Epidemiological Studies of Depression Scale (CES-D) measures depressive symptoms (Radloff, 1977). The Hope Scale measures two dimensions of one's beliefs about goal-directed behavior: agency and pathway (Snyder, Harris, Anderson, & Holleran, 1991). The Health Promoting Lifestyle Inventory (HPLI-II) measures six dimensions of lifestyle: personal growth, health responsibility, exercise, nutrition, interpersonal support, and stress management (Walker, Sechrist, & Pender, 1987). The Life Satisfaction Scale measures the overall

level of satisfaction people experience in their lives (Diener, Emmons, Larsen, & Griffin, 1985). Table 1 includes the means and standard deviations for these scales.

Design and Analysis

The design of the study is a cross-sectional survey correlational design. Data were analyzed using Pearson correlation and linear multiple regression procedures with SPSS 10.

Results

Results of this study indicate that purpose attributions and the potential meaning people derive from their daily leisure activities are consistently related to disability outcome as assessed by a number of different indicators. Both correlation and between group results are reported.

We computed descriptive statistics for the activities and attributions prior computing scale scores and inferential analysis. Table 2 presents the proportion of participants who selected each attribution at least once for one of their eight activities choices. It also includes the proportion of respondents who chose each of the top 10 activities selected most frequently by respondents. Additionally, the percentage of total possible responses for both attributions and activities across all eight activity choices is listed. It is important to note that the percentage of attributions listed equals 100 percent because all possible attribution choices are listed. On the other hand, the top ten activities listed represent only 47 percent of the

responses. The other 53 percent of responses were made to the other 45 activities listed on the scale.

Scores on the MAS activity and attribution subscales were computed for various demographic groups. Independent samples t-tests were computed for groups defined by sex (male, female), level of injury (paraplegia, tetraplegia), completeness of injury (complete, incomplete) and employment (employed, not employed). There were no significant differences on either MAS subscale between any of these groups. Next, Pearson correlation coefficients were computed between the MAS subscales and age, duration of injury, income and education. Again, there were no statistically significant relationships among these variables. Hence, level of meaningful activity and purpose attributions are not associated with demographic variables collected in this study.

Next, the bivariate Pearson correlation coefficients were computed for all study outcome variables and these are presented in Table 3. This matrix shows that all correlations between the MAS and disability outcome variables are statistically significant. Further, the variance accounted for in each of the outcome variables and the MAS ranges from 9.1% for Life Satisfaction to 26.3% for Sense of Coherence. The strength of these relationships are particularly noteworthy given the scaling procedures used for development of the MAS scores. That is, we would expect the MAS scores to share very little measurement method variance with the Likert-type ratings employed by each of the outcome variables.

These correlational results indicate that

Table 1

Descriptive Statistics of All Outcome Measures (n=73)

Measure	Mean	SD
Sense of Coherence Questionnaire	136.74	22.43
Centers for Epidemiological Studies of Depression Scale	14.41	10.31
Hope Scale	23.97	3.80
Health Promoting Lifestyle Inventory	122.70	18.43
Life Satisfaction Scale	16.09	6.21

Table 2

Share of the sample selecting each attribution and the top ten most common activities.

Attributions	Scale Values	% of People Selecting (N=73)	% of Total Responses (N=509)
1. To help someone	1.361	26	5
2. To learn something	1.155	44	7
3. To grow personally	1.125	30	6
4. To be with other people	1.108	45	8
5. To feel good	1.083	51	11
6. To have fun	1.037	66	17
7. To advance an important cause	.833	22	5
8. To meet an obligation	.804	32	7
9. To express oneself artistically	.798	12	2
10. To relax	.687	66	17
11. To make something creative	.604	18	3
12. To pass the time	0	47	11
Activity			
1. Watch TV shows	.86	48	7
2. Talk on the telephone	1.51	48	7
3. Listen to music	2.26	47	6
4. Read: newspaper/magazines	2.34	33	5
5. Dine out	1.20	32	4
6. Watch team sports	1.31	32	4
7. Go grocery shopping	1.31	27	4
8. Rent a movie	1.03	27	4
9. Read: books/plays/poetry	2.57	25	3
10. Eat something delicious	1.03	25	3
<p>Note: Attribution scale values derived from paired-comparison procedure while activity scale values are the mean of ratings on a 5-point Likert-type scale (0 to 4). Only the top ten activities ranked by percentage of individuals endorsing each item are listed.</p>			

