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INVESTIGATING THE THRU-HIKING EXPERIENCE: A STUDY ON THE PACIFIC NORTHWEST NATIONAL SCENIC TRAIL

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INVESTIGATING THE THRU-HIKING EXPERIENCE:
A STUDY ON THE PACIFIC NORTHWEST NATIONAL SCENIC TRAIL

By

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B.A, Idaho State University, Pocatello, Idaho, 2016

Thesis

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Investigating the Thru-hiker Experience: A Study on the Pacific Northwest National Scenic Trail

Chairperson: Jennifer Thomsen

The phenomena of thru-hiking has been on a dramatic rise, spurring hikers to venture onto increasingly remote and challenging trails over extended periods of time. Despite the recent popularity of thru-hiking, the field remains relatively unstudied. In recreation, the expectations held beforehand have been linked to perceptions after an activity, but this has not been explored in thru-hiking. For example, there is little known on the challenges associated with thru-hiking and how these challenges are navigated.

Additionally, the social experience associated with thru-hiking on and off the trail has not been studied. Further, research is lacking on immersive experiences such as thru-hiking and hikers' transition back to 'regular' life. Through exploration of these areas, there will be an increased understanding of the thru-hikers and their actions, a field that is growing greatly in popularity and yet little research has been conducted. With a better understanding of thru-hikers, managers will be able to better adopt their plans and strategies to incorporate the unique characteristics of this user group. Without an increased understanding of thru-hiker attitudes and behaviors, managers will lack the necessary knowledge to effectively manage long distance hiking trails, which could negatively impact the natural resources of the trail and the hiker experience.

This study addresses these gaps by investigating the thru-hiker experience of the Pacific Northwest National Scenic Trail (PNNST), a trail best known for its remoteness and rugged features. The study also examines what thru-hikers believe should be maintained or reconsidered in the face of the impending management plan. Multi-phase semi-structured interviews were conducted with 42 of the 2017 PNNST thru-hikers before their hike, directly after completion, and two months after completion. The research focused on how pre-hike expectations and previous experiences affect the experience of the thru-hiker, how thru-hikers navigate adverse circumstances, how the social aspect impacts the thru-hiker experience, and how completion of a thru-hike affects the transition back to everyday life. The findings suggest that previous experience and expectations for the trail have an impact on how thru-hikers interpret their experience, with many describing how the PNNST met or did not meet their expectations going into the trail. Thru-hikers dealt with challenges utilizing both mental and physical strategies, which were unique depending upon their previous levels of experience. Additionally, the research suggests that the thru-hiking experience will have an impact on the lives of the majority of thru-hikers going forward. This study's findings contribute to the theoretical understanding of thru-hiking and is useful to land managers, recreational planners, and community planners for extended trails and trail towns.

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Chapter I: Introduction

Hiking is one of the most popular outdoor activities for adults, attracting 14.6% of the United States population and is anticipated to continue growing in popularity (Outdoor Foundation, 2017). Thru-hiking is a more recent phenomenon that has rapidly grown as a recreational activity over the past decades (Berg, 2015). This type of hiking involves an individual hiking the entire length of an extended trail in a continuous journey, departing from one terminus of the trail, and hiking unaided to the other terminus (Mills & Butler, 2005; Bruce, 1995). In the United States, many of the extended trails utilized for thru-hiking are part of the National Scenic Trail system. According to the National Trails System Act [NTSA] (2009), National Scenic Trails “will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”

The first two designated National Scenic Trails were the Appalachian Trail (AT) and the Pacific Crest Trail (PCT). The AT and PCT have experienced exponential growth in thru-hikers in the last 5-10 years which may be due to publicity and acknowledgement in films, books, and other forms of media (Zweier, 2016). In the 1960's, only 37 people thru-hiked the AT in the entire decade, which is startlingly lower than the 6,008 thru-hikers experienced from 2000 to 2010 (ATC, '2000 milers'). Similarly, the PCT also has experienced a rise in thru-hikers, with an increase from 1,041 in 2013 to 3,498 in 2016 (PCTA, 'PCT visitor use statistics').

There are negative impacts that accompany the increasing popularity of thru-hiking. As routes become more heavily trafficked and travelled, the trail is subject to

degradation (Cole, 2004). It is because of overuse and consequent degradation that some trails have had to implement permitting systems in order to maintain trail character (Van Wagtendonk, 2009). A challenging aspect of thru-hiking is its immersive nature. Not only could the environment suffer as trails become more popular, but the experience of the hiker can be negatively impacted if crowding is perceived (Kyle et al., 2004). Trail towns can also be negatively impacted by increased thru-hike travel if hikers are disrespectful or disruptive, which can be evidenced by some towns on the PCT (Lum et al., n.d.). Additionally, safety and injury is a potential risk, as hikers are frequently in remote areas with challenging terrain and variable weather conditions (Freidt et al., 2010). Lastly, because hiking an extended trail requires several months of hiking and detachment from normal life, the readjustment to a routine lifestyle afterwards can be difficult and create long lasting impacts on the individual's way of life (Christofi & Thompson, 2007).

Despite these challenges, thru-hiking offers a variety of positive impacts on both individuals as well as the areas that they cross through. One positive impact is that thru-hikers boost the economy of the towns that they pass through for resupply (Hill et al., 2009). Recreationists also spend a lot of money on gear, with the outdoor industry product sales valued at \$120 billion (Outdoor Industry Association, 2012). There are several other beneficial outcomes of thru-hiking, including personal growth and transformation in the hikers themselves (Turley, 2011). Thru-hiking can also foster vibrant social communities that extend past the trail and into the future (Littlefield & Siudzinski, 2011). Feelings of environmental stewardship and attachment to place when the journey is complete can also be a result of thru-hiking (Thapa, 2010; Kyle et al.,

2004). An increase in thru-hiking could also bring attention to trails that are in need of maintenance and trail associations frequently promote support for trails (Freidt et al., 2010).

History of the Pacific Northwest National Scenic Trail (PNNST)

The Pacific Northwest Trail received its National Scenic Trail designation in 2009 and is one of eleven National Scenic Trails in the United States. The official route is 1,200 miles extending from Chief Mountain in Glacier National Park, Montana to Cape Alava in the Olympic Peninsula of Washington (see Image 1). The PNNST travels through a variety of different land designations, including National Parks, National Forest, Wilderness areas, and other including private. The National Parks included are Glacier, North Cascades, and Olympic (PNTA, 2017). The National Forests crossed by the PNNST include Flathead, Kootenai, Idaho Panhandle, Colville, Okanogan-Wenatchee, Mt. Baker-Snoqualmie, and Olympic (PNTA, 2017). The multijurisdictional nature of the trail has made some travel of the trail section-specific, as dogs and mountain bikes are prohibited in National Parks.

The PNNST not only passes through several public land areas, but also includes several towns as well. In Montana, Polebridge and Eureka are crossed through directly while Yaak and East Glacier are also affected. The PNNST directly crosses through Priest Lake in Idaho and also affects the community of Bonners Ferry. In the Washington segment of the trail, there are 14 communities identified by the PNTA as being influenced by the trail. The route of the PNNST directly goes through Metaline Falls, Northport, Oroville, Ross Lake, Anacortes, and Port Townsend. Other Washington towns

affected by the trail include Republic, Concrete, Sedro-Woolley, Oak Harbor, Coupeville, Port Angeles, Forks, and Ozette. The trail also passes through a variety of ecosystems as it travels from the Continental Divide to the Pacific Ocean. The ecosystems vary from high alpine to high desert to rainforest. Because of the variety of terrain and ecosystems that the PNNST passes through, thru-hikers cross through the habitats of many wildlife species. Thru-hikers have the chance to encounter both grizzly and black bears, wolves, moose, rattlesnakes, mountain goats, and more. At this time, the PNNST has a reputation as a “choose your own adventure” trail, so many hikers do not stay on the designated route (PNTA, 2017). The PNNST is not currently all on existing trail, with one-third of the route consisting of bushwhacks and another third on roads (PNTA, 2017).

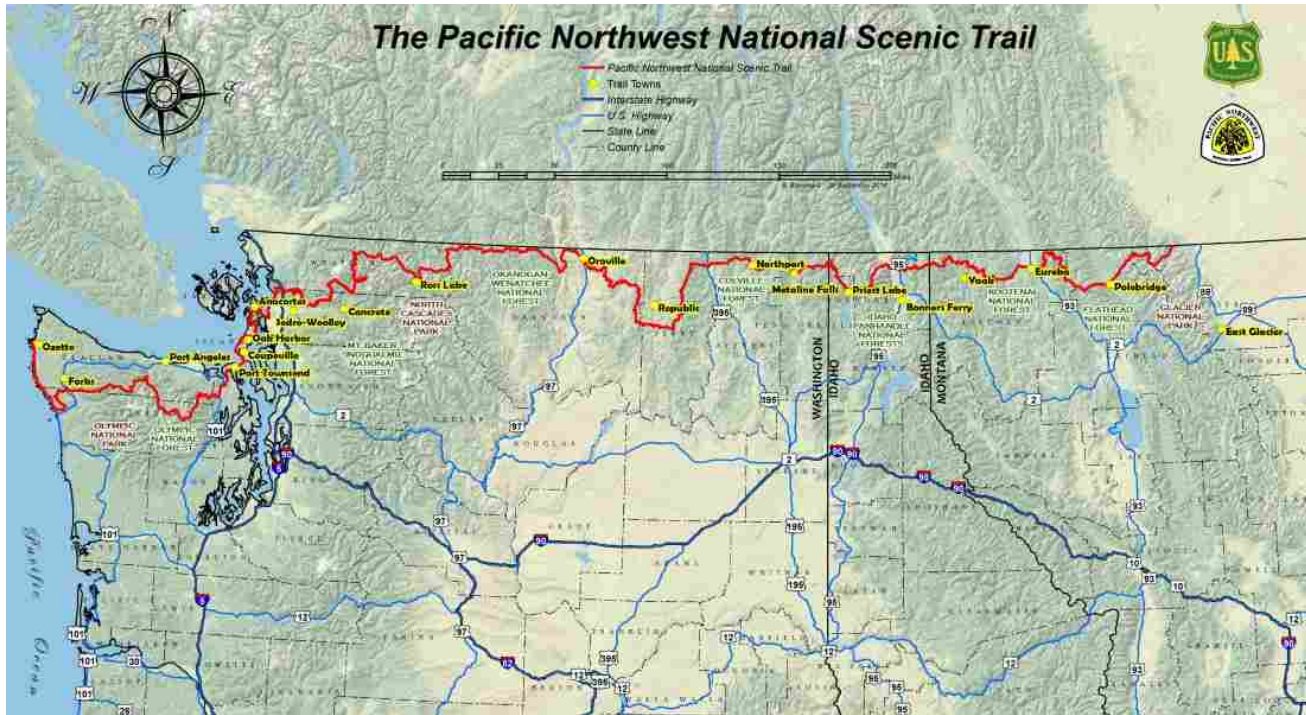


Image 1: Map of the PNNST

The Pacific Northwest Trail Association (PNTA) is an organization that identifies their mission as “to protect and promote the Pacific Northwest National Scenic Trail, and to enhance recreation and educational opportunities for the enjoyment of present and future generations” (PNTA, 2017). According to the PNTA, in 2015 there were 40-50 thru-hikers who completed the PNNST with many others undertaking section hikes or day hikes on the trail. With the rise in thru-hiking nationwide, the number of thru-hikers on the PNNST is also estimated to continue to rise and the PNTA believes that 100 hikers attempted thru-hiking in 2017 with around 50 finishing. Hikers attempting the entire trail generally begin from Chief Mountain in late June or early July and take 60-75 days to arrive at Cape Alava (PNTA, 2017, Thru-hiker FAQ).

As part of managing such a complex and dynamic trail, the U.S. Forest Service is required to prepare a Comprehensive Plan that includes a purpose statement, refinement of the Congressional route, establishment of the trail corridor, a long-term trail protection plan, and carrying capacity to “*provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.*” In order for the management plan to be effective, there needs to be an understanding of the number of thru-hikers using the trail as well as the experience of the thru-hiker. The potential positive and negative impacts that accompany thru-hiking can inform the management of the PNNST.

Purpose

The purpose of this study was to better understand the thru-hiking experience. There are many opportunities and challenges associated with thru-hiking, yet there is very limited research contributing to our understanding of the thru-hiker experience prior, during, and after the hike. To address these gaps, this study explores the following research questions:

- RQ1: How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?
- RQ2: How do successful thru-hikers navigate and cope with challenges faced during the hike?
- RQ3: How do social interactions impact the thru-hiker experience?
- RQ4: How does the thru-hike experience affect the hikers and their transition back to everyday life?
- RQ5: What aspects of the PNNST should be maintained or reconsidered in the face of an impending management plan?

Significance of the study

The significance of understanding the thru-hiker experience is important in both theoretical and practical applications. First, a better understanding of the thru-hiker experience as it relates to expectations and experiences, challenges and coping, social aspects, and readjustment, will fill gaps in the research of an otherwise relatively unstudied user group. With thru-hiking on the rise, it is becoming increasingly relevant and necessary to understand the experience of the user group both for academic understanding as well as for recreation and land managers. There are currently eleven National Scenic Trails and many more extended trails in the United States and thousands of reported users on these trails. Without a thorough understanding of these users, managers will encounter challenges in adequately incorporating the thru-hikers and their needs into the trail and land management plans. This research worked closely with the USFS and the PNTA in order to provide valuable information that will inform future management decisions. This study aims to provide an in-depth look at a variety of aspects of the thru-hiker experience across time to create a more comprehensive understanding.

Thesis organization

Chapter Two includes the review of relevant literature. The topics included in the literature review include motivations for thru-hiking, environmental impacts of thru-hiking, experiences compared with expectations, psychological and physical benefits of hiking, challenges and coping strategies of thru-hiking, transition after thru-hiking, social interactions of thru-hiking, and positive outcomes of thru-hiking. Chapter Three details the methodology utilized in this study. Chapter Four contains a draft of an article for potential publication and addresses the first four research questions. There is significant overlap in the chapter's content with the introduction (Chapter 1) as well as the literature review (Chapter 2) and the methods (Chapter 3). Chapter Five extends on the results in Chapter Four, but does not repeat those findings. Chapter Five includes the complete results and analysis of the data from research question five. Finally, the discussion, conclusions, and implications of the research are provided in Chapter Six.

Chapter II: Literature Review

Introduction

This review of the literature centers on the concepts surrounding the study's research questions pertaining to thru-hiking and is organized into seven sections: 1) motivations for thru-hiking; 2) environmental impacts of thru-hiking; 3) experiences compared with expectations; 4) psychological and physical benefits of hiking; 5) challenges and coping strategies of thru-hiking; 6) social interactions of thru-hiking; and 7) transition to everyday life after thru-hiking. The majority of the sections of this chapter are repeated in Chapter Four as they are needed in the literature review of the article draft.

Section 1: Motivations for thru-hiking

There are several reasons that thru-hikers set out on the trail, ranging from place attachment to aspects of their personal lives (Goldenberg et al., 2008). According to the results of Kyle et al. (2004), place attachment was strongly related to the motivation of thru-hikers on the AT. Another study investigating why people hike the AT found that motivations ranged from superficial (e.g. being outside), consequential (e.g. survival, environmental awareness, solitude), health-related (e.g. exercise, healthier lifestyle), and value explanations (e.g. self-fulfillment, relationships) (Goldengerg et al., 2008).

Antoušková (2014) found that the appearance of the landscape is the primary reason that hikers choose their trail. Understanding the appealing aspects of the landscape may attract hikers, but there are also individuals who decide to hike for exercise and for

social reasons (Antoušková, 2014). Another study referenced the general reasons that individuals choose to recreate. According to Stephenson and Gyn (1986), the motivations that people have for recreating vary based on age, gender, and family dynamic, with the most common motivator being exercise. The thru-hiking community includes individuals from a variety of ages, genders, and family dynamics and so their motivations for choosing their thru-hike can vary greatly from person to person based on their personal circumstances.

Section 2: Environmental impacts of thru-hiking

Thru-hiking can have both positive and negative consequences. This section will first discuss the positive implications associated with thru-hiking, then the negative implications of the activity, and finally why the impacts of thru-hikers need to be studied.

One positive impact that thru-hiking can have is increased ecological literacy. Rush (2002) discusses various forms of literacy of AT thru-hikers, including ecological literacy, noting that these individuals will encounter many different types of life through their journey as they pass through several different ecosystems. The study revealed that AT thru-hikers have varying degrees of environmental literacy ranging from expansive knowledge of plants and animals to nearly no knowledge concerning the topics (Rush, 2002). Participation in thru-hiking can also foster a sense of environmental stewardship (Hill et al., 2009). Spending several months immersed in a landscape forms a connection with the landscape and a desire to advocate for it into the future (Hill et al., 2009).

Thru-hiking can also have negative impacts on the environment, including degradation of the landscape. Not just thru-hiking, but general day hiking can have an

impact on the environment. Hiking is becoming a popular activity in the United States, where one quarter of the population engages in hiking and camping (Cordell & Super, 2000). This is a large number of people recreating outdoors, which could hint to greater, growing impacts on the environment. One such impact is trampling, which can occur both on trails and on campsites as well as areas surrounding these sites (Cole, 2004). According to a study by Cole (2004) trampling can cause damage to vegetation and soil. In more intense areas of trampling, “plant cover and biomass are low, most plants are short, species richness is reduced and species composition has shifted” (Cole, 2004, p. 12).

A relevant reason to look at the impacts that thru-hikers have on the environment is that it informs visitor management practices and limitations that could be enforced on the trail. The AT had a resource management plan published in 2008 and the goal of that plan was “to document the Appalachian National Scenic Trail’s natural and cultural resources and describe and set priorities for management, monitoring, and research programs to ensure that these resources are properly protected and cared for” (NPS, 2008). Identifying the resources that are important can dictate management planning for both cultural and physical aspects important to the trail. Marion et al. (2016) investigated the impact of hikers on the AT on the vegetation in low and moderate/high use areas. The results of this project revealed how vegetation, water, wildlife are being degraded by the traffic on the AT (Marion et al., 2016). Through the exploration of tactics used for dealing with impacts on the AT, Marion (2016) compiled a ‘visitor impact management toolbox’, which includes strategies such as managing use levels, location of use, modifying visitor behavior, and more.

Section 3: Experiences compared with expectations

Evaluation of experience is strongly linked with the expectations held beforehand (Wilson et al, 1989). If an experience matches an expectation, then the attitude of the individual remains satisfied, but if the two clash, then there is increased dissonance experienced (Cook & Leckey, 1999). When dissonance is felt, individuals are less satisfied and tend to be more critical of the experience (Cook & Leckey, 1999).

A situation such as crowding can cause dissonance and subsequent dissatisfaction (Williams, 1989). When the users are not anticipating crowded areas or other potentially negative aspects, the perception of the experience can be marred. Conversely, the attainment of goals and the achievement of specific outcomes can satisfy users and overshadow potentially negative aspects that may arise during the experience (Williams, 1989). Williams (1989) identifies hiking as a ‘nonconsumptive activity’ and found that recreationists involved in nonconsumptive activities reported higher satisfaction than those involved in consumptive activities.

Expectations have been measured analyzed as to how they affect experiences in a variety of fields outside of recreation. In a study about service quality, Chen et al. (2012) found that the level of satisfaction with the experience depended upon the reference level that it was compared against. If expectations are used as the reference level, failure of the expectation to match these expectations would result in dissonance and dissatisfaction (Chen et al., 2012).

Section 4: Psychological and physical benefits of hiking

The act of hiking can have positive psychological impacts for the hiker (NRSE, 2003). Ketterer (2011) studied AT thru-hikers and found that every hiker studied reported experiencing psychological benefits from their hike, but that the benefits were not uniform or consistent. Each hiker experienced a different psychological benefit from this specific instance of hiking the AT, including increases in self-confidence and empowerment, interpersonal skills, determination, and value systems (Ketterer, 2011). The act of completing a thru-hike can clearly be beneficial to an individual psychologically in the short term; however, there has been limited studies on the long-term impacts of thru-hiking.

Simply being in nature can also provide psychological benefits for individuals (Wolf & Wohlfart, 2014). Wolf and Wohlfart (2014) investigated the outcomes of nature-based recreation in different park and recreation areas in Australia and found that individuals there reported that their experiences lead to increased confidence in themselves as well as increased feelings of well-being. Nature-based recreation has greater positive impact on both mental and physical health of individuals than indoor exercise (Wolf & Wohlfart, 2014).

Physical benefits are an additional outcome of hiking and thru-hiking. Hill et al. (2009) utilized a means end approach to investigate the reasons hikers were on the AT, finding that the strongest links appeared between exercise and health. Because National Scenic Trails necessitate being proximal to urban areas for resupply opportunities, this also makes the trails accessible to day use. The AT specifically receives lots of day use because it travels near many densely populated areas (Hill et al., 2009). Hill et al. (2009)

makes the claim that the proximity of the AT should be capitalized on for health reasons, as lack of exercise is prevalent in American society and hiking can serve to combat these issues.

Many researchers have looked into how outdoor experiences bolster a connection with the natural world and improve the physical health and well-being of its participants (Hill et al. (2009), Thapa (2010), Wolf & Wohlfart (2014)). Hill et al. (2009) found that direct involvement with nature, such as thru-hiking, leads to increased participation in that activity as well as a connection with the environment. Other research has found that participating in outdoor recreation facilitates the environmental attitude-behavior relationship (Thapa, 2010). The environmental attitude-behavior relationship refers to time in nature affecting the attitudes that individuals hold about nature and how they correspondingly act in natural environments. While not hiking-specific, individuals who report participating in outdoor recreation were found to be burning enough calories for a healthy and active lifestyle (Wolf & Wohlfart, 2014).

Section 5: Challenges and coping strategies of thru-hiking

Thru-hikes take several months to complete and many challenges can arise during such a lengthy experience. Berg (2015) identified both physical and psychological challenges that can arise during a thru-hike. Individuals can be challenged by weather, getting lost, negative social situations, wildlife and challenging terrain, and vandalism or stolen gear (Berg, 2015). Thru-hikers can encounter one or many of the aforementioned challenges, potentially simultaneously. There will inevitably be challenges encountered while thru-hiking, it is important to understand how hikers cope with these challenges.

Thru-hikers sometimes undertake the experience alone. While not directly pertaining to thru-hikers, research by Coble et al. (2003) revealed that solo hikers face different fears, including injury by another or through a natural accident, getting lost, wildlife, and fear of theft. There are also greater perceived risks by female solo hikers than their male counterparts (Coble et al., 2003). Both male and females take on thru-hiking solo and encounter many of the same fears and challenges, though they may be amplified in some cases.

An important aspect of understanding thru-hiking is how hikers cope with challenges faced on the trail. While there are no existing studies that focus on coping with stress in thru-hikers specifically, Miller and McCool's (2003) study revealed that different coping responses correspond with different reported stress levels. This model entails looking at coping behaviors as the outcome of transactions between personal and environmental factors, perceived stress or threats, and the seeming efficiency of the coping strategies (Miller & McCool, 2003). How recreationists interpret stressful situations in natural environments offer insights on the management strategies that should be employed (Miller et al., 1998; Miller & McCool, 2003).

In leisure and recreation activities, there are both problem focused and emotion focused ways of coping (Iwasaki & Schneider, 2003). Problem focused approaches refer to direct actions taken to cope (e.g. planning) while emotion-focused approaches are indirect (e.g. emotional regulation) (Iwasaki & Schneider, 2003). Solo hikers utilize different coping strategies, including avoiding perceived dangers, potentially joining with others, utilizing different aids and devices, and expanding their knowledge of the activity (Coble et al., 2003). While thru-hiking is not directly discussed, the coping mechanisms

that thru-hikers employ are important for understanding how hikers' navigate challenges throughout the thru-hiking experience.

Section 6: Social interactions of thru-hiking

Because of geographic constraints, thru-hikers do not have opportunities to create a community in person before they are on the trail. Online forums and sharing networks are helpful for sharing in-depth information in any specific field, including recreation (Cong et al., 2008). For example, "WhiteBlaze.net", is a site focused on the AT that has thousands of members with millions of posts from both thru-hikers and people interested and involved in the trail (Ziegler et al., 2013). There are Facebook sites for every thru-hike, which provide "online gathering place for you to collaborate and communicate" (Saskatchewan Parks and Recreation Association, n.d.). The social community of thru-hikers may not exist physically before individuals begin hiking, but relationships can be formed online ahead of time.

Extended trails attract thousands of hikers per year offering a variety of social interactions during thru-hikes. While individuals may have set out on the trail on their own, there is an underlying supportive and welcoming community aspect to thru-hiking (Littlefield & Siudzinski, 2012). Thru-hiking is reliant upon 'trail towns', towns through which the trail passes through so that hikers can restock supplies. While in towns, hikers sometimes take 'zero days', days where they do not hike any miles and stay in town to recuperate, grocery shop, or to wait and socialize with other hikers or trail angels (Rush, 2002). While not specific to trail towns, all thru-hiker interactions are crucial for the formation of trail community based on their shared experiences (Arnold, 2007). The

social aspect of thru-hiking is important during thru-hiking and those relationships can persist after the experience is complete.

After thru-hikers leave the trail, they are removed directly from the physical trail community, but their relationships can still persist. Turley (2011) found that hikers struggled with the loss of community after their hike. However, with the pervasiveness of online groups and cell phones, thru-hikers can easily maintain connections with individuals. Millions of individuals engage in social media and the numbers continue to rise (Correa et al., 2010). Social media allows for thru-hikers to maintain connections with their trail community even after they have all gone separate ways.

Section 7: Transition after thru-hiking

After immersive experiences, people can find it difficult to transition back to their regular life (Christofi & Thompson, 2007). This challenge can be found across a multitude of immersive events, including student trips, vacations, and more. In looking at returning from study abroad experiences, Christofi and Thompson (2007) found that participants felt serious culture shock in their home countries and experienced large amounts of discomfort; yet they were not actively changing their state to ease anxiety. Similarly, Peace Corps volunteers experienced a more difficult transition when coming home than their move to foreign destinations (Adler, 1981). Individuals who had stability and structure abroad now faced challenges with finances, the structure of corporate life, and the different lifestyle of North America (Adler, 1981).

Turley (2011) is the only study found looking at readjustment applied to thru-hiking the Appalachian Trail although limited in scope. Regardless of its limitations,

Turley (2011) deduced that thru-hikers are challenged on how to communicate their experiences, adapting to new routines and the structure of everyday life, and the loss of their trail community once their journey is complete. The adoption of values, attitudes, and experiences by thru-hikers into their regular life after hiking mirrors the themes of transformative learning theory.

A foundational theory in education is the transformative learning theory, created by Mezirow (1991). This theory focuses on how adult learning uses disorienting experiences to challenge the thinking of the students (Mezirow, 1991). While transformational learning theory is primarily applied to educational settings, it is also applicable when examining immersive recreational experiences. A thru-hike can be a disorienting experience, which can cause the participants to relate to others in similar transformative processes, act on new perspectives, or think critically in new ways (Mezirow, 1991). This is relevant to the transition after thru-hiking as there can be dramatic changes to the way that the participant thinks and acts after the disorienting experience.

