Not All Who Wander are Lost: An Ethnographic Study of Individual Knowledge Construction within a Community of Practice

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(ABSTRACT)

This focused ethnography of Appalachian Trail (AT) long-distance hikers explored the situated and informal nature of individual knowledge construction as mediated through a community of practice. Unlike place-based or cyber-bound communities, the ever-changing membership and location dynamics of AT hikers offered a unique and researchable community for study. The complex and understudied sensemaking trajectories of individuals moving through this mobile community were investigated over three years through in-depth interviews and participant observations. Inductive analysis of expert and novice stories illuminated experiential patterns and collective traditions that comprise the AT learning culture. In contrast to traditional approaches to knowledge and skill acquisition, this study found socio-reflective exchanges, nested in hiking pods, to be critical sites for cognitive modeling and informal scaffolding between experts and novices. The situated encounters and developmental support of these nomadic pods were found to facilitate individuals' construction of community-based knowledge.

DEDICATION

To Meghan,

who melts my heart

comforts my soul,

engages my mind,

and inspires my passion.

To Joan and Robert M.

Two wonderful parents, two wonderful educators

who never cease to inform, inspire, and support my dreams.

To Grandma Fitz

Got to it…

To Jennifer

…and got it done!

and

To my Appalachian Trail long-distance hiking community,

who passionately and tirelessly supported this project,

my academic equivalent of Katahdin.

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Chapter 1

INTRODUCTION

My first hiking experience along the Appalachian Trial, or simply "AT," was in 1983. Since then, I have enjoyed short-term and extended trips along this scenic and historic trail. Four years ago, I uncovered a mystery in the mountains of southern Appalachia at the intersection of my passion for the trail and my research on knowledge construction and communal learning processes.

This study was prompted by that backpacking experience I had in 2002 along a local Virginia section of America's most famous hiking trail. I was enjoying a friendly lunch conversation with two AT hikers who made two brief, yet provocative, comments that packed themselves deep inside my mind that sunny day. Those seasoned "thru-hikers"[1] mentioned:

> Yeah, I'd been hikin' before. Several times. I had bought and read all the books. And there's tons on the web too! I even talked to several folks who had done it before, but I never really got it…I never really learned how to hike the trail until I got to the trail. (Thru-hiker "A", 2002)
>
> It's not the miles, it's the smiles. I figured that out on my last trip. By Neel's Gap most have figured out the whole gear thing. By the first month to month and a half, you're pretty much in shape. After that, it's the people. It's the people that keep you walking…we're a north-bound community all wantin' to reach Katahdin. (Thru-hiker "B", 2002)

Referring to their "AT community," these long-distance hikers reported feeling a

[1] Extreme trail users who choose to hike the entire AT footpath in one continuous hike.

sense of membership in a unique group that travels and lives along the trail for four to eight months of the year. Their comments, made between handfuls of raisins and peanuts, intrigued me and prompted some questions that I would later develop into this dissertation research: How is this mobile group of AT hikers like a community? How do new hikers integrate into such a community? How, reflecting on Hiker B's comment, does the community influence the individual? And why, as reported by Hiker A, is there such a knowledge discrepancy between what was prepared for before a long hike, and what was actually experienced on the AT? I needed to know more.

For my 2003 pilot study (see Appendix C), I approached more AT long-distance hikers during a public hiker event organized in New Hampshire every two years. Hearing repeated stories about the importance and value of place-based practice and community support, while learning their specialized activity, engaged my curiosity as an educational psychologist. The comments of Hikers A and B echoed across my conversations with more and more hikers, who consistently stressed two dominant points, paraphrased: (a) You wouldn't learn about AT long-distance hiking until you actually get to the trail; and (b) The trail 'community' really helps you to make sense of AT long-distance hiking. These two ideas ignited my interest in exploring the situated and social nature of learning within this community of practitioners, and further fueled my fascination with individual knowledge construction processes.

Significance of the Study

Wenger, McDermott and Snyder (2002) define "communities of practice" as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing

basis" (p. 7). When novice learners enter such communities, they consciously and unconsciously seek to integrate the community-based ways in which meanings, beliefs, and understandings are negotiated and reflected in their practice (Buysse, Sparkman, & Wesley, 2003; Wenger, 1998). Through interactive and reciprocal relationships, the individual, by way of the community, comes to understand the subject matter, associated skills, and the community's overall practice. To investigate the situated and informal nature of individual knowledge construction, I examined a theoretically defined, yet understudied, community of practice (Lave & Wenger, 1991): the intriguing AT long-distance hikers. Growing curiosities about naturalistic learning inspired my quest for more informative AT hiker stories. Prepared with qualitative methodologies, I approached the community to observe and learn more about the learning practices of AT long-distance hikers in their situational and informal settings.

The power and potential of learning in and through communities has attracted increased attention and research in both business and academic settings, yet studies investigating the nature of situated learning in informal contexts are slow in coming (Barab, Hay, & Lynch, 2001; Barab & Roth, 2006; Cook & Smith, 2004). With the ever-changing nature of home, school, and workplace dynamics in modern society, the call remains to investigate how situated learning processes emerge in informal communal environments. Continued research can help us better to understand how situated communal learning might be better cultivated, appropriately supported through technology, and maintained as a viable and mutually beneficial learning phenomenon (Cook & Smith, 2004; Livingstone, 2000; Wenger, McDermott, & Snyder, 2002). Yet little is known about how these informally networked systems function and the ways in

which learning through community might be facilitated or hindered through social dynamics. My work is a response to the call for further study of the educational significance of situated and informal context in understanding communities of practice (Barton & Tusting, 2005; Vaughn, 2005).

