MOTIVATIONAL DIFFERENCES BETWEEN SELF-REPORTED USER GROUPS OF THE MKT NATURE AND FITNESS TRAIL

A Thesis presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
Of the Requirements for the Degree

Master of Science

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by
JASON N. SCHOOLEY

Dr. C. Randal Vessell, Thesis Supervisor

AUGUST 2007

The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

MOTIVATIONAL DIFFERENCES BETWEEN SELF-REPORTED USER GROUPS OF THE MKT NATURE AND FITNESS TRAIL

presented by Jason Schooley,

a candidate for the degree of Master of Science

and hereby certify that, in their opinion, it is worthy of acceptance.

Professor C. Randal Vessell

Professor David Vaught

Professor Charlie Nilon

ACKNOWLEDGEMENTS

I special thank you to my wife, Kim, and my parents for their support and encouragement through the completion of this project.

To Dr. Randy Vessell, committee chairperson, for his years of guidance through my entire education in Parks, Recreation, and Tourism and for enabling me to see the importance of politics in this field.

To Dr. David Vaught, committee member, for helping me keep the desire for Parks and Recreation in my heart and showing me the value of research in Parks and Recreation.

To Dr. Charlie Nilon, committee member, for being my third reader and for his suggestions and recommendations which helped me better understand the process of this project.

To Paula Belyea, for all of her various assistance throughout all of my studies here in the Department of Parks, Recreation, and Tourism.

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CHAPTER I

INTRODUCTION

"On the left"! A walker quickly steps aside to let the speeding bicyclists, wearing the latest aerodynamic gear, race by. "Get off the trail!" is heard fading into the distance. These are two distinct users of an urban trail with different motivations for using the trail. Many cities and townships have developed urban trails within their confines for citizens and visitors to enjoy in the fashion of their choice. What influences those choices has been an interest to leisure researchers for quite some time (Manfredo, Driver, & Tarrant, 1996).

This study was done on the Missouri-Kansas-Texas Nature and Fitness Trail (MKT). The MKT trail is a result of the Rails-to-Trails program that transformed the Missouri-Kansas-Texas Railroad into a greenway. The MKT Trail is a 10 foot wide, crushed limestone trail, approximately 9 miles long. The trail is an all-weather, multi-use trail that connects downtown Columbia, Missouri to the State of Missouri's Katy Trail State Park near McBaine, Missouri.

Various studies show that many different people use and enjoy urban trails in many different ways and for many different reasons (Lee, Moore, & Scott, 2002; Moore, Scott, & Graefe, 1998; Mowen, Graefe, & Williams, 1998). What is not as well known are the self-attributed motivations of urban trail users to use the trails for his or her chosen activity (Lee et al., 2002). Some of the most common uses of the trail are walking, running, and biking. According to the Outdoor Recreation Resources Review Commission's (O.R.R.R.C., 2000) National Survey of Recreation and the Environment more than 88% of United States adults participated in trail activities such as walking and

bicycling from 1999 to 2000 (O.R.R.R.C., 2000). Why do trail users decide to participate in the trail activities they choose? When a person chooses an activity, does he or she also associate themselves with a group such as bicyclists, runners, or walkers? This study will determine the demographics of the trail users, the types of uses, and the user's motivations to use the trail.

A part of the answer to why people are motivated may be in order to belong to a group. One underlying theory in determining why people may feel associated with a particular group is Social Identity Theory (SIT). Social identity is self-conception as a group member (Abrams & Hogg, 1990). Being a part of a group elicits feelings of acceptance and results in the development of motivations to continue the group activity. Motivations are those internal factors that stimulate and give direction to human behavior (Iso-Ahola, 1999). Identifying with an established group of participants may lead the participant to develop motivations that will push them to continue the activity in order to be well received socially by other members of the group. Are trail users motivated to participate in particular activities (running, walking, and cycling) by his or her affiliation with a related user group?

Purpose of the Study

In following Lee et. al's (2002) suggestion, the purpose of this study was to determine the motivation differences between the user groups of an urban trail.

Sub-problems.

This study researched the following sub-problems:

1. To describe the demographics of the user groups of the Missouri-Kansas-Texas (MKT) trail.

2. To describe the frequency of use by user groups of the MKT trail.

3. To describe motivations to use the MKT trail.

4. To describe the motivation differences among user groups of the MKT trail.

Hypothesis

There are no significant differences in motivations between the walkers, runners, and cyclists of the MKT trail.

Limitations

The data collection was done at the MKT trail heads on Scott Boulevard and Stadium Boulevard, which limits the information to urban trail users within the city limits of Columbia, Missouri. (See maps in appendix C) In addition, any inferences can only be made towards other urban trail users of trails within the city limits of other cities. The collection period was during a single week in October. This limited the possible number and variety of respondents. The data collection was limited to adult users 18 years of age and older.

Research Design

This study was non-experimental. This study is a quantitative study using descriptive and inferential statistics.

Definitions

For the purpose of this study, the following definitions will be used:

Motivation- The compulsion to move instead of remaining stationary (Cox, 2002). This study describes the differences of why people in different user groups participate in an activity on an urban trail. The motivations studied in this work are relaxation, family togetherness, friendship ties, appreciation of nature, solitude, exercise, personal control,

excitement, novelty, skill development, enjoyment, and reflection (Lee et al., 2002).

Social Identity Theory (SIT) - SIT is defined as the individual's knowledge that he or she belongs to certain social groups together with some emotional and value significance, to him or her, of the group membership (Tajfel, 1972). Recreating is a part of life which requires action or doing. Doing is social in nature which means that behavior is influenced by others (Kleine, Kleine, & Kernan, 1993). That influence satisfies some motivational need for individuals. For this study, SIT is the underlying theory explaining the user's motivation for affiliation with a social group.

User Group(s) - Throughout this work this term will refer to the user groups of walkers, runners, and cyclists.

Need for Study

The expressed need for this study was to gain knowledge and add depth to the understanding of motivations to participate in activities on an urban trail. In addition, this work will add a small piece to the puzzle of understanding in the field of Leisure Studies. Information about motivations for leisure activities can help practitioners develop programs that have the greatest likelihood of minimizing conflicts between user groups and of yielding human benefits (Manfredo et al., 1996). This information will add to the understanding of why people participate in recreational activities and help recreation agencies to better plan and provide mixed trail recreation opportunities for their relative communities.

CHAPTER II

LITERATURE REVIEW

Introduction

Recreation managers and researchers have been interested in what motivates users since the beginning of the recreation movement. This interest is developed through the desire to provide better recreation opportunities for the users and to understand what the users want and need to make those opportunities better (Manfredo et al., 1996). Through 2005, few studies have been conducted on the motivations of urban trail users, however research does suggest there may be some correlation between motivation and the users' demographic factors and the type of activity pursued (Lee et al., 2002). The following sections will explore past research regarding these factors and research regarding users' affiliation with the user groups of bicyclists, walkers, and runners. In addition, Social Identity Theory will be explored and used to explain the relationship between the individual and his or her affiliation with a particular user group.

Social Identity Theory

Social Identity Theory (SIT) is based on the connection between self, role, and society (Stryker, 1968, 1980). Since fitness activities include an identity or role (e.g. walker, bicyclist, and runner) a person may identify that role as a sense of self and thus attribute that identity to a part of his or her position in society. SIT includes two basic concepts: (a) that daily life constitutes doing (eating, sleeping, working, recreating) and (b) that doing is social in nature, meaning that behavior is influenced by others (Kleine et al., 1993). The roles a person plays in a social group are expected by the group (Kleine et al., 1993). This means that the social group expects its members to behave in a certain

manner that identifies with the group. Social identity is a behavior control mechanism which activates in social situations and influences individual and group behavior (Turner, 1982). Identity salience can also be attributed to individual behavior in private and social settings. Identity salience refers to the strength or dominance one identity has over others at any particular moment in an individual's activities. An individual has many different social identities; parent, employee, bird watcher, runner, etc. and is the sum of all of their identities (Stryker, 1968). The salient or prominent identity at the time influences the behavior of the individual at that moment. Stryker (1968) explained the following:

> Behavior is based on a classified world and those classifications carry meaning for behavioral expectations. Once a person takes on the identity of a classified role, one begins to exhibit the related behaviors of that role. In turn, a person may classify the roles of others by their behaviors and form additional expectations based on those roles. (p. 3)

Outdoor recreation activities have sets of behaviors that characterize them and create frames of reference that can be used to compare individuals participating in those activities (Moore et al., 1998). When people participate in exercise activities, they are likely to compare themselves to other people in the group (Dimanche & Samdahl, 1994). This comparison does not necessarily have to happen instantly. The comparison could occur internally with the compared person or persons in mind. If a participant is receiving positive feelings from comparisons with other group members, then the participant will most likely continue to participate in the activity (Laverie, 1998). Thus, if a person identifies with a social group within an exercise activity (e.g., running, cycling, or

walking) and receives positive feelings from the activity and group, that person will be motivated to continue the activity.

Motivation

Motivation for leisure is a main topic for leisure research (Manfredo et al., 1996). Scholars agree that motivations stem form a desire to achieve particular outcomes or benefits (Manfredo et al., 1996). These motivators can be intrinsic (i.e. wanting to feel good physically) or extrinsic (i.e. wanting to be able to perform well in a race) (Laverie, 1998).

Two decades of leisure research suggest that many leisure settings such as play, shopping, and tourism provide opportunities for people to select behaviors that provide intrinsic rewards (Weissinger & Bandalos, 1995). However, individuals relating to a user group are looking for extrinsic motivations. More specifically, he or she is looking to be accepted by a group or behave within the group norm and receive the positive feedback he or she needs in order to continue with the activity. Exercise activities may arouse intrinsic motivations in some people but not in others. The degree of intrinsic motivation in an individual will differ from activity to activity and will also be different from individual to individual (Weissinger & Bandalos, 1995). A cyclist may get the feeling of accomplishing a great workout by riding 10 miles, but may not receive that same feeling by walking two miles. Can the same differentiation be made in extrinsic motivations? What motivations are people acting on when he or she are seeking to continue their affiliation with a particular group? Do the different user groups have different motivations to use trails and do the individuals within the group share motivations?