While transformative learning theory has not yet been explicitly applied to recreation, Coghlan and Gooch (2010) utilized the framework in looking at volunteer tourism which is an immersive experience. The final step in transformative learning is reintegration into society, bringing the lessons learned from the transformative process with them (Coghlan & Gooch, 2010). Involvement in volunteer tourism can have various impacts upon the participants' return to regular life, including reorientation of life and values, education of peers, and conversely the potential for 'reverse culture shock' where individuals are unable to reconcile their newly found values, skills, and attitudes

(Coghlan & Gooch, 2010). While Coghlan and Gooch (2010) focused on volunteer tourism, the concepts of transformative learning are likely applicable to thru-hiking and other immersive recreational experiences as well.

Summary

Thru-hikers have been relatively understudied. The literature discussed in this review may not be completely centered on thru-hiking, however the concepts of other recreational areas and disciplines allow for a framework of understanding to apply to thru-hikers. Understanding the motivations for thru-hiking as well as day hiking hints at the variety of factors that go into an individual choosing the PNNST. Examining how expectations influence the perceptions of an experience allows for greater understanding of how this phenomena is manifested in thru-hiking. The literature on the environmental impacts of thru-hiking is informative as it currently has been looked at only on the highly-used trails such as the AT. The PNNST is less utilized, but the potential for growth is present and imminent.

The psychological and physical benefits of hiking are telling as far as how thru-hikes could amplify these benefits and if these impacts last long-term. Understanding the challenges that thru-hikers could face is telling and hints at the variety of coping mechanisms that could be employed. While coping mechanisms have not been investigated in thru-hikers, delving into the coping literature in other recreational areas provides a framework to utilize for thru-hikers. Transition after immersive experiences such as study abroad has been studied extensively, but immersive recreation has been largely ignored to this point. Understanding the challenges that could accompany similar

transitions from immersive experiences could speak to the potential challenges thru-hikers face when returning to regular life. Social aspects of thru-hiking exist in networks on the trail as well as off trail and online. An understanding of these networks and potential ways to connect is helpful when examining the thru-hiking experience.

Chapter III: Methodology

Introduction

The purpose of this study was to better understand the thru-hiker experience as well as to provide information to the Pacific Northwest Trail Association (PNTA) and United States Forest Service (USFS) to inform the impending trail management plan. The methods used in this study included three phases of interviews administered at different stages of the thru-hike experience: 1) before hikers set out on the trail (pre-hike), 2) soon after the hikers finished their time on the trail (post-hike), and 3) two months after the hiker finished their time on the PNNST (two-month). Qualitative methods were chosen in order to capture more expressive information that could be lost in quantitative measurements (Berkwits & Inui, 1998). This study chose to conduct interviews to allow for an understanding of the thru-hiking experience from the participant's own point of view (Siedman, 2006). This chapter will detail the creation of the interview questions and format, the study sample, data collection, and the analysis of the data.

Instrument development

Prior to the start of data collection, the questions for the three interview guides were developed over the course of several months. The first step was to examine the literature to identify frameworks to utilize as well as gaps in the literature where the thru-hiker experience has not yet been thoroughly studied. After the gaps were identified, the researcher discussed with the USFS and PNTA what questions they would like to include to best answer their gaps in knowledge for the PNNST. A complete list of interview questions and their link to the literature is included in Appendix A.

Study sample

The PNTA estimates that around 100 people attempted to hike the PNNST in the 2018 season with around 50 completing the trail. Based on this PNTA estimation, the 42 participants in this study act as a representative sample for understanding the PNNST thru-hiker experience (Siedman, 2006). In order to recruit participants for the study, the researcher worked with the USFS and the PNTA to reach out through the existing forums and Facebook groups. The two active Facebook groups are “Pacific Northwest Trail Thru-Hikers” with 498 members and “PNT Class of 2017” with 79 members. The “PNT Class of 2017” group is more focused on thru-hikers this year as opposed to the other group which includes thru-hikers potentially from all years, past and present. See Appendix B for screenshots of groups and forum sites. Through discussions with the PNTA, it was decided that the study would be advertised on pnta.org on the same page as a registration for maps, updates, and alerts for the 2017 season. This strategy proved to be effective for recruitment as more than 60 individuals indicated interest in participating in

the research project. To capture thru-hikers who were not utilizing the online forum, the researcher interacted with thru-hikers on the trail during the field season collecting trail use data.

Data collection

To gain the most valuable insights from the PNNST thru-hikers, a series of three semi-structured in-depth interviews were conducted with thru-hikers. For this study, there were a total of 42 participants. There were 32 involved in the pre-interview, 37 in the post interview, and 30 in the two-month interview. Twenty three hikers participated across all three phases of interviews. Demographic information was collected from all participants. There are no noticeable differences in the responses of those who participated in all phases of interviews and those who only participated in select interviews. Interviews primarily took place over the phone, though one couple living nearby allowed for in-person interviews. All interviews were recorded and transcribed to ensure accuracy in the interview content (Siedman, 2006).

The first interview took place before the thru-hiker departed on their journey. The main goal of this first interview was to create a relationship with the thru-hiker and recruitment for the study as well as gaining some initial information. The first interview asked demographic information, including age, gender, where they are from, and if they had any previous thru-hiking experience. Information about their anticipated start and finish dates and how they were accessing trail terminuses were collected as well. Participants were asked questions about why they chose to hike the PNNST, including attractive qualities of the trail as well as their personal motivations for thru-hiking. The

physical, individual, and social expectations of the PNNST were asked about in this preliminary interview. Participants were also asked about how they prepared for the trail. This included physical preparation, mental preparation, and preparation tools. Thru-hikers also discussed whether they were hiking alone or in a group and why. The first interview set the stage for the interviews that followed.

The second interview took place directly after the thru-hiker finished their time on trail. The second interview asked specific questions about start and finish dates, zero days, and wildlife sightings. Thru-hikers were also asked in the second interview about how their experience on the PNNST compared to their expectations. The toughest and most rewarding experiences on the PNNST were also discussed as well as if they had a favorite section of the trail. There were also questions asked about challenges that thru-hikers encountered and how those challenges were dealt with and how they compared to the expectations about the trail. Participants were also asked if there was anything mentally or physically that they felt helped them to succeed. As a follow up to the first interview, thru-hikers were asked if they joined with other hikers while they were on the PNNST. A question was asked about if the PNNST experience would potentially have an impact on the future of the thru-hiker and if there were any aspects about the trail that they would like to see changed in the future. Social media use about the PNNST experience was also asked about. The second interview provided the bulk of data that was analyzed and also ties directly into the third and final interview.

The third interview took place two months after their second interview to allow time for reflection and adjustment back into 'regular' life. At two months, this allowed time for readjustment and reflection but also was within a time frame that the researcher

would not lose contact with the participants. The third interview asked about how the adjustment back to regular life and if it had been easy or if there had been challenges. Interviewees were asked if they felt that their lives were different at all because of their PNNST experience and if they had gained any skills (mental or physical). There were also questions as to what mentally or physically assisted the thru-hikers in succeeding on the trail. Thru-hikers were asked in the third interview about what portion of their experience that they talk about the most or remember the most and why. Also, participants were asked if they kept in touch with anyone that they met on the trail and if so, how they maintained contact. Finally, the third interview asked if participants would do anything differently, if they would do another hike like this, and if they would recommend the PNNST.

Data analysis

After the interviews were transcribed, the information was then coded while using NVivo software as an aid. Codes were developed after an exercise where six researchers examined and developed their own list of codes based on three interview transcriptions, which is known as ‘open coding’ (Berg, 1989). The researchers then met and compared and discussed the codes and their reasoning. Out of that meeting, a final code list was developed. This exercise allowed for strong intercoder reliability (Siedman, 2006). The researcher took that final code list and utilized it as a guide for the coding the entirety of the interviews, adding additional codes as more themes emerged from the data.

Next, the researcher began to analyze each research question separately, and returning back to each category later on to consolidate codes for larger themes. After

each individual question was analyzed, the researcher utilized the qualitative tool NVivo to assist in creating cases for each individual participant that included their age, gender, where they were from, and their level of previous thru-hiking experience. Those cases were used to run queries using various categories from the cases (age, gender, etc.) to each research question to look for significant findings.

Summary

Chapter Three focused on presenting the details for the methodology behind the multi-phase semi-structured interviews conducted with PNNST thru-hikers. The chapter began by describing the development of the interview format and questions. This segment also discussed the study sample, the data collection, and the analysis process. Chapter Four includes a draft of a journal article for potential publication. It includes a condensed version of the study focusing only on research questions 1-4. Several aspects of the introduction and methods are repeated within Chapter Four as it is structured for publication. Chapter Five will include results not discussed in Chapter Four for research questions 1-4 as well as all of the results for research question 5.

Chapter IV: Article Draft

Investigating the Thru-hiking Experience: A study on the Pacific Northwest National Scenic Trail

Abstract

The phenomena of thru-hiking has been on a dramatic rise, spurring hikers to venture onto increasingly remote and challenging trails over extended periods of time. Despite the recent popularity of thru-hiking, the field remains relatively unstudied. In recreation, the expectations held beforehand have been linked to perceptions after an activity, but this has not been explored in thru-hiking. For example, there is little known on the challenges associated with thru-hiking and how these challenges are navigated. Additionally, the social experience associated with thru-hiking on and off the trail has not been studied. Further, research is lacking on immersive experiences such as thru-hiking and hikers' transition back to 'regular' life. Through exploration of these areas, there will be an increased understanding of the thru-hikers and their actions, a field that is growing greatly in popularity and yet little research has been conducted. With a better understanding of thru-hikers, managers will be able to better adopt their plans and strategies to incorporate the unique characteristics of this user group. Without an increased understanding of thru-hiker attitudes and behaviors, managers will lack the necessary knowledge to effectively manage long distance hiking trails, which could negatively impact the natural resources of the trail and the hiker experience.

This study addresses these gaps by investigating the thru-hiker experience of the Pacific Northwest National Scenic Trail (PNNST), a trail best known for its remoteness and rugged features. The study also examines what thru-hikers believe should be maintained or reconsidered in the face of the impending management plan. Multi-phase semi-structured interviews were conducted with 42 of the 2017 PNNST thru-hikers before their hike, directly after completion, and two months after completion. The research focused on how pre-hike expectations and previous experiences affect the experience of the thru-hiker, how thru-hikers navigate adverse circumstances, how the social aspect impacts the thru-hiker experience, and how completion of a thru-hike affects the transition back to everyday life.

The findings suggest that previous experience and expectations for the trail have an impact on how thru-hikers interpret their experience, with many describing how the PNNST met or did not meet their expectations going into the trail. Thru-hikers dealt with challenges utilizing both mental and physical strategies, which were unique depending upon their previous levels of experience. Additionally, the research suggests that the thru-hiking experience will have an impact on the lives of the majority of thru-hikers going forward. This study's findings contribute to the theoretical understanding of thru-hiking and is useful to land managers, recreational planners, and community planners for extended trails and trail towns.

Introduction

The rise of thru-hiking and extended trails

Hiking is one of the most popular outdoor activity for adults, attracting 14.6% of the United States population and is anticipated to continue growing in popularity (Outdoor Foundation, 2017). Thru-hiking is a more recent phenomenon that has rapidly grown as a recreational activity over the past decades (Berg, 2015). This type of hiking involves an individual hiking the entire length of an extended trail in a continuous journey, departing from one terminus of the trail, and hiking unaided to the other terminus (Mills & Butler, 2005; Bruce, 1995). In the United States, many of the extended trails utilized for thru-hiking are part of the National Scenic Trail system. According to the National Trails System Act [NTSA] (2009), National Scenic Trails “will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”

The first two designated National Scenic Trails were the Appalachian Trail (AT) and the Pacific Crest Trail (PCT). The AT and PCT have experienced exponential growth in thru-hikers in the last 5-10 years which may be due to publicity and acknowledgement in films, books, and other forms of media (Zweier, 2016). In the 1960's, only 37 people thru-hiked the AT in the entire decade, which is startlingly lower than the 6,008 thru-hikers experienced from 2000 to 2010 (ATC, 'Interesting Facts'). Similarly, the PCT also has experienced a rise in thru-hikers, with an increase from 1,041 in 2013 to 3,498 in 2016 (PCTA, 'PCT visitor use statistics').

There are negative impacts that accompany the increasing popularity of thru-hiking. As routes become more heavily trafficked and travelled, the trail is subject to degradation (Cole, 2004). It is because of overuse and consequent degradation that some trails have had to implement permitting systems in order to maintain trail character (Van Wagtenonk, 2009). A challenging aspect of thru-hiking is its immersive nature. Not only could the environment suffer as trails become more popular, but the experience of the hiker can be negatively impacted if crowding is perceived (Kyle et al., 2004). Trail towns can also be negatively impacted by increased thru-hike travel if hikers are disrespectful or disruptive, which has been witnessed in some towns on the PCT (Lum et al., n.d.). Safety and the potential for injury is a potential risk for thru-hikers, as hikers are frequently in remote areas with challenging terrain and variable weather conditions (Freidt et al., 2010). Because hiking the PNNST requires several months of hiking and detachment from normal life, the readjustment to a routine lifestyle afterwards can be difficult and create long lasting impacts on the individual's way of life (Christofi & Thompson, 2007).

Despite these challenges, thru-hiking offers a variety of positive impacts on both individuals as well as the areas that they cross through. One positive impact is that thru-hikers boost the economy of the towns that they pass through for resupply (Hill et al., 2009). Recreationists also spend a lot of money on gear, with the outdoor industry product sales valued at \$120 billion (Outdoor Industry Association, 2012). There are several other beneficial outcomes of thru-hiking, including personal growth and transformation in the hikers themselves (Turley, 2011). Thru-hiking can also foster vibrant social communities that extend past the trail and into the future (Littlefield &

Siudzinski, 2011). Thru-hiking can also create feelings of environmental stewardship and attachment to place when their journey is complete (Thapa, 2010; Kyle et al., 2004). An increase in thru-hiking could also bring attention to trails that are in need of maintenance and trail associations frequently promote maintenance opportunities for supporters (Freidt et al., 2010)

There are many opportunities and challenges associated with thru-hiking, yet there has been very limited research contributing to our understanding of the thru-hiker experience prior, during, and after the hike. By addressing the gaps in the available knowledge on thru-hikers, this research will assist managers in making informed decisions to best accommodate the growing user group. To address these gaps, this study explores the following research questions:

- RQ1: How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?
- RQ2: How do successful thru-hikers navigate and cope with challenges faced during the hike?
- RQ3: How do social interactions impact the thru-hiker experience?
- RQ4: How does the thru-hike experience affect the hikers and their transition back to everyday life?

This work will be relevant in adding to the theoretical understanding of thru-hiking in the academic literature and provide insight into the PNNST's and other extended trails' visitor management. Without thorough understanding of the thru-hiker experience, management plans will fail to adequately accommodate this user as well as anticipate future areas of concern that may arise. As thru-hiking increases in popularity there could

be impacts on the resources along the trail. Currently thru-hiking is largely unstudied within academia. As the activity continues to increase in popularity, the research and knowledge on thru-hiking also needs to increase.

Literature Review

Motivations for Thru-hiking

There are several reasons that thru-hikers set out on the trail, ranging from place attachment to aspects of their personal lives (Goldenberg et al., 2008). According to the results of Kyle et al. (2004), place attachment was strongly related to the motivation of thru-hikers on the AT. Another study investigating why people hike the AT found that motivations ranged from superficial (e.g. being outside), consequential (e.g. survival, environmental awareness, solitude), health-related (e.g. exercise, healthier lifestyle), and value explanations (e.g. self-fulfillment, relationships) (Goldenberg et al., 2008).

Antoušková (2014) found that the appearance of the landscape is the primary reason that hikers choose their trail. Understanding the appealing aspects of the landscape may attract hikers, but there are also individuals who decide to hike for exercise and for social reasons (Antoušková, 2014). Another study referenced the general reasons that individuals choose to recreate. According to Stephenson and Gyn (1986), the motivations that people have for recreating vary based on age, gender, and family dynamic, with the most common motivator being exercise. The thru-hiking community includes individuals from a variety of ages, genders, and family dynamics and so their motivations for choosing their thru-hike can vary greatly from person to person based on their personal circumstances.

Experiences compared with expectations

Evaluation of experience is strongly linked with the expectations held beforehand (Wilson et al., 1989). If an experience matches an expectation, then the attitude of the individual remains satisfied, but if the two clash, then there is increased dissonance experienced (Cook & Leckey, 1999). When dissonance is felt, individuals are less satisfied and tend to be more critical of the experience (Cook & Leckey, 1999).

A situation such as crowding can cause dissonance and subsequent dissatisfaction (Williams, 1989). When the users are not anticipating crowded areas or other potentially negative aspects, the perception of the experience can be marred. Conversely, the attainment of goals and the achievement of specific outcomes can satisfy users and overshadow potentially negative aspects that may arise during the experience (Williams, 1989). Williams (1989) identifies hiking as a ‘nonconsumptive activity’ and found that recreationists involved in nonconsumptive activities reported higher satisfaction than those involved in consumptive activities.

Expectations have been measured analyzed as to how they affect experiences in a variety of fields outside of recreation. In a study about service quality, Chen et al. (2012) found that the level of satisfaction with the experience depended upon the reference level that it was compared against. If expectations are used as the reference level, failure of the expectation to match these expectations would result in dissonance and dissatisfaction (Chen et al., 2012).

Psychological and physical benefits of hiking

The act of hiking can have positive psychological impacts for the hiker (NRSE, 2003). Ketterer (2011) studied AT thru-hikers and found that every hiker studied reported experiencing psychological benefits from their hike, but that the benefits were not uniform or consistent. Each hiker experienced a different psychological benefit from this specific instance of hiking the AT, including increases in self-confidence and empowerment, interpersonal skills, determination, and value systems (Ketterer, 2011). The act of completing a thru-hike can clearly be beneficial to an individual psychologically in the short term; however, there has been limited studies on the long-term impacts of thru-hiking.

Simply being in nature can also provide psychological benefits for individuals (Wolf & Wohlfart, 2014). Wolf and Wohlfart (2014) investigated the outcomes of nature-based recreation in different park and recreation areas in Australia and found that individuals there reported that their experiences lead to increased confidence in themselves as well as increased feelings of well-being. Nature-based recreation has greater positive impact on both mental and physical health of individuals than indoor exercise (Wolf & Wohlfart, 2014).

Physical benefits are an additional outcome of hiking and thru-hiking. Hill et al. (2009) utilized a means end approach to investigate the reasons hikers were on the AT, finding that the strongest links appeared between exercise and health. Because National Scenic Trails necessitate being proximal to urban areas for resupply opportunities, this also makes the trails accessible to day use. The AT specifically receives lots of day use because of it travels near many densely populated areas (Hill et al., 2009). Hill et al.

(2009) makes the claim that the proximity of the AT should be capitalized on for health reasons, as lack of exercise is prevalent in American society and hiking can serve to combat these issues.

Many researchers have looked into how outdoor experiences bolster a connection with the natural world and improve the physical health and well-being of its participants (Hill et al. (2009), Thapa (2010), Wolf & Wohlfart (2014)). Hill et al. (2009) found that direct involvement with nature, such as thru-hiking, leads to increased participation in that activity as well as a connection with the environment. Other research has found that participating in outdoor recreation facilitates the environmental attitude-behavior relationship (Thapa, 2010). The environmental attitude-behavior relationship refers to time in nature affecting the attitudes that individuals hold about nature and how they correspondingly act in natural environments. While not hiking-specific, individuals who report participating in outdoor recreation were found to be burning enough calories for a healthy and active lifestyle (Wolf & Wohlfart, 2014).

Challenges and coping strategies of thru-hiking

Thru-hikes take several months to complete and many challenges can arise during such a lengthy experience. Berg (2015) identified both physical and psychological challenges that can arise during a thru-hike. Individuals can be challenged by weather, getting lost, negative social situations, wildlife and challenging terrain, and vandalism or stolen gear (Berg, 2015). Thru-hikers can encounter one or many of the aforementioned challenges, potentially simultaneously. There will inevitably be challenges encountered while thru-hiking, it is important to understand how hikers cope with these challenges.

Thru-hikers sometimes undertake the experience alone. While not directly pertaining to thru-hikers, research by Coble et al. (2003) revealed that solo hikers face different fears, including injury by another or through a natural accident, getting lost, wildlife, and fear of theft. There are also greater perceived risks by female solo hikers than their male counterparts (Coble et al., 2003). Both male and females take on thru-hiking solo and encounter many of the same fears and challenges, though they may be amplified in some cases.

An important aspect of understanding thru-hiking is how hikers cope with challenges faced on the trail. While there are no existing studies that focus on coping with stress in thru-hikers specifically, Miller and McCool's (2003) study revealed that different coping responses correspond with different reported stress levels. This model entails looking at coping behaviors as the outcome of transactions between personal and environmental factors, perceived stress or threats, and the seeming efficiency of the coping strategies (Miller & McCool, 2003). How recreationists interpret stressful situations in natural environments offer insights on the management strategies that should be employed (Miller et al, 1998; Miller & McCool, 2003).

In leisure and recreation activities, there are both problem-focused and emotion-focused ways of coping (Iwasaki & Schneider, 2003). Problem-focused approaches refer to direct actions taken to cope (e.g. planning) while emotion-focused approaches are indirect (e.g. emotional regulation) (Iwasaki & Schneider, 2003). Solo hikers utilize different coping strategies, including avoiding perceived dangers, potentially joining with others, utilizing different aids and devices, and expanding their knowledge of the activity (Coble et al., 2003). While thru-hiking is not directly discussed, the coping mechanisms

that thru-hikers employ are important for understanding how hikers' navigate challenges throughout the thru-hiking experience.

Social interactions of thru-hiking

Because of geographic constraints, thru-hikers do not have opportunities to create a community in person before they are on the trail. Online forums and sharing networks are helpful for sharing in-depth information in any specific field, including recreation (Cong et al., 2008). For example, "WhiteBlaze.net", is a site focused on the AT that has thousands of members with millions of posts from both thru-hikers and people interested and involved in the trail (Ziegler et al., 2013). There are Facebook sites for every thru-hike, which provide "online gathering place for you to collaborate and communicate" (Saskatchewan Parks and Recreation Association, n.d.). The social community of thru-hikers may not exist physically before individuals begin hiking, but relationships can be formed online ahead of time.

Extended trails attract thousands of hikers per year offering a variety of social interactions during thru-hikes. While individuals may have set out on the trail on their own, there is an underlying supportive and welcoming community aspect to thru-hiking (Littlefield & Siudzinski, 2012). Thru-hiking is reliant upon 'trail towns', towns through which the trail passes through so that hikers can restock supplies. While in towns, hikers sometimes take 'zero days', days where they do not hike any miles and stay in town to recuperate, grocery shop, or to wait and socialize with other hikers or trail angels (Rush, 2002). While not specific to trail towns, all thru-hiker interactions are crucial for the formation of trail community based on their shared experiences (Arnold, 2007). The

social aspect of thru-hiking is important during thru-hiking and those relationships can persist after the experience is complete.

After thru-hikers leave the trail, they are removed directly from the physical trail community, but their relationships can still persist. Turley (2011) found that hikers struggled with the loss of community after their hike. However, with the pervasiveness of online groups and cell phones, thru-hikers can easily maintain connections with individuals. Millions of individuals engage in social media and the numbers continue to rise (Correa et al., 2010). Social media allows for thru-hikers to maintain connections with their trail community even after they have all gone separate ways.

Transition after thru-hiking

After immersive experiences, people can find it difficult to transition back to their regular life (Christofi & Thompson, 2007). This challenge can be found across a multitude of immersive events, including student trips, vacations, and more. In looking at returning from study abroad experiences, Christofi and Thompson (2007) found that participants felt serious culture shock in their home countries and experienced large amounts of discomfort; yet they were not actively changing their state to ease anxiety. Similarly, Peace Corps volunteers experienced a more difficult transition when coming home than their move to foreign destinations (Adler, 1981). Individuals who had stability and structure abroad now faced challenges with finances, the structure of corporate life, and the different lifestyle of North America (Adler, 1981).

Turley (2011) is the only study found looking at readjustment applied to thru-hiking the Appalachian Trail although limited in scope. Regardless of its limitations,

Turley (2011) deduced that thru-hikers are challenged on how to communicate their experiences, adapting to new routines and the structure of everyday life, and the loss of their trail community once their journey is complete. The adoption of values, attitudes, and experiences by thru-hikers into their regular life after hiking mirrors the themes of transformative learning theory.

A foundational theory in education is the transformative learning theory, created by Mezirow (1991). This theory focuses on how adult learning uses disorienting experiences to challenge the thinking of the students (Mezirow, 1991). While transformational learning theory is primarily applied to educational settings, it is also applicable when examining immersive recreational experiences. A thru-hike can be a disorienting experience, which can cause the participants to relate to others in similar transformative processes, act on new perspectives, or think critically in new ways (Mezirow, 1991). This is relevant to the transition after thru-hiking as there can be dramatic changes to the way that the participant thinks and acts after the disorienting experience.

While transformative learning theory has not yet been explicitly applied to recreation, Coghlan and Gooch (2010) utilized the framework in looking at volunteer tourism which is an immersive experience. The final step in transformative learning is reintegration into society, bringing the lessons learned from the transformative process with them (Coghlan & Gooch, 2010). Involvement in volunteer tourism can have various impacts upon the participants' return to regular life, including reorientation of life and values, education of peers, and conversely the potential for 'reverse culture shock' where individuals are unable to reconcile their newly found values, skills, and attitudes

(Coghlan & Gooch, 2010). While Coghlan and Gooch (2010) focused on volunteer tourism, the concepts of transformative learning are likely applicable to thru-hiking and other immersive recreational experiences as well.

Thru-hiking on the Pacific Northwest National Scenic Trail (PNNST)

The previous studies provide some insight into thru-hiking; however, there are numerous gaps that warrant further study. For example, managers and planners need to understand how expectations of thru-hikers impact their experiences on trail, identify the challenges that hikers face and how they cope with those situations, the social dimensions on long distance hiking trails, and the long-term impacts of immersive thru-hiking when adjusting back to regular life. Of the limited research currently available on thru-hikers, it centers almost exclusively on the AT and PCT. While these two trails may be the most popular, they are not necessarily representative of the entirety of thru-hikers. The PNNST offers a unique setting to study the thru-hiking experience and further our understanding of this phenomena.