AT long-distance hikers form a distinctive community with stories, rituals, traditions, and a collective identity (Rush, 2003), and thereby represent a unique culture and opportunity to investigate situated learning in less overt, structured, or traditional settings. The AT is a 2,175-mile footpath that follows the course of the Appalachian Mountain Range between the states of Georgia and Maine. Since its completion in 1937, thousands of hikers have walked the entire trail. Some, called "section" hikers connect long sections of the path piece-by-piece, year-by-year, while "thru" hikers complete the trip in one continuous walk. Each year, approximately two thousand highly motivated thru-hikers set out to accomplish an uninterrupted hike of the entire trail within a four to eight-month period. Only about 25% succeed (Appalachian Trail Conservancy, 2006). Collectively, section hikers and thru-hikers form a researchable community that is identifiable and connected through their shared practice of long-distance hiking.

Since individual AT long-distance hikers are not enrolled in academic courses, structured online programs, or supervised organizational trainings, they can be considered prime candidates for informal learning (McGivney, 1999). The unique nature of hikers' small group dynamics (i.e., involving a fluid and often diversified group membership), situated within the larger AT community of practice, provides a robust environment for the investigative study of human knowledge construction. Though a small sampling of researchers have studied AT hikers regarding questions of motivation, changes in fitness,

and ecological and tourism impact, no researcher to date has examined the learning processes within this informal community of practice.

Purpose of the Study and Research Questions

The over-arching goal of this study was to explore how long-distance hikers learn to negotiate the AT. The purpose of this research was to examine the situated and informal nature of individual knowledge construction within a community of practice. Guiding research questions included:

(a) What factors help or hinder the learning processes of AT long-distance hikers?

(b) How are the AT long-distance hikers a community of practice, and what role does this community play in individual knowledge construction?

Definitions

Several terms relevant to this study are clarified and operationally defined here. An extensive list of community-specific terminology is also found in Appendix B.

AT trail user. Any human who moves across any section of trail marked the AT for any period of time (e.g., five minutes to five months). This includes use of the AT to connect to alternative hiking trails. Under the purview of the Appalachian Trail Conservancy and National Park Service, the use of horses, bicycles, or motorized vehicles is prohibited on the trail. Therefore the term generally refers to those traversing the AT by foot.

AT long-distance hikers. Hikers intending to complete the entire length of the AT in one continuous hike or a combination of section hikes. For this study, 'novice' AT long-distance hikers were classified as having hiked over 200 miles, but less than 2,000. 'Expert' AT long-distance hikers were classified as such after having

completed over 2,000 AT miles.

Community of practice. A group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis (Wenger et al., 2002).

Community pillar. An expert AT long-distance hiker who is typically a perennial of the trail and long-term contributor to trail-related publications and the community's annually organized events. Community pillars include repeat hikers of the AT, authors, outfitters, trail maintainer, hostel owners, event organizers, and historic providers of trail support.

Knowledge construction. Individual and social sensemaking processes used by learners to make meaning from their experiences.

Lived experience. Refers to actual events in the AT long-distance hikers' lives and the meaning they attached to those experiences (Rossman & Rallis, 2003).

Situated nature. Place-based interaction in the original, natural, or existing environment. Addresses the contextual and reciprocal conditions of learning.

Trail community. The constellation of hikers and organizations that collaboratively support the use, protection, and repair of the trail. The "community" includes intentional trail users, those who build or repair the trail, the vehicle drivers who consistently shuttle trail users to and from the path, hostel owners who feed and house AT long-distance hikers, outfitter shops that sell and repair gear, and those who hold formal and in some cases reimbursed roles such as trail runner, shelter and trail maintainer, and Appalachian Trail Conservancy (ATC) leadership.

Summary and Document Overview

AT long-distance hiking is a domain ideally suited for the exploration of knowledge construction mediated through a community of practice. The following research is a response to the call for further study of the significance of situated and informal learning contextualized within communities of practice (Barab & Roth, 2006; Barton & Tusting, 2005; Vaughn, 2005). As an educational psychologist, I am fascinated with the ways in which individuals make sense of their lived experience as they moved within and through the oft-hidden structure of a community. This dissertation is organized into six chapters.

Chapter 1 describes the scenario and pilot study that inspired this research. The purpose for the study and an overview of the problems addressed by the research questions are also introduced.

Chapter 2 begins by providing a review and historic perspective on the AT from trade publications and travel account literature. Overviews of the theories and concepts underlying knowledge construction, situated and informal learning, and communities of practice are described. The chapter concludes with a discussion on symbolic interactionism and how it was used as the theoretical frame for the design of this study.

Chapter 3 details the ethnographic methodology employed to address the purpose of my research, examining the situated and informal nature of individual knowledge construction within a community of practice. The chapter outlines the approaches used to answer the research questions and provides details on the research participants, data collection procedures, and analyses employed.

Chapter 4 begins with a scenario that attempts to contextualize this study by describing a typical day in the life of an AT long-distance hiker, including the types of

knowledge related to effective long-distance hiking on the AT. This chapter also describes knowledge exchange mechanisms and situated conditions, and answers my first research question of what factors help or hinder the learning processes of AT long-distance hikers.

Chapters 5 answers my second research question by defining how AT long-distance hikers are a community of practice, and the role this community plays in individual knowledge construction. Here, I show how a newcomer becomes a community member, and explore the symbols and enculturation rituals of AT long-distance hikers. I detail community ethos, structure, affiliations, and hierarchies, and describe the community's nested support system. The second half of this chapter answers the second half of this research question by examining the critical spaces and roles that aid individual knowledge construction. Through stories and hiker quotes, I trace the situated and informal learning dynamics of AT long-distance hikers.

Finally, in chapter 6, I integrate the broad findings of the dissertation to address the over-arching goal of this study; that is, to explore how long-distance hikers learn to negotiate the AT. Sharing my own discoveries as an ethnographer and hiker, I profile the unique strategies and dispositions used by expert AT long-distance hikers. This chapter concludes with a discussion of the educational and conceptual contributions from my research, while offering critique and closing comments generated from study insights.