Past research on motivation to continue fitness activities has been limited (Laverie, 1998; Recours, Souville, & Griffet, 2004). In addition, little research has been done in regards to the effects user group expectations have on individual motivations (Gray-Lee & Granzin, 1997). This study focuses on the extrinsic motivations of user group affiliations and determines if those motivations are shared between individuals within and across user groups, thereby adding to the information available.

User Groups

The specific user groups studied are walkers, runners, and cyclists. To date, recreation research suggests that trail user diversity can be understood according to activity and trail type (Mowen et al., 1998). While it may be adequate to use only one variable, such as 'activity type', to determine management decisions, it is suggested by Mowen et al. (1998) to use multiple variables to most accurately make management decisions. This study will provide information on activity type variables to help management agencies make future decisions for crushed stone multi-use trails.

Summary

Determining the motivations for trail users to participate in activities on an urban trail is important in order to determine what the users want and need. This information could be used by management agencies to develop better recreation opportunities for its customers. These motivations may be determined by an individual's affiliation with a user group. The Social Identity Theory supports this concept by explaining that an individual's association with a user group satisfies some extrinsic motivation needs. This study sought to determine what those motivations are and show if there are any significant differences between the individual user's motivations.

CHAPTER III

METHODS

Introduction

This chapter discusses the methods of participant selection, development of the questionnaire, collection of data, and the description of the statistics used. The survey instrument was developed from Lee, Moore, and Scott's (2002) study of motivations of users of an All Purpose Trail (APT) near Cleveland, Ohio.

Selection of Participants

The participants were selected by random time slot selection. The researcher approached all individuals who were entering or exiting the MKT trail during the survey period to fill out the survey. All approached individuals confirmed that he or she was 18 years of age or older before the researcher administered the survey.

Questionnaire

For this study, a questionnaire from Lee et al.'s (2002) study of motivation predictions on an all purpose trail (APT) was modified slightly to suite the MKT trail and the purpose of this study. The questionnaire for this study does not include questions regarding users of rollerblades since the MKT trail does not accommodate this activity. Also, this questionnaire does not include observations and opinions about other users of the trail. The questionnaire from Lee et al.'s study was shown reliable using Cronbach's alpha (0.7) and the validity was face validity (D. Scott, personal communication, April 19, 2006). Cronbach's Coefficient Alpha (.79) was used to check the reliability of the Motivation scale for this study.

Part I of the questionnaire involves questions to determine the user's group affiliation and frequency of use. Activity type was answered at the beginning of the questionnaire with a closed question (1= walker, 2 = runner, 3 = cyclist, 4 = other). The variable, frequency of use, was determined by asking the respondent to indicate how long, in hours and minutes, he or she uses the trail in an average week. Respondents also provided an average number of times they use the trail in a week. Respondents were asked to provide one main reason why they choose to use the MKT trail (1 = recreation, 2 = fitness, 3 = alternative transportation, 4 = training). The final two questions of part I asked the respondent if the MKT trail is their preferred trail and why.

Part II requests demographic information covering gender (1 = male, 2 = female), race/ethnicity (1= Black, 2 = Hispanic, 3 = White, 4 = Asian, 5 = Native American, and 6 = other with space to write in his or her race), age (in years), employment (1 = full time, 2 = part time, 3 = homemaker, 4 = retired, 5 = unemployed, 6 = student), marital status (1 = married, 2 = not married), level of education (1 = did not graduate from high school, 2 = completed high school or equivalent, 3 = still attending college, 4 = completed college, and 5 = graduate degree), and whether he or she is a resident of Columbia, Missouri (1 = Yes, 2 = No).

Part III requested that the subject rate the importance of the 12 motivations from Lee et al.'s (2002) study. These questions allow the subject to rate, from 1 (Not Important) to 5 (Very Important), the importance of the 12 motivation factors as they pertain to the individual. The measurement of the dependent variable, motivation, was done by using Lee et al.'s (2002) modified Recreation Experience Preference scale. In past surveys, the REP used multiple items and sub-scales to measure motivations

(Manfredo et al., 1996). Lee et al. (2002) determined that using single items which represented diverse experiences to measure preferences simplified the survey process and provided valid and reliable data. The 12 motivation items are as follows;

1. Relaxation: To get away from the usual demands of life.
2. Family Togetherness: To spend quality time with members of my family.
3. Friendship Ties: To spend quality time with my friends.
4. Appreciation of Nature: To view the scenery and enjoy the sights, sounds, and smells of a natural area.
5. Solitude: To be where it is quiet and/or to get away from other people.
6. Exercise: To keep me healthy and fit.
7. Personal control: To feel independent and/or do something I wanted to do.
8. Excitement: To have a stimulating and exiting experience.
9. Novelty: To do something different and unique.
10. Skill Development: To be challenged and/or develop my skills and abilities.
11. Enjoyment: To do something I really like to do.
12. Reflection: To think about things and/or to get in touch with myself spiritually.

Part IV, the final section, provided space for subjects to write in any comments or suggestions he or she may want to provide to the Columbia Parks and Recreation Department for consideration. (See Appendix A for questionnaire)

After the Thesis Committee approved the instrument, it was sent to the University of Missouri Institutional Review Board (IRB) for final approval. After approval was

given by IRB, the instrument was pilot tested for validity and reliability on the Bear Creek Trail at the Creasy Springs trail head at 3201 Creasy Springs Road during September 2006. The Bear Creek Trail was chosen as the location for the pilot test in order to lessen the chance of asking the same people to participate in the survey and therefore lowering the chance that someone would refuse to complete the survey for this study. For the pilot test, the approved instrument was administered to 20 individuals. After completing the survey, each individual had the opportunity to provide feedback, in writing, regarding his or her questions and suggestions for the survey. The feedback that was received allowed the researcher to, in conjunction with the Thesis Committee; determine necessary changes to any item of the instrument that will increase the instrument's validity and reliability. None of the twenty pilot test respondents stated that they did not understand any of the questions, nor did any of them feel that the questions were unclear or confusing. No major changes were conducted on the instrument.

Data Collection

The MKT trail is open for use from 7:00 am to 11:00 pm, 7 days per week. The Columbia Parks and Recreation Department advises that people not use the trail after dark so the collection time will be from 7:00 am until 7:00 pm. This offered 12 hours of possible collection time per day. The researcher divided the day into six, 2 hour time slots which resulted in 42 possible collection periods per week. To enhance the validity of the research, each time slot was given a sequential number beginning with #1. Fourteen random time slots were chosen by using a table of random numbers (Krejcie & Morgan, 1970). Each of the 14 chosen time slots were surveyed over a 1 week period. Due to the randomness of the time slot selection, none of the resulting time slots occurred on

Saturday. The survey times were divided between the MKT trail heads at 800 South Stadium Boulevard and 3662 Scott Boulevard in Columbia, Missouri. (see Appendix C for maps) Each trail head was surveyed seven times in an alternating fashion. The first survey period took place at 800 South Stadium Boulevard and the second occurred at 3662 Scott Boulevard and the third was at the Stadium trail head and so on. The survey period began on October 1, 2006 and end on October 7, 2006. Table 1 shows the selected survey time periods and locations.

The necessary sample size was determined by using the 2000 U.S. Census data for Columbia, Missouri and Krejcie's and Morgan's (1970) recommended sample sizes for finite populations. According to the census, Columbia's population of adults 18 years of age and older is 67,852 (Census, 2000).

Table 1.

Survey Periods and Locations

Number	Day of Week	Date	Time period	Location
17	Sunday	October 01, 2006	9am-11am	Stadium Boulevard.
32	Sunday	October 01, 2006	3pm-5pm	Scott Boulevard
02	Monday	October 02, 2006	11am-1pm	Stadium Boulevard
28	Monday	October 02, 2006	1pm-3pm	Scott Boulevard
12	Monday	October 02, 2006	5pm-7pm	Stadium Boulevard
30	Tuesday	October 03, 2006	3pm-5pm	Scott Boulevard
19	Wednesday	October 04, 2006	7am-9am	Stadium Boulevard
23	Wednesday	October 04, 2006	9am-11am	Scott Boulevard
27	Wednesday	October 04, 2006	3pm-5pm	Stadium Boulevard
10	Thursday	October 05, 2006	11am-1pm	Scott Boulevard
05	Thursday	October 05, 2006	1pm-3pm	Stadium Boulevard
09	Thursday	October 05, 2006	5pm-7pm	Scott Boulevard
20	Friday	October 06, 2006	9am-11am	Stadium Boulevard
36	Friday	October 06, 2006	5pm-7pm	Scott Boulevard

Krejcie and Morgan determined that a population of 50,000 required a sample size of 381 while a population of 75,000 requires a sample of 382 (Krejcie & Morgan, 1970). For this study the target sample size is 382.

At the time of collection, the researcher was positioned just off the trailhead parking lot at a point where all entering or exiting individuals would pass. Each individual 18 years of age or older was asked to participate in the survey and was offered a complimentary bottle of water as an inducement to participate. (See Appendix D for the protocol for the researcher's approach of the survey subjects) If a subject indicated he or she had already filled out a survey, then he or she was excused from the procedure at that time.

Statistics

For this study, descriptive and inferential statistics were used and a 95% confidence level was the goal. In part I of the survey, frequencies and percentages will describe the sample in terms of first time use, user group, influence, length of use, frequency of use, main reason for use, and trail preference. In part II, frequencies and percentages will be reported to describe the demographics of the sample in terms of gender, employment, married status, education, residency, and race. Also, the mean and standard deviation of the respondents' ages will be reported. In part III, the 12 motivation factors will be measured with interval scores. The means and standard deviations of those scores will be reported. The software program Statistical Packages for the Social Sciences (SPSS) version 13.0 will be used to analyze the data (SPSS, 2005).