The Pacific Northwest Trail received its National Scenic Trail designation in 2009 and is one of eleven National Scenic Trails in the United States. The official route is 1,200 miles extending from Chief Mountain in Glacier National Park, Montana to Cape Alava in the Olympic Peninsula of Washington (see Image 1). The PNNST travels through a variety of different land designations, including National Parks, National Forest, Wilderness areas, private property, and more. The National Parks included are Glacier, North Cascades, and Olympic (PNTA, 2017). The National Forests crossed by the PNNST include Flathead, Kootenai, Idaho Panhandle, Colville, Okanogan-

Wenatchee, Mt. Baker-Snoqualmie, and Olympic (PNTA, 2017). The multijurisdictional nature of the trail has made some travel of the trail section-specific, as dogs and mountain bikes are prohibited in National Parks. The trail also passes through a variety of ecosystems as it travels from the Continental Divide to the Pacific Ocean. The ecosystems vary from high alpine to high desert to rainforest. Because of the variety of terrain and ecosystems that the PNNST passes through, thru-hikers cross through the habitats of many wildlife species. Thru-hikers have the chance to encounter both grizzly and black bears, wolves, moose, rattlesnakes, mountain goats, and more. At this time, the PNNST has a reputation as a “choose your own adventure” trail, so many hikers do not stay on the designated route (PNTA, 2017). The PNNST is not currently all on existing trail, with one-third of the route being bushwhacking and another third existing on roads (PNTA, 2017).

The Pacific Northwest Trail Association (PNTA) is an organization that identifies their mission as “to protect and promote the Pacific Northwest National Scenic Trail, and to enhance recreation and educational opportunities for the enjoyment of present and future generations” (PNTA, 2017). According to the PNTA, in 2015 there were 40-50 thru-hikers who completed the PNNST with many others undertaking section hikes or day hikes on the trail. With the rise in thru-hiking nationwide, the number of thru-hikers on the PNNST is also estimated to continue to rise and the PNTA believes that 100 hikers attempted thru-hiking in 2017 with around 50 finishing. Hikers attempting the entire trail generally begin from Chief Mountain in late June or early July and take 60-75 days to arrive at Cape Alava (PNTA, 2017, Thru-hiker FAQ).

As part of managing such a complex and dynamic trail, the U.S. Forest Service is required to prepare a Comprehensive Plan that includes a purpose statement, refinement of the Congressional route, establishment of the trail corridor, a long-term trail protection plan, and carrying capacity to “*provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.*” The trail system is experiencing increasing numbers of day-users, backpackers, and thru-hikers each year. An integrated visitor management plan for the PNNST is needed to ensure the long-term sustainability of both the world-class visitor experiences and the natural, cultural, and scenic resources within the PNNST corridor. This study along with trail monitoring is integral to understanding the thru-hiker experience and informing the theoretical understanding of the topic as well as the practical implications for planning and management.

Methods

Study Sample

The PNTA estimates that around 100 people attempted to hike the PNNST in the 2017 season with around 50 completing the trail. In order to recruit participants for the study, the researcher worked with the USFS and the PNTA to reach out through the existing forums and Facebook groups. Based on this PNTA estimation, the 42 participants in this study provide a representative sample for understanding the PNNST thru-hiker experience (Siedman, 2006). The two active Facebook groups are “Pacific Northwest Trail Thru-Hikers” with 498 members and “PNT Class of 2017” with 79 members. The “PNT Class of 2017” group is more focused on this thru-hikers this year as opposed to the other group which includes thru-hikers potentially from all years, past and present. See Appendix B for screenshots of groups and forum sites. Through discussions with the PNTA, it was decided that the study would be advertised on pnta.org on the same page as a registration for maps, updates, and alerts for the 2017 season. This strategy proved to be effective for recruitment as more than 60 individuals indicated interest in participating in the research project. To capture thru-hikers who were not utilizing the online forum, the researcher interacted with thru-hikers on the trail during the field season collecting trail use data.

Data Collection

To gain the most valuable insights from the PNNST thru-hikers, a series of three semi-structured in-depth interviews were conducted with thru-hikers. For this study, there were a total of 42 participants. There were 32 involved in the pre-interview, 37 in the post

interview, and 30 in the two-month interview. Twenty three hikers participated across all three phases of interviews. Demographic information was collected from all participants. There are no noticeable differences in the responses of those who participated in all phases of interviews and those who only participated in select interviews. Interviews primarily took place over the phone, though one couple living nearby allowed for in-person interviews. All interviews were recorded and transcribed to ensure accuracy in the interview content (Siedman, 2006).

The first interview took place before the thru-hiker departed on their journey. The main goal of this first interview was to create a relationship with the thru-hiker and recruitment for the study as well as gaining some initial information. The first interview asked demographic information, including age, gender, where they are from, and if they had any previous thru-hiking experience. Information about their anticipated start and finish dates and how they were accessing trail terminuses were collected as well. Participants were asked questions about why they chose to hike the PNNST, including attractive qualities of the trail as well as their personal motivations for thru-hiking. The physical, individual, and social expectations of the PNNST were asked about in this preliminary interview. Participants were also asked about how they prepared for the trail. This included physical preparation, mental preparation, and preparation tools. Thru-hikers also discussed whether they were hiking alone or in a group and why. The first interview set the stage for the interviews that followed.

The second interview took place directly after the thru-hiker finished their time on trail. The second interview asked specific questions about start and finish dates, zero days, and wildlife sightings. Thru-hikers were also asked in the second interview about

how their experience on the PNNST compared to their expectations. The toughest and most rewarding experiences on the PNNST were also discussed as well as if they had a favorite section of the trail. There were also questions asked about challenges that thru-hikers encountered and how those challenges were dealt with and how they compared to the expectations about the trail. Participants were also asked if there was anything mentally or physically that they felt helped them to succeed. As a follow up to the first interview, thru-hikers were asked if they joined with other hikers while they were on the PNNST. A question was asked about if the PNNST experience would potentially have an impact on the future of the thru-hiker and if there were any aspects about the trail that they would like to see changed in the future. Social media use about the PNNST experience was also asked about. The second interview provided the bulk of data that was analyzed and also ties directly into the third and final interview.

The third interview took place two months after their second interview to allow time for reflection and adjustment back into 'regular' life. The benchmark of two months was chosen because it allowed time for readjustment and reflection but also was within a time period that the researcher would not lose contact with many of the participants. The third interview asked about how the adjustment back to regular life and if it had been easy or if there had been challenges. Interviewees were asked if they felt that their lives were different at all because of their PNNST experience and if they had gained any skills (mental or physical). There were also questions as to what mentally or physically assisted the thru-hikers in succeeding on the trail. Thru-hikers were asked in the third interview about what portion of their experience that they talk about the most or remember the most and why. Also, participants were asked if they kept in touch with anyone that they met on

the trail and if so, how they maintained contact. Finally, the third interview asked if participants would do anything differently, if they would do another hike like this, and if they would recommend the PNNST.

Data Analysis

After the interviews were transcribed, the information was then coded while using NVivo software as an aid. Codes were developed after an exercise where six researchers examined and developed their own list of codes based on three interview transcriptions, which is known as ‘open coding’ (Berg, 1989). The researchers then met and compared and discussed the codes and their reasoning. Out of that meeting, a final code list was developed. This exercise allowed for strong intercoder reliability (Siedman, 2006). The researcher then took that final code list and utilized it as a guide for the coding the entirety of the interviews, adding additional codes as more themes emerged from the data.

The researcher then began to analyze each research question separately, and returning back to each category later on to consolidate codes for larger themes. After each individual question was analyzed, the researcher utilized the qualitative tool NVivo to assist in creating cases for each individual participant that included their age, gender, where they were from, and their level of previous thru-hiking experience. Those cases were used to compare various categories from the cases (age, gender, etc.) to each research question to look for significant findings.

Results

The data of all three phases of interviewing inform the findings to the study's research questions that address expectations versus experiences, challenges and coping strategies, social experiences, and long-term impacts of the transition back to everyday life. Findings are synthesized from the three phases of interviews and the results are organized by each of the four original research questions.

Study Sample

A total of 42 hikers participated in this study. Tables 1-5 below show the breakdowns of number of hikers at each phase, gender, age, where people were from, and previous thru-hiking experience. A total of 32 individuals participated in pre-hike interviews, 37 in post-hike interviews, and 30 in two-month interviews. Twenty-three thru-hikers participated across all three phases of interviewing. There were 27 male participants and 15 female participants involved in the study. There was a wide distribution of ages across the study sample. There were 25 hikers age 18-35 years old, nine hikers between the ages of 36 and 55, and eight hikers age 56 and above. The average age of the sample was 38 years old. Thru-hikers in this study were from a variety of places, including the Northeast (6), Midwest (8), West (18), Southeast (4), Alaska (3), and Canada (3). There were exactly 21 individuals with previous thru-hiking experience and another 21 without previous thru-hiking experience participating in this study. While the majority of participants hiked westbound, there were three participants who did not. There were two hikers who went eastbound and one who began in eastern Washington

and hiked eastbound to the eastern terminus and then travelled back to their start point to begin their hike westbound to the western terminus.

Table 1: Number of participants at each phase of interviewing

Phase of interviewing	Number of participants
Pre-hike	32
Post-hike	37
Two-month	30
All three phases	23

Table 2: Gender of participants

Gender	Number of participants
Male	27
Female	15

Table 3: Age of participants

Age	Number of participants
18-35	25
36-55	9
56+	8

Table 4: Where participants were from

Location	Number of Participants
Northeast	6
Midwest	8
West	18
Southeast	4
Alaska	3
Canada	3

Table 5: Experience level of participants

Level of experience	Number of participants
Previous thru-hiking experience	21
No previous thru-hiking experience	21

RQ1: “How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?”

Attractive Qualities and Motivations for Choosing the PNNST

What makes the PNNST attractive to thru-hikers varies. The physical landscape was reported in 88% of the first interviews. Physical landscape includes scenery and beauty as well as locations in the Pacific Northwest and the diversity of landscapes of the trail. One participant stated: “I think part of it is definitely the image I have in my mind about what the scenery and the natural landscape will look like in that neck of the woods. And I’m curious to see if it in fact looks like that.” The physical landscape was attractive to thru-hikers from all areas, but was most reported by individuals from the Northeast (51%). The PNNST also has a reputation as rugged, remote, and relatively untraveled. The reputation of the trail was noted as attractive by 69% of participants. “I’ve been told it’s more of a wild feeling. It’s really remote,” said one hiker.

While preferences about the landscape were the predominant identified quality, the PNNST was also attractive to potential thru-hikers in logistical manners which included the timing, the ability to chunk into sections and have friends join at different stages, and the distance and timing. Sixty five percent of respondents in the first interview noted logistical reasons for choosing the PNNST. 1,200 miles and relatively few months of travel appears to have appealed to hikers considering the trail, with one noting: “Probably the number one was that it was not 2,600 miles like the PCT. Heck, I’ve never done a multi month hike before. We thought we’d see how this goes.”

Hikers cited a variety of different aspects for why they chose the PNNST for their 2017 thru-hike (see Figure 1). The most frequently identified motivator for hiking the PNNST was self-drive (56%). Self-drive includes a decision for themselves, the desire to

live life to the fullest, health, love of walking and hiking, always wanting to do it, and the time in life or age. One thru-hiker said: “overall I kind of want to do this for myself. I want to be healthy.” In particular, self-drive was a popular response (43%) for respondents 18-35 years old.

Many others were motivated by the aspect of escape. Forty percent of respondents from identified escape as their motivation, which includes from consumerism, from daily life, from society, from technology, and the search for a life change. One of the thru-hikers described their motivation for the PNNST as such: “I'm hoping this will kind of shake me up a little bit, and help me to put one foot forward in that aspect too. One foot in front of the other as far looking for what's next.” Thru-hikers over 56 years old were the most likely (41%) to identify escape as their motivation for hiking the PNNST.

Nature and place was identified by 16% of respondents for their motivation for hiking the PNNST. ‘Nature and place’ includes aspects of being in tune with nature, learning about a new place, previous connection to a place, and reconnecting with nature. One participant stated: “Really it's all about new exploration for me, and these are areas I haven't really gotten to explore before”. This ties in directly with the physical landscape that was noted as an attractive quality of the trail.

Another motivation for hiking the PNNST was aspect of adventure which was identified by 13% of respondents. Adventure includes the desire for extreme experiences, to keep adventuring, and looking for something new or interesting. Twenty five percent of participants were motivated by personal connections to the PNNST, including one hiker who stated: “I've known about it my entire life ... so I took that book that my grandpa had 11 years ago, of the trail, and decided that that's what I wanted to do kind

of honor him or something like that. It's taken me this long to do it". Another 25% of hikers identified motivations related to being an experienced thru-hiker such as checking another hike off of the list, being addicted to thru-hiking, and having completed the PNNST in the past.

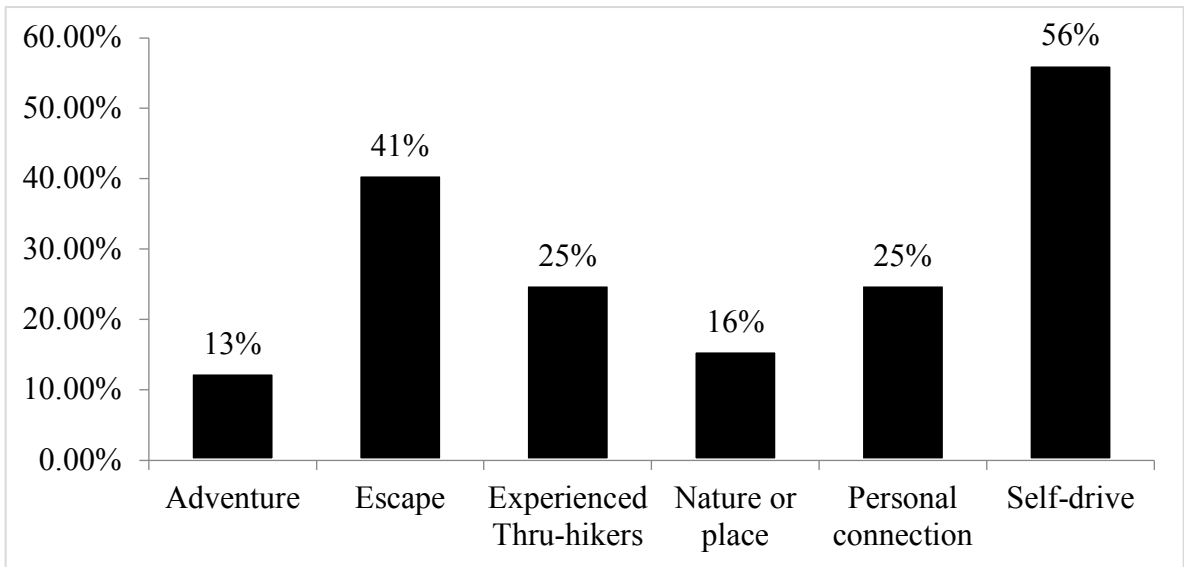


Figure 1: Motivations for thru-hiking

Preparation for Thru-hiking

A 1,200 mile thru-hike is not a slight endeavor to undertake. PNNST thru-hikers interviewed described how they prepared both mentally and physically for their journey. General fitness was the most common (41%) strategy for physically preparing for the hike. Other recreational activities (34%) were also noted as a way that hikers readied themselves for trail life: “basically running and cycling ... For me, I think I just want to get the legs in trail shape.” Many participants also cited hiking as preparation for the trail both mentally (22%) and physically (50%).

Preparation for intense experiences like thru-hiking can also require mental preparation. Twelve percent of respondents cited the planning process as helping them

mentally prepare for the PNNST: “I guess just planning has helped me get in the state mentally of just feeling like confident and prepared.” Overall, many 2017 PNNST thru-hikers did not feel that mental preparation was necessary or something that they would do (22%): “I don’t know if there’s anything one can do to prepare mentally.” The amount of preparation for the PNNST could potentially play a role in how successful their hike was and the types of challenges that the hikers faced.

There are multiple resource tools available for potential hiker to utilize when preparing for the PNNST. Table 6 below includes the preparation tools used as well as what was identified as the most useful. The most common preparation tools used were guidebooks (44%); however guidebooks were only identified by 16% as the most useful tool in the preparation process. Maps (41%) and forums (34%) were also noted as frequently used resources.

There are also active pages on Facebook where hikers, potential hikers, and PNTA members can share ideas and ask questions. The Facebook pages were identified by 31% of participants as a preparation tool. Personal contact with former thru-hikers was also recognized by 22% as a resource. Nine percent of participants identified personal contacts as their most useful preparation source. The PNTA website was also acknowledged by 22% of participants as a useful tool, and 16% as the most useful tool. While these were the most commonly used resources, there were several other preparation tools identified by hikers before they embarked on the PNNST.

There were many preparation resources noted and the most common one that was chosen as the most helpful was not a single source at all but instead a mixture of sources. 22% of respondents acknowledged a mixture of sources as the most helpful, with one

saying: “I don't think I can point to any one thing just because everything is kind of spread out, so you can get little bits of information from all over in different places.”

There are many available resources for preparing for the PNNST and a combination of them appears to be the most helpful for thru-hikers.

Table 6: Preparation tools

Preparation Tool	Reported Use	Identified as Most Useful
Guidebooks	44%	16%
Maps	41%	3%
Forums	34%	6%
Facebook page	31%	3%
Personal contact	22%	9%
PNTA website	22%	16%
Combination of sources		22%

Physical Expectations

The PNNST is a relatively new and untraveled trail which can result in uncertainty and different expectations. Sixty-eight percent of thru-hikers had expectations about the trail conditions, including challenges with vertical gain and loss, varying terrain and trail condition, road walking, beach and tidal walking, and lack of sufficient grading. One hiker noted that they thought the trail would be: “tough in terms of vertical and terrain and stuff like that ... you’re going to get a good leg workout I think.” Hikers with previous thru-hiking experience were more likely (63%) to identify having expectations about the terrain on the trail.

There were also expectations that there would be a range of weather conditions (47%). One participant described the range of weather that they expected: “We’re

expecting really high temperatures, really low temperatures. Some dry spells, some really wet spells. So, I think, I'm definitely concerned for the wet times." Weather was a greater concern (35%) for inexperienced thru-hikers than those with previous experience.

Thirty-four percent of participants also acknowledged having expectations of navigational challenges and bushwhacking. Similarly, 28% felt that the trail would generally be difficult: "I'm expecting it to kick my butt ... any days that are not that bad will be very welcome." All thru-hikers interviewed were asked if they had ever thru-hiked before. Seventeen percent of inexperienced thru-hikers felt that the PNNST would be generally difficult versus only 1% of experienced thru-hikers. The physical expectations that thru-hikers held about the PNNST could impact the kind of challenges that hikers incurred and how they feel about their experience once these expectations have been fulfilled or otherwise.

Social and Individual Experience Expectations

Since the PNNST is significantly less travelled than other National Scenic Trails like the AT and the PCT, thru-hikers have a variety of expectations about the social experience during the hike. While 44% of individuals thought that they would not see many other people on the trail, 53% reported that they also wanted to meet people or form hiking groups with others. Twenty-one percent of participants stated that they thought the PNNST would be a different social experience than other thru-hikes: "I don't feel like in my head it's going to be the same as the PCT where you're walking with groups of people that you meet along the way." While many thru-hikers expected to not see many others, there were 19% who said that while they did not think they would have one, they would be open to having a social experience. There was a small percentage

(9%) who expressed their desire to not have a social experience: “we’re hoping to minimize social experience ... mostly we’re wanting to enjoy nature on our own.” The expectations that thru-hikers had going into their PNNST experience potentially impacted their later feelings about the completed journey.

Thru-hiking the PNNST is open to individuals with a variety of experience levels. Individuals have a variety of expectations. Because of its reputation as a low use trail, 28% of thru-hikers expected to experience solitude: “I’m definitely expecting it to be more solitary than the past couple hikes.” Another 19% of participants expected to have a reflective experience on the PNNST. One hiker said: “that really deep inner reflection. I’m definitely expecting to get that and more from this hike”. If these expectations are met or not will impact how hikers feel about their experience on the PNNST.

Experience vs. Expectations

Prior to embarking on a thru-hike, individuals inevitably hold expectations about what the experience will be like. On the PNNST, almost half (46%) of hikers found that their expectations for the trail were met in some way. There were also 84% who found that the PNNST experience did not meet their expectations. Not meeting expectations had both positive and negative reasoning. Of people who had their experience not match their expectation, 13% cited the aspect of people or humanity, with one hiker stating: “I didn’t have expectation for the people that we would meet or like the trail angels, but they were all phenomenal. We met some really amazing people and that was really cool”. Others had less pleasant instances where their expectations were not met. 22% of hikers felt that their expectations about road walks were not met. One hiker had this to say about road

walks: “I was expecting a lot of road walking and it was probably more than I would've guessed, partly due to the fire detours, partly due to some private property issues that closed part of the trail. I'd say I was disappointed with the road walking.” Another 22% of hikers found that they were not expecting the weather aspects that they found on the PNNST this year, with aspects of heat, fire, and less wet forest than expected.

Thru-hikers were also asked about the toughest and the most rewarding aspects that they found on the PNNST. Figures 2 and 3 below display these aspects visually. Bushwhacks were most frequently identified as the toughest aspect of the trail (43%). One thru-hiker details their specific dealing with difficult bushwhacks: “blowdowns, bushwhacking were the toughest. There were some bushwhacks that I call bushwhacks out of hell.” Another frequently identified challenge that was the toughest for many was the environment (16%). The aspect of the environment refers to fire and smoke, heat, lack of water, and overall volatility. Sixteen percent of respondents also found that road walks were the toughest aspect to deal with on the PNNST, with one hiker saying: “the toughest probably were some of the paved road walks on some of the major highways.” Other notable aspects of the PNNST that were reported as the toughest experiences were injury or illness (8%) and specific days on the trail (8%).

The most rewarding aspects found on the trail also varied dramatically. Physical aspects (41%) were most frequently identified as the most rewarding aspect on the PNNST. The category of physical aspects includes beauty or sights, diverse ecosystems, and solitude and remoteness. One hiker described how the physical aspect was the most rewarding as:

“It was really nice just to have a trail where it was just you and your hiking partners out there for weeks only seeing people in town. It felt like you could really sort of expand your relationships with other people better and just tap into your own thoughts and feel just so much more comfortable in the outdoors. It was more just your home rather than that you were constantly sharing everything with other people.”

Personal aspects, referring to confidence, new perspectives, and a sense of accomplishment, was frequently identified as rewarding (32%). One hiker details why the personal aspects were the most rewarding to them as: “I think the most rewarding thing about being on the trail was probably just the whole seeking a goal thing and then actually accomplishing it. That aspect of it was really satisfying, both ongoing and at the end.” Another 32% of hikers stated that the social experience was the most rewarding aspect on the PNNST. Other frequently mentioned aspects as the most rewarding were particular days or stretches (22%) and summits (8%).

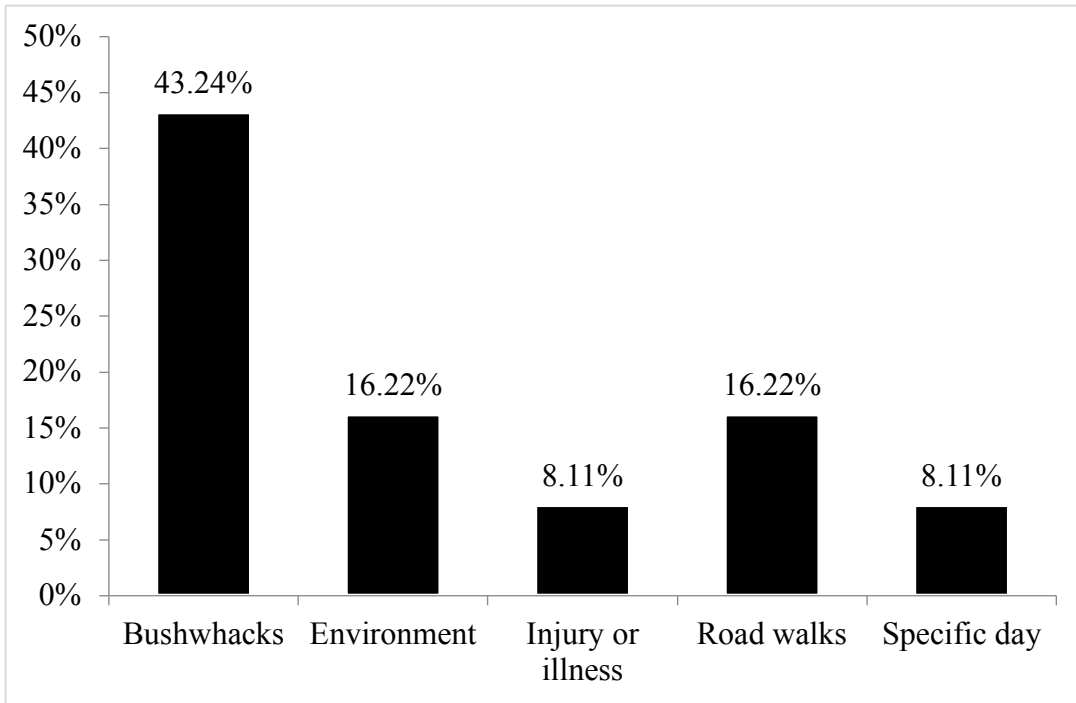


Figure 2: Toughest aspects of PNNST experience

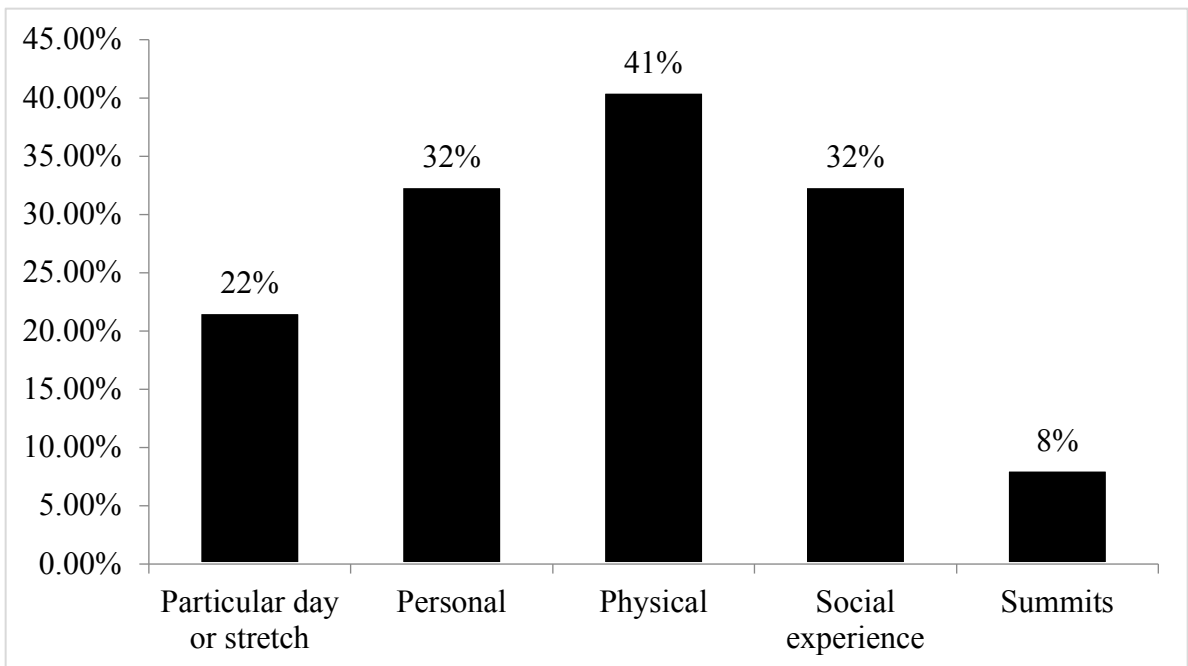


Figure 3: Most rewarding aspects of PNNST experience

RQ2: How do thru-hikers cope with challenges faced during the hike?