the MAS accounts for significant and substantial variance in each of the outcome measures of the study with people reporting higher level of meaning in their activities and attributions also reporting greater sense of coherence, less depression, a healthier lifestyle, greater hope and greater life satisfaction. Analysis of the subscales separately, however, suggests that a greater proportion of the variance in outcomes is attributable to attributions people make rather than the activities in which they engage.

In order to assess the degree of overlap in variance accounted for between the MAS and each of the outcome variables, we computed stepwise linear multiple regression (.05 enter and .10 remove) to determine the unique variance accounted for between the MAS and each of the disability outcome measures (Table 4). Two of the five variables entered and remained in the equation. The Sense of Coherence measure entered first, accounting for 24.2% of the variance in MAS, and the Health Promoting Lifestyle Inventory entered next, accounting for an additional 6% of the variance. Because each of these total scores are comprised of subscales, we computed another

stepwise procedure using the outcome variable subscales. In this analysis, only the Sense of Coherence Meaning subscale entered the equation. This single scale accounted for 36.1% of the variance in MAS scores suggesting substantial overlap in two measures we would expect to be highly related.

Next, because the SOC Meaning subscale is very similar conceptually to the MAS, we computed an additional stepwise procedure using the SOC and HPL subscales, but omitting the SOC Meaning subscale (Table 4). In this analysis, the personal growth and exercise subscales entered and remained in the equation, accounting for a total of 28% of the variance in the MAS measure. These results highlight that in addition to its relationship to a very similar concept, Sense of Coherence Meaning, the MAS is also highly related to health promoting behaviors. Specifically, personal growth behaviors and exercise behaviors are also closely associated with MAS.

We conducted additional analysis to examine the utility of the purpose attribution concept independent of the MAS scale values derived in pilot research with university students.

Table 3

Pearson Correlation matrix of all study variables

	MAS-Total	MAS-A	MAS-P	SOC	CESD	HEALTHYLIFE	HOPE	LIFE SAT
MAS	1.00							
MAS-A	.889**	1.00						
MAS-P	.887**	.577**	1.00					
SOC	.513**	.334**	.539**	1.00				
CESD	-.403**	-.220	-.444**	-.707**	1.00			
HEALTHYLIFE	.492**	.396**	.469**	.478**	-.456**	1.00		
HOPE	.408**	.326**	.429**	.661**	.556**	.625**	1.00	
LIFE SAT	.302*	.276*	.302*	.482**	-.580**	.571**	.583**	1.00

Note: MAS total = summation of MAS-A and MAS-P z scores, MAS-A = sum of the direct scaling values of activity meaning, MAS-P = sum of the scale values for activity attributions, SOC = Sense of Coherence, CESD = Centers for the Epidemiological Study of Depression Scale, HEALTHY LIFE = Health Promoting Lifestyle Inventory, HOPE = Hope Scale, LIFE SAT = Life Satisfaction Scale. **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the .05 level (2-tailed).

For this analysis, we used the two attributions that represent each end of the purpose attribution scale continuum (i.e. to pass the time and to help someone; see Table 2) to divide the sample into groups. First, the sample was divided by whether or not respondents chose “to pass the time” at

least once for one of their eight activity choices. Using these groups, we computed independent samples t-tests to assess mean differences on the Sense of Coherence Questionnaire, the Centers for Epidemiological Studies of Depression Scale, the Hope scale, the Life Satisfaction scale and Health

Table 4

Stepwise multiple regression results for the Disability Adaption Outcome Effects on the Meaningful Activity Scale (MAS)