Chapter 2

REVIEW OF LITERATURE

This literature review has four sections that are based on, and conceptually aligned with, the opening hiker vignette and related research questions that guided this study. The four sections include: (a) an overview of the Appalachian Trail literature; (b) a survey of the theories related to knowledge construction and social learning; (c) theories related to community include social-cognitive, socio-cultural, situated and informal learning, and communities of practice; and (d) an overview of symbolic interactionism as a logical theoretical frame for the ethnographic study of learning through community.

The Appalachian Trail

The Appalachian National Scenic Trail, commonly referred to as the Appalachian Trail, or "AT," runs 2,175 miles along the eastern United States. With terminal points on Springer Mountain in Georgia and Mt. Katahdin in Maine, this federally and state-protected trail winds its way through 14 states, 8 national forests, and 6 national parks, and is described as "a connecting thread, stitching together the patchwork geography of eastern America" (Marshall, 1998, p. 4). A unit of the national park system, the AT was established by Congress in 1968 as the first National Scenic Trail, yet the concept of the AT dates to the turn of the 20th century.

Hiking clubs in New England had been building footpaths and dreaming of a trail that would stretch across the Appalachians since the early 1900s (ATC, 2006). On the other side of the country, Sierra Club founder John Muir was blazing a trail in California's High Sierra, while the wilderness protection and recreation development work of Aldo Leopold eventually lead to the western development of the 2,650 mile long

Pacific Crest Trail, and the 3,100 mile long Continental Divide Trail (Berger, 2002). Though the idea for a continuous greenway for foot travel was shared by many and in different regions of the country, Benton MacKaye is credited with the idea of the AT.

The Dreamer

A Connecticut-born philosopher and regional planner, the AT grew from MacKaye's interest in the effect of land management on human behavior. In his article, "An Appalachian Trail: A Project in Regional Planning" found in the October 1921 issue of the Journal of the American Institute of Architects, he first proposed the reservation of a wilderness environment to provide an outdoor experience for urban laborers. An intentional community created for education, service, and the appreciation and conservation of nature (Adkins, 1998; Curran, 1995), this wilderness environment was to include farm camps throughout the Appalachians with a footpath as its connecting link. MacKaye sought "regeneration of the human spirit through . . . harmony with primeval influences" (ATC, 1996, p. 2). Believing that the relationship between human beings and nature was of primary importance, MacKaye saw the AT as a means of preserving this relationship (Chase, 1989). In addition, he believed that the founding of linked communities near the trail would foster close exchange among diverse members of these communities (Warren & Kocher, 1979).

MacKaye, a pioneering thinker with the concept of connecting learning communities, imagined a grand trail that would link a series of farms and wilderness work and study camps for city-dwellers. He was able to inspire a dedicated crew of trailblazers with this dream, work began, and the first section of the trail was opened in 1923. To build additional support and maintain volunteer momentum, MacKaye

organized an Appalachian Trail conference held in Washington, DC, in the March of 1925. This initial two-day conference resulted in the formation of the Appalachian Trail Conference (ATC) organization, now located in Harpers Ferry, WV. The ATC worked to organize volunteers for the next several decades in the development, mapping, and protection of this footpath.

The 1960s saw an increase in the protection of this trail, and other national scenic trails found within the national park and national forest systems with Congress's passing of The National Trails System Act of 1968. The AT is now managed as a unit of the National Park System under a cooperative management system in which the ATC and its 31 member clubs and volunteers maintain the trail and over 250 shelter facilities. Now called the Appalachian Trail Conservancy, the ATC modified its name in 2005 to better reflect it primary mission related to the AT.

The ATC is a volunteer-based, private, non-profit organization dedicated to the preservation, management, and promotion of the AT as a primitive setting for outdoor recreation and learning. This institution, formed after a meeting of the Regional Planning Association of America in March of 1925, is currently responsible for management and maintenance of the AT. The National Park Service handed over the responsibility for managing and maintaining the trail to the ATC in 1984. Since that time, volunteers have been solely responsible for trail care. Annually, over 4,000 volunteers maintain the AT (Marion, 2003).

The Trail Users and Maintainers

It is estimated that 3 to 4 million visitors hike a portion of the Appalachian Trail each year. Most enjoy day hikes or short backpacking trips, while a small percentage of

users attempt a multi-year section hike or a one-season thru-hike (ATC, 2006). Those long-distance hikers vary in age from children to senior citizens. Though the physical and mental challenges of the trail demand dedication and focus, some 10 to 20 percent have little or no backpacking experience prior to starting an extended AT hike (Mueser, 1998). Several experienced long-distance hikers cite attitude and determination as being more important to successful long-distance hiking than strength and conditioning (Luxenberg, 1994). Many of the current trail users are savvy to modern backcountry skills taught to reduce wilderness damage from excessive or improper use. Newman, Manning, Bacon, Graefe, & Kyle (2003) found that most hikers on the AT are relatively well informed in minimum impact skills and practice, a philosophy known as Leave No Trace (see www.lnt.org/about/index.html).

The AT long-distance hiking community includes as its central members all those who are attempting to hike the length of the AT, whether they are attempting this during one year or over a period of several years, and all those family, friend, and community members who support the trail and its users. Though this community shares the common practice of hiking great distances, it also has several characteristics that make it unique from other hikers on other trails.

Unique Practitioners

Before the twentieth century, few ventured into the backcountry and mountains except for provision seeking business ventures such as trapping and hunting, surveying, military operations, or lumber prospecting (Waterman & Waterman, 1989). Now a unique group of people varying in ages, genders, and backgrounds head into the woods from 4-8 months a year with everything they need in a pack on their back.

Long-distance hikers come from all walks of life, and have in common an uncommon experience. “Although location is important, it is the protracted separation from our usual world that seems to set these hikers apart” (Mueser, 1998, p.5). Often, individuals undertake an AT long-distance hike during a period of transition such as graduating from school, retiring from work, considering a new career, dealing with a personal trauma such as divorce, loss of job, illness, or loss of a relative or close friend (Luxenberg, 1994).