During the interviews directly after thru-hikers finished their time on the PNNST, they were asked questions about challenges that they encountered, how those challenges were dealt with, and if the challenges were consistent with their expectations. Two months after their hike was completed, thru-hikers were interviewed again and asked about what they found were their tools to success on the PNNST. The responses from both phases of interviews are integrated throughout the results below.

Challenges along the trail

Thru-hikers encountered a variety of challenges on the PNNST (see Figure 4). The most frequently mentioned (46%) challenge was with natural elements, which includes weather, fire and smoke, and lack of water. One hiker mentioned their experience: “we had some rough times, like it was so hot and so cold. I had one night that got freezing and everybody I talked to like, was so cold.” The environment was noted as the toughest aspect of the PNNST in 17% of responses. While some struggled with weather related issues, many (30%) also found physical aspects such as bushwhacking and terrain challenges difficult. Bushwhacks were noted by 43% of interviewed thru-hikers as the toughest thing that they had to deal with on the trail.

Another frequently mentioned (27%) challenge was that of logistics (e.g. map and navigation, permitting and rules in different land jurisdictions, maintaining a connected footpath, and avoiding fire closures). Injury or physical health challenges also incurred in 27% of participants with a variety of challenges from illness to blisters. Human-caused challenges, including crowded trails or campgrounds, harassment by drunk people, and

logging activity, was mentioned by 11% of respondents and specifically by those over 56 years old. 43% of those over the age of 56 identified human caused challenges. While there was a wide array of challenges that hikers faced on the PNNST, 67% found them consistent with their expectations while 41% found some of their challenges to be inconsistent with their expectations.

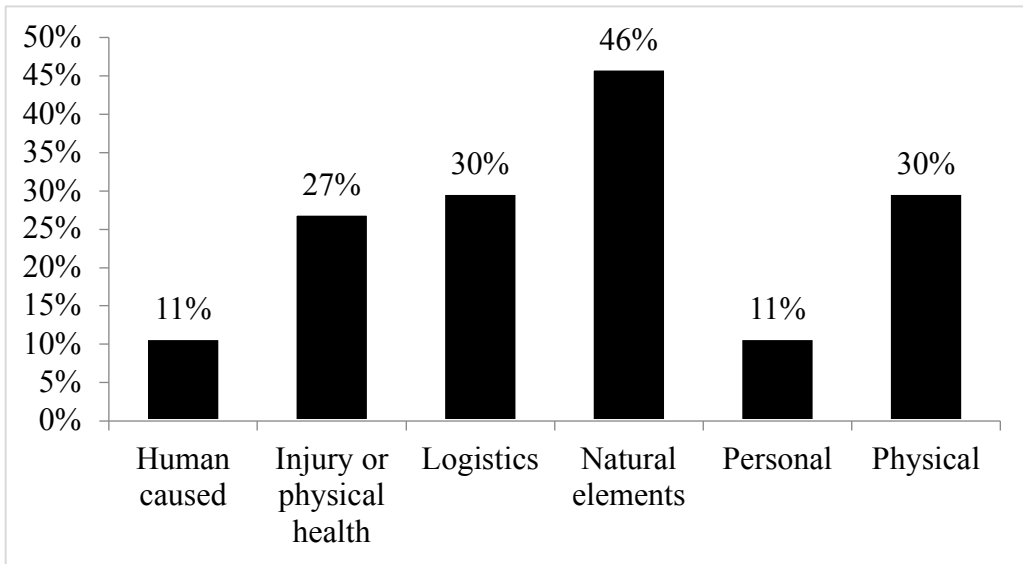


Figure 4: Challenges facing thru-hikers

Coping with Challenges

Thru-hikers on the PNNST faced a myriad of challenges during their time on the trail and hikers identified a variety of coping strategies. Figure 5 and 6 below show the mental and physical strategies used. Forty-eight percent of participants reported using mental and physical strategies used. Forty-eight percent of participants reported using mental coping strategies. Participants of all ages frequently identified mental coping strategies, but those over the age of 56 overwhelmingly utilized mental coping strategies (81%). Of those respondents using mental strategies, 50% identified perseverance as their strategy for coping. One respondent describes utilizing perseverance to overcome challenges: “I mean, you just go through them you know? You find a resolve, a route

around or you just deal with it as it comes just like anything else in life. Assess the situation and move on.” Of two-month interview participants, 84% reported mental tools that they thought helped them to succeed. Perseverance was included here by 32% of those individuals.

Another frequently referenced mental coping strategy was reliance upon hiking partners (39%). According to many hikers, their hiking partner made it easier to tackle the challenges that they encountered:

“I think having people with me was a big deal this time around going through. If I didn’t have somebody else hiking with me on some of these bushwhacks, I would have just lost it you know? I’d have been so pissed off, but you go with somebody and it’s not as bad. You can laugh about it a little bit more. For me, that’s big.”

The social component was mentioned as a mental tool of success by 51% of two-month participants, with one stating: it’s always so much easier to suffer with other people”.

Other notable mental coping strategies include cursing (11%), distracting the self (17%), and flexibility adaptability and positivity (22%).

Thirty-seven percent of respondents reported coping with challenges on the PNNST using physical mechanisms. The most frequently identified physical coping strategy was changing hiking strategy by 36% of respondents with physical strategies. This included accommodations for extreme heat and smoke, snow travel, and general plan adjustment. Gear changes made up 21% of physical coping strategies that were identified. Many thru-hikers added items like trekking poles to assist in making their hike easier: “I picked up a trekking pole, so that's one difference. I started out with no poles, which is apparently not smart. I think the better way to do it is to have poles.” The PNTA

and locals also provided external support and problem solving for PNNST thru-hikers. 14% of those with physical coping strategies found these external forces from others to be helpful. One hiker describes their time on trail after their pack was stolen: “I ended up taking an unplanned zero in Republic just so I could get new gear. Which the trail angels there helped me with. They were just so sweet and such a massive help.” Twenty-one percent of physically coping PNNST thru-hikers also found taking a zero day to be beneficial. One hiker details their feelings on taking zero days for recovery during thru-hikes:

“I took those two days, those two zero days, hoping that it would help. Iced it up a bit, elevated, and then just took safety into consideration before I ... I think that's one of the big things a lot of hikers fail to do is recognize safety factors for injuries over their desire to hike x amount of miles a day to accomplish their goal.”

There were many options for physical adjustments and aid along the PNNST. Each thru-hiker navigated their personal challenges with a variety of strategies. In two-month interviews, the most commonly identified physical tools to success were being in good shape before the hike (17%) and participation in other recreational activities (17%).

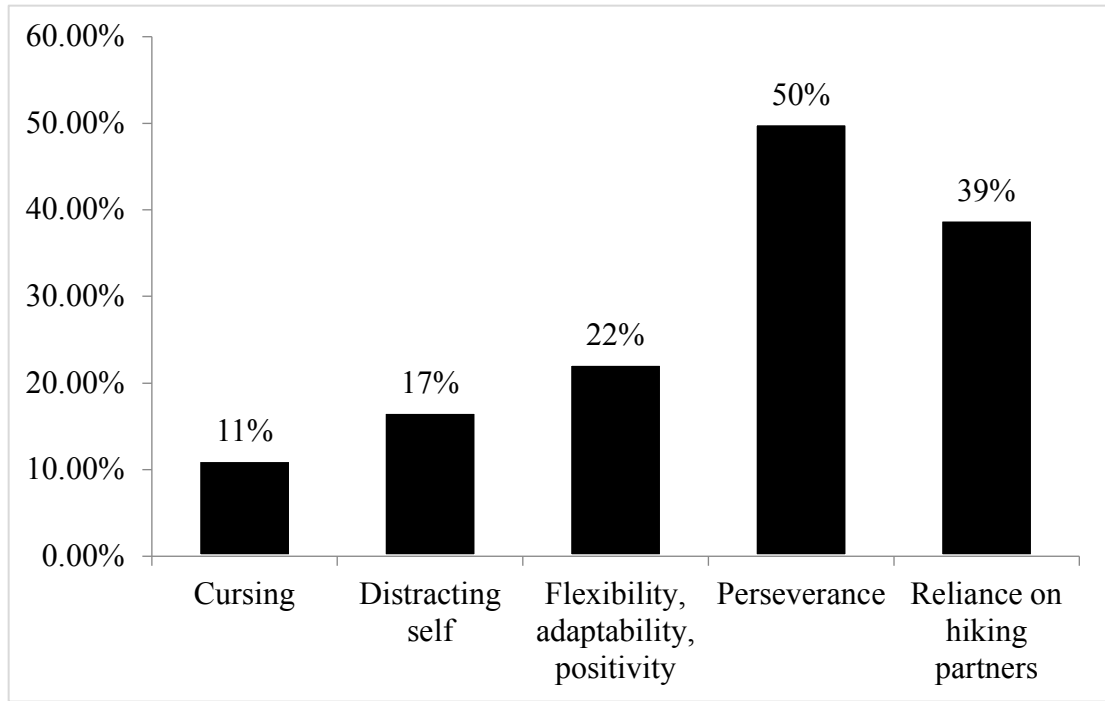


Figure 5: Mental coping strategies

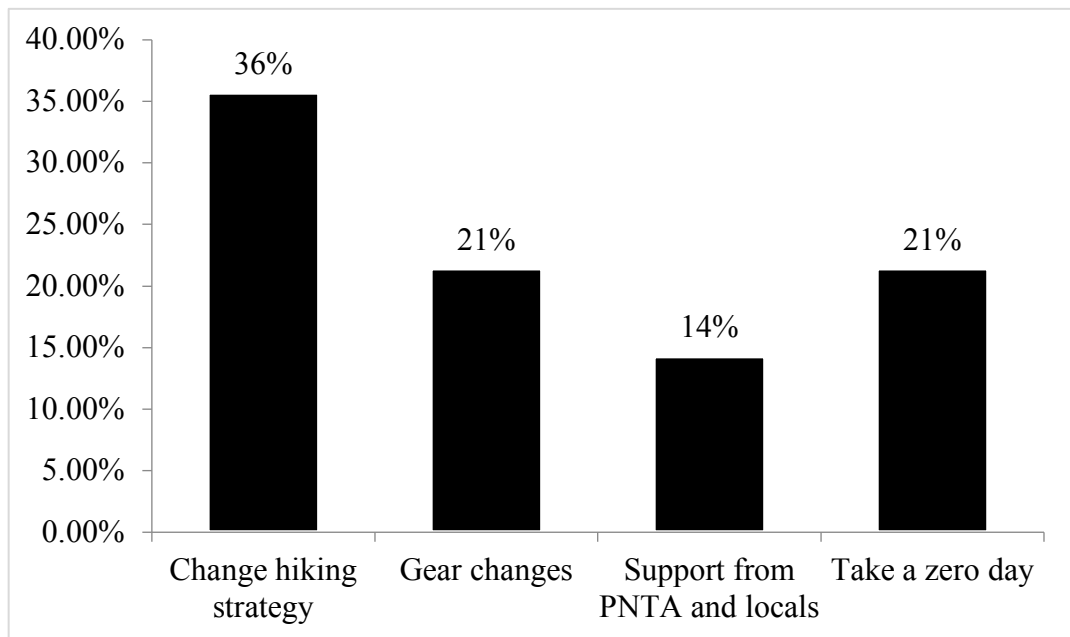


Figure 6: Physical coping strategies

Tools to success

In two-month interviews, thru-hikers identified both physical and mental tools that they believed helped them to succeed on the trail. Previous thru-hiking experience was noted in both the mental and physical categories. The mental benefits of previous thru-hiking experience were brought up by 27% of two-month hike interviewees. One hiker described how previous experience helped as: “I was already used to that mind space of just pushing through when things kind of get boring or hard or tiring and stuff like that”. Not only did previous thru-hikers find that their past experiences helped them mentally, 22% also found that to be beneficial physically: “experience for what physically and mentally is required of you ... knowing what to expect, that kind of thing, planning it out so you limit the amount of curve balls that get thrown your way”. The experiences of previous thru-hikers played a significant role in what they felt aided their success. While hikers utilized a diversity of coping strategies, some hikers were not able to cope with their challenges. Some (5%) of hikers made the decision to get off of the trail. Whether due to injury, smoke, or personal reasons, these individuals chose to remove themselves from the PNNST as opposed to other options to stay on the trail.

During analysis, mental and physical coping strategies were examined as they relate to whether or not hikers had previous thru-hike experience before the PNNST. Figure 7 below depicts how mental and physical strategies relate to thru-hiking experience levels. People with previous experience employed mental coping strategies 85% of the time versus 15% utilizing physical tactics. One hiker with previous experience describes their experience with mental coping strategies: “you just kind of go with it. I tell myself, ‘don’t get discouraged, don’t get mad, just accept it for what it is’

and I just kind of take my time going through those sections that are difficult”.

Conversely, hikers with no previous thru-hike experience split their use of mental and physical coping mechanisms more evenly. Mental approaches were used 51% and physical strategies were used 49%. A hiker describes one instance of using physical coping strategies as such: “there were a couple points where water was a little bit of a problem, because it was all just in the snow still, so we did some snow melting. Mostly you just take it slow”. Individuals with no previous thru-hiking experience needed to employ physical coping strategies far more than those who had thru-hiked before. This could potentially be due to experienced thru-hikers having worked out the physical issues such as blisters or water collection and they now can move on to coping with challenges in mental ways like perseverance or flexibility.

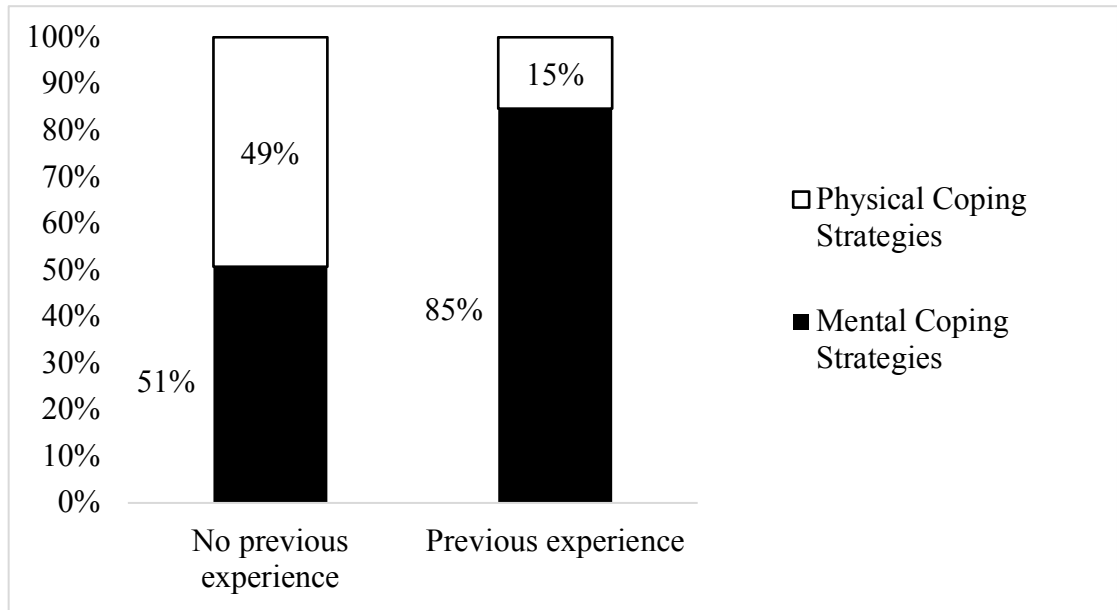


Figure 7: Comparison of mental and physical coping strategies across experience levels

RQ3: “How do social interactions impact the thru-hiker experience?”

Hiking alone or in a group

The PNNST has a reputation as a low use trail with very little known about social interactions before, during, and after the thru-hike. Before individuals began their hike, all had plans to either undertake the journey alone or with a partner or group. Fifty-three percent of pre-hike interviewees were planning to hike solo and for a variety of reasons. The most common reason for hiking alone was that they could not find anyone to join them, as cited by 65% of pre-hike solo travelers: “I figured if I waited to try to find somebody to do it with, then I might never get around to it, so I just decided to do it myself.” Others found that they are comfortable or prefer to hike by themselves (35%), with one hiker saying: “I enjoy going solo. It kind of opens up your experiences when you’re solo.” Twenty-three percent of those hiking alone also noted that they prefer their own hiking style to those of a group: “I don’t like to have to be tied down to someone else’s plans, so if I hike and I find people who are compatible, then I’ll hike with them, but I never want to go into a hike with the expectation that I’ll stay with someone for the whole thing.”

Forty-six percent of pre-hike interviewees identified that they would be hiking the PNNST in a group. Of those hiking with others, the most frequently noted reason was safety or fear of being alone (33%). One hiker described their apprehension for hiking alone in grizzly habitat: “I’m really afraid of grizzly bears, really afraid. Yeah, so I wouldn’t even consider hiking through grizzly country by myself. It just wouldn’t be enjoyable for me.” Other notable reasons for choosing to hike with others were that they

enjoy hiking with their partner (13%) and that their friends wanted to join them (20%). Within pre-hike interviewees, 7% more men were choosing to hike alone. All hikers had plans for travelling either alone or with others and the reasoning for their choices varied. Each hiker also had distinct expectations about what the social scene would be like once they were on the PNNST.

Social experience expectations

Due to the reputation of the PNNST as a trail in its infancy, the social experience of the trail is largely unknown. A representation of the variety of social experience expectations can be seen in Figure 8. The notably low estimations of yearly hikers on the PNNST have led to 44% of pre-hike interviewees to expect to not see many other people on the trail: “I honestly feel like I’m not going to see anyone in my brain, even though I know there’s a lot of people starting ... I’m kind of like preparing myself to not see very many people.” Other, experienced thru-hikers felt that the PNNST would have a different social scene than other thru-hikes (22%). One of the experienced hikers discusses how they feel it will differ from trails like the PCT: “I know I’ll see day hikers, and some other section hikers and things, but I don’t feel like in my head it’s going to be the same as the PCT where you’re walking with groups of people that you meet along the way.”

While many believe that they will not see many people, 19% are open to having a social experience: “I’m expecting a lot of time by myself, although I’m going to be welcoming any opportunities to hike with other people for short or long distances.” Expectations of having minimal or some contact with others is common, however 53% of respondents actively want to or expect to meet or hike with others: “I definitely do want

to meet a few people. I'm hoping that we'll run into people on the trail and make friendships, and share experiences, and maybe get tips from other people." The age groups of 18-35 and 36-55 were the most enthusiastic to meet or hike with others, with 41% and 58% respectively. However, 9% of participants did not want to engage in a social experience. One describes their preference to stick to themselves: "we're hoping to minimize the social experience ... mostly we're wanting to enjoy nature on our own".

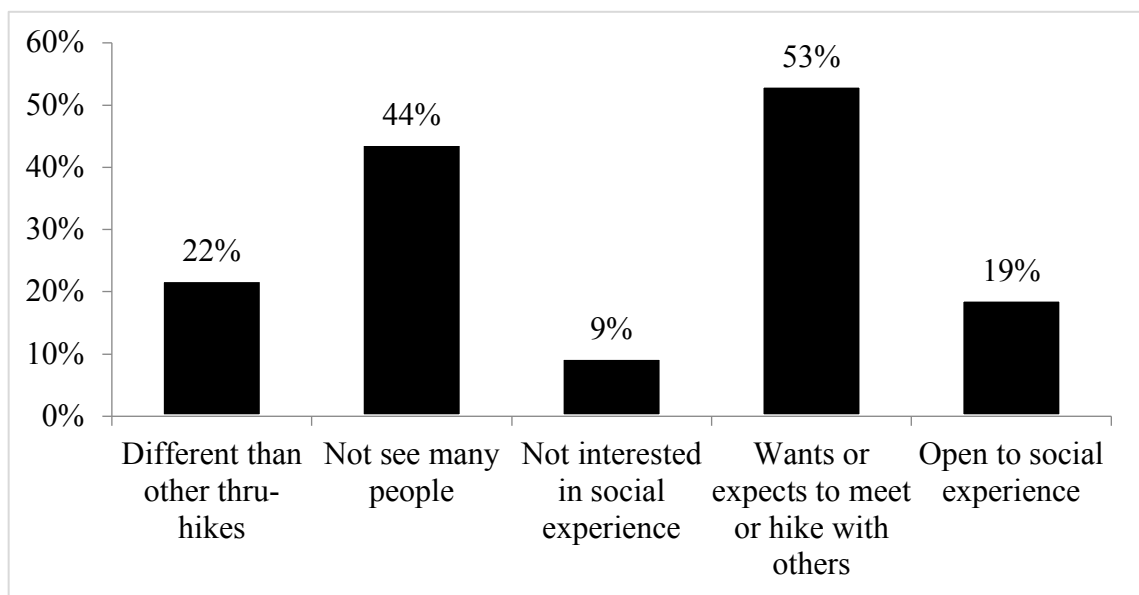


Figure 8: Social experience expectations

The challenge of loneliness

Loneliness also emerged as a challenge in post-hike interviews (8%). One described their struggles with loneliness on the PNNST: “There was a lot of feeling of loneliness on the trail for me personally and it’s something new for me coming from the PCT last year where there’s a lot of people on the trail.” As previously noted, thru-hikers in their post interviews were asked about how they coped with various challenges on the PNNST. Of the 49% who responded that they utilized mental coping strategies, 39% identified reliance on hiking partners as useful for dealing with difficult situations. While some still struggled with loneliness, 8% pales in comparison to the 44% who expected that they would meet few others on trail.

Social experience did not meet expectations

Despite that there were only an estimated 100 people on trail during 2017, hikers found a robust social experience. Many (33%) post-hike respondents found that there were more people than they expected on the PNNST: “I think probably the biggest thing would be the amount of people. I’ve done some big trails and really had solo experiences on them and didn’t get involved on a social scale. Usually I kind of shy away from big hiker groups ... But this trail was probably my most social trail yet, even though it probably had the fewest amount of people.” Not only were there more people than anticipated on the trail, the quality of the people and the interactions also exceeded the expectations of post hike participants. Twenty-two percent of respondents recognized the aspects of people or humanity as not matching their expectations: “I didn’t have

expectations for the people that we would meet or like trail angels, but they were all phenomenal. We met some really amazing people.”

The social aspect of the PNNST was frequently recognized as not matching the expectations that they held before their journey began. Earlier, statistics were mentioned of hikers who were planning to hike alone or with a group. After the hike was completed, hikers were asked if they joined with others throughout the PNNST. Of those included in post interviews, 73% said that they joined with others. Meanwhile, only 16% indicated that they did not join with other hikers. Another 22% indicated that they had met other hikers and socialized but did not join up for any distance.

The most rewarding experience

In post interviews, thru-hikers were asked what they found to be the most rewarding aspect of their PNNST experience. There were 32% of the interviewed thru-hikers who found the social experience to be the most rewarding. One hiker details why he found the PNNST social experience so rewarding: “the most rewarding was probably just great interactions that I had with people and just kind of realizing how many great people are out there, ya know a lot of people say their faith in humanity is restored when they do this kinda thing and even though that’s maybe a strange kind of thing it for sure was a real high point.” Roughly one third of hikers identified the social experience, an aspect that was anticipated to be minimal, as the most rewarding aspect of their PNNST experience.

Social media usage

Social media usage related to the PNNST was also asked about in post-hike interviews. 14% of participants reported using social media strictly for sharing photos of their experience. Another 14% said that they utilized social media in order to keep in touch with other hikers and trail angels. 24% of 2017 PNNST thru-hikers used social media to reach a broader audience. This includes blogging or posting on public forums. Finally, there were 24% of post hike interviewees who reported that they were not engaging on social media about their experience on the PNNST, with one stating: “Probably not. I don't know, I may post another photo or two. But I don't think I'll keep talking about it for my whole life”.

Contact with other two months later

Two months following participants being off the PNNST, they were interviewed again. During this interview they were asked if they kept in contact with others after the trail. Ninety-three percent of respondents indicated that they were still in contact with people that they met on the PNNST. Who respondents kept in touch with varied. Approximately 60% maintained contact with other hikers. These hikers could have been quick acquaintances or hiking partners. Another 18% said that they only maintained contact with the individuals with whom they hiked with on the PNNST. Trail angels were also noted by 14% of participants as people that they have maintained contact with two months after the trail.

Thru-hikers kept in touch with a variety of people after their experience on the PNNST and also varied in their modes of communication. A visual display of the various

methods that PNNST thru-hikers keep in touch can be seen in Figure 9. Facebook was the most popular contact method with 46% of respondents noting that they used the site to keep in touch. Texting (39%) and phone calls (21%) were also common methods of communication. There were other methods utilized, including cards (7%), email (11%), hang out (7%), Instagram (10%), and invitations to visit (7%).

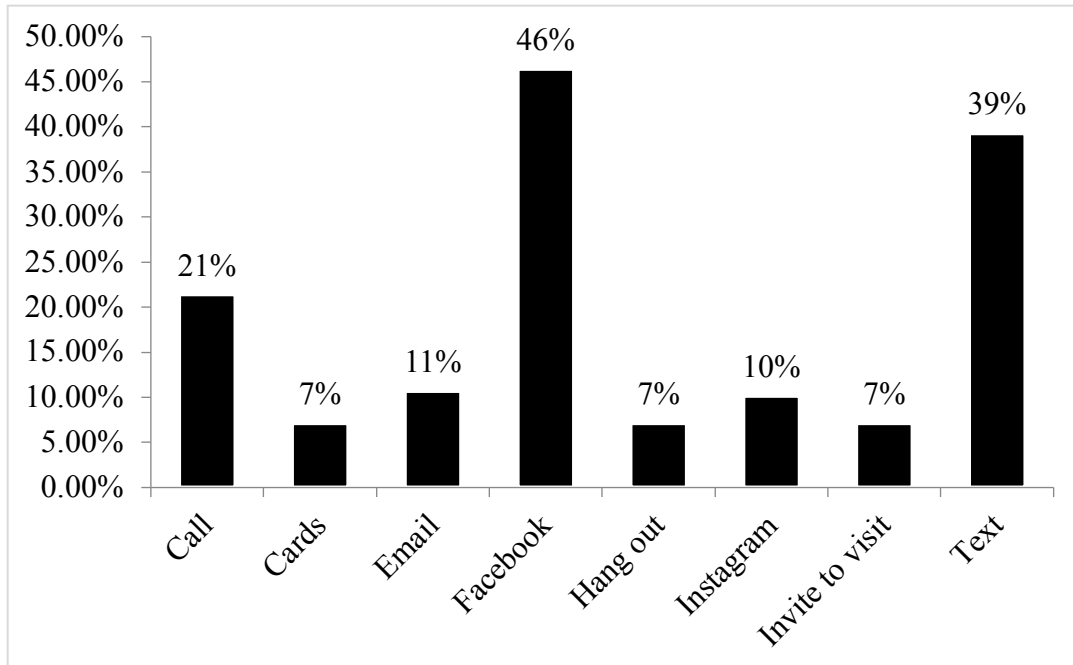


Figure 9: Communication mechanisms

Social tools to success

As previously mentioned, 73% of two-month respondents identified mental success tools. Of those with mental tools to success, 51% stated social aspects as one of their mechanisms. One thru-hiker describes utilizing social tools to succeed: “When things were hard, it was never like I was thinking, “Uh, I quit.” I think it’s good having a partner.” The social experience on the PNNST was expected to be minimal. Instead, the

large majority of thru-hikers joined with others and reported a robust and rewarding community that has maintained contact months after their hike was complete.