CHAPTER IV

RESULTS

Introduction

The survey was designed as a self-administered questionnaire which allowed the researcher to survey multiple respondents at once. The survey consisted of 28 questions including 2 open ended questions requesting comments and/or suggestions for the managing entity of the MKT Trail. During the survey period, 406 people were approached to complete a survey. Forty-six people declined at the collection point and six people did not return their surveys by mail. This produced 354 (87% response rate) useable questionnaires for analysis. The results of the survey will be discussed in the order in which the related questions are presented in the instrument.

Part I User Characteristics

New users.

In this study, 16 (4.5%) of the respondents were new users of the MKT Trail and 338 (95.5%) of the respondents were repeat users.

Group affiliation.

When visitors were asked to label themselves in how they used the trail, 141 (39.2%) chose walker, 101 (28.1%) runner, 106 (29.4%) cyclist, and 5 (1.4%) chose other. Due to such a small group of "other" type of users in this study, this group will be excluded from additional data analyses. (See Table 2 for Group frequencies) A chi-square goodness of fit test was calculated using Lee et al.'s (2002) results (63% walkers, 16% runners, and 21% cyclists) as the expected values and a significant difference was found ($x^2(3) = 80$, $p < .05$).

Table 2.

MKT Trail User Groups

Group	Frequency	Percent	Valid Percent
Walker	141	39.2	39.9
Runner	101	28.1	28.6
Cyclist	106	29.4	30.0
Other	5	1.4	1.4
Total	353	98.1	100
Missing	7	1.9	
Sample Total	360	100	

Influence by Others in Same User Group.

The respondents were asked to indicate whether or not other people they knew who participated in the same activity they chose influenced their decision to continue participating in that activity. By choosing Yes or No, 55% (196) of the respondents indicated that other participants did not influence them and 45% (158) indicated that other participants did influence their decision to continue in their activity. A chi-square goodness of fit test was calculated comparing the frequency of the Yes and No responses. It was expected that each response would be reported an equal number of times. A significant deviation from the expected values was found ($x^2(1) = 4.08$, $p < .05$).

Length of time on the trail.

Of the 340 valid responses, the reported length of time ranged from 0 to 25 hours with a mean time of 3.45 hours spent on the trail in an average week. The four most reported times were; 3 hours for 61 (17.9%) of the respondents, 2 hours for 58 (17.1%), 1 hour for 42 (12.4%), and 4 hours for 36 (10.6%).

Number of times on the trail.

Of the 342 valid responses, the reported average numbers of visits to the trail each week ranged from 0 (first time users) to 31. The mean number of visits to the trail

for this sample was 3.1 times per week. The four most reported number of visits per week were; 3 times for 84 (24.6%) of the respondents, 1 time for 78 (22.8%), 2 times for 55 (16.1%), and 4 times per week for 52 (15.2%). The average time spent on the trail per week (3.45 hours) and the average number of visits to the trail per week (3.1 times) were used to determine the average time per visit on the trail, 1.11 hours per visit.

Reason for using the trail.

The respondents were asked to choose which reason was the main reason they use the MKT Trail with options for recreation, fitness, alternative transportation, and for training. (See Table 3 for Reason frequencies) Fitness was the most frequently chosen reason by 214 (60.8%) respondents. Recreation was second with 112 (31.8%), training was third with 18 (5.1%), and alternative transportation was fourth with 8 (2.3%).

Table 3.

Reason for Using the Trail

Reason	Frequency	Percent	Valid Percent
Recreation	112	31.1	31.8
Fitness	214	59.4	60.8
Alternate Transportation	8	2.2	2.3
Training	18	97.8	5.1
Total	352	97.8	100
Missing	8	2.2	
Sample Total	360	100	

Preference.

When asked if the MKT Trail was the users' preferred trail in Columbia, Missouri, 318 (91.1%) said yes while 31 (8.9%) said no. The respondents were given the opportunity to leave a comment regarding why the MKT Trail was or was not their preferred trail. The survey resulted in 340 positive comments regarding the users'

preferences and 23 negative comments. The majority of the positive comments (39%) were in regards to the trail's location or convenience for the user. The second most common, positive reason for preference was the trail's beauty or aesthetic qualities (29%). The remaining 68% of the positive comments included reasons due to safety, maintenance, amenities such as water fountains and mile markers, it's variety of uses, and the presence of animals, both dogs and wildlife.

The survey resulted in 23 negative comments, the most common of which were in regards to the trail's location and aesthetics (7 comments each). There were two comments expressing that the trial was too crowded, four comments expressing that the trail type (surface material or lack of varying terrain) was not satisfactory, two comments expressing that they did not enjoy dogs being on the trail, and one comment expressing that the user used a different trail for alternate transportation. The other trails mentioned as being preferred were; the Bear Creek Trail, Rock Bridge State Park's trail, the Katy Trail, and Grindstone Park's trail. (See Appendix E for the reported comments)

Part II Demographics

Gender.

The results of this survey show that 198 (56.1%) of the respondents were female and 155 (43.9%) were male. A chi-square goodness of fit test was conducted to compare this survey's results with those of the 2000 US Census of Columbia, Missouri. According to the census, males make up 47.9% of the city's population and women make up 52.1% (US Census, 2000). There was no significant deviation from the expected values ($X^2(1) = 2.23$, $p > .05$).

Employment.

The majority of the sample was employed full time, 196 (55.4%). The next highest reported status was that of student, 53 (15%), followed by 43 (12.1%) retired, 42 (11.9%) part time, 15 (4.2%) homemakers, and 5 (1.4%) unemployed.

Marital status.

The sample was comprised of 205 (57.9%) married respondents and 149 (42.1%) un-married respondents.

Education.

Respondents that have obtained a graduate degree made up 43.9% (155) of the sample. The rest of the sample consisted of 118 (33.4%) college graduates, 47 (13.3%) college attendees, 30 (8.5%) high school graduates, and 3 (.8%) who did not complete high school.

Residency.

The sample consisted of 268 (75.7%) residents of Columbia, Missouri while 86 (24.3%) resided outside of the city.

Race.

Respondents were asked to self-report the race or ethnicity with which they identified. (See Table 4 for Race frequencies) Of the 352 valid responses 324 (92%) reported being White, 13 (3.7%) African American, 10 (2.8%) Asian, and 5 (1.4%) were Hispanic. A chi-square goodness of fit test was conducted to compare this survey's results with those of the 2000 US Census results for Columbia, Missouri. According to the Census, Columbia is made up of 81.5% Caucasians, 10.9% African Americans, 4.3% Asians, 2.1% Hispanics, 2.8% Native American, and .4% others (US Census, 2000).

Using these figures for comparison, a significant deviation from the expected results was found ($X^2(3) = 23.05$, $p < .05$).

Age.

The ages of the respondents have a range of 69 (18 to 87) with a mean age of 42.8. Divided into quartiles the four age groups were defined as 18-28 year olds (87, 25%), 29-42 year olds (82, 23.5%), 43-54 year olds (87, 25%), and 55-87 year olds (92, 26.5%).

Table 4.

Race of Users

Race	Frequency	Percent	Valid Percent
African-American	13	3.6	3.7
Hispanic	5	1.4	1.4
White	324	90.0	92.0
Asian	10	2.8	2.8
Total	352	97.8	100
Missing	8	2.2	
Sample Total	360	100	

Part III Motivations

Within the entire sample, the top four motivations were determined by using the mean scores of the respondents' ratings of the 12 motivations on a scale of 1 (not important) to 5 (very important). There were 14 missing responses giving 346 valid responses resulting in a response rate of 96.1%. Those top four motivations are Exercise ($m = 4.64$), Enjoyment ($m = 4.43$), Appreciation of Nature ($m = 4.34$), and Relaxation ($m = 4.20$). (See Table 5 for Group mean scores)

The study hypothesized that there are no significant differences in the motivations between the user groups of the MKT trail. The following sections will describe the data collected for each user group regarding the 12 motivations investigated.

Walkers.

A mean score of each motivation was calculated and four motivations were found to rate higher than 4 on the 5 point scale; Exercise (*m* = 4.48, *sd* = .75), Appreciation of Nature (*m* = 4.43, *sd* = .80), Enjoyment (*m* = 4.37, *sd* = .79), and Relaxation (*m* = 4.24, *sd* = .87).

Runners.

The top four motivations for runners were; Exercise (*m* = 4.86, *sd* = .34), Enjoyment (*m* = 4.37, *sd* = .82), Appreciation of Nature (*m* = 4.14, *sd* = .85), and Relaxation, (*m* = 4.11, *sd* = .98).

Cyclists.

The cyclist group reported motivation scores that resulted in the following four highest mean scores; Exercise (*m* = 4.66, *sd* = .56), Enjoyment (*m* = 4.58, *sd* = .58), Appreciation of Nature (*m* = 4.40, *sd* = .68), and Relaxation (*m* = 4.24, *sd* = .93).

Table 5.

Group Mean Scores

	Walkers	Runners	Cyclists
Relaxation	4.24	4.11	4.24
Appreciation of Nature	4.38	4.14	4.40
Exercise	4.48	4.86	4.66
Enjoyment	4.37	4.37	4.58

As discussed above, the same four motivations resulted in the highest mean scores in each user group. Refer to Table 5 for a comparison of the mean scores. The study hypothesized that there are no significant differences in motivations between the user groups. With the exception of walkers, each user group rated, highest to lowest importance, the motivations Exercise, Enjoyment, Appreciation of Nature, and then

Relaxation. The difference for the walkers is in their ranking of Appreciation of Nature and Enjoyment. With the respective scores being different by .001, it is possible that those motivations are interchangeable in their ranking depending on the walker.