Model	ΔR²	t	p
MAS Total			
Sense of Coherence	.24	2.30	.026
HPLI Total	.06	2.024	.049
Hope			ns
CESD			ns
Life Satisfaction			ns
MAS Total			
SOC Meaning	.36	5.37	.000
SOC Manageability			ns
SOC Comprehensibility			ns
HPLI Personal Growth			ns
HPLI Health Responsibility			ns
HPLI Exercise			ns
HPLI Nutrition			ns
HPLI Interpersonal Support			ns
HPLI Stress Management			ns
MAS Total			
HPLI Personal Growth	.22	3.07	.003
HPLI Exercise	.06	2.112	.040
HPLI Stress management		1.79	.080
SOC Comprehensibility			ns
SOC Manageability			ns
HPLI Nutrition			ns
HPLI Interpersonal Support			ns
HPLI Health Responsibility			ns

Promoting Lifestyle Inventory.

Results indicate significant differences between these two groups with people who engage in leisure activities “to pass the time” scoring significantly lower on Sense of Coherence ($t_{66} = 2.78$, $p < .01$) Health Promoting Lifestyle ($t_{67} = 2.34$, $p < .05$) and significantly higher on depression ($t_{66} = -2.20$, $p < .05$). No effects were found for scores on either Life Satisfaction or Hope.

Next, the same analysis algorithm was used for groups defined by whether or not respondents indicated they engage in at least one leisure activity “to help someone.” The same outcome variables were used in this analysis; however, these results showed a different pattern of results. Individuals who engage in at least one leisure activity “to help someone” scored significantly higher on Hope ($t_{66} = -2.31$, $p < .05$) and Life Satisfaction ($t_{70} = -2.14$, $p < .05$) but no differences were found for depression, Sense of Coherence or Health Promoting Lifestyle.

Discussion

This study used survey methods in an exploratory cross-sectional design to assess the association between disability outcome and the meaning people potentially derive from their leisure activities. Two scales for assessing meaning derived from leisure activities were developed and administered to adults with spinal cord injuries. Results support the hypothesis that reliable relationships exist between disability outcome and the meaning people derive from engaging in leisure activities.

The first issue that must be addressed in interpreting these results is the validity of the MAS. On the surface, using scale values for the activities and attributions that were derived from pilot results with university students appears suspect. It is not conceptually clear how the level of meaning subscribed by university students can be related to the experience of adults with spinal injury. First, these students were asked to rate the meaning they believed “most people” would derive from engaging in activities for the specific reasons (i.e., attributions) listed. We arrived at this method by conceptually analyzing meaning into

two components: cultural and personal. Individuals within a culture share the cultural components of meaning. Events such as football games and weddings conceptually derive a substantial proportion of their meaning from the shared experience and historical meanings of such events. Hence, both university students and multiple other diverse groups would likely rate items similarly assuming their ratings are derived from the cultural component. The MAS-A, the subscale derived by summation of the scale value for each activity chosen reflects this cultural component.

In order to address the personal component of meaning, we developed the attribution subscale of the MAS. This component allows individuals to assign a variety of different reasons with varying levels of meaning to each of the activities they select. Although the actual values assigned to these attributions also came from university students, the differential application of the attributions by participants in this study serves to assess meaning at a level more personal than what is assessed by the activity scale itself. The MAS-P, the summation of scale values associated with attributions, may reflect a personal cognitive process associated with the development of meaning.

Assessment of scale validity is a long-term endeavor; however, the results presented here are promising. First, we would not expect to find differences in meaning based on demographic characteristics and no such results were found. Second, we hypothesized relationships between meaning and disability outcome that were supported in this study. Finally, a scale that is conceptually similar to the MAS is closely related statistically to the MAS. The SOC Meaning subscale measures the extent to which one possess a sense of meaningfulness about their lives. In this study, the MAS correlated .60 with the SOC Meaning subscale. Nunnally and Bernstein (1994) suggest that one may expect only moderate correlation coefficients (.30 to .40) when assessing predictive validity.