As mentioned, the age of long-distance hikers varies greatly. In 2004 Lee Barry (trail name “Easy One”) became the oldest thru-hiker when he completed his second continuous hike of the AT at the age of 81 years. Another senior hiker took three years to section-hike the trail, eventually completing it at the age of 86. In 2002, a 6-year-old boy and his 8-year-old sister completed a thru-hike with their parents. Historically dominated by male practitioners more and more females are participating in backpacking and wilderness recreation, especially on the AT.

Though Emma “Grandma” Gatewood first hiked the entire AT in 1955, recent statistics report that 29% of the overall women who have hiked the AT have done so in the past ten years (ATC, 2006). Women hikers ranging from 8 to 80 years of age accomplish about 25% of the total hike completions reported to the ATC each year, and this percentage includes "thru-hikers" who hike the trail within a year and "section hikers" who hike a section at a time over a longer period, often years (ATC, 2006). One understanding of a thru-hike was explained as:

> A personal effort, with the individual thru-hiker carrying everything needed for his or her journey in a backpack, leaving from one terminus and heading for the other,

and, once underway, relying for daily sustenance only on food and supplies prepared before the hike and forwarded by mail and/or purchased in nearby towns and communities along the way (Bruce, 1998).

In 1948 the first documented thru-hike was completed, south to north, in four months by Earl V. Shaffer. In 1965, he hiked the AT southbound, becoming the first person to thru-hike the trail in both directions (Luxenberg, 1994). Although approximately 2,000 individuals set out for a traditional thru-hike each year, some hikers and naturalists believe that a new emphasis on hiking the entire trail as quickly as possible is misplaced (Becerra & Dillingham, 2002; Meek, 2003). This reaction is to the recent trend, by more athletic and competitive hikers, of the classic AT thru-hike being approached as more of a race than a journey.

Though Ward Leonard, with back-up support, was the first to speed-hike the AT in sixty days back in the 1980s, a new generation of “ultralite” fast-moving hikers now attempt to run/walk the trail as quickly as possible with the lightest possible backpacks. They stand in stark contrast to the original hikers who traveled with rifles, axes, and other heavy equipment. Historic reports and photographs illustrate that "Grandma" Gatewood, without the ease and comfort of advanced gear, successfully hiked the trail several times wearing only tennis shoes and carrying her belongings in a burlap bag (ATC, 2006).

The AT has challenged thousands of hikers in its 80-year existence. Though motivation varies from traveler to traveler (Bolduc, 1973; Mueser, 1998; Pugh, 2003), the quest of completing the trail in one season, or a collection of seasons, is something shared among thousands of AT long-distance hikers. Within the four to eight months it generally takes to complete such a journey, hikers report profound learning experiences, yet also

admit difficulty in articulating or summarizing those experiences. Several hikers have attempted to do just that through publications intended to document and share their tales of the journey, or simply to help prepare potential AT long-distance hikers for the trip.

AT Trade Literature

Indeed, most of the recent trade books addressing travel along the AT are edited journals recounting personal tales from experienced hikers (Alcorn, 2003; Becerra & Dillingham, 2002; Chase, 1989; Curren, 1995; Hall, 2000; Hills, 2005; Hugo, 1999; Meek, 2003; Ryan, 2002; Setzer, 2001; Shaffer, 1983; Tate, 2001; Winters, 2001). A survey of earlier autobiographical accounts (see Mueser, 1998) revealed numerous examples that provide general explanations of how individuals became motivated to hike all or part of the trail, how they experienced the journey, how they handled challenging aspects of the trail experience, and their recommendations to other AT hopefuls. Those accounts, though entertaining and motivational, offered little insight into the learning processes involved with AT hikers. This study's specific examination of the AT long-distance hiking community provides greater insight into the situated and informal nature of individual knowledge construction.

AT Academic Literature

Though people have been hiking the AT and writing accounts of the trail since the 1920s, the academic study of AT use, and hikers, has only recently appeared in scholarly publications. Social scientists have examined this community from several perspectives, including motivation (Bolduc, 1973; Mueser, 1998; Pugh, 2003), spirituality (Spyker, 2003), ecological literacy (Rush, 2000, 2002), place attachment (Kyle et al., 2004), minimum impact skills and environmental knowledge (Marion, 2001), group dynamics

and sociability (Doyle, 1981; MacLennan, 2005), and perception of the AT as a cultural symbol (Lowrey, 1981). Prior to this study, no researchers have specifically examined the AT network of hikers as a community of practice; nor have they studied the nature of the situated and informal knowledge construction processes that emerge among these hikers.

Knowledge Construction

Knowledge construction involves the personal and social meaning-making processes that help learners to make sense of their life experiences (Valsiner & Veer, 2000). Academic studies of such constructions often focus more or less on either the individual or social aspects of sensemaking. The current study investigated both by considering the social influences of community on individual knowledge construction. To do so, a review of social constructivism was beneficial.

The belief that learners actively make sense, or create their own understanding, of their world through personal experiences generally defines constructivism. A more sophisticated definition of a learner's construction of knowledge is provided by Fosnot (1996),

> Learning from this perspective is viewed as a self-regulatory process of struggling with the conflict between existing personal models of the world and discrepant new insights, constructing new representations and models of reality as a human meaning-making venture with culturally developed tools and symbols, and further negotiating such meaning through cooperative social activity, discourse, and debate (p. ix)

What a learner understands is more or less a function of the individual's prior knowledge and socio-cultural interactions with others. How a learner makes sense of

their world is the result of community mediated and negotiated meaning, and personally constructed interpretations (Cobb & Yackel, 1996). Therefore, "knowledge is created by the ever more informed and sophisticated social constructions resulting from the dialectical process and the provision of vicarious experience, which can transfer knowledge from one setting to another" (Guba & Lincoln, 1994, p. 211). In other words, the conversations, experiences, and social learning that occur in an individual's community, in combination with the individual's prior knowledge, experiences, and history, intimately affect what is learned.