These reported rankings lead the researcher to believe the hypothesis to be true; there are no significant differences in motivations between the user groups of the MKT Nature and Fitness Trail. This appears to be true in regards to the ranking of importance of the motivations. However, the above statistics do not show differences between the user groups. The researcher used one-way Analysis of Variance (ANOVA) to determine if there were any significant differences in motivations between the user groups. (See Table 6 for the ANOVA for Motivations) A significant difference was found between the user groups in 7 of the 12 motivations; Family Togetherness, Friendship Ties, Appreciation of Nature, Exercise, Excitement, Novelty, and Skill Development. Only two of these seven, Exercise and Appreciation of Nature, were in the top four ranking motivations. After determining which motivations were significantly different, a post hoc test was performed to determine between which user groups these differences were significant. The researcher used the Bonferroni post hoc test because it yields a narrower confidence interval. In addition to these user groups, a significant difference was found between the males and females of the sample group and between the age groups using the trail.

Family togetherness.

A significant difference was found between the user groups and the motivation Family Togetherness ($F(3,347) = 5.67$, $p < .05$). The Bonferroni post hoc test revealed that Walkers ($m = 3.14$, $sd = 1.53$) rated Family Togetherness higher than Runners ($m =$

2.47, *sd* = 1.44). The post hoc test also revealed that Cyclists (*m* = 3.25, *sd* 1.46) also rated Family Togetherness higher than Runners (*m* = 2.47, *sd* = 1.44). No significant difference was found between Walkers and Cyclists in the motivation Family Togetherness.

Friendship ties.

A significant difference was found between the user groups and the motivation Friendship Ties ($F(3,347) = 3.04$, $p < .05$). The post hoc revealed that Walkers (*m* = 3.42, *sd* = 1.43) rated Friendship Ties higher than Runners (*m* = 2.88, *sd* = 1.38). This may be due to the slower pace and proximity that walking allows to enable walkers to develop friendship ties. Cyclists (*m* = 3.16, *sd* = 1.33) were not significantly different from the other two groups in Friendship Ties.

Appreciation of nature.

A significant difference was found between the user groups and the motivation Appreciation of Nature ($F(3,346) = 3.04$, $p < .05$). The post hoc revealed that Walkers (*m* = 4.44, *sd* = .81) rated Appreciation of Nature higher than Runners (*m* = 4.15, *sd* = .85). The Cyclists (*m* = 4.41, *sd* = .69) were not significantly different from the other two groups in Appreciation of Nature.

Exercise.

A significant difference was found between the user groups and the motivation Exercise ($F(3,345) = 10.03$, $p < .05$). The post hoc revealed that Runners (*m* = 4.86, *sd* = .35) rated Exercise higher than Walkers (*m* = 4.49, *sd* = .76). The Cyclists (*m* = 4.67, *sd* = .56) were not significantly different from the other two groups in Exercise.

Excitement.

A significant difference was found between the user groups and the motivation Excitement ($F(3,347) = 4.92$, $p < .05$). The post hoc revealed that Cyclists ($m = 3.47$, $sd = 1.12$) rated Excitement higher than Walkers ($m = 2.99$, $sd = 1.12$) and Runners ($m = 2.93$, $sd = 1.14$). There was no significant difference between Walkers and Runners in Excitement.

Novelty.

A significant difference was found between the user groups and the motivation Novelty ($F(3,347) = 3.78$, $p < .05$). The post hoc revealed that Cyclists (m = 3.06, sd = 1.21) rated Novelty higher than both Walkers (m = 2.67, sd 1.11) and Runners (m = 2.57, sd = 1.19). There was no significant difference between Walkers and Runners in Novelty.

Skill development.

A significant difference was found between the user groups and the motivation Skill Development ($F(3,347) = 14.53$, $p < .05$). The post hoc revealed that Walkers ($m = 2.54$, $sd = 1.18$) rated Skill Development lower than both Runners ($m = 3.49$, $sd = 1.15$) and Cyclists ($m = 3.25$, $sd = 1.21$). There was no significant difference between Runners and Cyclists in Skill Development.

In addition to investigating the differences between the user groups of the MKT trail, the researcher also investigated the differences between men and women and between the age groups using the trail. The following statements are the ANOVA results from the study.

Gender.

A significant difference was found between males (m = 2.79, sd = 1.34) and females (m = 3.49, sd = 1.37) in the motivations for Friendship Ties ($F(1,349) = 23.09$, $p < .05$). In addition, a significant difference was found between males (m = 4.22, sd = .84) and females (m = 4.44, sd = .74) in the motivation for Appreciation of Nature ($F(1,348) = 6.65$, $p < .05$)

Age groups.

The researcher divided the reported ages into quartiles resulting in 4 age groups; group 1 = 18 to 28.25, group 2 = 28.26 to 42, group 3 = 43 to 54, and group 4 = 55 to 90. Although there was no significant correlation between age and the 12 motivation factors, there is a significant difference between the age groups and the motivation for Family Togetherness ($F(3,343) = 9.60$, $p< .05$). The post hoc test revealed that 29 to 42 year olds (m = 3.49, sd = 1.53) rated Family Togetherness significantly higher than both 18 to 28 year olds (m= 2.37, sd = 1.38) and 55 to 90 year olds (m = 3.16, sd = 1.47). In addition 43 to 54 year olds (m = 3.24, sd = 1.45) also rated Family Togetherness significantly higher than 18 to 28 year olds. There were no significant differences found between group 2 and group 3 or between group 3 and group 4.

Respondents' comments.

The respondents were given the opportunity to provide any comments or to pose any questions for the managing entity. There were 118 surveys returned with comments resulting in a response rate of 33%. Many of the comments were accolades for the managing entity and many respondents gave great observations and suggestions for the

trail. From the 118 surveys, 142 comments were given. Most of the comments (35) were in reference to maintenance issues such as keeping bathrooms clean and the trail surface maintained. The next most common response (33) were statements of liking the trail with no further comments. Fifteen comments suggest needing more amenities such as more bathrooms or water fountains. Two respondents stated that they wanted the trail paved while 2 others stated they did not. Eighteen respondents gave statements reflecting that they would like to see more development of the MKT Trail and other Columbia, Missouri parks while 3 respondents asked for less development of the trail. Six respondents left comments showing appreciation for the safety patrols or the need for more. Two respondents felt more funding was needed. Five users mentioned problems with other user groups. Most commented on bikers going too fast or not advising others of their passing. Finally, three respondents suggested that more posting of the rules is necessary. Please refer to Appendix F for the list of comments.

Table 6.

Analysis of Variance for Motivations by Group

Motivation		df	F	p
RELAXATION	Between Groups	3	.53	.660
	Within Groups	346		
	Total	349		
FAMILY TOGETHERNESS	Between Groups	3	5.67*	.001*
	Within Groups	347		
	Total	350		
FRIENDSHIP TIES	Between Groups	3	3.04*	.029*
	Within Groups	347		
	Total	350		
APPRECIATION OF NATURE	Between Groups	3	3.04*	.029*
	Within Groups	346		
	Total	349		
SOLITUDE	Between Groups	3	.767	.513
	Within Groups	347		
	Total	350		
EXERCISE	Between Groups	3	10.03*	.000*
	Within Groups	345		
	Total	348		
PERSONAL CONTROL	Between Groups	3	1.229	.299
	Within Groups	347		
	Total	350		
EXCITEMENT	Between Groups	3	4.92*	.002*
	Within Groups	347		
	Total	350		
NOVELTY	Between Groups	3	3.80*	.011*
	Within Groups	347		
	Total	350		
SKILL DEVELOPMENT	Between Groups	3	14.53*	.000*
	Within Groups	347		
	Total	350		
ENJOYMENT	Between Groups	3	2.50	.059
	Within Groups	347		
	Total	350		
REFLECTION	Between Groups	3	2.01	.112
	Within Groups	347		
	Total	350		

* ($p < .05$)

CHAPTER V

CONCLUSIONS

This chapter includes a summary of the survey results, a discussion of implications, and recommendations for future research.

Summary of Results

This survey describes the users of the MKT trail and reveals differences in motivations between walkers, runners, and cyclists. The respondents of this study were primarily repeat users of the trail, making up 95.5% of the sample population. The respondents reported visiting the trail on an average of 3.1 times per week for periods of time between less than one hour to 25 hours per week, resulting in an mean time of 3.45 hours of time spent on the trail each week.

The greatest number of respondents were walkers (39.2%) followed by cyclists (29.4%) and runners (28.1%). These results were significantly different from Lee et al.'s (2002) results; 63% walkers, 16% runners, and 21% cyclists. With 352 valid responses, 60.8% of the respondents reported fitness as the main reason why they used the MKT Trail. Recreation (31.8%) was second followed by training (5.1%) and alternative transportation (2.3%). Only 31 (8.9%) of the users stated that they did not prefer to use the MKT Trail. See Appendix E for a list of the respondents' comments.

The sample population consisted of 56.1% female and 43.9% male which shows no significant deviation from the percentages of men and women in Columbia, Missouri reported by the 2000 US Census. The majority of the sample was employed full time (55.4%), followed by students (15%), retirees (12.1%), part-time workers (11.9%),

homemakers (4.2%), and unemployed (1.4%). These results may be due to the close proximity of the trail to the university and downtown areas.

The majority of the sample were married (57.9%) and 42.1% were not married. Graduate degree earners made up 43.9% of the respondents followed by 33.4% college graduates, 13.3% college attendees, 8.5% high school graduates, and .8% who did not graduate high school. The location of the trail between the university and a residential area could explain the high number of college graduates and graduate degree earners using the trail. There may also be some link between higher education levels and greater use of the trail.

Residents of Columbia, Missouri made up 75.7% of the sample while those who reside outside of the city made up 24.3% of the sample. Of the 352 valid responses 92% were white, 3.7% African-American, 2.8% Asian, and 1.4% Hispanic. This indicates that if the population of trail users was to represent the population of Columbia, Missouri, then 7% more African Americans and 9% fewer Caucasians would need to use the trail. The range of ages for the sample was 18 to 87 with a mean of 42.8 years. Divided into quartiles, the age groups were defined as 18 - 28 year olds (87), 29 - 42 year olds (82), 43 - 54 year olds (87), and 55 - 87 year olds (92).