RQ4: “How does the thru-hike experience affect the hikers and their transition back to everyday life?”

Will the thru-hike experience impact their future?

In post-hike interviews, participants were asked about if and how they believed that the PNNST experience would impact their future. All respondents believed that the experience would have an impact in some way. The primary area where thru-hikers acknowledged potential future impacts was in the area of future recreational excursions. The majority (78%) of respondents discussed how the experience of the PNNST has spurred the confidence to do other trails, explore certain areas further, increase backcountry skills, repeat the PNNST, stay in shape, and desire to definitely do other thru-hikes. One thru-hiker tells of their desire to do more long distance trails: “I think that it definitely has put the idea in my head of doing further long distance trail excursions. I definitely want to do a thru-hike again”.

Many (57%) of respondents indicated that the PNNST experience would impact their personal life. This includes advocating for the trail and volunteerism, dealing with difficult people or society, gaining knowledge of the Pacific Northwest region, potentially moving to the Pacific Northwest, personality traits (e.g. confidence, patience, toughness), and gaining new perspectives on people. One hiker describes how the PNNST experience had impacted their personal life:

“I just feel like it boosted my confidence just as a person ... I just feel like after doing the PNT not just in hiking, in life in general I can pretty much handle whatever is thrown at me because I feel like the PNT had a lot of various challenges and I was able to overcome them all so I feel like it made me a stronger person.”

Less commonly (11%) noted were impacts on the professional lives of thru-hikers. For example, one individual states: “Well, I would like my hiking life to become my professional life too... Right here there are a lot of people around my age, especially women that have been asking me if I could take them out on hikes.”

Readjustment to regular life

After two months, interviewees were asked if they had encountered any challenges with adjusting back to everyday life after the PNNST. 57% reported some challenges and 50% stated the ease of their transition. Participants age 18-35 had the least challenging transition, with 43% reporting that their transition had been relatively easy. The percentages of adjustment were more distinct when analyzed with the previous experience or lack of it of the participants. Thru-hikers with previous experience had 56% reporting challenges in readjustment while 44% said that the readjustment was easy. Of those with no previous thru-hike experience, 83% said that they had challenges in readjustment while only 17% found the transition easy. One participant also delayed their return to regular life, deciding to pursue other travels after the PNNST up to the time of the two month interview. Of the 57% who indicated having challenges in their transition after the PNNST, there were a variety of responses as to what kind of challenges the thru-

hikers were encountering. Getting back into a routine was identified by 35% of those respondents. One hiker discusses their challenges with routines: “getting back into the old routine and taking care of things. It’s not the same life as like XXXXX says, moving at two miles an hour every day.”

Some interviewees also noted health related challenges and how it was difficult on the body to be off of the trail. One of the 18% of hikers who acknowledged these challenges said this about their issues: “exerting your body physically every day, you’re releasing endorphins and so your body is always kind of feeling that happy feeling, and then come back and then you’re not exercising like that every day and the endorphins that you’re used to. They’re not flowing anymore. I guess, biologically, that makes it hard.” Being off of the trail was not only difficult physically but also emotionally. 35% of respondents with challenges discussed what is known as the ‘post trail blues’. One hiker told of their experience with the blues after the PNNST: “coming back into society I kind of get depressed a little bit. I just don’t exercise as much and get back into the hum-drum of life, get a job and start working. And so all of that’s very difficult.”

Of the reasons stated for easy adjustment, two themes emerged. Previous thru-hike experience (27%) accounted for an easier transition. One person described their ease as such: “overall for me it’s easy because I’ve gone through this before. You know, it hasn’t been my first thru-hike. So compared to the first ones, it was fairly easy.” Staying busy was the second most notable reason (20%) that individuals cited for an easy transition. For example, one hiker describes their experience as:

“I think that in a way I was sort of fortunate to be starting something entirely new after I was done with the trail ... I’ve just been really busy and I haven’t had a lot

of time to think about, you know, I wish I was hiking, yadda yadda. There's been a lot going on. I think had I been going back to the same job I had beforehand or something like that, then I would be thinking about it a little bit more".

These reasons as well as reasons that could not be understood eased the transition back to daily life for some thru-hikers.

Is life different two months after hiking?

In two-month interviews, PNNST thru-hikers were asked if their lives were different at all. Ninety percent of the interviewees said that their life was indeed different after the PNNST experience while 10% said that their life is not different. One hiker described how the PNNST experience has changed their life as: "I'm a little bit more willing to go with the flow, not worried about sitting in traffic ... I'm just a lot more patient than I was before. Before the trail I was very impatient". Another aspect of this is when previous experience is compared to if life is different two months after the hike. 92% of experienced thru-hikers reported life changes as opposed to 76% of hikers for which the PNNST was their first thru-hike. One experienced thru-hiker had this to say about their life changes from the PNNST: "I would say every long trail you come out of it with a new experience or, you know, a little different view on life." This could be telling as to the unique qualities of the PNNST and how those aspects create long-term changes in people's lives. Those 10% who reported that their lives are not different after the PNNST experience are not indicating that they do not think about or think that their time on trail was not meaningful. One hiker states their response to not having much of a life change: "No serious differences. I've had a lot of nice memories". The majority of

individuals who thru-hiked the PNNST reported having changes to their lives two months afterwards, but even those who experienced no changes are left with memories.

Would they do another hike like the PNNST?

Nearly all (97%) of thru-hikers interviewed after two months reported that they would do another hike like the PNNST. Additionally, 45% of respondents stated that they will continue to hike other long trails: “I don’t plan on stopping long distance hiking yet.” The PNNST left a great enough impact upon 10% of participants who indicated that they may be interested in repeating the PNNST at some point: “it’s an amazing trail and I plan on being back in 2019.” Thru-hiking is a leisure activity, not necessarily a career. The enjoyment of the PNNST experience was cited by 17% as to why individuals would do another trail like it. One individual described their enjoyment of the PNNST experience as such: “I like the experience. I’ve always liked hiking and now that I’ve done a longer one ... it’s like you get more into the groove and more into the flow of the whole thing over a long time”. Another reason that thru-hikers noted for potentially doing another hike like the PNNST is a love of the hiker lifestyle (14%): “I’m going to do another one next year ... ‘cause hiking is freedom.”

All of the interviewed thru-hikers stated that they would recommend the PNNST, some with reservations. One described their feelings on recommending the PNNST here: “Yes. 100%. It’s, yeah, it’s brilliant. I don’t know how to sum it up. I think it will change your life.” The PNNST inspired and impacted all of the thru-hikers and they all would undertake a similar experience again.

Skills gained

Two-month interviewees were asked if they gained any skills while they were on the PNNST. 97% of thru-hikers responded that they did gain skills. Of those who did report gaining skills from their thru-hike experience, 67% found that they gained mental skills and 70% gained physical skills. Of PNNST thru-hikers who had previous thru-hiking experience, 59% gained mental skills and 41% gained physical skills. One of the thru-hikers describes their acquisition of physical skills from the PNNST: “the navigational aspect, having more confidence in my ability to figure it out, even when there aren’t constant white blazes like on the AT”.

80% of individuals without previous thru-hike experience gained mental skills and 20% gained physical skills. One hiker without previous experience tells of how they gained mental skills from the PNNST: “I think a lot of it was more mental than anything. I know how hard I can push myself. ... I know what my breaking point is, now I know what my fun point is”. The disparity between the two experience levels and their later skill acquisition could have to do with how the first thru-hike impacts the hiker. Once an individual completes a thru-hike for the first time, they gain a multitude of mental skills. Potentially, experienced thru-hikers have already acquired many of these skills and then focus on the acquisition of physical skills such as backcountry navigation.

There were several mental skills identified by thru-hikers that they believed they had gained since they had finished their experience on the PNNST. The most commonly identified mental skill gained was confidence (30%). One hiker details their perceived boost in confidence as such:

“I think I proved myself that I can do whatever I want to do and there’s really no reason why when I apply myself that I can’t do something. That was part of the reason why I wanted to do the hike in the first place, was to really push myself to see what I was capable of. So actually making it to the end of the trail that’s supposed to be really hard, I think I’m maybe a little bit more confident about undertaking projects in the future”.

Another 10% of respondents noted that they have increased their patience and tolerance since their PNNST experience: “it was more just struggling through that stuff that gave me a little bit of patience”. The challenges that PNNST thru-hikers encountered and overcame also influenced 13% of interviewees who gained mental skills as they reported increased perseverance. One participant details their perceived increase in perseverance as such: “I think just like every thru-hike, it was just sort of a continued test of working on perseverance and just resiliency in the face of challenges, because those definitely came up”. PNNST thru-hikers gained a variety of mental skills that they carry with them long after their experience on trail has ended.

Approximately 70% of two-month interview respondents that identified that they had gained physical skills from their PNNST experience. Navigational skills were the most frequently noted physical skill gained, with 48% of those participants. One hiker describes their increase in navigation skills: “I do feel more confident in map reading and locating myself more than I did before”. Another physical skill that was commonly identified was that of getting into better shape. One of the 19% of individuals who said that they were in better shape after the PNNST describes their experience here: “my body was in the best shape of its whole life. Even now, I haven’t really been hiking that much

since the trail, but my legs are still extremely strong. So my body's been trained to handle the physical limits that the PNT provides". The final commonly acquired physical skill from PNNST thru-hikers is that of wilderness skills, with 14% of the thru-hikers mentioning them. The 1,200 mile PNNST includes challenging terrain and thru-hikers gained lasting physical skills from it.

Discussion

Thru-hikers need to do their homework

The first research question investigated how the expectations thru-hikers held before their hike influenced how the individuals felt about their experience on the trail. Hikers held expectations about the physical, individual, and social aspects of the PNNST. As referenced in the literature review, evaluation of experience is linked with the expectations that individuals hold beforehand (Wilson et al. 1989). In thru-hiking, the majority of respondents (84%) found that their expectations were not met in some way, either positive (e.g. easier than anticipated) or negative (e.g. road walks were more challenging than anticipated).

When the experiences clashed with their expectations, thru-hikers experienced increased dissonance as Cook and Leckey (1999) predicted. When expectations were met in a positive way (e.g. interactions with people), there was not dissonance found, but instead more excitement and acceptance, as with the finding of positive aspects of people or humanity. While there are some areas such as social scene or personal challenges that cannot be anticipated, there are some aspects of thru-hiking that are predictable. Physical aspects such as paved road walks or trail maintenance are predictable areas that should

have more information provided. Yet, there are many aspects of the trail experience that were not adequately understood – this could be due to lack of adequate research or lack of information and resources available. While it is impossible to ensure that all thru-hikers adequately research the trail experience, by increasing the availability of information on the challenging aspects of the trail, there can be less dissonance felt by users. Managers can be sure that ample information is available before the hiking season and then during the thru-hike, continually posting updates and being available for contact can ease some uncertainties.

There are a variety of ways that expectations can be formed using media information sources, including the internet, movies, and literature (Seabra et al., 2007). There have been popular literature and movies made about individuals experience on long distance trails including the AT and the PCT (Ptasznik, 2015). In some books, most notably *Wild* by Cheryl Strayed, there are success stories of thru-hikers with little to no experience or preparation. This could potentially inspire individuals who would have otherwise not undertaken such an immersive and intense experience. While theoretically anyone could complete a thru-hike, undergoing adequate preparation and doing thorough research could alleviate many potential challenges.

Social media and applications on phones can also play a role in expectation formation and maintenance as well as information sharing (Narangajavana et al., 2017). Many long distance trail associations maintain an online presence through Facebook groups and pages that allow for thru-hikers to interact and ask questions about the trail. By frequently sharing information, managers can create reasonable expectations for many aspects of the trail experience. Many applications available allow for the use of maps on

cell phones. While some applications merely have mapping capabilities, some are becoming more inclusive of information on trail towns, water supply, and more trail information. Managers are recommended to work directly with application developers to create the most inclusive and accurate programs to assist in the success of thru-hikers.

Level of experience influences coping strategies

The second research question looked into the challenges that thru-hikers face as well as how they cope with those situations. Thru-hikers identified challenges in a variety of aspects, including injury or illness, environmental, personal, and logistical. Despite the challenges, each thru-hiker employed both physical and mental strategies to cope with the issues that they faced during the hike. Physical coping strategies include approaches such as gear changes or changes to the hiking strategy, while mental strategies included reliance upon hiking partners, perseverance, and flexibility, adaptability, and positivity.

The literature on challenges facing hikers focuses on both physical and psychological aspects (Berg, 2015; Coble et al., 2003). For general hikers, Berg (2015) identified potential challenges including weather, navigation, negative social interactions, wildlife and terrain, and vandalism or stolen gear. With the exception of negative social interactions, all of the challenges identified by Berg (2015) were identified by PNNST thru-hikers. The challenges faced by hikers did not vary greatly by experience levels. While there were some variations in percentages, it is notable that hikers with and without previous experience encounter generally the same challenges.

Coble et al. (2003) found that solo hikers face different fears and potential challenges. While there were isolated incidents of theft, the other worries raised for solo

hikers did not materialize. Coble et al. (2003) also identified the coping mechanisms that solo hikers utilize, including avoiding perceived dangers, joining with others, and more. On the PNNST, 73% of thru-hikers reported that they joined with others on the trail. This could be attributed to solo hikers seeking to cope with the fears previously mentioned by Coble et al. (2003). In coping with the challenges in recreation, Iwasaki and Schneider (2003) identified coping strategies as direct or indirect. Both direct and indirect coping mechanisms were utilized by PNNST thru-hikers. Direct actions for coping were used in physical coping situations such as changing hiking strategy or gear changes. Indirect actions for coping were employed in mental coping situations including perseverance, and flexibility, adaptability, and positivity.

One of the most interesting findings from the investigation is how hikers cope with challenges is greatly influenced by their level of previous thru-hiking experience. Individuals without previous thru-hiking experience had a relatively even split between physical (49%) and mental (51%) coping strategies utilized. There is a dramatic decrease in physical coping strategies utilized by individuals who have previous thru-hiking experience, with 15% reporting physical coping strategies and 85% reporting the use of mental coping strategies. The drastic difference between the two user categories hints at a progression in coping strategies for thru-hikers. As thru-hikers gain experience and begin to fine-tune their skills in the area, they face less challenges with physical aspects requiring physical coping strategies and instead face different challenges that require more mental coping strategies.

Recreation has been routinely linked to overcoming challenges, particularly in therapeutic settings and for individuals with mental illness. Moxham et al. (2015) found

that in a therapeutic setting, participants in recreation found a greater sense of purpose towards overcoming challenges that individuals faced with their mental illnesses. While there is no data that reinforces thru-hikers increasing their ability to conquer challenges, there is ample evidence in respect to challenge courses. Robitschek (1996) found that participants in challenge courses became more positive about overcoming future challenges after tackling obstacles in both group and individual settings. The finding that thru-hikers vary in coping mechanism based upon previous level of experience is important for managers to understand as they can adapt their strategies depending on the perceptions of those who use the trail.

Thru-hiking is a community

The third research question investigated the impact of the social aspect of thru-hiking. The PNNST specifically has a reputation of having low usage and this was reflected in pre-hike expectations that thru-hikers held about interacting with very few others on the trail. This expectation was found to be untrue, with the majority of hikers joining with others on their hike and some reporting the social aspect as the most rewarding aspect of their experience. The social experience for thru-hikers extends past the time on the trail, with 93% reporting that they are still in contact with individuals that they met on the trail two months later.

The research about the prevalence and importance of online forums in recreation (Cong et al., 2008; Ziegler et al., 2013; Saskatchewan Parks and Rec) has been reinforced with thru-hiking. Many (61.63%) report using the forums and Facebook pages for learning about the trail and asking questions but also for making and maintaining

connections with other hikers. On the trail, hikers formed and groups, socialized in trail towns, and established connections with others, which reinforces the ideas of Arnold (2007), where the shared experience creates bonds and community aspects. The research of Turley (2011) found that hikers felt challenged by their loss of community after the thru-hike. This is reinforced as many thru-hikers maintain their connections with the trail community and communicate frequently. The loss of community was not frequently identified as a challenge, potentially due to the ever-increasing pervasiveness of social media.

The most important takeaways from the investigation into the social experience of thru-hikers is its ongoing pervasiveness and importance to individuals. Most hikers expected that they would not see many people on their thru-hike, however 53% also stated a willingness and a desire to join and meet others. Fifty-three percent of individuals in pre-hike interviews reported that they were planning to hike alone. Instead, 73% of post-interview respondents stated that they joined with others during the hike. The social aspect on the PNNST, which is portrayed as small and solitary, is instead robust and tight-knit with one hiker detailing how it is more social even than other thru-hikers. It is also notable how many individuals kept in touch after the trail experience was complete. This is noteworthy and suggests that the thru-hiking community is becoming connected worldwide as more individuals take part in thru-hiking. The prevalent social aspect of thru-hiking should be recognized and called upon by managers for needs such as support, trail maintenance, or other advocacy into the future.

Social cohesion and social bonding occurs within recreational experiences, and thru-hiking is proving no different. The concept of social cohesion is sociological in

nature and was coined in the works of Emile Durkheim (1972) and refers to the degree to which individuals in a social system agree and identify with the values, norms, and beliefs associated with it. There are aspects of social cohesion present within this research that thru-hikers are eager to join with others and that they form bonds and community with those who also participate in the activity. In post-interviews, hikers expressed their desire to continue participating in thru-hiking and then in two-month interviews that they had continued to stay in touch with people that they met on the trail. Thru-hiking exhibits elements of social cohesion as the individuals express the values, norms, and beliefs of a community.

Social bond theory, founded by sociologist Travis Hirschi in 1969, has four primary elements, including attachment, commitment, the involvement in both conventional or deviant activities, and finally a common value system. Hirschi's theory has been applied in looking at juvenile delinquency (Hindelang et al., 1981), gang behavior (Esbensen et al., 1993), and criminology (Gottfredson & Hirschi, 1990), but has not yet been applied to recreation. This research suggests that social bonding does take place throughout the thru-hike process. Attachments can easily be seen as thru-hikers join with others and maintain contact past the time on trail. While there is no explicit discussion of the aspect of commitment, almost every hiker interviewed indicated having plans to hike more extended trails and therefor participate in the trail culture and community. The participation in conventional or deviant behavior can be seen when examining the feelings that thru-hikers hold about conservation. The majority of thru-hikers noted that their experience bolstered or re-solidified their feelings about conservation and others noted a heightened appreciation for trail work and the principles

of Leave No Trace. Following an ethic of conservation of landscape can be seen in this scenario as a conventional behavior that would be accepted and expected within the thru-hiking community. The social aspect of thru-hiking can be understood as creating a community through social bonding and cohesion.

Experience influences ease of transitions

Two months after thru-hikers completed with the PNNST, they were interviewed to investigate how they dealt with re-adjustment back to their regular lives. The majority (57%) of hikers reported having challenges readjusting to regular life. These challenges varied from physical challenges associated with lack of daily hiking to challenges with getting back into a routine and being immersed in society. As hikers readjust to their daily life, 93% reported keeping in contact with other individuals that they met on the PNNST. Methods of communication varied from in person meetings to social media interactions to handwriting letters. The trail experience had an impact on thru-hikers going forward, with 90% reporting lasting impacts. These impacts included a desire to thru-hike again, volunteerism, increases in confidence, and other personality traits and perspectives on people.

Christofi & Thompson (2007) discuss aspects of culture shock when returning from immersive trips abroad. This was also found to a lesser degree among thru-hikers, where 35% felt that it was difficult adjusting back to regular society and getting back into their old routine. Turley (2011) offers the only study specifically examining the adjustment of thru-hikers back to their everyday life. This work was reinforced by the responses of those on the PNNST as far as noting challenges adapting to new routines

and the structure (or lack of it) in everyday life. However, Turley (2011) highlighted that hikers were challenged on how to communicate their experiences to other non-hikers and how they struggled with the loss of community that they found on the trail, neither of which was brought up in PNNST interviews. This could potentially be because of the pervasiveness of social media and the ability for thru-hikers to maintain contact with their trail community from afar. Mazirow (1991) postulated that disorienting experiences can alter perceptions and actions going forward, and this appears true with thru-hiking. The thru-hikers noted increased confidence (30%), new perspectives of patience and tolerance (10%) and more as impacts that the PNNST has had on them in the long term.

The critical findings from this research question include the differences in readjustment between those who have thru-hiked previously and those who have not, as well as the reasons why individuals found the adjustment period not challenging. Individuals without previous thru-hiking experience were significantly more likely to encounter challenges with readjusting to regular life. Only 56% of thru-hikers with previous experience stated that they experienced challenges with readjustment as opposed to the 83% of inexperienced thru-hikers with challenges. The reasons for the ease in transition included that hikers knew how the readjustment goes because of previous experience and that they kept busy after the hike which kept their mind off of dwelling on the thru-hike experience. Understanding the readjustment process is important to for the managers and coordinators of long distance trails so that they could potentially provide resources for thru-hikers to prepare for a tough readjustment as well as for those struggling with readjustment. If resources are available for thru-hikers, they may have a smoother readjustment and better mental health afterwards.

Research Limitations

A challenge to this research is that there is no definitive count for the number of thru-hikers who attempted or finished the PNNST in 2017. Based on estimates by the PNTA, there were around 100 hikers attempting the trail with around 50 finishing, however these numbers are based off of firsthand knowledge from social media and interactions or from requests for maps. Despite not having a definitive number of hikers, this study strongly represents the hiking population on the PNNST. The entire population of this study represents 42% of anticipated hikers and the 30 finishing thru-hikers captured roughly 60% of the population of hikers who finished the PNNST in the 2017 season. Qualitative research necessitates that “samples are large enough that most or all of the perceptions that might be important are uncovered” (Mason, 2010). This study does include an ample sample size that meets guidelines for representation and saturation.

Another limitation exists in the recruitment process being almost exclusively online. Not every hiker is necessarily requesting maps from the PNTA website or on the Facebook pages where they could have encountered the request for participants. There also was a slight issue with the emails would regularly end up in participants’ “junk mail” folder. However, the researcher was out collecting fieldwork on the trail along the PNNST in Kootenai National Forest and Flathead National Forest in Montana. This allowed for the researcher to recruit some participants who may not have seen the online postings for the study.

Unfortunately, the 42 participants were not each interviewed in each of the phases of research. Instead, only 23 individuals participated at all phases. There were a significant amount of individuals who did not respond for a post-hike interview. This

could be due to email complications, potentially not finishing the trail, or deciding that they no longer were interested in the study.

Another limitation to this study is in its generalizability. The results of this research are focused on the PNNST and there are different characteristics in other extended trails that could potentially make the results less generalizable.

Future Research Opportunities

This is the first attempt at understanding the thru-hiker experience through multi-phase semi-structured interviewing. The results of this study offer compelling insights about thru-hikers on the PNNST and potentially thru-hikers as a whole. To explore whether the results are generalizable, similar studies are needed on other long distance thru-hiking trails. While multi-phase semi-structured interviewing provides opportunities for in depth answers, the process is lengthy and the analysis is time intensive. Potentially a survey variation of the study would be an effective strategy to assess trends for thru-hiking. Through trail associations, websites, and social media, there could be channels for reaching thru-hikers both online and by other means for administration of the potential survey.

Thru-hiking has been on a dramatic rise throughout recent years and the rise is not expected to halt soon. The thru-hikers of 2017 may be entirely different in behaviors, expectations, numbers, and more in years to come. If a comprehensive survey is created, this could be administered every five to ten years in order to gauge change in thru-hiker behavior, including expectations, challenges, coping, and readjustment.

Conclusions

The implications of this research reveal a multifaceted thru-hiker experience that continues on past the time on the trail. The expectations that thru-hikers hold before they begin their hike influences their perceptions of the experience after the hike has been completed. Managers are recommended to provide ample information about all aspects of the trail, including those that are less enticing. Utilizing social media and other alternative platforms will allow the most people access to necessary information. The challenges that thru-hikers face as well as the coping mechanisms vary based on levels of previous thru-hiking experiences. Managers are recommended to try to get a good sense of who is using the trail and adapt accordingly. Despite being portrayed as a low use, remote trail, the PNNST has a vibrant social scene if hikers desire to partake in it. It is recommended that the social aspect of thru-hiking be recognized for its potential positives and negatives, and management should be aware of the proclivity to form hiking groups and bubbles. The readjustment after thru-hiking can be difficult, just as the return from any other immersive experience can be. As hikers do more trails and encounter the readjustment period repeatedly, they adapt and learn to expect the challenges or to stay busy to deal with the challenges. It is recommended that trail associations make resources available and maintain open lines of communication for returning hikers who find themselves struggling with life after the trail. The results of this study have strong implications for managers and for a greater understanding of the thru-hiking community.

Thru-hiking is a growing field of recreation and it deserves to be recognized in academic literature. With a better understanding of thru-hikers, managers will be able to better adopt their plans and strategies to incorporate the user group. This research creates

an avenue for future investigation into the thru-hiking experience, particularly on minimally developed and growing trails. Thru-hiking is a unique form of recreation and there is so much that still needs to be studied. This work on the PNNST should create ideas for managers as to how better incorporate thru-hiker experiences into planning decisions.

Chapter V: Results

This chapter includes the results of the study that are not included in the Chapter Four draft publication. Chapter Five instead extends the results for Research Questions 1-4 and the entire results for Question 5. The intention of this study was to address five research questions:

RQ1: How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?

RQ2: How do thru-hikers cope with challenges faced during the hike?

RQ3: How do social interactions impact the thru-hiker experience?

RQ4: How does the thru-hike experience affect the hikers and their transition back to everyday life?

RQ5: What aspects of the PNNST should be maintained or reconsidered in the face of the impending management plan?

The data of all three phases of interviewing inform the findings to the study's research questions that address expectations versus experiences, challenges and coping strategies, social experiences, the long-term impacts of the transition back to everyday life, and what thru-hikers feel should be kept or changed on the PNNST in future seasons. Findings are synthesized from the three phases of interviews and the results are organized by each of the five original research questions.