Social constructivism emphasizes the importance of culture and context in understanding how individuals create meaning through interactions with others. Meaningful learning therefore results from active engagement in social activities such as those found within the AT long-distance hiking community.

Social Learning Theories

> The rich relationships among members of learning communities, their activities, and artifacts are more powerful than our pedagogy. (Lave & Wenger, 1991, p. 273)

Stories shared hold tremendous potential to illuminate how individuals make sense of their world, and how social interactions may influence such understandings. Witherell and Noddings (1991) suggested that when stories of lived experiences are collected, they help provide glimpses into others' minds, and offer insight into knowledge construction processes. The effectiveness of such sensemaking collaborations can be partially explained using a collection of sociological and psychological theories.

Theories Under girding Community

Social-cognitive learning theory (e.g., Bandura), socio-cultural theory (e.g.,

Vygotsky), and situated learning (e.g., Lave & Wenger) theory all contribute to our understanding of communities of practice. These theories are based on the same underlying assumptions that individuals are active agents that develop understanding through engagement in meaningful contexts. Building upon an individual's prior knowledge, learning situated in authentic environments and enhanced by the multiple perspectives and behaviors of others, allows a learner authentic (i.e., legitimate) opportunities to experientially learn through participation in the cultural activities and practices of the community.

Knowing then, is both an attribute of groups that carry out cooperative activities (i.e., collective knowing), and an attribute of individuals who participate (i.e., individual knowing) within those groups or communities. Becoming attuned to social practices, as well as the ethos of the community, the individual's knowledge and performance are either enhanced or diminished though participation (Greeno et al., 1996). These influential dynamics of individual and collective knowledge are informed by former investigations of social learning practices.

Social-cognitive learning theory. Though several administrators of formal learning environments deemphasize the role of social mediation on learning, many would argue that people learn through the company they keep. Social-cognitive learning theory (Bandura, 1969, 1977, 1997, 2001) emphasized learning through observation and modeling in a social environment. Bandura (1977) wrote:

> Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling:

> from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (p. 22).

An effective setting for learning new behaviors is one situated within the social milieu of knowledgeable models. A learner will become engaged in social learning through participation in communities where the learning is valued (Boud & Middleton, 2003; Lave & Wenger, 1991), just as a young child will read and write if their family and friends do, and the child desires also to become one of the model "readers" (Smith, 1988). Because social learning theory encompasses attention, memory and motivation, it spans both cognitive and behavioral frameworks.

Social observation is a powerful tool for individual learning, it has protected many AT hikers from preventable accidents involving pocketknives, or errors with stove fuel ignition. A single observation of another hiker removing a finger tip with a slip of a knife, or watching another lose their eyebrows in a stove explosion, burns strong lessons into one's memory. Social learning theory can be used to examine hiker behavior in terms of continual reciprocal interaction (Bandura, 1977) between the individual's cognitive processes (i.e., what the hiker attends to), retention (i.e., the lessons encoded and retained), behavioral components (i.e., how the individual rehearses and reproduces trail lessons), and environmental influences such as the internal and external factors that motivate and reinforce.

Stahl (2003) highlights the motivated, dynamic, and collaborative nature of such learning by pointing out that shared meaning making is essentially a social activity conducted jointly by a community, rather than solely an individual interpretation by a learner who just happens to be in the same physical location. There exists a dynamic

interplay of contextualized knowledge construction between the community and the individual. Stahl (2003) emphasizes:

> That is to say, the meaning-making practices do not merely take place within a 'context of joint activity', as actions might take place within the four walls of a room. Rather, the context of joint activity is those practices -- the practices form the context. Similarly, the meaning is not merely transferred from mind to mind by the activities, but the meaning is constructed by and exists as those activities. Similarly, artifacts are not simply instruments for conveying independent meanings, but are themselves embodiments of meaning (p. 524).

Improving upon strictly behavioral interpretations of modeling, Bandura's work shares an emphasis on the central role of social learning much in the manner of Vygotsky's theory of cognitive development. Bandura's (1997) recent work has focused more on the concepts of self-efficacy and agency in a variety of contexts. Individuals are more likely to adopt a modeled behavior if it results in outcomes they value. If a modeled behavior has functional value and has credibility within the domain of interest, the more likely individuals are to adopt that behavior. Developing individual understanding and efficacy in a practice is greatly improved when social components of learning are incorporated in the process. The next section will highlight how this point was emphasized in the constructivist learning philosophy of Lev Vygotsky.

Socio-cultural learning theory. Constructivist philosophies of learning emphasize that a learner constructs or actively organizes their knowledge and understanding. The seminal and extensive work of Jean Piaget (1959, 1971, 1985) helped to explain an individual perspective of how naturally active and motivated learners repeatedly interact

with their physical and social environments in a manner that creates an increasingly complex understanding of their world. This theoretical perspective stresses the learner's role in individually making sense, as opposed to directly receiving or absorbing information from the outside world. Yet, an individual's existing cognitive concepts and procedures may not limit whether they are able to socially participate in particular activities and consequently learn from those activities (Billett, 1998).

In contrast, Lev Vygotsky's socio-cultural theory (1962, 1978), suggests that human learning originates in society or culture, and that the development of individual cognition comes first through interaction with the social environment (i.e., interpersonal), and then through internalization of understanding (i.e., intrapersonal). In other words, people work together to make sense of the world they live in, which in turn leads to individual understanding and subsequent self-regulation of thoughts and actions. Included in this theory is Vygotsky's concept of the zone of proximal development (ZPD), which is defined as a region of activities that individuals can negotiate only with the help of a more capable peer, adult, teacher, or coach, or with informative artifacts or tools (e.g., book, computer tutorial, documentary film). The ZPD supports social learning through modeling and peer interaction (especially linguistic) that are vital to cognitive growth and knowledge acquisition. Cognitive change results from using cultural tools in social interactions (Dey, 1993), which are often found distributed within a community of practice.