By using a 5 point scale where 1 = not important and 5 = very important, the respondents rated the importance of 12 motivations. Of the entire sample, the top four motivations are Exercise (m = 4.64) followed by Enjoyment (m = 4.43), Appreciation of Nature (m = 4.34), and Relaxation (m = 4.20). The same ranking was echoed by each of the three user groups. These results are comparable to the 2002 trail study on the North Chagrin Reservation where the mean scores on their 4 point scale were; Exercise (m =

3.74), Enjoyment (m = 3.69), Relaxation (m = 3.55), and Appreciation of Nature (m = 3.54).

To determine if there is a significant difference ($p < .05$) in motivations between user groups, the researcher used a one-way ANOVA and then a Bonferroni post hoc test to determine which user groups hold the significant differences. The results indicate that there were significant differences between the user groups in 7 of the 12 motivations; Family Togetherness (F = 5.67), Friendship Ties (F = 3.04), Appreciation of Nature (F = 3.04), Exercise (F = 10.03), Excitement (F = 4.92), Novelty (F = 3.80), and Skill Development (F = 14.53). Walkers rated Family Togetherness, Friendship Ties, and Appreciation of Nature significantly higher than runners. These motivations may be rated higher because these users have found that the slower pace of walking allows them the opportunity to relate to others and to enjoy the natural surroundings more effectively. The Family Togetherness motivation ranking might be influenced by developmental differences between family members such as parents and their small children. Children may not able to run at the same pace as their larger parents so the parents who are runners would not necessarily be participating in that activity with their children. However, children may be able to keep up with parents on bicycles so cyclists may be spending time with their children in that activity. Runners rated Exercise and Skill Development significantly higher than walkers. Runners may want more of a work out that pushes their physical capabilities more so than Walkers do. Cyclists rated Family Togetherness and Skill Development significantly higher than walkers. Cyclists also rated Excitement significantly higher than both walkers and runners. The inherent speed and maneuvers necessary for cycling may provide for the need for excitement.

Implications

The purpose of this study was to determine the motivation differences between the user groups of an urban trail. Overall, there was not much difference in the top four motivations to use the trail. Each user group rated the same motivations in the same order; Exercise, Enjoyment, Appreciation of Nature, and Relaxation. This is consistent with Lee et al.'s (2002) findings in their study of an urban trail in Cleveland, Ohio. In addition, this study shows that walkers are more likely to use the trail to spend time with family and friends more so than runners and cyclists. Runners, on the other hand are more likely to use the trail for exercise and skill development than walkers are. Cyclists are more likely to use the trail for skill development and excitement than walkers and runners. Knowing this can greatly help trail managers in their decisions.

The researcher used the Social Identity Theory as the basis for this study. The results of the survey are inconclusive on whether or not a user is influenced by someone in the same user group. There was a significant difference found, ($x^2(1) = 4.08$, $p < .05$), from the expected responses (50% yes, 50% no) to the corresponding question on the instrument. However, the results showed an equal difference, 5% for both the positive and negative responses, from the expected values.

Management.

These findings can be used by the managers of the MKT Trail to develop programs and promotion strategies. By having an idea of which groups of people are using the trail and why, the managing entity can develop social functions that will increase the use and appreciation of the trail for each user group separately and combined. In addition, knowing where the deficits are in users, such as in the African-American

population, the managing entity will be able to develop advertising and promotional strategies that will focus on those deficient users. This will help to allow more of the city's citizens to use this resource and help increase their quality of life.

Research Recommendations

During the course of the data collection for this study, the researcher made a few observations that were not recorded as a part of the study. Future studies may consider the satisfaction and attitudes of the users of the MKT Trail. There were many occasions in which respondents would freely give such information to the researcher. This data could greatly help the managing entity in their goal to provide a quality location for quality experiences to their trail users.

In order to possibly gain better information or to enhance the understanding of the questions by the participant, future researchers should define the reasons for using the trail. This researcher failed to do so which resulted in some participants asking for such definitions.

The use of a previous study to develop new ideas and to guide a current study's progress is a common practice for research in the social sciences. During the course of this study, Lee et al.'s (2002) study was used in this fashion. It is necessary to explain that the comparison of the motivation mean scores cannot be a direct comparison due to the two different scales being used. Lee et al. (2002) used a 4 point scale while this study used a 5 point scale. Future researchers are encouraged to use the same scale as the study used for comparison in order to enhance the comparative value of their results.

In the course of conducting further studies on the MKT Trail, it is recommended that future researchers use more than two collection points as this researcher did. Using

more than two locations will provide greater access to greater numbers of respondents which should increase the ever so sought after high response rate. In addition, using more than one person at a survey point would be beneficial. This researcher found it difficult to conduct the survey for more than three separate respondents at a time. If a second person was available to help conduct the survey, the respondents would have been able to finish faster and more respondents would have been approached which would have allowed additional respondents to take part in the survey.

The data collection for this study was done over a one week period. Although the response rate and number of surveys completed was acceptable, this researcher feels that a longer collection period would have been beneficial.

During the course of the collection, respondents and passers-by would ask questions about upcoming events or recent management decisions for the trail. It is recommended that future researchers be familiar with activities and current events regarding their collection locations. Being able to help someone by answering their questions satisfactorily will help the researcher gain the subjects favor and be more likely to receive a completed survey from them.

It is recommended that similar studies be conducted on the other urban trails in the Columbia, Missouri area in order to gain a better perspective of the users in that location. This will help further the understanding of urban trail users as a whole and also give better information for the City of Columbia Parks and Recreation Department to use in determining policies and programs.

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Appendix A

Thank you for taking the time to complete this survey. The information you give us will help the Columbia Parks and Recreation Department provide better services for you in the future.

PART 1— In this section we would like to learn about your use of the MKT trail in Columbia, MO.

1. Is this the first time you have used the MKT Trail? CHECK ONE

   ____Yes ____ No

2. How would you label yourself in regards to how you use the trail? CHECK ONE

   ____Walker ____Runner ____Cyclist ____Other _____

3. Do other people in the same category you choose in question #2 influence your decision to continue participating in your activity?

   ____Yes ____No

4. On average, how much time do you spend on the trail each week?

   _____hour(s) _____minutes

5. In an average week, how many times do you use the trail?

   ____Times per week

6. What is the main reason you use the trail? CHECK ONE

   ____Recreation ____ Fitness ____Alternate transportation ____Training

7. Of all the trails in the Columbia, MO area, is the MKT trail your preferred trail?

   ____Yes ____No

8. Why? _____

   _____

   _____

PART II—In this section we would like to obtain a little personal information about you. CHECK ONE

1. Are you? ____Male ____Female

2. Please check the **ONE** that applies to you most:

   ____Employed full-time ____Retired
   ____Employed part-time ____Unemployed
   ____Homemaker ____Student

3. Are you married? ____Yes ____No

4. What was the highest level of school that you completed? CHECK ONE

   ____Did not graduate High School
   ____Completed high school or equivalent
   ____Still attending college
   ____Completed college
   ____Graduate degree

5. Are you a resident of the City of Columbia? CHECK ONE

   ____Yes ____No

6. What race or ethnicity do you consider yourself? CHECK ONE

   ____Black or African-American ____Asian
   ____Hispanic ____Native American
   ____White or Euro-American ____Other:_____

7. What is your age? _____years

PART III—The following is a list of reasons to use the trail. Please rate the importance of each reason to you. Please CIRCLE your rating

	How Important? Not…....Somewhat…...Very				
Relaxation: To get away from the usual demands of life	1	2	3	4	5
Family Togetherness: To spend quality time with members of my family	1	2	3	4	5
Friendship Ties: To spend quality time with my friends	1	2	3	4	5
Appreciation of nature: To view the scenery and enjoy the sights, sounds, and smells of a natural area	1	2	3	4	5
Solitude: To be where it is quiet and/or to get away from other people	1	2	3	4	5
Exercise: To keep me healthy and fit	1	2	3	4	5
Personal control: To feel independent and/or do something I wanted to do	1	2	3	4	5
Excitement: To have a stimulating and exiting experience	1	2	3	4	5
Novelty: To do something different and unique	1	2	3	4	5
Skill development: To be challenged and/or develop my skills and abilities	1	2	3	4	5
Enjoyment: To do something I really like to do	1	2	3	4	5
Reflection: To think about things and/or to get in touch with myself spiritually	1	2	3	4	5

Part IV--- Finally, if you have any opinions or suggestions you would like the Columbia Parks and Recreation Department to know, please write those below.

Thank you for taking the time to help us with this study. Please hand this to the surveyor or drop the survey into any U.S. mailbox.

Jason Schooley
105 ABNR
University of Missouri
Columbia, MO 65211

Appendix B

Columbia Parks & Recreation
1 S. 7th Street
Columbia, Missouri 65201
(573) 874-7460

June 2006

Dear Trail User:

Thank you for taking the time to complete this survey. Columbia Parks and Recreation and the University of Missouri are very interested to know your opinions and how you spend your time on the MKT Trail. Your participation is very important! It should only take 5 minutes to fill out, so please try to answer all the questions.

Your participation in the survey implies your consent to use your responses for research. You may be assured that this questionnaire is completely anonymous. The questionnaires are numbered to enable us to know how many questionnaires have been completed. For additional information regarding human participation in research, contact the University of Missouri-Columbia Campus Institutional Review Board (IRB) office at (573) 882-9585.