RQ1: “How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?”

The positive ways that experiences did not meet expectations are an additional aspect of the study into how pre-hike expectations affect the thru-hike experience. Table 7 includes a breakdown how expectations were exceeded including quotes. While discussed briefly in Chapter Four, this finding warrants expansion. Of the 84% who had their expectations not met in some way, 56% of individuals had their expectations not met in a positive way (e.g. exceeded expectations). Of those who had their expectations exceeded, the most commonly identified aspect (33%) was that there were more people and more of a social scene than anticipated:

“I think the biggest surprise for me was the social aspect on the trail. I went into it with the expectation I may not see another thru-hiker the whole time ... Instead I met a group of three guys my very first night camping in Glacier National Park and then the next day I met another thru-hiker and the five of us ended up hiking at least half of the trail together.”

Another 28% of those with exceeded expectations noted that there were less challenges than they anticipated. One hiker tells of how they encountered less navigational issues than anticipated: “I thought the navigation would be a lot ... The element would be a lot more difficult, that we would have to rely on map and compass a lot more than we did, but it turned out our GPS apps were enough.” There were also 28% of those participants who found that the terrain of the trail exceeded their expectations. Terrain includes aspects of beauty, diversity, and mountains. Finally, 22% of those who found exceeded expectations identified the aspect of people or humanity as better than anticipated. The

aspect of people or humanity refers to the idea that the individuals who they encountered were kinder and friendlier than expected.

Table 7: Experiences that exceeded expectations

	Percentage	Quotes
More people than expected	33%	“I think probably the biggest thing would be the amount of people. I've done some big trails, and really had solo experiences on them and didn't really get involved on a social scale. Usually I kind of shy away from big hiker groups, big popular hostels and stuff like that. But this trail was probably my most social trail yet, even though it probably had the fewest amount of people.”
People or humanity	22%	“I didn't have expectations for the people that we would meet or like trail angels, but they were all phenomenal. We met some really amazing people, and that was really cool.”
Terrain	28%	“I was surprised at the diversity. I loved ... you just got to see so much from Eastern Washington then getting into the Cascades. It was just very diverse. More than I expected.”
Less challenges	28%	“I thought the navigation would be a lot ... The element would be a lot more difficult, that we would have to rely on map and compass a lot more than we did, but it turned out our GPS apps were enough”

RQ2: How do thru-hikers cope with challenges faced during the hike?

The majority of what was studied within Research Question 2 was covered in the results section of Chapter Four. However, there was not a sufficient discussion about how previous experiences affect the challenges that individuals face during their thru-hike experience.

Thru-hikers with previous experience did not have a significant difference from those who did not have previous thru-hiking experience in most challenges that they faced. Figure 10 illustrates how hikers with various experience levels faced different challenges. There were four areas where noteworthy differences in challenges faced by individuals varied based experience levels: human caused challenges, injury or physical health, nature or wildlife, and private property concerns. Human caused challenges were mentioned by 0% of individuals with previous experiences and by 9% of those without previous experience. One surprising result was that 24% of hikers with previous thru-hiking experience encountered challenges with injury or physical health as opposed to 18% of those without previous experience. A thru-hiker with previous experience describes their experience with injury issues as such: “I guess my feet were one thing, which I don’t know why, maybe I’m walking different now. I haven’t had this much trouble in a long time.” Another significant difference in reporting came with the investigation of challenges with nature or wildlife. Sixteen percent of individuals with previous thru-hiking experience reported challenges with nature or wildlife, while 28% of those without previous experience found challenges in this area. Finally, private property was identified as a challenge by 8% of those with previous thru-hiking experience while none of the participants without previous experience noted this as an issue.

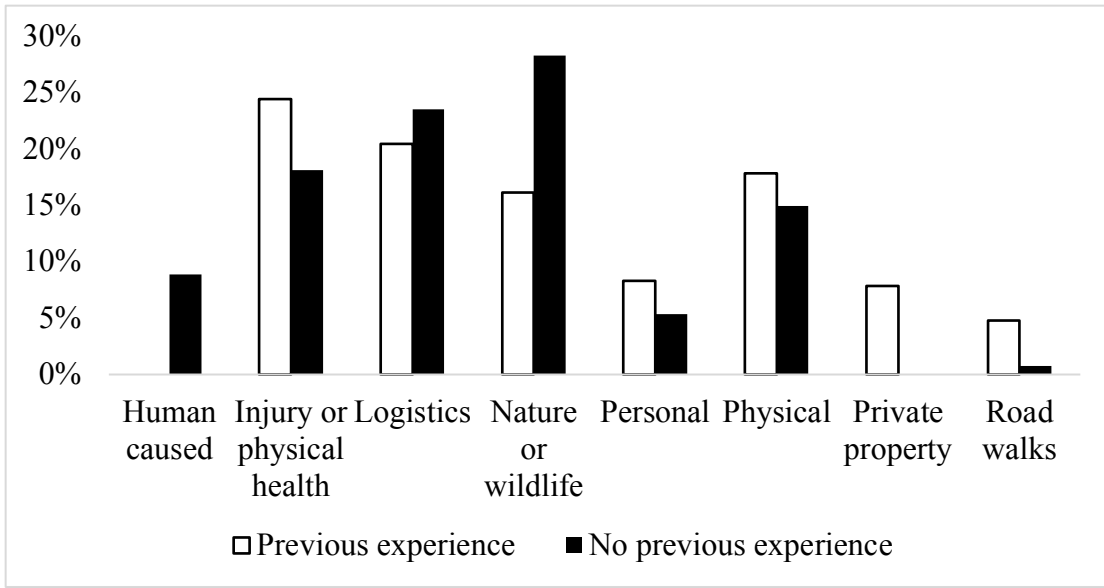


Figure 10: Experience levels and the rate of challenges encountered

RQ3: “How do social interactions impact the thru-hiker experience?”

The social experience of thru-hikers was examined in Chapter Four; however, there are more results presented in this segment on the effect of age, and gender on choosing to hike solo as well as how age and gender impacted individuals’ proclivity to join with others during their thru-hike.

Decision to hike alone or with a group

The majority of thru-hikers in pre-hike interviews reported that they were planning to hike with a group. Figure 11 below shows comparisons for the decisions to hike alone or with a group based on age group. While there is little difference between age groups and their decision to hike alone or with a group, individuals age 18-35 years old were the most likely (13%) to begin their hike alone. One hiker age 18-35 describes why they chose to hike the PNNST alone: “just generally it’s really hard to find people that want to take three months out of their life to go walk a thousand-something miles.” Thru-hikers in higher age brackets were less likely to choose to hike alone, with 8% of participants’ age 36-55 and 6% of those age 56 and above stating that they would be hiking in a group.

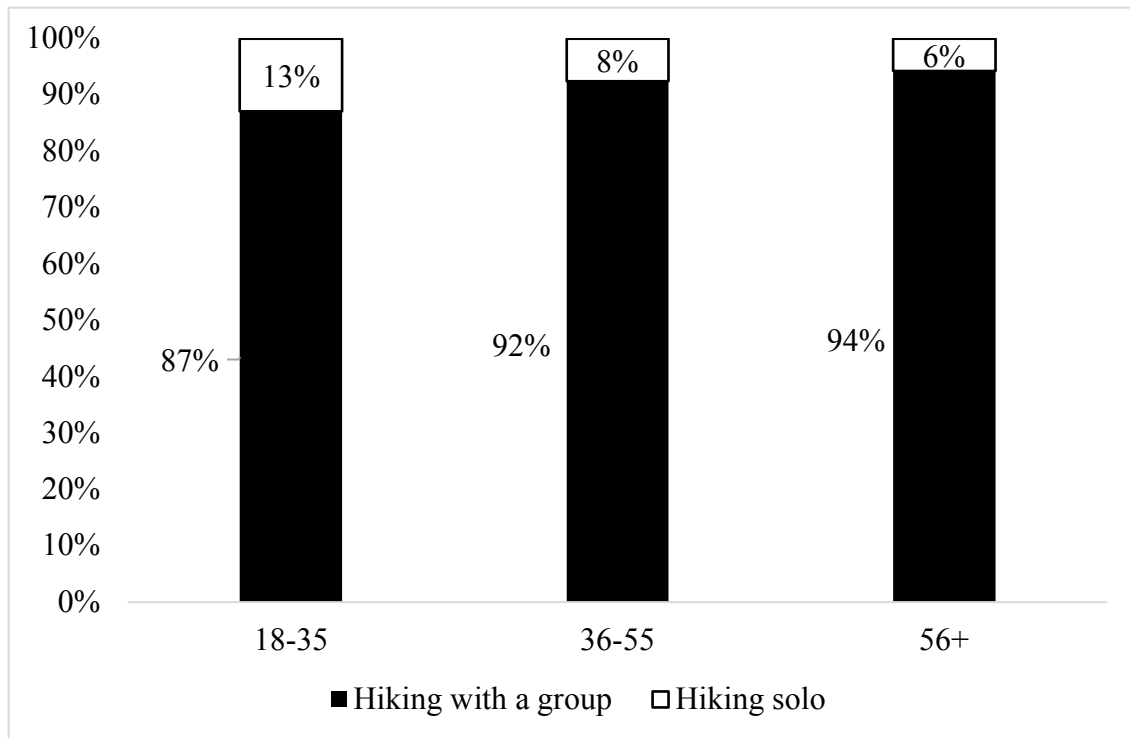


Figure 11: Age versus hiking solo or with a group

Gender also revealed a difference in the decision to hike alone or with a group. Eighty-seven percent of male participants stated in pre-hike interviews that they were planning to hike with a group with the remaining 12% planning to hike alone. Women reported higher rates of hiking with a group, finding 95% planned to hike with a group and only 5% stating their intent to hike alone.

Decision to join with others during their hike

While the majority of thru-hikers reported joining with others during their experience, there was a significant difference in one age group that stood out in their decision. Participants age 36 to 55 joined with others the most often, with 99% stating that they joined up with others during their thru-hike. The other age brackets still reported

large majority numbers that joined with others, but 13% of those age 18 to 35 and 14% of those 56 and above reported not joining with others on their hike.

Gender also revealed a significant difference in individual's proclivity to join with others during their thru-hike. Females were the least likely to join with others during their thru-hike, with 14% stating that they did not join with anyone on the PNNST. One female participant describes why they decided not to hike with others: "even though we had the opportunity to hike with people day after day or whatever, we decided we didn't want to do that just because – once we got back on trail, we kind of preferred to be on our own." Meanwhile, men were more likely to join with others (94%), with only 6% stating that they did not join with others on the trail.

RQ4: “How does the thru-hike experience affect the hikers and their transition back to everyday life?”

While the majority of the results about the transition back to everyday life is discussed in the results section of Chapter Four, there are meaningful results about how age impacted the transition back to regular life after thru-hiking. This segment will discuss adjustment and if life is different two months after the completion of the hike.

Age and challenges with readjustment

The age of participants significantly correlates with whether or not they reported encountering challenges in two-month interviews with readjustment back to regular life. Figure 12 shows side-by-side comparisons of rates of individuals of different ages encountering challenges with readjustment. Participants age 36 to 55 encountered the most challenges (85%) with readjustment. One hiker between 36 and 55 years old detailed their challenges with readjustment as such:

“No, it has not been easy. At first, it was ... But it’s been a little harder than I guess I was anticipating ... I guess I had a lot of fantasies about what it [the thru-hike] was gonna be like, and it went above expectations. Now I’m coming back and I had hoped the results of the thru-hike would be above expectations, but not so much. It didn’t really change anything. So yeah, it’s been a strange readjustment.”

Participants’ age 18 to 35 years old had the easiest transition, with 43% finding the transition easy and 57% having challenges. From the age bracket of those 56 and above,

76% encountered challenges with readjustment while the remaining 24% found the transition easy.

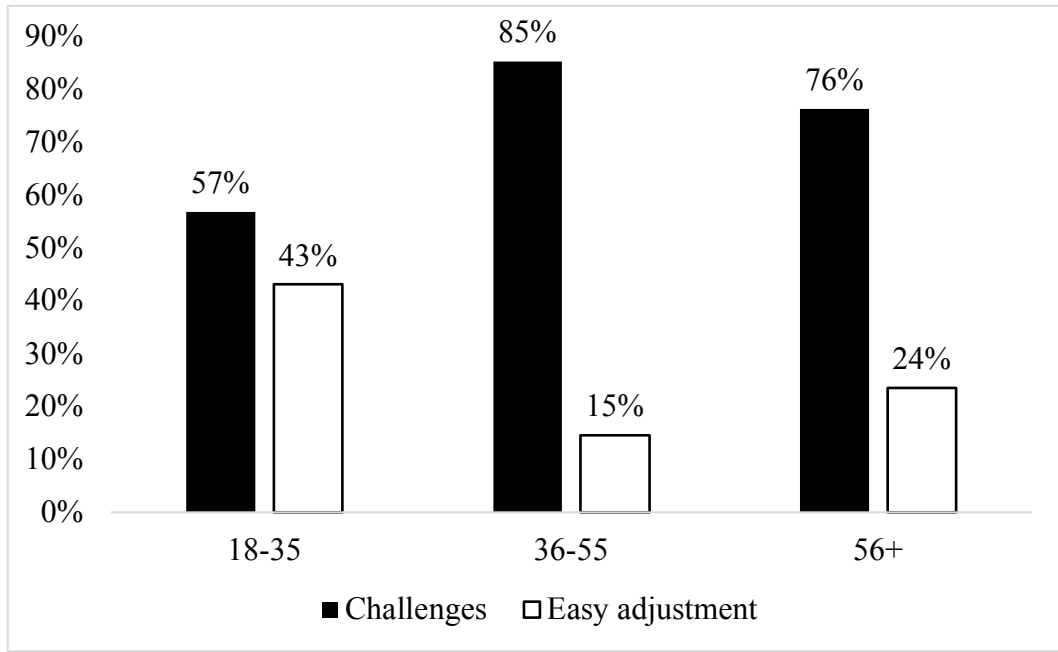


Figure 12: Age compared to ease of readjustment

Age and if life is different two months after

Age also revealed significant differences in the rates when participants were asked about whether their life is different two months after. Figure 13 below displays side-by-side comparisons of how age related to if their lives were different two months after the thru-hike experience. Individuals age 36 to 55 years old were most likely (34%) to not feel that their life is different two months later. Sixty-six percent of thru-hikers in this age bracket reported that their life was different two months after the experience, while individual age 18 to 35 reported 92% and 56 and above reported 92% similar feelings of change.

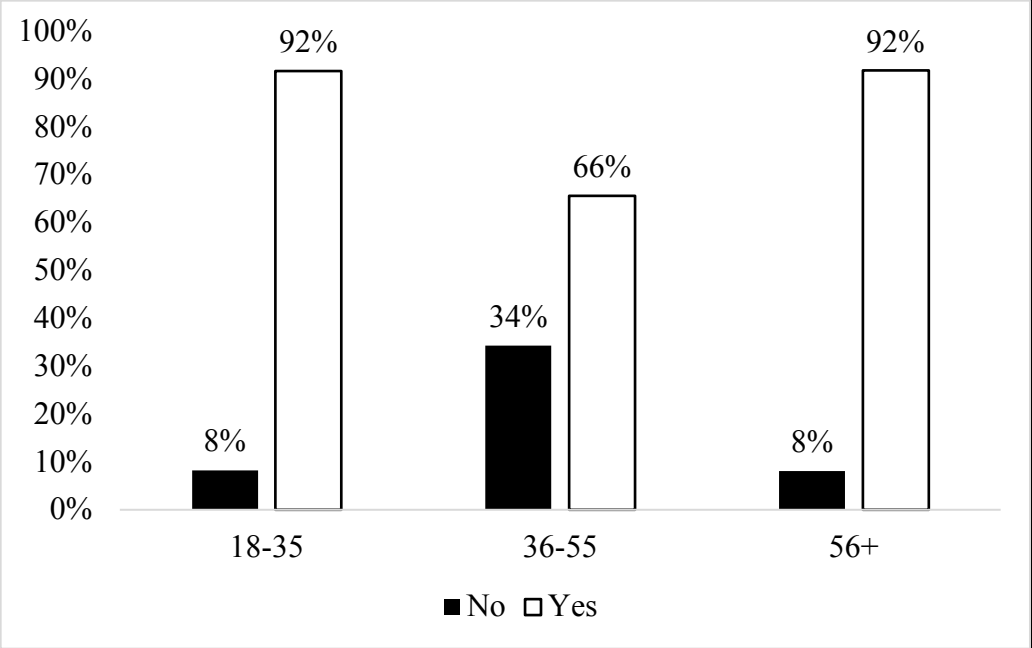


Figure 13: Age compared to if life is different two months after

RQ5: “What aspects of the PNNST should be maintained or reconsidered in the face of the impending management plan?”

Attractive qualities of the PNNST

As already discussed, thru-hikers were asked in pre-interviews about what qualities of the PNNST were attractive to them. The most frequently identified (88%) aspect that was attractive to prospective thru-hikers was the physical landscape. Land managers cannot dramatically change the physical landscape, but the findings highlight areas to maintain and preserve where possible. The reputation of the trail as wild, primitive, and relatively low use was noted by 69% of respondents. This is an area that managers can attempt to maintain where possible. The other most frequently identified attractive qualities of the PNNST was the logistics of the trail, including timing, distance, and the ability to chunk into sections. These attractive qualities should be considered when making changes in management plans.

Most rewarding aspect

The most rewarding aspects of the PNNST experience were asked about in post-interviews. Table 8 includes a display of the most rewarding aspects on the PNNST along with quotes. The areas that were identified as the most rewarding were the physical aspects (41%), personal aspects (32%), and the social experience (32%). The personal and social aspects are unable to be influenced by the on the ground management decisions. However, the physical aspects that are most rewarding should be potentially maintained for future users.

Table 8: Most rewarding aspect of PNNST

	Percentage	Quotes
Particular day or stretch	22%	“When you stop and think about it no car could take you up to this path so relatively speaking the amount of people that actually got up to this point to see this personally was so low. I was a part of this elite group that got to see this personally. It was the part of the trip where I'm like, "Oh god this is why I'm doing this, these breathtaking views, and these feelings of accomplishment." The Devil's Pass was that moment. It was that, okay, all right this is great.”
Personal	32%	“I think the most rewarding thing about being on the trail was probably just the whole seeking a goal thing and then actually accomplishing it. That aspect of it was really satisfying. Both ongoing and at the end.”
Physical	41%	“It was really nice to just have a trail where it was just you and your hiking partners out there for weeks only seeing people in town. It felt like ... It felt like you could really sort of expand your relationships with other people better and just tap into your own thoughts and feel just so much more comfortable in the outdoors. It was even more just your home rather than that you were constantly sharing everything with other people.”
Social experience	32%	“the most rewarding was probably just great interactions that I had with people and just kind of realizing how many great people there are out there, ya know a lot of people say their faith in humanity is restored when they do this kinda thing and even though thats maybe a strange kind of thing it for sure was a real high point.”
Summits	8%	“I like summits, so there were some really good ones there. I mean, the views are really incredible.”

Toughest aspect

As previously mentioned, hikers were asked in post-interviews about the toughest thing that they faced on the trail. Table 9 includes a display of the toughest aspects of the PNNST experience along with quotes. The toughest aspects mentioned were bushwhacks (43%), road walks (16%), and the environment (16%). These aspects are potential areas that could be adjusted in future management decisions.

Table 9: Toughest aspect of PNNST experience

	Percentage	Quotes
Bushwhacks	43%	“Blowdowns, bushwhacking were the toughest. There were some bushwhacks that I call bushwhacks out of hell. There was a trail, I think it was the 300 trail that was ... I actually wrote it down. I said that's the trail from hell, but it was beautiful. At one time it was probably a really well maintained trail, but it kind of fell you know in to disrepair because I don't think there's enough money to take care of all the trails.”
Environment	16%	“The toughest, the environment was just so volatile in terms of I guess it just brought out volatile emotions for me at least.”
Injury or illness	8%	“For me the toughest parts were definitely the injuries I got. So in the beginning it was the blisters I got walking into Eureka. I really had done pretty well with blisters and my legs felt great at the beginning of the trail. I really felt pretty phenomenal and I started out doing higher mileage than most people were doing. I felt great at the beginning, it was that road walk into Eureka where I just got really bad blisters and I kind of dealt with those for the whole rest of the trail.”
Road walks	16%	“The toughest probably were some of the paved road walks on some of the major highways.”
Specific day	8%	“Going up Mount Locke, because of all the left over snow, there were quite a few places where I lost the trail, and it took a while to find it. That was really kind of terrifying. One of the times I was like, "Oh my God, I can't even figure out where I came from." Backtracking was sketchy.”

What would hikers like to see changed

In post-hike interviews, thru-hikers were explicitly asked what they would like to see changed on the PNNST for future hikers. A display of these responses can be seen below in Figure 14. The most frequently (46%) identified aspect that thru-hikers would like change is to have less road walks. One thru-hiker describes their desire for less road walking: “the biggest thing is just getting the trail off the roads whenever possible, which

is... obviously no one is arguing the opposite. No one is asking for more road walking.” There were in fact no individuals who asked for more road walking. However, 24% of respondents said that they want nothing about the PNNST changed for future users. One hiker describes their desire for the PNNST to remain as it is as such:

“No. I would like it to stay just as it is and please tell them at the PNT do not clean up the trails. Leave the blowdowns, just tell people there are blowdowns and a lot of bushwhacks and let people deal with that Please don’t write any books like Wild about the PNT because that’ll ruin it.”

There were a significant amount of respondents who found the PNNST to be great the way that it is and hope to see it remain wild and unmaintained. Others found potential areas of change to be preparation tools (16%), a desire for more information or communication (14%), desire for more trail maintenance (14%), and legal logistics such as permitting in National Parks and shoreline access (14%).

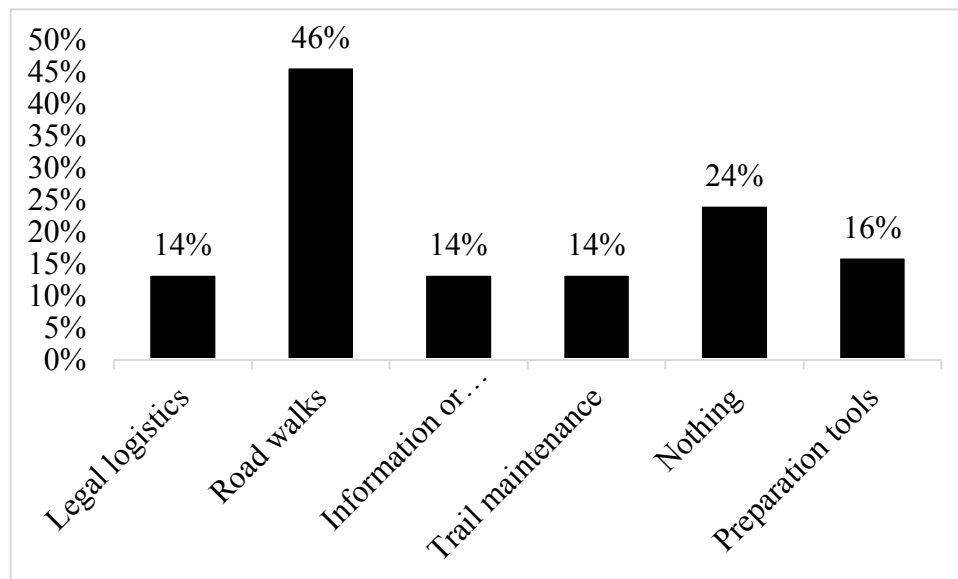


Figure 14: Aspects to be changed on the PNNST

Conservation

One controversy surrounding the trail is that thru-hikers are messy or that they degrade the lands that they cross through. In post-interviews, thru-hikers were asked if their experience on the PNNST changed or bolstered their feelings or future actions for conservation in any way. Figure 15 below shows the various responses to this question. The most frequent response (57%) to the question of conservation was that the experience on the PNNST bolstered or re-solidified their existing feelings on conservation. One hiker describes how the PNNST experience has bolstered their feelings:

“It’s definitely bolstered it. I am concerned that there’s going to be this slow encroachment on public lands with private land ownership and I really hope that doesn’t happen. I think having these big, wide open spaces is unique in the world and I really hope we don’t lose it. I think it’s even unique in our country in the West. The East doesn’t have these big wilderness areas. I think conservation is really, really important.”

Another frequently mentioned aspect with conservation is a gained appreciation for trail work. Twenty-nine percent of respondents brought up how their PNNST experience gave them a greater appreciation for the trail work that goes into maintaining a long distance trail: “when you realized how much effort is being put into maintaining these primitive areas, wilderness areas to keep the trails open. Yeah, definitely appreciate it.” Other frequently identified impacts on conservation for thru-hikers were an increase in awareness (14%), the desire to take action or get involved (11%), and no change (5%).

Awareness refers to climate related areas, the perspectives of locals, and funding for land areas. The PNNST had a variety of impacts on thru-hikers.

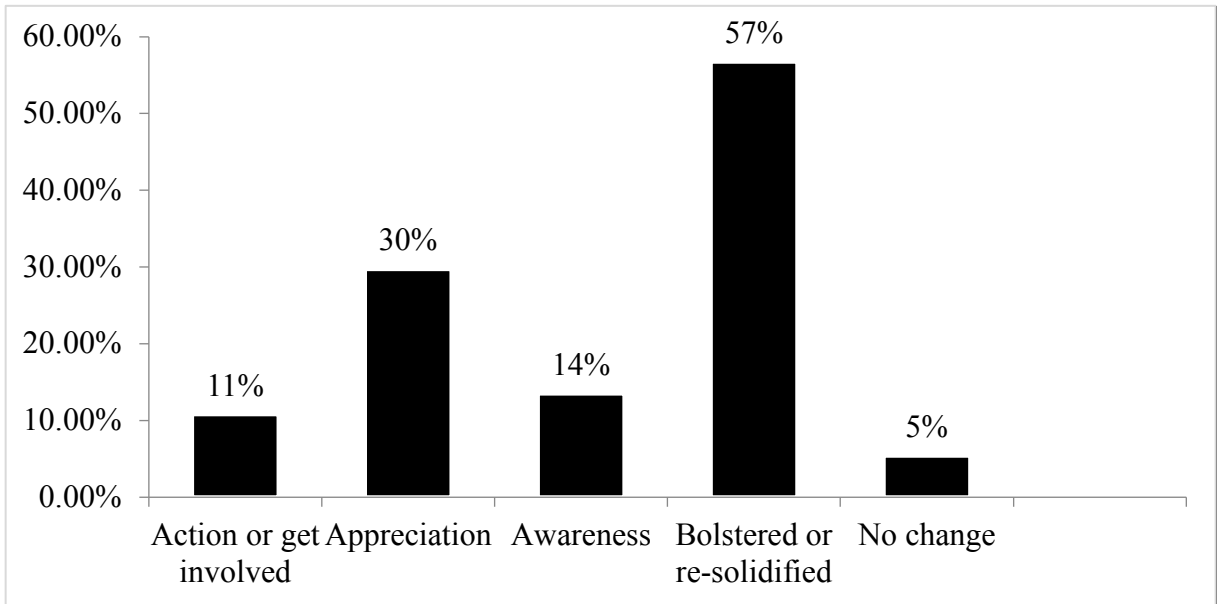


Figure 15: Conservation impacts from PNNST

Most memorable or talked about aspect

During two-month interviews, thru-hikers were asked which aspect of the PNNST that they talked about the most or remembered the most. Figure 16 shows the various aspects identified. Fifty percent of respondents noted that specific locations were the most memorable or talked about. The locations most frequently mentioned were Olympic National Park (47%), North Cascades National Park (27%), the Pasayten Wilderness (27%), the Olympic coast (20%), and Glacier National Park (13%). Many thru-hikers (27%) identified the people as the most memorable or talked about part of their PNNST experience. People included hikers, trail angels, and individuals who they met in towns. One hiker discussed why they talked about trail angels: “I definitely talk about the trail

angels a lot. I think they're a big part of this hike." The trail towns were also mentioned by 13% of thru-hikers.