Aside from the validity of the MAS scales themselves, the validity of the purpose attribution concept is also at issue. For that reason, analyses were computed using the two purpose attributions

that represent the extreme end of the MAS-P scale as independent variables, namely “to pass the time” and “to help someone.” This allowed us to examine the purpose attribution concept without dependence on the scale values developed in the scaling studies with university students. These analyses suggest that dividing the sample of individuals by whether or not they make specific attributions is predictive of their scores on some adaptation indices.

The pattern of results on the adaptation measures for each of the two purpose attributions is worth noting. Individuals who selected “pass the time” as a reason for engaging in at least one of eight activity choices scored higher on depression and lower on sense of coherence and healthy lifestyle. It is not surprising that people who engage in activities to “pass the time” are on average more depressed. It is the relationship of this attribution to sense of coherence and healthy lifestyle that is interesting. In light of the linear regression results presented above, it appears that individuals who “pass the time” for engaging in free time activities are also much less likely to have a sense of meaningfulness in their lives, are less likely to engage in personal growth activities and probably engage in less exercise.

The compliment to these results for the “pass the time” attribution is found in the analysis of those who attributed some free time activity to “helping someone.” Individuals who engaged in at least one activity to help others reported significantly greater Hope and Life Satisfaction. The Hope scale is a measure of an individual’s sense that they can envision a pathway to goal attainment and that they have the personal agency to accomplish objectives toward goals. It seems likely that individuals must possess a sense that they can move forward in their own lives before reaching out to assist others. We might expect individuals with such personal resources also to exhibit a greater sense of life satisfaction. Hence, this relationship between the attribution “help someone” and the Hope and Life Satisfaction outcome variables may be the result of their relationship to a third variable. This third variable might be akin to personal resources or coping effectiveness.

While these data do not speak to causality or directionality between purpose attributions and adaptation, the observed relationships in the correlation matrix suggest future research to investigate the potential for intervention based on these preliminary results. Because these associations account for substantial and potentially clinically significant amounts of variance in adaptation outcomes, the potential for intervention development is promising. It may be that purpose attribution retraining could have a positive effect on adaptation to disability. These results indicate that 33% of the reliable variance is shared between the MAS-A and MAS-P subscales. While this is a substantial proportion of variability, it leaves room for change in one dimension without change in the other. For example, an individual who spends substantial amounts of time watching TV due to his or her present circumstances (e.g. poor home accessibility or lack of transportation) , might be able to develop a greater sense of meaning without having to make substantial changes in daily activities by developing new reasons for watching TV. The individual could watch TV to help a family member by searching for content germane to a family member’s problem or aspiration. For some people with disabilities, this intrapsychic shift might provide the impetus to help them make changes in daily activity patterns that lead to a greater sense of meaning. Of course, we must always be cognizant of the need to advocate for long-term support services that allow people with disabilities to access the activities that can lead to the greatest sense of meaning for many people, including work and family activities.

Positive psychology is the application of psychological knowledge and methods to the investigation of human fulfillment and the building of positive human qualities (Seligman & Csikszentmihalyi, 2000). It is a movement away from disease models and healing, and instead, highlights how much psychology can contribute to the positive development of people and communities. Rehabilitation psychologists, when working from a positive developmental perspective rather than a symptom reduction perspective, can bring a powerful and needed dimension to the

rehabilitation process. The research presented here examines adaptation to disability from a cognitive-existential perspective that may be useful for developing intervention models to promote positive development following symptom reduction in the rehabilitation process. This positive developmental approach could begin with intrapsychic interventions that broaden to include problem solving of environmental factors. The combined effect could be improved disability outcome evidenced by improved physical and mental health outcomes.

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Appendix A

This is an abbreviated version of the Meaningful Activities Scale provided to participants in this project. If you would like to see the full version, contact the author.