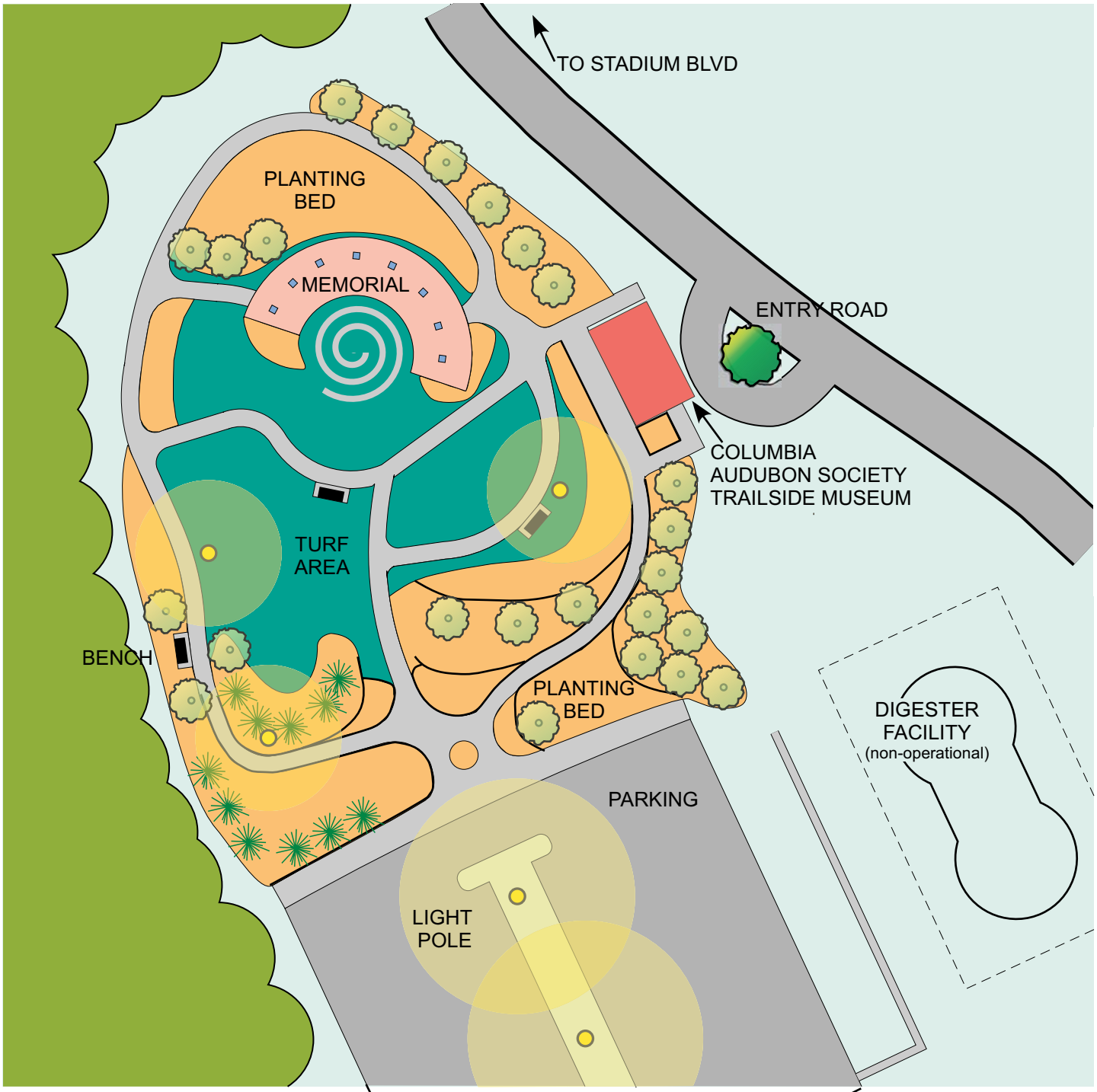
When you have finished the questionnaire, please return it to the surveyor or place it in any U.S. mailbox. Thank you in advance for your assistance.

Sincerely,

Jason Schooley
Graduate Student
University of Missouri, Columbia

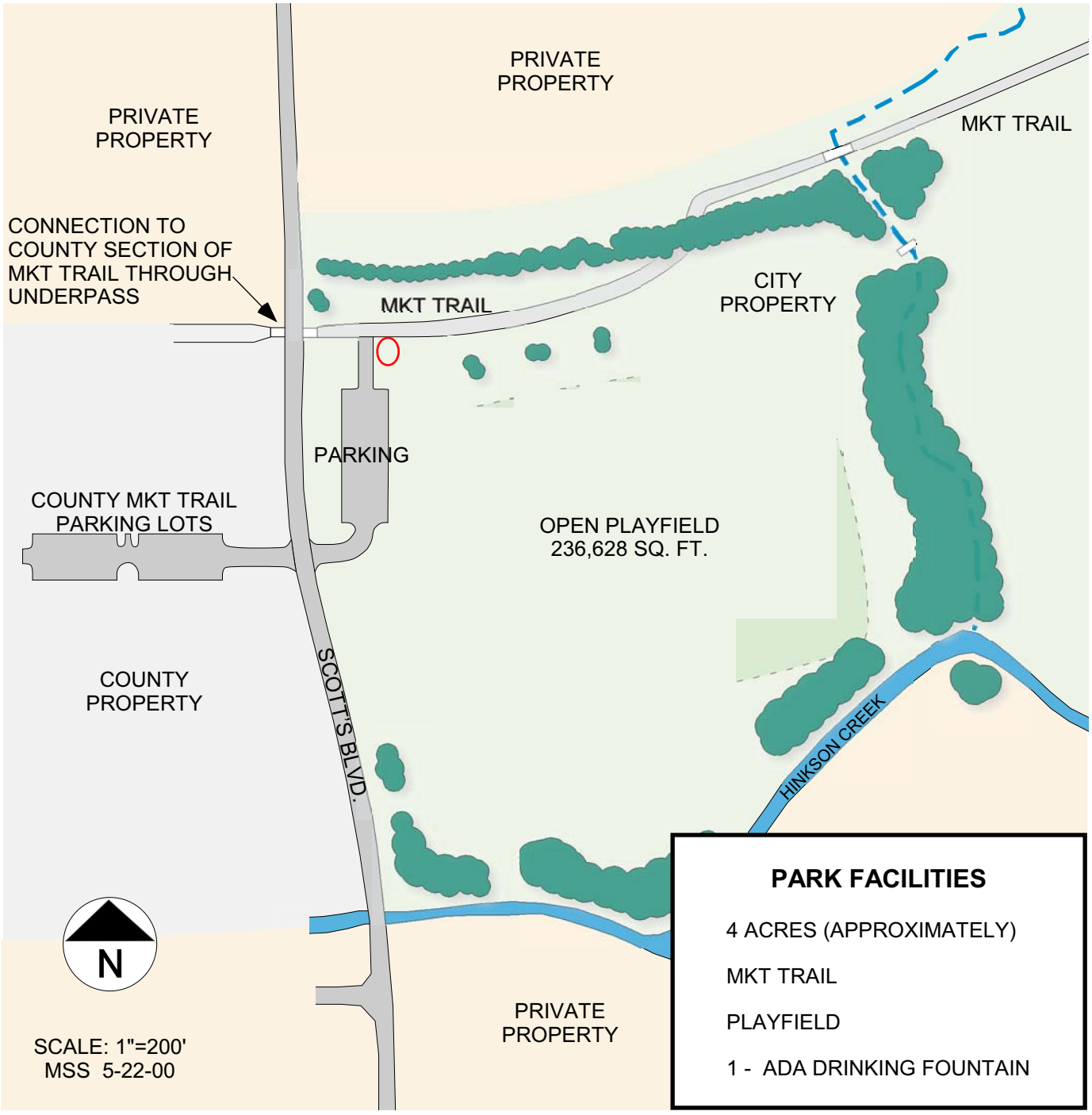
Appendix C

MKT Trail Head 800 South Stadium Boulevard



MKT TRAIL - SCOTT'S BOULEVARD ACCESS

3662 SCOTT'S BOULEVARD



Appendix D

Protocol

The following is the general script for the researcher's approach to the individuals being surveyed:

> "Hello, my name is Jason Schooley and I am a graduate student at the University of Missouri in the Parks, Recreation, and Tourism Department. I am working with the Columbia Parks and Recreation department in surveying the users of the MKT trail. Are you 18 years old or older? Yes, then would you please take a moment and fill out this short survey so that we can use your responses in our research? I would appreciate it and I will give you a cold bottle of water as thanks."

If they answer "yes", then the subject(s) would be given a clipboard with the survey and a pencil to fill it out. After he or she is done, one can give the survey back to the researcher. The subject may elect to take the survey home and mail it back to the researcher once it is completed. Each survey taken will be addressed to the researcher's office and have first class postage on it.

If the subject's response to filling out the survey is "No", then the researcher would respond as follows:

> "I understand you have other things to take care of, but there are only 2 pages and it will only take a few minutes to complete it. Please, it will really help out my study if you fill this out for me."

If the subject still refuses to fill out the survey then the researcher will count that individual as a "non-response" in the total number of approached individuals in the sample.

Appendix E

"Of all the trails in Columbia, Missouri area, is the MKT Trail your preferred trail? Why?"