Vygotsky's (1978) general theoretical framework for cognitive development emphasizes that, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (i.e.,

interpsychological) and then inside the child (i.e., intrapsychological)" (p. 57). Vygotsky (1986) contended that teaching, learning, and development cannot be separated into discrete parts, or the process is qualitatively changed. To understand the properties of effective knowledge construction we cannot study the separate elements. It is only though examination of the synthesis of parts that we can understand the properties of effective teaching and learning (Wink & Putney, 2002).

Vygotsky's focus on social structures and learner involvement in a socio-developmental process of meaning making builds an interesting foundation for a situated theory of learning (Lave, 1988). Though emphasis on the creation of situated learning opportunities is not a new area of study (see Dewey, 1938), it has regained popularity as an alternative approach to the development of meaningful student learning through direct experience, contextualized mentoring, apprenticeships, social collaboration and interactive technologies (Brown, Collins, & Duguid, 1989; Bruffee, 1986; Wenger et al., 2002).

Situated learning theory. Perret-Clermont (1993) posits that it is nearly impossible to separate cognitive tasks from social tasks, that cognition should be viewed as situation-bound and distributed within an individual's environment. Interacting with information resources through socialization allows for the external mediation of certain learning processes that are internalized by the learner (Wenger, 1998). The importance of this concept is that learning is a function of the activity, context, and culture in which it occurs. This type of situated learning often occurs unintentionally, rather than purposely.

Contrasted with traditional schooling, where inert knowledge is often acquired through classroom teaching that is both abstract and a-contextual, a situated learning

approach stresses the importance of encouraging social interaction and collaboration on legitimate tasks situated as close as possible to their real-world or authentic context (Brown, Collins & Duguid, 1989; Lave & Wenger, 1991). Though actual in-the-field, hands-on pedagogy may not always be possible, aspects of situated learning such as reflective use of case studies, role-playing, or use of computer simulations can increase the opportunities for deeper cognitive processing of the new information. Such enriched student reflection and interpretation helps to improve the effective transfer of knowledge to a variety of contexts. Classroom collaborative tasks and interactive discussions, where the articulation of strategies used by teacher and peers is highly encouraged, can also enhance individual students' private thoughts and internalization of situated understanding.

Knowledge acquisition is more effectively presented through authentic domain activities that require collaborative social interaction in the construction of knowledge (Brown et al., 1989). In addition, educators who employ problem-based learning approaches, and guided practice sessions that challenge students to address legitimate problems, enhance learner skill development. According to Beyer (1988, 1990), the more successful manner of conveying necessary skills to students is to teach them thinking skills in context with a real-world problem. The students are first provided with guided practice, and then gradually moved into autonomy as confidence and understanding develop.

Situated learning emphasizes that the real world is not like studying in school. It is more like an apprenticeship where novices, with the support of an expert guide and model, take on more and more responsibility until they are able to function

independently. For those who take a situated learning view, this helps to explain the effective learning that occurs informally in factories, around the dinner table, in high schools halls, in street gangs, in the business office, and on the playground. Knowledge is seen not as individual cognitive structures but as a creation of the community over time.

Situated learning is a general theory of knowledge acquisition where learning is usually more unintentional than deliberate. Novice hikers often unintentionally tap into the collective knowledge that exists in both the members' heads and the practices within the AT community of long-distance hikers. This informal and effective learning of long-distance hiking is clearly 'situated' in the hiking activities, context, and culture in which it naturally occurs. Unlike indoor YMCA courses or workshop offered by Recreational Equipment Incorporated or Eastern Mountain Sports (i.e., retail outfitters), where hiking information is presented in an abstract form and out of context, situated AT learning opportunities occur in authentic situations that have immediate challenges and legitimate consequences for the learner. Davenport & Prusak (1998) point out that it is often the crises in one's new environment "that act as catalysts for knowledge generation" (p. 63). Learner must adapt in order to advance along their journeys; otherwise, they abandon the path or perish.

Learner adaptation involves constructing personal schemata along with a collection of cognitive tools for a variety of contexts. Such tools, and individual understandings, are developed through the informal sharing and doing of authentic tasks in social units (Lave & Wenger, 1991). The next section describes informal learning and how it relates to these social units.

Informal Learning

> Informal adult learning activities have tended to be ignored or devalued by dominant authorities and researchers, either because they are more difficult to measure and certify or because they are grounded in experiential knowledge, which is more relevant to subordinate social groups. (Livingstone, 2006)

Informal interactions with peers are a predominant mechanism for learning, especially when the interactions are situated in tasks relevant to the needs and interests of the learners (Bandura, 1977; Boud, 1999; Lave & Wenger, 1991; Vygotsky, 1986). Often unrecognized by the learner, informal learning incidents represents the unscheduled and impromptu sensemaking experiences occurring in everyday life. Informal, or non-formal, learning has been conceptually described in a multitude of ways such as learning from experience, trial and error, tacit knowledge transfer, intuitive practice, and over-the-shoulder-learning (Eraut, 2004). Though not a novel area of research interest, the importance of informal learning is increasingly being acknowledged in non-academic environments (Brown & Duguid, 1991, Twidale, 2005; Wenger et al., 2002). Current frameworks to examine this learning phenomenon, though heavily biased toward formal workplace training and measurement (von Krogh et al., 2000; Saint-Onge & Wallace, 2003), are increasing especially in the areas of adult and technical education (Drago-Severson, 2004; Mezirow, 1991; Skule, 2004).

Formal learning differs from informal learning in that it is typified as the accumulated wisdom of humankind, represented by the recorded, propositional, and generalizable knowledge traditionally equated with education in schools and universities (Scribner & Cole, 1973). In contrast, informal, or everyday, knowledge is non-

institutional and context-specific such as that acquired through peer education and apprenticeships. Often overlooked or dismissed as primitive, social anthropology has shown that sophisticated learning does occur in communities without formal learning mechanisms (Lave and Wenger, 1991). In fact, informal learning has been argued to be superior to more formal approaches, in cases such as language learning (see Lave, 1996). Additionally, informal learning processes offer socio-cultural, or situated, perspectives on knowledge construction (Scribner & Cole, 1973; Wenger, 1998) and afford unique avenues into the contexts for these processes, such as communities of practice.