Below is a list of activities in which people frequently engage. You have probably engaged in many of these activities yourself. Your task is to choose up to 8 activities you have engaged in the most **during the past month**. After choosing an activity, write the name of the activity next to the letter A on the next page. Next, choose another activity from the list below and write the name of it next to the letter B. When you have finished filling in all eight blanks, answer the questions below each of the activities you listed. An example has been completed on the next page. *Hint: It may be easiest to go through the entire list first marking the activities you did during this past month. Then choose the 8 activities you spent the most time doing from those that you marked and write them in blanks A through H on the following pages.*

1. Dine out
2. Watch a movie
3. Social media
4. Read: news, stories (online or books)
5. Listen to music
6. Go out to a movie
7. Cook/Bake
8. Visit relatives
9. Do physical exercise
10. Go for a drive
11. Volunteer in the community
12. Wash the car
13. Go for a walk/hike
14. Work on project/hobby: mechanical
15. Work on project/hobby: artistic
16. Sit and watch the world go by
17. Drink socially
18. Watch team sports
19. Watch TV shows
20. Do laundry
21. Go out for a date
22. Window shop
23. Get drunk or high
24. Go out for coffee
25. Sightsee
26. Visit someone who is lonely
27. Take a nap
28. Practice or play a sport
29. Eat something delicious
30. Shop for groceries
31. Clean house
32. Go camping
33. Swim
34. Help someone (e.g., move, personal problem, etc.)
35. Dance at a night club
36. Meditate
37. Go to a lecture
38. Go to a worship service
39. Play a musical instrument
40. Garden
41. Help a religious organization
42. Play computer/video games
43. Fish or hunt
44. Plan a vacation
45. Go to the library
46. Go to a concert
47. Play board games (e.g., Monopoly)
48. Do child related activities (e.g., Scouts, PTA, etc.).

- 49. Do a crossword puzzle
- 50. Help with a political campaign
- 51. Do home decorating
- 52. Sew something
- 53. Sunbathe
- 54. Talk on the telephone
- 55. Write letters

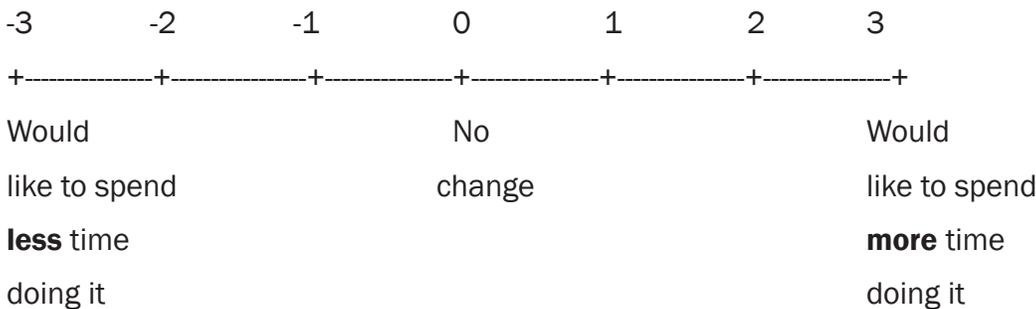
Example. Listen to music_____.

1. Approximately how many *hours per week* did you engage in this activity during the past month?
 6

2. From the list below, please choose the *most important* reason that you engage in this activity. Please choose only one reason.

- | | |
|---|---|
| <input type="checkbox"/> to have fun | <input checked="" type="checkbox"/> to relax |
| <input type="checkbox"/> to express myself artistically | <input type="checkbox"/> to make something creative |
| <input type="checkbox"/> to learn something | <input type="checkbox"/> to grow personally |
| <input type="checkbox"/> to pass the time | <input type="checkbox"/> to help someone |
| <input type="checkbox"/> to advance an important cause | <input type="checkbox"/> to meet an obligation |
| <input type="checkbox"/> to feel good | <input type="checkbox"/> to be with other people |

3. How satisfied are you with the amount of time you spend doing this activity?



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 UNIVERSITY OF MONTANA
Rural Institute



Research & Training Center
on Disability in Rural Communities

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For Additional Information

Research and Training Center on Disability in Rural Communities

The University of Montana Rural Institute for Inclusive Communities

52 Corbin Hall, Missoula, MT 59812-7056

(888) 268-2743 or (406) 246-5467

(460) 243-4200 (TTY), (406) 243-2349 (Fax)

rtcrural@mso.umt.edu, rtc.ruralinstitute

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