1. Yes, long, mile markers, wide, lots of trail heads, water
2. Yes, mile markers, wide, long, water
3. Yes, beauty
4. Yes, convenience, variety of potential walks
5. Yes
6. Yes, trees, length
7. Yes, proximity, other people present, aesthetics
8. Yes, scenic beauty, solid and debris free path
9. Yes, It's nice and flat, well maintained and its long enough for me to run on
10. Yes, proximity to home
11. Yes, proximity to home
12. Yes
13. No
14. Yes, prettiest
15. Yes, connects to many parts of city and other trails (Katy)
16. Yes, most convenient and most entrances
17. Yes, easy access from apartment complex, high quality trail surface
18. Yes, did not know of others
19. Yes, proximity to apartment
20. Yes, length and relation to MU campus
21. Yes, it is kept nicely and it has good scenery
22. Yes, location and mile markers
23. Yes, for cycling but I hike in Rock Bridge
24. Yes, easy access and very close to my home
25. Yes, accessibility; aesthetics
26. Yes, natural beauty and peaceful
27. Yes, more beautiful; people on it
28. Yes, convenience, shade, beauty, length
29. Yes, proximity to my home- I spend a lot of time at Grindstone also
30. Yes, absolutely beautiful
31. Yes, location, beauty
32. Yes, in town so close to home
33. No, BCT (Bear Creek Trail) closer to home
34. Only trail I have ridden
35. Yes, nature, scenery, location, well kept
36. Yes, close to home
37. Yes, convenient location close to where I live
38. Yes, closest in proximity
39. No, depends on location
40. Yes, I can use it to travel to work. It is close to my house
41. Yes, convenient to my house
42. Yes, connects with Katy and takes me to Center City
43. Yes, access to Katy trail

44. Yes, within 1.5 miles of my home, convenient
45. Yes, close to my home
46. Yes, close to my home and well marked
47. Yes, scenery
48. Yes, level, no auto traffic, beauty
49. Yes, easiest to access
50. Somewhat, we like Stephens too. Easier walking, pretty landscape
51. Yes, no cars
52. Yes, it's very pretty
53. Yes, only trail used at this point. Also, close to home
54. Yes, close to my home
55. Yes, close to my home
56. Yes, most convenient
57. Yes, beautiful, easy access, safe
58. No, location is convenient
59. Yes, use flat surface
60. Yes, closer
61. Yes, accessibility
62. Yes, close to home
63. Yes, it's convenient and beautiful
64. Yes, trees
65. No, it depends for close to town transport it's the best. Very crowded though. For getting away prefer Rock Bridge State Park trails.
66. Yes,
67. Yes, nicest, closest
68. Yes, length-connection to other parts of town
69. Yes, close to my mom's house
70. Yes, close to home
71. Yes, setting, close proximity to home, condition
72. Yes, beautiful, safe
73. Yes, proximity
74. Yes, it is so beautiful
75. Yes, wooded
76. Yes, close to home-options
77. Yes, convenience-close to home
78. Yes, scenery
79. No, it is not as close to home
80. Yes, beautiful
81. Yes, convenient location
82. Yes, great running surface, and it's shaded, I also enjoy the woods
83. Yes, convenient and you can use the Capen and Grindstone trails as access points
84. Yes, location
85. Yes
86. Yes, closeness to my house
87. Yes, close to home, flat surface, beauty, creeks, relaxing

88. Yes, location
89. Yes, well kept
90. Yes, connects to others; opportunity for new routes
91. Yes, safety and beauty
92. Yes, I live off 4th street MKT Trail
93. No, it's very nice
94. Yes, close to where I live, well-maintained, nice trail
95. Yes, kept up very good. I feel safe here
96. Yes, close to home
97. Yes, flat, scenery
98. Yes, well maintained!
99. Yes,
100. Yes, Proximity
101. Yes, beautiful, safe, clean
102. Yes, location
103. Yes, I can run a long ways- good for marathon training
104. Yes, trees, nature
105. Yes, it's more scenic
106. Yes, location
107. Yes, easy access
108. Yes, easy to reach
109. Yes, nearby and pleasant
110. Yes,
111. Yes, close to apartment, well-kept, shaded
112. Yes, "the interstate aspect" is very appealing
113. Yes, aesthetics/creeks
114. Yes, like the lay of the land- how the trail cuts thru the rock
115. Yes, used to run here when there were railroad tracks
116. *no survey*
117. Yes, nearest to home
118. Yes, tree canopy- placement of water fountain
119. Yes, don't know of many others
120. Yes, I don't know of any others
121. No, I would like a trail that had a rougher terrain for mountain biking
122. Yes, Beautiful trees, runners only trails, its long
123. No, Katy trailhead closer to my house
124. N/A I'm just now exploring various trails
125. Yes, location
126. No, I prefer a more circuitous, windy trail
127. Yes
128. Yes, location to work
129. Yes, nature lover
130. Yes, great view, shaded, lots of people to see
131. Yes, close to my work
132. Yes, beautiful
133. Yes, shade, water fountain

134. No, often use the Katy trail nearer to home
135. Yes, I love the trail I just recently started using it and it is so convenient
136. Yes, pretty; flat; ½ miles marked
137. Yes, its very pretty and I feel safe running on it
138. Yes, its distances are marked and it's conveniently located
139. Yes, easy access, level surface, mile markings
140. Yes, scenery, privacy, quiet, well maintained
141. Yes, close to home
142. Yes, best shaded and lots of people- even in the evening
143. Yes, it is very scenic and close
144. Yes, close
145. Yes, proximity to home
146. Yes, beautiful, nice and flat, animals, wonderful people
147. Yes, it is the closest to home and generally in excellent condition. (rain or shine, Summer or Winter) It is also an excellent place to take pictures.
148. Yes, most familiar with
149. Yes
150. Yes, close to home
151. Yes, maintained well
152. Yes, well maintained, flat, easy to use the mile markers
153. No, I use the Grindstone Trail as well. It is as nice as MKT
154. Yes, location, shade, well maintained, other people use the trail
155. Yes, close to home
156. Yes, location
157. Yes, long and flat, well maintained, excellent surface for running- please don't pave this trail!
158. Yes, location
159. Yes, Convenience and quality
160. Yes
161. Yes, nature and shade
162. Yes
163. Yes, flat and long and connects to Katy
164. Yes, length, chat surface
165. No, BCT (Bear Creek Trail) has more variety and beauty- just not as convenient
166. Yes, accessibility and length
167. Yes, mile markers and close to home
168. Yes, closest to home (running distance, ¾ mile)
169. Yes, proximity to house
170. Yes, close to home
171. Yes, beauty
172. Yes, no dogs
173. Yes, it's easily accessible from my house.
174. Yes, near home
175. Yes, its just lovely and convenient
176. No, I like Rock Bridge State Park and other wooded, hilly trails best

177. No, like to go to Grindstone for off leash area. Use Twin Lake off leash area some, but not as much.
178. Yes, because I think it is the prettiest trail and the quietest.
179. Yes, location
180. Yes, beautiful
181. No, not as many people on the trail by the University tennis courts
182. Yes, the length- I'm able to train for long distances
183. Yes, nice area, beautiful scenery, lots of people
184. Yes, connects home and work
185. Yes, better ambiance, better surface, closer!
186. Yes, don't know about any others
187. Yes, near my home
188. Yes, nice surroundings, other people using trail
189. Yes, pretty and safe
190. Yes, the scenery is always nice not matter what time of year it is.
191. Yes, I really just enjoy just walking the trail and it is beautiful out here
192. Yes, beauty and convenience
193. Yes, pretty, shady
194. Yes, easy to get to, pretty, easy to walk
195. Yes, nice scenery, love it!!
196. Yes, shade in summer proximity to home
197. Yes, tree and shade
198. Yes, most pleasant
199. Yes, well kept and easy to get to
200. Yes, because it's long and connected to other trails which can get me where I want to go.
201. Yes, it's well maintained and beautiful.
202. Yes, longest and closest to MU gym, good for running
203. Yes, the nature!!! Trees
204. Yes
205. Yes, it's beautiful! Well kept, quiet without being too busy
206. Yes, accessible, beautiful, connects to Katy
207. Yes, I don't know any other trails
208. No
209. Yes, I commute on it
210. Yes, parking
211. Yes, close to home
212. Yes, scenery
213. Yes, shaded, quiet, marked with mile markers
214. Yes,
215. Yes, it's beautiful
216. Yes, only one I've been on
217. Yes, scenic
218. Yes, foliage is beautiful
219. Yes, distance- you can get on several accesses and not always run the same route

220. Yes, access
221. Yes, scenery
222. No, I enjoy Rock Bridge slightly more because of the variety
223. No, gravel is often too slick
224. Yes, location
225. No, enjoy the water fountains and the telephones, however.
226. Yes, accessibility, flat, pretty
227. ?
228. Yes, close
229. Yes, proximity, convenience
230. Yes, natural
231. Yes, convenient to home
232. Yes, no vehicles, flat surface, well maintained, many rules, long- great for biking
233. Yes, populated, safety
234. Yes, available water from Stadium, Forum, and Scott, and shade
235. Yes, easy access; water
236. Yes, this is the best trail for long and short rides
237. Yes, closer
238. Yes, surface is good; flat
239. Yes, it is close to my home
240. Yes, close to home
241. Yes, scenery
242. Yes, feel safe, beautiful
243. Yes, close to home
244. Yes, I feel safe
245. Yes, beautiful trees, surroundings; clean, safe environment, easily accessible
246. Yes, I love the creeks and the high trees along the trail. I also like the gravel on the trail vs. cement trail in parks.
247. Yes, close proximity to work/home/town
248. Yes, convenience, and proximity to the recruiting station
249. Yes, its close to the substation
250. Yes, because its close to the recruiting station
251. No
252. Yes, shade, beautiful, and flat
253. Yes, long and flat
254. Yes, atmosphere/environment
255. Yes, it is flat, and well maintained
256. Yes, closest, well kept, shady in the summer/hot weather, good surface
257. Yes
258. Yes, enjoy animals and scenery
259. Yes, convenient to home
260. Yes, close to where I live
261. Yes, it is dog friendly and very well taken care of
262. Yes, because well maintained easy access
263. Yes, variety