Another aspect that was brought up by 10% of thru-hikers was the bushwhacking. One hiker notes why they talk about the bushwhacks most as: "we talk about the bushwhacks. It was funny because before I went I thought people just talk about the bushwhacks more, they're not as bad as it sounds and I think probably, for the most part, they aren't as bad as it sounds." Another 10% of hikers also noted wildlife sightings as their most memorable or talked about aspect of the PNNST. Finally, 7% of respondents found everything about the PNNST to be the most memorable: "I don't know if there's any one particular thing. Because it's just ... it was such a huge experience. There's just a lot to it. I guess ... I'm constantly reminded of all different things about it. I really don't think there's any one particular thing that I remember the most or that stands out the most."

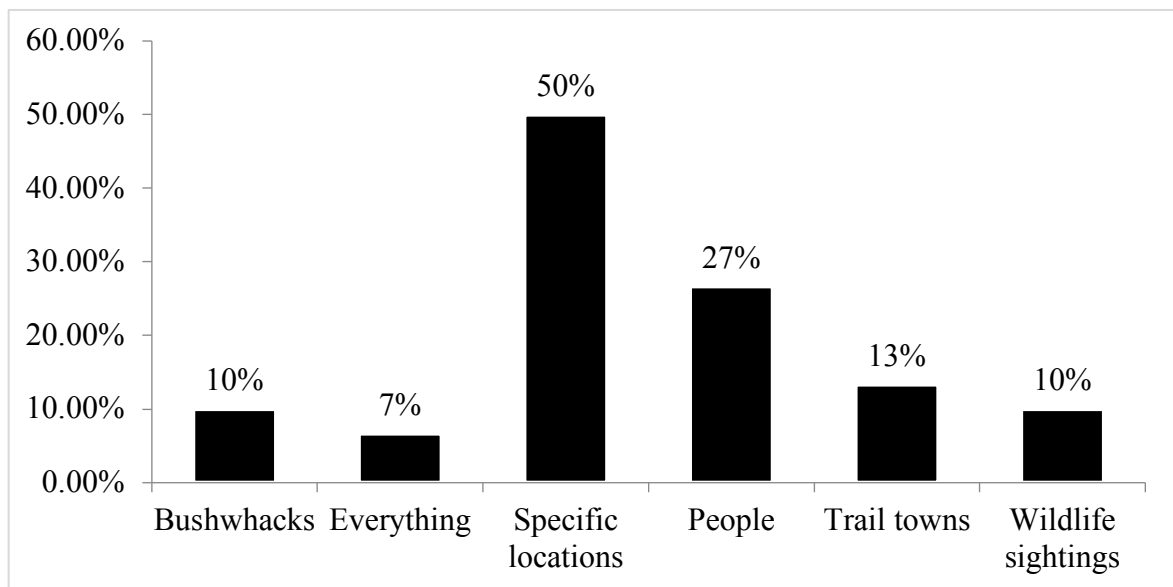


Figure 16: Most memorable or talked about aspects of the PNNST

What hikers would have done differently

When asked in two-month interviews if they would have done anything differently, exactly 40% of respondents said that they would not have done anything differently. The remaining 60% stated that they would have done some things differently if given the chance. Twenty-two percent of those who would have done something differently said that they would have bypassed some sections of road walking: “I probably would’ve maybe just skipped a couple of the road walk sections knowing what I know now about those sections.” Another 22% stated that they would have swapped some of their gear or clothing based on the heat, smoke, and the lack of rain that they encountered. The final frequently (22%) noted aspect that thru-hikers would have changed is that they would have changed their pace or timing to accommodate going slower and spending more time on the PNNST. One hiker details their desire to take more time on the trail as such:

“I think if I were to go back and do the hike again, I would have done it in twice the time. There was just a few times where it felt like we were just crushing a whole lot of miles and just hiking through a lot of scenery by headlamp... which I mean there’s something to be said for getting out there and doing 26, 27, 30 mile days back to back like that. I’m glad I did it, but if I could do it again, I think I’d take twice as long.”

The aspects that hikers identified that they would have done differently varied from physical aspects like road walking or technical gear or clothing to the timing to immerse themselves further in the Pacific Northwest.

Recommend the PNNST

Thru-hikers on the PNNST discussed numerous challenges and difficult situations that they encountered and were forced to overcome. Despite these challenges, an overwhelming 97% of two-month interviewees said that they would recommend the PNNST to other people. The percentage is overwhelmingly positive, though many included the caveat that they would only recommend with cautions about the road walks and bushwhacks: “I would whole heartedly recommend the PNT to other people as long as they've researched it and they have a good sense of what they're getting into.” No one reported that they would not recommend the PNNST, however the remaining 3% stated that they were unsure if they would recommend it. While the trail has a lot of growing and development needed in its future, these thru-hikers still would recommend the PNNST to others to experience.

Chapter VI: Discussion and Implications

Chapter Six discusses the results from the previous chapter. In addition, each research question is generally discussed through a review of the main findings and unique findings, how the findings connect or do not connect with the literature, the implications and recommendations for the PNNST, the implications and recommendations for the thru-hikers and managers, and finally what else needs to be studied or delved further into in this area.

RQ1: “How do pre-hike expectations and previous experiences affect the experience of the thru-hiker?”

Findings

The primary finding from RQ1 was that the great majority of respondents had the PNNST experience not meet their expectations in some way. The most frequently identified areas that did not meet expectations in negative ways were road walks, the weather, and the challenging environment, all of which are physical aspects that hikers should be able to have a solid understanding of what these physical aspects could be like.

A unique finding from this investigation was that there were expectations that were not met in a positive way. Many participants noted aspects of people or humanity, less challenges than anticipated (with bushwhacks, navigation, incidents), and more beauty, trail magic, and diverse terrain than anticipated in a positive light. All of these aspects are subjective, non-physical aspects that are unable to be accurately portrayed in information about the trail.

Connection to the literature

There is strong evidence in the literature that the evaluation of experience is linked with the expectations that individuals hold beforehand (Wilson et al., 1989). The majority of thru-hikers found that the experience did not match their expectations in some way, and those areas that were negative were physical aspects that should have been presented clearly in available information. Those aspects that clashed with their expectations created increased dissonance for the hikers, as Cook and Leckey (1999) anticipated. When aspects expectations were not met in a positive manner dissonance was not experienced, but instead these differences were met with excitement and enthusiasm. While there is extensive literature on expectations and their link to experiences, this is the first study to apply these concepts to thru-hiking.

Implications for the PNNST

Despite the high percentage of individuals who had aspects of their experience not meet their expectations, almost all of the thru-hikers reported that they would recommend the PNNST to others, even if that were accompanied by a strong caution or increased information. The physical aspects of road walks, bushwhacks, variable weather, and a challenging environment are all features of the PNNST that should not be a surprise to thru-hikers. While there is information on these difficult aspects, additional resources are needed. One recommendation would be for the PNTA to include videos of some of the road walks or photos of the potential smoke that hikers could encounter. Since thru-hikers are finding that physical aspects are not meeting their expectations, it is recommended that greater attention be paid to these areas in the available information.

Implications for the thru-hiking community and thru-hiking management

While there needs to be more information portrayed on the physical aspects that troubled hikers in the 2017 season, the thru-hikers are recommended to do their due diligence in researching the physical aspect of the trail. In pre-hike interviews, some hikers reported that they purposely did minimal research so that they had no expectations going into the PNNST experience. This is inadvisable, particularly on less-developed trails or ones with potential hazards like the PNNST. It is recommended that managers also recognize that thru-hikers are potentially not doing thorough research about the long distance trails that they undertake. The researcher recommends that ample information always be available about the features that can be anticipated, including road walks, variable weather, and a challenging environment.

Future research

This study is an exploratory study into how the expectations of thru-hikers influence how they perceive their experience afterwards. In future research, there should be delineation somehow of what does not meet expectations in positive or negative ways. There also should potentially be follow up questions when aspects did not meet experiences about how much this impacted their experience. A comparison of thru-hiking experiences and expectations warrants further investigation to gain a more comprehensive understanding.

RQ2: How do thru-hikers cope with challenges faced during the hike?

Findings

The most important finding that was uncovered within this research question is that thru-hikers with previous experiences cope differently with challenges than those without previous experience. Individuals with previous thru-hiking experiences are overwhelmingly more likely to utilize mental coping strategies as opposed to physical coping strategies. There is an almost even split between mental and physical coping strategies in thru-hikers without previous experience. A unique finding was that the challenges did not vary greatly based on previous experience levels. Individuals with and without previous experience encountered similar rates of the same challenges, but they dealt with those in different fashions.

Connection to the literature

Both physical and psychological challenges for hiker are present in the literature (Berg, 2015; Coble et al., 2003). Berg (2015) identified challenges for hikers including navigation, weather, wildlife and terrain, negative social interactions, and vandalism or stolen gear. With the exception of negative social interactions, all of the aforementioned challenges were found identified by PNNST thru-hikers.

Coble et al. (2003) focused on the fears and challenges that solo hikers face. These include injury by another or through a natural accident, getting lost, wildlife, and fear of theft. On the PNNST, 73% of thru-hikers reported that they joined with others on the trail, which could be in part due to the fears and challenges that Coble et al. (2003) linked to solo hiking. Coble et al. (2003) also identifies potential coping mechanisms that

solo hikers employ, including avoiding perceived dangers, joining with others, and more. The high percentage of thru-hikers joining with others correlates strongly with Coble et al. (2003)'s finding that solo hikers may cope by joining with others.

Implications for the PNNST

The PNNST has many unique features to it and those can pose challenges to those who are not prepared or experienced. It is recommended that the PNNST recognize the challenges that thru-hikers face, which are consistent across all experience levels, and potentially address some of those challenges in future management decisions when appropriate. The PNNST managers also are recommended to recognize that there are more thru-hikers without previous experience than originally anticipated. In discussion before the study began, managers anticipated users to be primarily experienced thru-hikers. Instead, within the study sample there was a perfect 50-50 split of experienced and inexperienced thru-hikers. This is relevant, especially when understanding that experience levels influences choice of coping mechanism.

Implications for the thru-hiking community and thru-hiking management

Thru-hikers are recommended to assess their own experience level as well as the experience level of potential hiking partners and community members. Since coping mechanisms vary with experience levels, there needs to be recognition of what kind of mechanisms they are employing themselves as well as why they are choosing to do so. It is recommended that managers also take this finding into account so that they can adapt their strategies depending on the perceptions of those who use the trail. Whether a trail is

primarily used by individuals with or without previous thru-hiking experience can dictate managerial decisions.

Future research

This study discovered the stark difference in coping between thru-hikers with previous experience and those without, however more research needs to be conducted. In future studies, there should be follow up questions as to why thru-hikers chose the coping mechanisms that they did. There also needs to be further research investigating the challenges that thru-hikers faced in relation to whether or not they hiked alone the entirety of their experience.

RQ3: “How do social interactions impact the thru-hiker experience?”

Findings

The third research question centered on the impact of social experiences in thru-hiking. Although the PNNST has a reputation as a low usage trail, the majority of thru-hikers reported joining with others and some reported the social aspect as being the most rewarding aspect of their experience. The most crucial finding from this research question was that almost three quarters of interview participants reported joining with others during their thru-hike. In pre-hike interviews, almost half of interviewees were planning to hike alone but those rates were not reflected once hikers were finished with the PNNST.

One unique finding that was uncovered within this research was the long-lasting connection that extends past the time on trail. Almost every thru-hiker interviewed stated

that they maintained contact with people that they met on the trail, which could be other thru-hikers, trail angels, or only their hiking partners. This is indicative of an expansive, widespread thru-hiking community who can continue to share ideas, questions, and stories long after their time together on trail is completed.

Connection to the literature

There is an abundance of research about the prevalence and importance of online forums in recreation (Cong et al., 2008; Ziegler et al., 2013; Saskatchewan Parks and Rec, n.d.). The results found in this study reinforce that prevalence and importance in thru-hiking. The majority of thru-hikers stated that they used the forums and Facebook pages for learning about the trail, asking questions, as well as for making and maintaining connections with other hikers or trail angels. Arnold (2007) found that shared experiences create bonds and aspects of community, which was reinforced by the research on the PNNST. Thru-hikers formed groups, socialized in towns, and established connections with others while on the trail. One area that appears to be missing from the literature is that of why hikers join with others. While joining with others is mentioned as a coping mechanism (Coble et al., 2003), there were participants who were hiking in pairs or groups who also reported joining with others during their thru-hike.

Hikers can join with others either out on the trail or while stopping in trail towns (Arnold, 2007). The trail towns are necessary for thru-hikers to resupply their food and supplies but they also provide the opportunity for taking a break from hiking, either for a short while or in some cases for several days. The most frequently identified reasons for taking a zero day on the PNNST were relaxation, packages or resupply, and injury or

soreness. Others did indicate that they would take days off of hiking in towns specifically to spend time with trail angels or to socialize with other hikers.

Implications for the PNNST

While use on the PNNST is relatively low in comparison with other trails, it is recommended that the vibrant social aspects that exist on the trail be recognized. While the researcher was conducting fieldwork, they found a ‘hiker-bubble’ of eighteen individuals in one town. A hiker-bubble refers to a multiple hikers who may or may not be hiking together but who join together in towns. The tendency for hiker-bubbles to form could be more prevalent on trails with less use and could potentially be strenuous on some of the small towns along the trail with limited amenities. The PNNST is recommended to recognize the potential for a tight-knit community and understand the positives and negatives that could come with that.

Implications for the thru-hiking community and thru-hiking management

Individuals with previous experience probably understand the social aspect of thru-hiking. It is recommended that those who do not have previous thru-hiking experience and are planning to set out alone realize that while there is the potential for to stay alone for the entire experience, the majority of thru-hikers end up joining with others or at least have the opportunity to join with others if they want to. Managers are recommended to recognize the proclivity that thru-hikers have to join with others and if hiker-bubbles begin to get too large with increased visitation, consider implementing a permitting strategy.

Increased awareness by managers about the potential for information sharing through social media is recommended. The Facebook pages and other online sources were frequently referenced avenues for information sharing and interaction and managers are recommended to capitalize on this by creating spaces on Facebook or other platform that they can participate in and get to know their user base and easily disseminate information.

Managers are recommended to also recognize the potential for growth in trail use could have impacts upon the trail towns that they cross through. It is recommended that there be open lines of communication with towns and businesses about what they are experiencing and what they feel that they need from the trail.

Future research

There needs to be further investigation into certain aspects of the social aspect of thru-hiking. Individuals were asked in pre-hike interviews whether they were planning to hike solo and then in post-hike interviews whether they joined with others, but there was no investigation into why or why not hikers joined with others or chose to remain solo. Another aspect that warrants further investigation is the area of the social aspect during the thru-hike. While many hikers detailed the social experience as the most rewarding part of their time on the PNNST, there were no direct questions about the specific social experience while on the trail. Finally, there need to be studies on the use of social media and online forums and their use in recreation. These platforms are increasingly the primary resource for people participating in recreational activities and the use of social media and forums in this setting warrants further research.

RQ4: “How does the thru-hike experience affect the hikers and their transition back to everyday life?”

Findings

The fourth research question centered on the transition that thru-hikers go through back to regular life after their hike was complete. The most important finding that emerged from this research question was how readjustment appears to get easier with more experience. Around half of individuals with previous thru-hiking experience encountered challenges with readjustment and the other half found the readjustment period to be easy. Conversely, individuals who did not have previous thru-hiking experience encountered extremely high rates of challenges and very few found the transition to be easy. Another unique finding within this research area was that almost all respondents said that their life is different because of their time on the PNNST emphasizing the immersive nature of thru-hiking.

Connection to the literature

There is abundant literature about the readjustment from immersive experiences. Christofi and Thompson (2007) found that individuals often experience culture shock when returning from immersive trips abroad and this was found in a lesser degree among thru-hikers where 35% felt that it was difficult getting into their old routine and adjusting back to regular society. The only current study available on the adjustment back to their everyday life (Turley, 2011) is bolstered by this research as far as noting the challenges adapting to new routines and the structure or lack of it in everyday life. The most striking difference between this study and Turley (2011) was that in the 2011 study, hikers

expressed that they encountered challenges in how to communicate their experiences to other non-hikers and how they struggled with the loss of community that they found on the trail, neither of which were brought up in PNNST interviews. The difference in results could be due to the pervasiveness of social media and the ability for thru-hikers to maintain contact with their trail community from afar.

Implications for the PNNST

While the PNNST is shorter than some other National Scenic Trails, there is still enough of an immersive nature to it that participants can encounter challenges adjusting back to their regular lives. The PNTA currently facilitates several Facebook pages, which allow for communication with others at any time. It is recommended that these pages be kept up and functioning as long as there are participating members so that they can keep the channels of communication open in case thru-hikers feel that they want or need to reach out and communicate, particularly during the beginning of their readjustment.

Implications for the thru-hiking community and thru-hike management

The challenges with readjustment have strong implications for thru-hikers, particularly those who have not thru-hiked before. Prospective thru-hikers are recommended to recognize that spending several months on trail could potentially be challenging to return from. It is recommended that thru-hikers allow themselves some time after they finish their hike to decompress and ease themselves back into regular life. Managers are recommended to provide resources about the potential challenges with readjustment that hikers can face. This could be as simple as adding a small webpage

with contact info for someone if people felt that they needed to reach out to various resources.

Future research

The readjustment for thru-hikers should be delved into further in future research. While in this study hikers were only asked if they interpreted their readjustment as easy or as having challenges, future questions could be asked as to the circumstances surrounding readjustment. Questions could be asked about how soon they returned to work after the hike, if they did something novel afterwards that distracted them from being bogged down by readjustment, or how soon thru-hikers felt that they had fully readjusted back to their regular life. Overall, there needs to be more studies on how recreational experiences impact the participants in the long term. This is an important aspect of the greater recreational experience and warrants investigation in all areas of recreation.

RQ5: “What aspects of the PNNST should be maintained or reconsidered in the face of the impending management plan?”

Findings

The PNNST will soon be creating its first management plan. One of the primary purposes of this study was to determine the aspects that thru-hikers feel should be maintained or reconsidered for future users of this trail. While there were explicit questions about qualities of the trail that should be maintained or changed, the results for Research Questions 1-4 also informed this question.

One quality that was mentioned frequently in pre-interviews was the reputation of the trail. What needs to be reconsidered on the actual PNNST are the road walks, particularly the paved road walks. The road walks were the most frequently identified aspect that should be changed and was commonly cited as a challenge for thru-hikers. Road walks can be dangerous for thru-hikers, particularly on busy, paved stretches. Bushwhacks were also identified frequently as a difficult challenge to overcome, mostly bushwhacks that were unexpected.

Interviewees at the two-month phase almost all felt that they gained skills while on the PNNST. Thru-hiking the PNNST caused the gain of several physical skills, including navigation, wilderness skills, and getting in better shape. These skills will potentially be beneficial in future thru-hiking endeavors. Thru-hikers also noted the acquisition of a variety of mental skills from their PNNST experience, including confidence, perseverance, patience, and a better understanding of themselves. The mental skills thru-hikers gained on the PNNST are applicable both in future thru-hiking

opportunities as well as in regular life. The character of the PNNST provides the opportunities for thru-hikers to acquire the skills that they reported gaining in this study.

Another notable finding from the investigation into the PNNST was the most memorable or talked about experience of the thru-hiker. The frequently identified aspects that were most memorable or talked about included specific locations, people met along the way, and trail towns. Managers should take a closer look at these aspects and why thru-hikers remember or talk about them the most before making alterations.

Connection to the literature

The literature on revising and planning an extended trail management plan exists in the manuals and plans of current National Scenic Trails. The Continental Divide National Scenic Trail (CDNST) has a planning handbook that was published in early 2018 to address how to incorporate the various land jurisdictions and their various rules into the management of the trail (Warren, 2018). The overall goal of this planning handbook is to establish the basic guidelines for the planning of the CDNST that are established by the various legal documents and proceedings that the trail must adhere to (Warren, 2018). The rules and regulations of the various land jurisdictions are not explicitly asked about in this study, although it is relevant to note that many hikers expressed frustration towards the National Park Service permitting system in place. If there were any potential to coordinate with the National Parks along the PNNST to aid thru-hikers in their permitting process, this could ease some tensions and challenges that hikers experience.

The comprehensive management plan for the PCT was published in 1982, which provides overall guidance and outline objectives for the development and management of the trail (USDA & USFS, 1982). Similar to the PNNST, the PCT is also managed by the USFS despite crossing through a variety of land jurisdictions. One of the greatest takeaways from this document is that there has not been an updated plan since 1982 and that the trail has experienced exponential growth since this time. The PNNST is creating their management plan during a time of growth and it needs to include the input of the thru-hikers as provided in this study. Public input is incorporated in the creation of management plans for National Scenic Trails, including the Arizona Trail (Titre & Sharp, 2012). The Arizona Trail (AZNST) public engagement report centered primarily on the input of locals living in the area around the trail, though it did include some input from users (Titre & Sharp, 2012). The results from this study are extremely relevant to both the impending PNNST management plan as well as for other National Scenic Trails who may be due for a management plan and would like to better understand what aspects that users on other National Scenic Trail do and do not prefer.

Along the AT, a pilot survey was conducted in order to better estimate visitation and use of the trail (Zarnoch et al., 2011). The report on the pilot study (Zarnoch, 2011) discussed the development of the prototype survey as well as the successes and failures of its implementation. While there would need to be adjustments made, managers could potentially glean more ideas into how best to understand visitor use along their trail corridor.

There has been recent controversy surrounding the PNNST based in the Yaak region of Montana. Some inhabitants of the Yaak region accuse the PNNST and its

increasing rate of thru-hikers of doing harm to the sensitive grizzly population that inhabits the region (Bass, 2017). While this is hotly contested by both the PNTA and the USFS, the controversy continues to grow as articles continue to be published in various news outlets both online and in print (Bass, 2016; Bass, 2018). The controversy will continue to persist as long as there is debate as to the impact that thru-hikers have on grizzlies.

Implications for the PNNST

It is recommended that the PNNST acknowledge the feedback from the thru-hikers in future management decisions. The trail currently has a reputation as a primitive, low usage trail that is in its infancy. While there certainly will be changes to the trail character as the PNNST grows and progresses, managers are recommended to consider maintaining the wild feeling and relatively undeveloped character of the trail, as it attracts thru-hikers beforehand. Bushwhacks are not an aspect that the researcher would recommend changing as they do add to the character of the trail and its reputation. However, managers are recommended to provide better communication and information available about the challenging aspects of the trail. Potentially adding information about recent burn areas where the trail may have blowdowns and adding videos of what road walking actually entails could alleviate much of the anguish that hikers feel about these features. While some hikers choose to do little to no research, those who choose to do extensive research should be able to have a strong grasp as to the physical features of the trail.

Implications for the thru-hiking community and thru-hiking management

While there are several aspects that the PNNST can improve on, prospective thru-hikers need to do their due diligence and research the aspects of the trail before setting out on their hike. The lack of research done by thru-hikers is likely not unique to the PNNST and managers should recognize this potential. Thru-hikers also are recommended to recognize the difficult aspects that accompany trails that are in their infancy.

Managers of other extended trails are recommended to take a look at what PNNST thru-hikers identified as aspects that they did not prefer and then take a look at the aspects on their own trails. It is recommended that trail managers also consider conducting further research into the features on their own trails that should be maintained or reconsidered in the future.

Future research

This study is the first conducted on the PNNST. There should be replications of this work in future years as the trail continues to grow and use changes. This study could also be utilized to create a survey that could be given to thru-hikers of any long distance trail. The academic literature is currently lacking comprehensive research, particularly on trails that are not the AT or PCT.

Due to the recent concerns surrounding the impact and interactions between PNNST thru-hikers and grizzly bears in the Yaak region of Montana, future research should be conducted to test for these impacts. The current accusations from some inhabitants of the Yaak region include that thru-hikers are harming the grizzly population (Bass, 2017). While the allegations are currently contested by the PNTA and USFS, there

needs to be research conducted to correlate hiker behavior and grizzly bear activity in the Yaak region.

Research Limitations and Future Research Opportunities

A challenge to this research is that there is no definitive count for the number of thru-hikers who attempted or finished the PNNST in 2017. Based on estimates by the PNTA, there were around 100 hikers attempting the trail with around 50 finishing, however these numbers are based off of firsthand knowledge from social media and interactions or from requests for maps. Despite not having a definitive number of hikers, this study strongly represents the hiking population on the PNNST. The entire population of this study represents 42% of anticipated hikers and the 30 finishing thru-hikers captured roughly 60% of the population of hikers who finished the PNNST in the 2017 season. Qualitative research necessitates that “samples are large enough that most or all of the perceptions that might be important are uncovered” (Mason, 2010). This study does include an ample sample size that meets guidelines for representation and saturation.

Another limitation exists in the recruitment process being almost exclusively online. Not every hiker is necessarily requesting maps from the PNTA website or on the Facebook pages where they could have encountered the request for participants. There also was a slight issue with the emails would regularly end up in participants’ “junk mail” folder. However, the researcher was out collecting fieldwork on the trail along the PNNST in Kootenai National Forest and Flathead National Forest in Montana. This allowed for the researcher to recruit some participants who may not have seen the online postings for the study.

Unfortunately, the 42 participants were not each interviewed in each of the phases of research. Instead, only 23 individuals participated at all phases. There were a significant amount of individuals who did not respond for a post-hike interview. This could be due to email complications, potentially not finishing the trail, or deciding that they no longer were interested in the study.

Another limitation to this study is in its generalizability. The results of this research are focused on the PNNST and there are different characteristics in other extended trails that could potentially make the results less generalizable.