Communities of Practice

Historically, Lave and Wenger (1991) examined the acquisition of cultural practices taking place in the context of situated practice. A collective learning process made possible through what they labeled a *community of practice* (Lave & Wenger, 1991), learning a trade or cultural role was examined as a function of activity, context, and the culture in which the activity occurs. Their seminal work, written from an anthropological perspective, included an analysis of learning situated in informal, yet instructionally expectant settings. Their social practice theory sought to provide an explanation of successful learning in apprenticeship contexts (e.g., midwives, tailors, navy quartermasters, and meat cutters). In each of these cases, the gradual acquisition of knowledge and skills by novices were acquired from and through experts in the context of everyday activities.

A newcomer (or novice, or apprentice, depending on the context) developmentally relates to the established members of the community of practice through *legitimate peripheral participation* (Lave & Wenger, 1991). Socially influenced and individually

constructed, a novice's understanding of a new domain is demonstrated and assessed by informed peers through activity application in specific situations. Thus knowing, social membership, and identity are all related through the practices of a community. Community experts help newcomers make sense of a new domain through legitimate practice in a real-life context through what Brown, Collins & Duguid (1989) describe as *cognitive apprenticeships*, which make transparent the thoughts and strategies of learned-practitioners. Therefore, it is by way of guided and situated experiences that a novice is able to tap the tacit knowledge of the expert, while the expert is better able to illuminate the knowledge gaps of the novice.

The identity of a new member of such a community changes over time through such legitimate participation. Learning is thus a dimension of social practice and "not a condition for membership, but is itself an evolving form of membership" (Lave & Wenger, 1991, p. 53). As newcomers move towards full participation, so changes their sense of identity within the community. As a member's knowledge and practice develop, the member is viewed and treated differently by individuals inside and outside of the community. Increasing peripheral participation also explains how newcomers are welcomed to engage in the actual practice of an expert, albeit to a limited degree and with limited responsibility for the ultimate product (Hanks, 1991; Lave & Wenger, 1991). Increasing social relations across the community of practice influences the social identity of the new members, which thereby increases their potential engagement with valuable community resources.

Learning, therefore, involves a deepening process of participation in a community of practice (Lave & Wenger, 1991; Wenger, 1998). Mediated by the differing

perspectives among community members, learning can be found in certain forms of "social co-participation," much of which is informal, social, and embedded in one's life context (Hanks, 1991; McDermott, 1999; Merriam et al., 2003). Productive engagement in legitimate community activities is an aspect of a newcomer's lived experience that promotes deep and meaningful learning (Erickson & Shultz, 1992; Merriam et al., 2003).

Novice learners often seek others who have the knowledge and experience that they want or need. When such novice learners connect and exchange ideas with more informed novices and domain experts, relationships develop and a community forms. The social interactions and shared practices found in these communities offer educational opportunities for an individual to construct new knowledge while developing independent skills and competencies. Though the characteristics vary, communities of practice can be identified everywhere from formal settings such as at work, school, and civic organizations, to less structured, fluid situations and settings such as those involving academic pursuits or leisure interests.

Wenger et al. (2002) explained how members of a community of practice who share a common concern, problem, or passion, intentionally seek to advance the understanding and performance of peer practitioners through helpful interactions and ongoing knowledge exchanges. It is the coming together of members and learning through mutual or shared engagement in activities that differentiates a community of practice from a community of interest or one of geography (Wenger 1998). If a community does not have active involvement and leadership roles, it may be nothing more than an interest group or network. Communities develop through personalization, member participation, contribution and most importantly ownership (van der Kuyl,

2001). Identification, ownership, and commitment to an ongoing process or practice can be found among members of a community of practice (Lave & Wenger, 1991). In both formal and informal learning contexts, communities of practice serve a unique role in facilitating group communication, knowledge transfer, and improved performance.

As individuals move beyond routine learning processes into more complex challenges they rely heavily on their community of practice as their primary knowledge resource (Alee, 2000). The sharing of community-based knowledge can advance individual understanding beyond what is traditionally acquired through book learning and trade-specific training. Herein lies the powerful potential of learning through a community of practice. Though explicit domain knowledge is shared through traditional social learning methods such as modeling, apprenticeships, and simulations, a community of practice uniquely taps collective tacit knowledge (Wenger, 1998). Initiated at the peripheral boundaries of community responsibility, learning occurs during the process of gradually increasing engagement, task complexity, and responsibility for outcome within the community of practice (Lave & Wenger, 1991).

Communities of practice informally evolve in ways that tend to escape formal descriptions and control (Wenger, 1998). They are organic and subtle in their formation, and voluntary and fluid in their membership. Often invisible to non-community members, they represent an emergent set of social relations that help community members to address shared challenges or common needs. The emergence of these unique social learning entities reflects "the logic of improvisation inherent in the negotiation of meaning" (Wenger, 1998, p.244). Unlike a hierarchical training program with structured learning modules, a community of practice unfolds as experienced practitioners

voluntarily share knowledge and build relationships with new members, thereby facilitating the social construction of knowledge. The social energy of their shared learning offers value to both established and potential community members, and provides incentive for ongoing voluntary participation. Though communities of practice are not designable units that can be legislated into existence or defined by decree, they can be encouraged and nurtured by schools and organizations (Wenger, 1998; Wenger et al., 2002).