264. No, It's a bit monotonous at this part of the trail compared to other trails
265. Yes, closest to home
266. Yes, bathrooms, water fountain, parking, safety
267. Yes, option of biking or walking, well-maintained
268. Yes, close by campus- more shade than Bear Creek
269. Yes, here with work friends
270. Yes, scenery
271. Yes, the ½ mile markers, although it is a little boring because it is so straight
272. Yes, access and in-town recreation
273. Yes, close to home
274. Yes, close to home
275. Yes, because of accessibility and water (creeks etc.)
276. Yes, shaded and nature (plants and animals)
277. Yes, well maintained, well used, mileage marked, water fountains, facilities
278. Yes, convenient
279. Yes, its wonderful and near my mother's home
280. Yes, easy access, well maintained
281. Yes, convenient
282. Yes, proximity to my residence
283. Yes, easy access, location to residence
284. Yes, convenient locations, good parkers
285. Yes, trees, people
286. Yes, gets me to University of Missouri
287. Yes, flatness, length, distance, gravel
288. Yes, scenery
289. No, prefer Katy but, MKT is closer to my house
290. Yes, proximity to home
291. Yes, scenery, shade, level trail
292. Yes, kept well, shade, police are on it
293. Yes, beauty
294. Yes, best scenery, well- maintained
295. Yes, people on trail, not deserted
296. Yes, only one I know
297. Yes, it's the only one I've been on in the Columbia area
298. Yes, cuts straight across town, my dentist and broker etc. are on the trail
299. Yes, level, marked well, and water
300. No, I prefer the Katy- more variety- my wife and I park our bikes and hit different sections
301. Yes, beauty, availability, ease of use
302. Yes, the scenery is pretty. The trail is long enough for bike training.
303. No, only one I know
304. Yes, proximity to home
305. Yes, more populated than Bear Creek; flatter, also.
306. Yes, beautiful, relaxing
307. Yes, it's beautiful
308. Yes, broad path, dappled shade, benches and it's fall (beautiful)

309. Yes, shade, wide trail, benches
310. Yes, flat, dry
311. Yes, flat, mileage markers, dry
312. Yes, clean, flat, can walk, jog, or bike
313. Yes, close to downtown
314. Yes, it's very pretty, well-maintained
315. No, I prefer single track (Rockbridge)
316. Yes, CMC 5:30 Tuesday, Thursday runs
317. Yes, scenery
318. Yes, scenery
319. *no survey*
320. *no survey*
321. Yes, ½ mile markers
322. Yes, scenic, flat, easy to get to
323. No, BCT closer
324. Yes, access easy
325. Yes, don't know others yet, like length
326. No, like scenery on Bear Creek Trail
327. Yes, proximity to home
328. Yes, quiet, beautiful
329. Yes, close proximity
330. Yes, I really enjoy the fact that it is in the woods, surrounded by trees and feels like you are away from civilization. I also appreciate the mileage markers.
331. *no response*
332. Yes, accessibility to town, shady, water access
333. Yes, closest to home, well maintained
334. Yes
335. Yes, convenience, beauty
336. Yes
337. Yes, even tread
338. Yes, convenient to home
339. Yes, great scenery, well-maintained trail
340. Yes, well maintained; very natural-beautiful
341. Yes, prettiest
342. Yes, location
343. Yes, convenience to home
344. Yes, close to home
345. Yes, crushed gravel substrate
346. Nice scenery
347. No, this is the first trail I visited in MO so that I have no choice to compare which one I prefer.
348. *no survey*
349. *no survey*
350. Yes, convenient location, connects to Katy, can use to get to campus, etc.
351. N/A First time in park

352. Yes, close to our house
353. Yes, access from my house
354. Yes, it’s beautiful and close to home.
355. Yes, because it’s nice and not so bumpy.
356. Yes, close to home; scenic, people usually on trail but not overcrowded
357. Yes, close to home
358. Yes, Nest to my home/connects to Katy/ long and flat/ beautiful
359. No, I use Grindstone most for transportation 3 times/ week. I use MKT for recreation.
360. No, like Katy trail better

Appendix F

Opinions and suggestions provided by the respondents. (by survey number)

6. Please do not pave the trail
7. Great trail! Good job for city!
8. Lights for nighttime
12. Very nice trail
14. Trash cans
16. Great job
17. Please continue to work on keeping the streams free of litter
19. We love the trail- Thank you!
23. We love this trail. We'd like to see limited/controlled development on its perimeter.
24. I love this trail, especially places on either side that aren't developed yet. Please keep the open, farmland, if possible.
26. Please avoid cutting trees except as absolutely necessary and avoid using 2,4-D for weed control. I hate the smell. Thanks
27. Be more careful with the "restroom" on the "forum" (clean it more often). Do not cut trees along the trail.
29. Continue to develop Columbia trail system. The Stephens Lake development has been an excellent addition to parks.
31. Clear out the underpasses quickly after storms
32. Please fill in gravel next to bridge ledges more often so bike riding isn't so jarring.
34. Great trail and park system
35. Keep it up
37. I really enjoy having the trail around for personal use. The only complaint is all the standing water in the Stadium Boulevard underpass.
39. At this part of the MKT (Scott Blvd.) has limited bathroom facilities, my children are in the autism spectrum.
40. Great trail
43. Better sign or gate by wastewater access road- too many 1st timers take this by mistake.
48. Columbia desperately needs a section of downtown for non-motorized transport only – Pedestrian Mall- Walnut and 9th streets.
51. MKT = best feature of Columbia!
55. Connect north and south trails, circle Columbia!
56. Better maintenance of stretching stations and benches. Appreciate the City Police Patrols.
57. The exercise equipment is starting to rust. Love the trail. Anxious for flat Branch access to be completed.
62. All Good!
65. Excellent Trail!!
66. Love MKT Trail
69. None-Thank you
74. Garbage along trail
75. Trash alongside trail
77. The MKT is 1 of my favorite things about Columbia.

86. I support anything that contributes to the enhancement and maintenance of the trail- including increased taxes.
89. Keep up the good work.
93. Perhaps more water stations.
95. Lights to use the trail after dark
96. Would like to see it fully funded
97. More trails!
98. Great job!
104. Water fountain for dogs and toilet for people at Providence.
109. Ask for traffic light leaving Stadium trailhead.
115. Bikers too fast, never or rarely give warnings
122. More restrooms/ drinking fountains/ backwoods bike trails
128. More walking only areas
132. Great trail
136. running tips
145. Please consider an underpass at Stadium and college Park. We need the Cowan Drive route developed ASAP.
146. Worried about cutting out the non-native trees. They are a part of the nature here and they provide great shade.
147. I think there are numerous retired people who use the trail and would like to be useful I eliminating invasive plants or other projects to enhance and maintain the trail.
159. Fix holes from rain storms more often. Thanks much though.
161. Keep the trees
165. Make all trails interconnecting tomorrow.
166. Make bridge transitions smoother
171. Wonderfully maintained
175. Keep the trail up- get on trail more because of dog
177. Keep poison ivy controlled better.
178. I guess just more trails. The ones I've used I really enjoy and would like more options.
183. I like it pretty much the way it is. Just a long as we keep it clean and nobody abuses it with trash or something like that. Thanks
185. Pave the trail
187. I have traveled the world seeking to see its beauty- The trail is right here at home and one of the most beautiful places in all seasons. Suggest people carry small plastic bags to pick up trash as they walk.
188. Cleaner restrooms
189. Love this trail! Have more phones for emergencies on the trail. Spray more for mosquitoes and bugs. Need more private type bathrooms. The walking gets peoples' systems going.
194. Keep the trails in good shape
196. Complete the tunnel at Stewart and Providence for safe crossing to downtown.
198. Do <u>not</u> (in spite of the mayor's strong feeling) create bicycle routes by mainly narrowing auto lanes, this is <u>dangerous</u>.
199. Keep up the good work!

200. I'd love to see the MKT connected to even more trails which could take you to shopping, movie theaters, and work- so one could get around Columbia without going on roads with a car.
203. Keep trail open
205. MKT is one of my favorite parts of Columbia- keep up the good work and don't change a thing!
211. I would like to have a table tennis club as a part of Park and Recreation.
213. I love the trail and have used it for 21+ years
220. Pave it
231. The more trails like MKT, the better Columbia is as a community.
232. Parks and Recreation does a great job with its facilities! We need more green space.
236. Tunnel at Providence Road and Stewart Road would be very helpful to us bikers
238. The water at 1.5M tastes like wood
240. Maintain safety
244. Trash cans
248. Thanks for the water
249. Thanks for the free water
251. Coordinate mowing with wildflower seasons
252. Appreciate how well maintained the trail is
255. Keep up the good work
260. Put up notices concerning the trail area east of Scott Boulevard that is in the county and used for firearm target practice and hunting. At head of loop nature trail off Forum, post rules concerning picking up dog poop.
264. A mile marker is missing, I think at mile marker 7.0 and between 5.0 and 5.5 the half mile seems a little long.
265. More greenspace with trails that link. Developments with open space and trail paid by developers.
266. Missing mile marker, incorrect mile markers, bathroom at Forum doesn't close properly
267. I appreciate having the trail. Thanks for all the work that goes into it.
271. Trail get a little hard, needs some bounce in it for the bodies' bones.
272. Where's the 25 million
275. Keep the trails safe, clean and open to people
278. Fill in on or around bridges, difficult for bike riders to jump onto or when coming off of.
283. Maintenance after storms is very appreciated
286. Scott Boulevard north needs path as far north as Grant
287. Please do not pave the trail.
292. Good Job
294. better security
295. continued patrolling
300. keep up the good work
304. Keep up the good work- trail is excellent
307. Spruce up the left side of the trail more
310. Do more trails

311. Do more plant, flower, and tree labeling
312. More parking, increased access areas, more trails that join up to MKT
313. Great trail, I wish I lived in Columbia
316. Keep up the good work
321. ¼ mile markers would make the trail even better for runners
327. Thank you for the excellent programs and care of our parks!
329. Have female only afternoons
332. More water fountains?
345. Don't pave the trail.
351. Please pick up bags of trash left by pick up crew before someone drives and splits them open.
353. Have more info on proper trail etiquette.
354. Reminders to the public of following trail safety rules, especially staying to the right side.
356. Appreciate all the Parks and Recreation do. You guys do a great job in our city!
357. Build more trails, build one circling the town
360. Pretty good job with development. Bikers are too aggressive.