Future Research Opportunities

This is the first attempt at understanding the thru-hiker experience through multi-phase semi-structured interviewing. The results of this study offer compelling insights about thru-hikers on the PNNST and potentially thru-hikers as a whole. To explore whether the results are generalizable, similar studies are needed on other long distance thru-hiking trails. While multi-phase semi-structured interviewing provides opportunities for in depth answers, the process is lengthy and the analysis is time intensive. Potentially a survey variation of the study would be an effective strategy to assess trends for thru-hiking. Through trail associations, websites, and social media, there could be channels for reaching thru-hikers both online and by other means for administration of the potential survey.

Thru-hiking has been on a dramatic rise throughout recent years and the rise is not expected to halt soon. The thru-hikers of 2017 may be entirely different in behaviors, expectations, numbers, and more in years to come. If a comprehensive survey is created,

this could be administered every five to ten years in order to gauge change in thru-hiker behavior, including expectations, challenges, coping, and readjustment.

Another area for future research that should be pursued concerns the impact and interactions between PNNST thru-hikers and grizzly bears in the Yaak region of Montana. There are currently accusations being made by some inhabitants of Yaak about the PNNST including that thru-hikers are harming the precarious grizzly population in the region (Bass, 2017). The allegations are strongly contested by the PNTA, USFS, and their employed biologists, however this is not enough. There needs to be a study conducted that correlates hiker behavior and grizzly bear activity in the Yaak region. This could be conducted within the University of Montana, as it has a strong wildlife biology program, connections with the PNNST, and ideas of thru-hiker behavior from this research.

Conclusions

The implications of this research reveal a multifaceted thru-hiker experience that varies based on previous experience as well as personal factors. The expectations that thru-hikers hold before they begin their hike influences their perceptions of the experience after completion. There needs to be plentiful, accurate information available on the physical aspects of the trail for thru-hikers to digest and comprehend if they so choose so that their experience is as consistent with expectations as possible. The challenges that thru-hikers face as well as the coping mechanisms vary based on levels of previous thru-hiking experiences. Despite being portrayed as a low use, remote trail, the PNNST has a vibrant social scene if hikers desire to partake in it. The readjustment after thru-hiking can be difficult, just as the return from any other immersive experience can be. As hikers do more trails and encounter the readjustment period repeatedly, they adapt and learn to expect the challenges or to stay busy to deal with the challenges. PNNST thru-hikers expressed a desire to have road walks changed or rerouted and the better preparation tools and sources of information. Many hikers also communicated that they hope that the PNNST remains primitive and minimally developed. The results of this study have strong implications for managers and for a greater understanding of the thru-hiking community. This research allows managers to make informed decisions for long distance trails and understand how those choices will affect the thru-hikers utilizing those trails. Without this understanding, managers will encounter unforeseen challenges on long distance trails because they do not understand the thru-hiking user group.

Thru-hiking is a growing field of recreation and it deserves to be recognized in academic literature. With a better understanding of thru-hikers, managers will be able to

better adopt their plans and strategies to incorporate the user group. This research creates an avenue for future investigation into the thru-hiking experience, particularly on minimally developed and growing trails. Thru-hiking is a unique form of recreation and there is so much that still needs to be better understood. The thru-hiker experience varies greatly on personal experiences and perceptions.

Recommendations for managers and thru-hikers

This study offers great insight into our understanding of the thru-hiking experience and has implications for managers. There are four primary recommendations for thru-hikers and managers of the PNNST. First, the PNNST and USFS can offer more information on the physical aspects such as potentially extreme weather, road walks, and the landscape such as adding photos, videos, and maps. Second, it is recommended that managers focus on relocating some parts of the trail off roads. While the researcher recognizes that this is happening, a recommendation is that managers not only search out existing trail to relocate road sections but also to consider moving these segments to bushwhacks. Bushwhacks are an anticipated and integral part of the already existing PNNST, so hikers will not be averse to potentially adding some more. A third recommendation for managers is that they attempt to maintain the character of the trail. Many hikers cited being attracted to the PNNST because of its undeveloped and primitive nature. The researcher suggests that managers keep this in mind, especially in the face of increased use in recent years and anticipated future growth. The final recommendation is for the thru-hikers to take ample time in researching the trail to avoid otherwise preventable challenges and so that expectations are not left sorely unmet.

Appendix A: Interview Questions

Interview 1: (Pre-hike)

1. Demographics: (Age, where they are from)
2. Do you have any previous thru-hiking experience?
3. Do you participate in other outdoor recreational activities? What activities?
4. Were there any factors that made the PNNST an ideal choice for your thru-hike?
5. Did you consider other thru-hiking trails? Why or why not?
6. What about the PNNST is attractive to you as an outdoor recreationist?
7. What do you expect the trail to be like? (Grade, weather, etc.)
8. What are you expecting as far as an individual experience on the PNNST?
9. Tell me about what you think or expect the social experience will be on the trail.
10. How did you prepare for the PNNST? (Guidebooks, forums, etc.) Which was the most helpful?
11. Did you prepare physically or mentally at all?
12. What is your anticipated start date and finish date?
13. How do you plan to get to Chief Mountain? How do you plan to get back from Cape Alava?
14. How heavy do you think your pack will be?
15. Are you hiking alone or with a group? Why or why not?
16. Is there anything specific going on in your life that motivated you to thru-hike?
17. Is there anything else you'd like to add about your preparation process?

Interview 2: (Post-hike)

1. What was your approximate start date and finish date?
2. How many zero days did you take during your thru-hike? Where and why?
3. How did your experience on the PNNST compare to your expectations?
4. What were the toughest and most rewarding things you found on the trail?
5. Tell me about some adversities or challenges you encountered and how you dealt with them. Were these challenges consistent with your expectations?
6. The PNNST is a long hike. Was there anything mentally or physically that you think helped you to succeed?
7. Did you join up with any other hikers while you were on the PNNST?
8. Did you stay on the designated route? If not, where did you go and why?
9. Did you have to reroute or reconsider your route based on fire at all this year?
10. Did you encounter any wildlife while on the trail? What was your experience? Were you prepared to interact with wildlife on the trail?
11. Which trail towns did you visit? What was your experience in the town? How were your interactions with the local community? Was there anything in the towns that could be improved for the hikers?
12. Did you change what you carried in your pack by the end? What did you lose or gain and why?
13. Do you think the PNNST experience will have an impact on your future?
14. Has your experience on the PNNST changed or bolstered your feelings or future actions for conservation in any way?

15. Is there anything that you didn't like or would like to see changed on the PNNST for future hikers?
16. Do you plan on staying active about your experience on social media in any way?
17. Would you be open to me contacting you again in two months for a quick follow up?
18. Is there anything else you'd like to add about your experience on the PNNST?

Interview 3: (two months after hike)

1. Has your adjustment back to regular life been easy or have there been any challenges?
2. Do you think that your life is different at all because of your experience on the PNNST?
3. What skills (mental or physical) did you gain?
4. Looking back, was there anything mentally or physically that you think really helped you on your journey?
5. Which portion of your experience do you talk about the most or remember the most and why?
6. Do you keep in touch with anyone that you met on the trail?
7. Thinking back on your PNNST experience, do you think you would've done anything differently?
8. Would you do another hike like this? Why or why not?
9. Would you recommend this trail to other people?
10. Is there anything else you'd like to add about your PNNST experience?

Appendix B: Screenshots of PNT Facebook Pages and Forums

“PNT Class of 2017” Facebook group screenshot

The screenshot displays the Facebook interface for the "PNT Class of 2017" group. The browser address bar shows the URL: <https://www.facebook.com/groups/PNT2017/>. The group name "PNT Class of 2017" is visible in the top navigation bar, along with a search icon and the user's name "Taylor".

The group cover image shows two people walking on a beach. Below the cover, the group name "PNT Class of 2017" is displayed, followed by "Closed Group" and buttons for "Joined", "Share", "Notifications", and a menu icon.

The main content area features a "Write Post" section with options to "Add Photo/Video", "Add File", and "More". Below this is a "PINNED POST" with a greyed-out profile picture and the text: "Roll Call! If you're attempting a thru-hike this year, let us know here!". It has 3 likes and 21 comments, and was seen by 48 people.

Below the pinned post is a "RECENT ACTIVITY" section with another greyed-out profile picture and the text: "Who's got their Glacier permits already? Any campsite suggestions?". It has 1 like and 1 comment.

The right sidebar contains several sections: "ADD MEMBERS" with a search field and a "79 Members" count; "MEMBERS" with a grid of member profile pictures; "SUGGESTED MEMBERS" with "Add Member" buttons; "DESCRIPTION" stating "This is a group for 2017 Pacific Northwest Trail users and those..."; "GROUP TYPE" listed as "Club"; and "TAGS" including "Thru-hiking", "Pacific Northwest Trail", and "National Scenic Trail".

The bottom right corner of the page features the text "BRING PEOPLE TOGETHER" and a "46%" metric.

“Pacific Northwest Trail Thru-hikers Facebook group screenshot

Pacific Northwest Trail Thru-Hikers
Closed Group

Joined | Share | Notifications

Discussion | Members | Events | Videos | Photos

Search this group

Write Post | Add Photo/Video | Add File | More

Write something...

RECENT ACTIVITY

YOU HAVE BEEN CHALLENGED!! Hike, walk, run or crawl 1 mile on New Year's Day!! You've got this!!
<https://www.facebook.com/events/1797519733844579/>

CAN'T SPELL CHALLENGE WITHOUT CHANGE
WE GOING TO RISE TO CHALLENGE, YOU HAVE CHANGED TO CHANGE

ADD MEMBERS
+ Enter name or email address...

MEMBERS 498 Members (1 new)

SUGGESTED MEMBERS Hide
Add Member
Add Member
Add Member
See More

DESCRIPTION
This page is for anyone who has hiked, plans to hike, or dreams ... See More

TAGS
Hiking · Pacific Northwest Trail · Thru-hiking

BRING PEOPLE TOGETHER
Groups are separate spaces where you can share ... 46%

“PNT Hikers” Facebook group screenshot

PNT Hikers
Public Group

About
Discussion
Members
Events
Videos
Photos
Files

Search this group

Shortcuts

- Tetris Battle
- PNT Hikers
- Montana Pets (20+)
- First Friday Featured M...
- First Friday at the Dog ...
- Thru-hiker Dogs (2)
- PNT Class of 2017
- Beers, Bands & Public ...
- Pacific Northwest Trail ...

See more

Group by Pacific Northwest Trail Association

Joined | Notifications | Share | More

Write Post | Add Photo/Vid... | Live Video | More

Write something...

Photo/Video | Poll | Feeling/Acti... | More

RECENT ACTIVITY

alright I know coverage is gonna be rough but I was wondering which carrier you used while hiking the PNT and how well did it work? I am trying to decide which cut rate (Cricket Metro pcs etc) to go with this

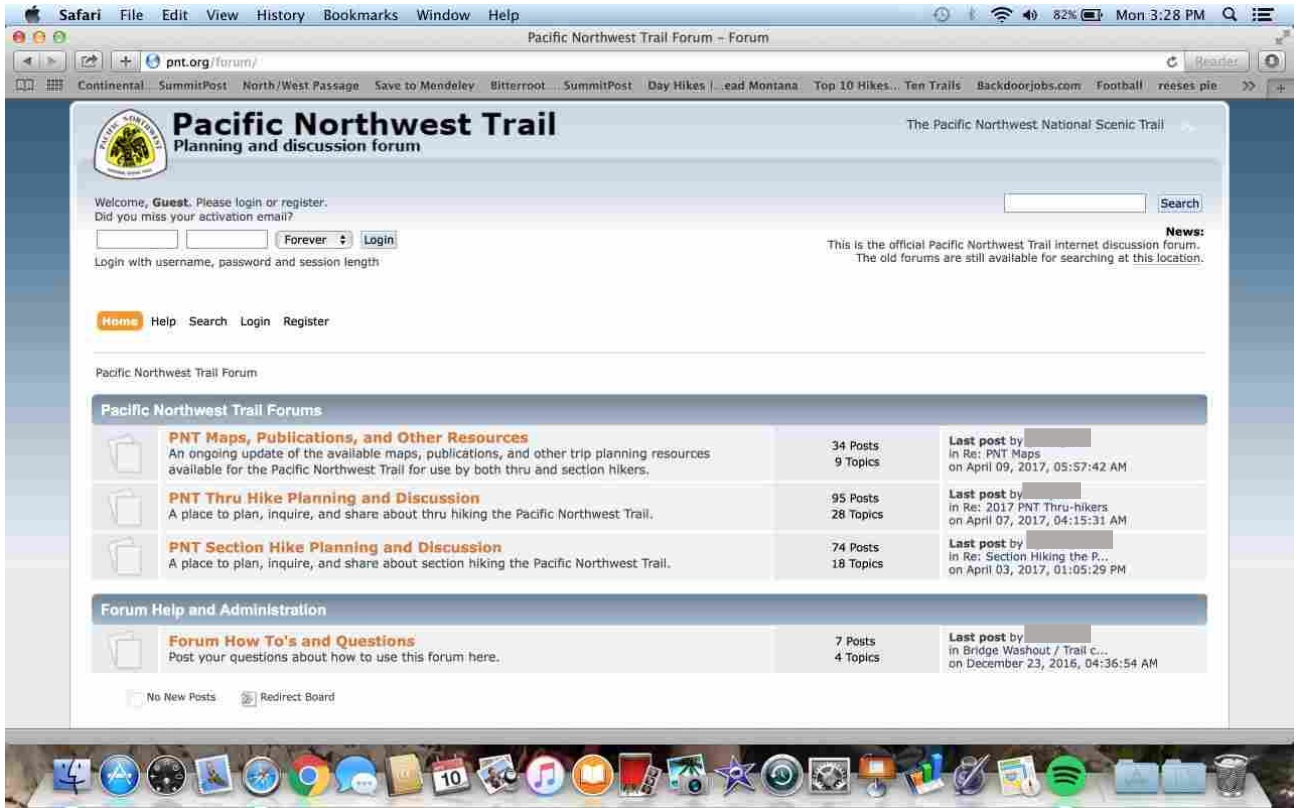
GROUP BY
Pacific Northwest Trail Associati
12,081 like this
Donate

ADD MEMBERS
Enter name or email address...

MEMBERS
1,893 Members

SUGGESTED MEMBERS
Friends

Pacific Northwest Trail Association forum screenshot



References

- Adler, N. J. (1981). Re-entry: Managing cross-cultural transitions. *Group & Organization Management*, 6(3), 341-356.
- Antoušková, M., Mikulec, J., & Kolářová, A. (2014). Hikers' Motives for Choosing a Hiking Trail-Evidence from the Czech Landscape Protected Areas. In *SHS Web of Conferences*(Vol. 12, p. 01075). EDP Sciences.
- Appalachian Trail Conservancy [ATC]. 2000 Milers. (n.d.). Retrieved March 22, 2017, from <http://www.appalachiantrail.org/home/community/2000-milers>
- Arnold, K. D. (2007). Education on the appalachian trail: What 2,000 miles can teach us about learning. *About Campus*, 12(5), 2-9.
- Babbie, E. R. (2016). *The practice of social research*. Boston, MA: Cengage Learning.
- Bass, R. (2016). Consider the grizzly bear, while you can. *The Missoulian*. Retrieved February 10, 2018 from: http://missoulian.com/news/opinion/columnists/consider-the-grizzly-bear-while-you-can/article_10133007-5de5-587c-92c8-72fdbfbf3325.html
- Bass, R. (2018). What the most endangered grizzlies in the lower 48 don't need: a national hiking trail through their territory. *Los Angeles Times*. Retrieved March 4, 2018 from: <http://www.latimes.com/opinion/op-ed/la-oe-bass-grizzlies-pacific-northwest-trail-20180304-story.html>
- Bass, R. (2017). Why thru-hiking would be a disaster for the Yaak Valley. *High Country News online*. Retrieved on February 12, 2018 from: <https://www.hcn.org/issues/49.11/why-the-proposed-pacific-northwest-trail-would-be-a-disaster-for-the-yaak-valley>
- Berg, A. (2015). " To Conquer Myself": The New Strenuousness and the Emergence of " Thru-hiking" on the Appalachian Trail in the 1970s. *Journal of Sport History*, 42(1), 1-19.
- Berg, B. L. (2004). Methods for the social sciences. *Qualitative Research Methods for the Social Sciences*. Boston: Pearson Education.
- Berkwits, M., & Inui, T. S. (1998). Making use of qualitative research techniques. *Journal of general internal medicine*, 13(3), 195-199.
- Bruce, D. (1995). *The Thru-hiker's Handbook 1995*. Center for Appalachian Trail Studies.

- Chen, C. H., Chang, Y. H., & Fan, F. C. (2012). Adolescents and leisure activities: The impact of expectation and experience on service satisfaction. *Social Behavior and Personality: an international journal*, 40(2), 259-265.
- Christofi, V., & Thompson, C. L. (2007). You Cannot Go Home Again: A Phenomenological Investigation of Returning to the Sojourn Country After Studying Abroad. *Journal of Counseling & Development*, 85(1), 53-63. doi:10.1002/j.1556-6678.2007.tb00444.x
- Coble, T. G., Selin, S. W., & Erickson, B. B. (2003). Hiking alone: Understanding fear, negotiation strategies and leisure experience. *Journal of Leisure Research*, 35(1), 1-22.
- Coghlan, A., & Gooch, M. (2011). Applying a transformative learning framework to volunteer tourism. *Journal of Sustainable Tourism*, 19(6), 713-728.
- Cole, D. N. (2004). Impacts of hiking and camping on soils and vegetation: a review. *Environmental impacts of ecotourism*, 41-60. doi:10.1079/9780851998107.0041
- Cong, G., Wang, L., Lin, C. Y., Song, Y. I., & Sun, Y. (2008, July). Finding question-answer pairs from online forums. In *Proceedings of the 31st annual international ACM SIGIR conference on Research and development in information retrieval* (pp. 467-474). ACM.
- Cook, A., & Leckey, J. (1999). Do Expectations Meet Reality? A survey of changes in first- year student opinion. *Journal of Further and Higher Education*, 23(2), 157-171.
- Cordell, H. K., & Super, G. R. (2000). Trends in Americans' outdoor recreation. *Trends in outdoor recreation, leisure and tourism*. 133-144. doi:10.1079/9780851994031.0133
- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253.
- Durkheim, E. Selected Writings. Cambridge University Press, Cambridge, England, 1972
- Esbensen, F. A., Huizinga, D., & Weiher, A. W. (1993). Gang and non-gang youth: Differences in explanatory factors. *Journal of Contemporary Criminal Justice*, 9(2), 94-116.
- Freidt, B., Hill, E., Gomez, E., & Goldenberg, M. (2010). A benefits-based study of Appalachian Trail users: Validation and application of the benefits of hiking scale. *Physical Health Education Nexus*, 2(1).

- Goldenberg, M., Hill, E., & Freidt, B. (2008). Why individuals hike the Appalachian Trail: A qualitative approach to benefits. *Journal of Experiential Education, 30*(3), 277-281.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford University Press.
- Hill, E., Goldenberg, M., & Freidt, B. (2009). Benefits of hiking: A means-end approach on the Appalachian Trail. *Journal of Unconventional Parks, Tourism & Recreation Research, 2*(1), 19.
- Hindelang, M. J., Hirschi, T., & Weis, J. G. (1981). *Measuring delinquency*. Beverly Hills: Sage Publications.
- Hirschi, T. (1969). A control theory of delinquency. *Criminology theory: Selected classic readings, 289-305*.
- Iwasaki, Y., & Schneider, I. E. (2003). Leisure, stress, and coping: An evolving area of inquiry. *Leisure Sciences, 25*(2-3), 107-113.
- Jacob, G. R., & Schreyer, R. (1980). Conflict in outdoor recreation: A theoretical perspective. *Journal of leisure research, 12*(4), 368.
- Ketterer, W. P. (2011). Psychological change among Appalachian trail thru-hikers: An interpretive phenomenological analysis. *Antioch University New England*.
- Kyle, G., Graefe, A., & Manning, R. (2004). Attached recreationists... Who are they. *Journal of Park and Recreation Administration, 22*(2), 65-84.
- Littlefield, J., & Siudzinski, R. A. (2012). 'Hike your own hike': equipment and serious leisure along the Appalachian Trail. *Leisure Studies, 31*(4), 465-486.
- Lum, C. S., Keith, S. J., & Scott, D. It may be "Wild", but is it authentic? Contested activity and authenticity among Pacific Crest Trail hikers.
- Marion, J. L., Leung, Y., Eagleston, H., & Burroughs, K. (2016). A Review and Synthesis of Recreation Ecology Research Findings on Visitor Impacts to Wilderness and Protected Natural Areas. *Journal of Forestry, 114*(3), 352-362. doi:10.5849/jof.15-498
- Marion, J. L. (2016). A Review and Synthesis of Recreation Ecology Research Supporting Carrying Capacity and Visitor Use Management Decisionmaking. *Journal of Forestry, 114*(3), 339-351. doi:10.5849/jof.15-062

- Mason, M. (2010, August). Sample size and saturation in PhD studies using qualitative interviews. In *Forum qualitative Sozialforschung/Forum: qualitative social research* (Vol. 11, No. 3).
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.
- Miller, T. A., Freimund, W. A., & McCool, S. F. (1998). Stress and coping in recreational settings: a transactional approach. Paper presented at the Seventh International Symposium on Society and Resource Management, University of Missouri-Columbia, May 27–31.
- Miller, T. A., & McCool, S. F. (2003). Coping with stress in outdoor recreational settings: An application of transactional stress theory. *Leisure Sciences*, 25(2-3), 257-275.
- Mills, A. S., & Butler, T. S. (2005). Flow experience among Appalachian Trail thru hikers. *Proceedings of the 2005 Northeastern recreation research symposium*. 366-370.
- Moxham, L., Liersch-Sumskis, S., Taylor, E., Patterson, C., & Brighton, R. (2015). Preliminary outcomes of a pilot therapeutic recreation camp for people with a mental illness: Links to recovery. *Therapeutic Recreation Journal*, 49(1), 61.
- Narangajavana, Y., Fiol, L. J. C., Tena, M. Á. M., Artola, R. M. R., & García, J. S. (2017). The influence of social media in creating expectations. An empirical study for a tourist destination. *Annals of Tourism Research*, 65, 60-70.
- National Parks Service [NPS] (2008). Appalachian National Scenic Trail Resource Management Plan. https://www.nps.gov/appa/learn/management/upload/Appalachian_Trail_Resource_Management_Plan.pdf
- National Scenic Trails Act [NTSA] (2009). <https://www.nps.gov/nts/legislation.html>
- National Survey of Recreation and the Environment [NRSE]. (2003). American's participation in outdoor recreation. <http://www.srs.fs.usda.gov/trends/Nsre/Rnd1t13weightrpt.pdf>
- Outdoor Industry Association (2012). The outdoor recreation economy. 1-18. Retrieved February 8, 2018 from https://outdoorindustry.org/pdf/OIA_OutdoorRecEconomyReport2012.pdf

- Outdoor Foundation. (2017). Outdoor recreation participation topline report. 1-9. Retrieved February 6, 2018 from https://outdoorindustry.org/wp-content/uploads/2017/04/2017-Topline-Report_FINAL.pdf
- Pacific Crest Trail Association [PCTA] (n.d.). PCT visitor use statistics. Retrieved March 22, 2017 from <https://www.pcta.org/our-work/trail-and-land-management/pct-visitor-use-statistics/>
- Reeves, S., Albert, M., Kuper, A., & Hodges, B. D. (2008). Why use theories in qualitative research. *Bmj*, 337(Aug. 07, 3), 631-634.
- Robitschek, C. (1996). At-risk youth and hope: Incorporating a ropes course into a summer jobs program. *The Career Development Quarterly*, 45(2), 163-169.
- Rush, L. S. (2002). *Multiliteracies and design: Multimodality in the Appalachian Trail thru-hiking community* (Doctoral dissertation, University of Georgia).
- Saskatchewan Parks and Recreation Association. *Community Recreation Forum*. <https://www.spra.sk.ca/resources-and-advocacy/organizational-resources/community-recreation-forum/>
- Seabra, C., Abrantes, J. L., & Lages, L. F. (2007). The impact of using non-media information sources on the future use of mass media information sources: The mediating role of expectations fulfillment. *Tourism Management*, 28(6), 1541-1554.
- Seidman, I. (2006). *Interviewing as qualitative research: a guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Stephenson, J., & Gyn, G. V. (1986). Why do people recreate?. *Recreation British Columbia*, (November/December), 17-18.
- Strauss, Anselm & Corbin, Juliet (1998 [1990]). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Titre and Sharp (2012). *Public Engagement Report for the Arizona National Scenic Trail Comprehensive Management Plan*. For the United States Forest Service Southwestern Region. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd567374.pdf
- Thapa, B. (2010). The mediation effect of outdoor recreation participation on environmental attitude-behavior correspondence. *The Journal of environmental education*, 41(3), 133-150.

- Turley, B. (2011). *Assessment of readjusting to life after completing a thru-hike of the Appalachian Trail*. California Polytechnic State University, San Luis Obispo.
- United States Department of Agriculture [USDA] & United States Forest Service [USFS], 1982. Comprehensive management plan for the Pacific Crest National Scenic Trail. Retrieved February 8, 2018 from: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5311111.pdf
- Van Wagendonk, J. W. (1981). The effect of use limits on backcountry visitation trends in Yosemite National Park. *Leisure Sciences*, 4(3), 311-323.
- Warren, 2018. Continental Divide National Scenic Trail planning handbook. P. 1-79. Retrieved February 4, 2018 from: http://nstrail.com/management/cdnst_planning_handbook.pdf
- Washington Trails Association (WTA). *Someone to hike with: hiking groups and resources*. <http://www.wta.org/go-outside/basics/someone-to-hike-with-hiking-groups-and-resources?gclid=CJvIqLiQn9MCFYGHfgod5wYOjQ>
- Williams, D. R. (1989). Great expectations and the limits to satisfaction: A review of recreation and consumer satisfaction research. In *Outdoor recreation benchmark 1988: Proceedings of the national outdoor recreation forum* (pp. 422-438). Ogden: USDA Forest Service. USDA Forest Service general Technical Report SE-52.
- Wilson, T. D., Lisle, D. J., Kraft, D., & Wetzel, C. G. (1989). Preferences as expectation-driven inferences: effects of affective expectations on affective experience. *Journal of personality and social psychology*, 56(4), 519.
- Wolf, I. D., & Wohlfart, T. (2014). Walking, hiking and running in parks: A multidisciplinary assessment of health and well-being benefits. *Landscape and Urban Planning*, 130, 89-103.
- Yin, R. K. (2009). *Case study research: design and methods*. Los Angeles: Sage Publications.
- Zealand, C. (2007). *Decolonizing experiences: an ecophenomenological investigation of the lived-experience of Appalachian Trail thru-hikers*. Waterloo, Ont.: University of Waterloo.
- Ziegler, M. F., Paulus, T., & Woodside, M. (2014). Understanding informal group learning in online communities through discourse analysis. *Adult Education Quarterly*, 64(1), 60-78.
- Zweier, D. (2016, October 12). Appalachian Trail on the Rise. Retrieved March 23, 2017, from <https://backpackers.com/appalachian-trail-on-the-rise/>