Communities of practice in school environments. It is important to note that communities of practice are distinct from instructionally designed and academically supported *learning communities* (Lenning & Ebbers, 1999; Matthews, 1994; Shapiro & Levine, 1999), and *virtual learning communities* (Daniel, McCalla, & Schwier, 2002), as the former are specific curricular approaches designed to foster more explicit intellectual connections among students, and between students and faculty of different disciplines, and the latter are designed communities using networked technologies. Extension and application of social learning theories and social constructivist philosophies on the part of faculty and administrators have generated studies of communities of practice in academic environments (Barab et al., 2003; Baxter Magolda & King, 2004; Haworth & Conrad, 1997; Shapiro & Levine, 1999). The unique nature of online or virtual communities has also appeared as a growing area of study (Preece, 2000; Rourke, Anderson, Garrison & Archer, 2001; Rovai, 2002). Yet the potentially rich research context of informal learning through communities has recently taken a backseat to private sector studies and university reform initiatives.

Communities of practice in work environments. Researchers in recent years have

examined communities of practice in the workplace (Boud & Middleton, 2003; Wenger et al., 2002) to improve the transfer of employee knowledge desired by management. Referred to as linked project teams, task forces, learning networks, thematic groups, or tech clubs, these cooperative learning exchanges are increasingly encouraged by management in an effort to develop employee knowledge beyond the understanding achieved through traditional on-the-job training. Communities of practice are being cultivated through financial support from organizational leaders who recognize their knowledge-transferring potential (Hildreth, Kimbel, & Wright, 2000; Wenger, 1998; Wheatley, 2002). This recent trend is demonstrated by numerous attempts by business leaders to quasi-institutionalize the informal educational role of communities of practice in the workplace (Boud & Middleton, 2003; Hovland, 2003; Wenger et al., 2002; Wheatley, 2002).

Efforts to effectively tap employee tacit knowledge, and universities' attempts to improve student learning and retention through specially designed academic communities of practice (i.e., learning communities), are the foci of recent funded studies (see Turrentine, 2001; Wenger et al., 2002). Though the relationship of these research topics to communities of practice is worthy of investigation, the original studies by Lave and Wenger (1991) primarily examined informal and apprenticeship learning contexts. The more recent work of Jean Lave focuses on learning as social practice in institutions like schools (see Lave, 1993, 1996), and Etienne Wenger's research is now almost entirely devoted to corporate and organizational studies of knowledge transfer and community of practice cultivation in the private sector. Lave and Wenger's original question of "what kinds of social engagements provide the proper context for learning to take place" (1991,

p. 14) led me to further explore the effective knowledge constructing relationships that develop informally around shared practice and goals.

To better understand the situated and informal nature of knowledge construction within a community of practice, one must have a greater awareness of the symbols that are meaningful to community members (Canfield, 2004). To this end, theoretical knowledge of symbolic interactionism provided a helpful tool for the design and subsequent analysis of this study.

Symbolic Interactionism

> All human behavior consists of, or is dependent upon, the use of symbols. Human behavior is symbolic behavior; symbolic behavior is human behavior. The symbol is the universe of humanity. (White, 1949)

In preparation for a study of knowledge construction, this chapter presented a literature review of knowledge construction, socio-cultural, social-cognitive, situated and informal learning, and community of practice theories. The relationship between those theories is that they share in the examination of social interactions that contribute to human learning. When humans interact, they use culturally negotiated symbols as tools for both the exchange of information and the facilitation of learning. In preparation for the analysis of this study, a general theoretical understanding of the human use of symbols was vital. Subsequently, I employed symbolic interactionism as the analytic lens for this focused ethnographic inquiry.

Meaning is created through the sharing of symbolic interpretations and through the interactions or exchanges we have with other people. Symbols may take the form of norms, languages, artifacts, or practices. Thus symbolic interactionism is the study of

human lived experiences and the meanings, interpretations, activities and interactions in which they are rooted (Prus, 1996; Stryker & Burke, 2000). Interpretive research methods framed through a symbolic interactionist lens are concerned with the meanings people attach to their situations and the ways in which they construct activities and coordinate practices within a culture.

Qualitative research methods developed for the study of symbolic interaction considers four main constructs: (a) the nature of social interaction is quite dynamic; (b) the nature of thought and action is based on how an individual defines the situation they are in; (c) understanding is constructed in the present, as what individuals do in any given situation is primarily a result of what is going on in the situation and less of what the individual brings to the situation from their past; and (d) humans are both active and unpredictable, and though they assess their actions and the actions of others, they are free to define the world they act in (Charon, 1995). In addition, symbolic interactionism, which grew out of the American pragmatic school of philosophy, views knowledge as being constantly tried out in situations and judged by its usefulness (Charon, 1995; Dewey, 1922; Mead, 1934). As this study sought to understand how individual AT long-distance hikers construct knowledge, the appropriate methodological fit was found in a symbolic interactionist-social constructivist examination of the situated and informal nature of learning within this community of practices.

Though the AT long-distance hiking community generally functions outside the norms of society (e.g., transient, live outdoors, and unemployed during the journey), they have quite a few unique habits, traditions, protocols and unwritten rules (Berger, 2002) that give their nomadic community structure. These physical, psychological, and social

building blocks can be viewed as socially constructed symbols of meaning. The ways individuals are expected to interact in a community are also social constructions that are unique to each community, and are subject to modification over time. Such unwritten community expectations can be studied by systematically deconstructing member stories, interactions, and rituals into small symbolic units, analyzed for their contextual meaning.

It is through other hikers that a new hiker comes to make sense of long-distance hiking along the AT. Social activities and an individual's prior knowledge interact in such a way that learning becomes the self-organization of new knowledge according to cultural norms found within the practices of the larger community (Cobb & Yackel, 1996). An individual's interpretation of a hiking community's practice, which subsequently influences the individual's participation and identity within the community, is the result of both social mediation and personal meaning making. Anderson, Blumenfeld, Pintrich, Clark, Marx, and Pearson (1995) pointed out that, "there is an interaction between the construction of meaning by individual learners and the situations in which the learning occurs" (p. 145). By examining how individuals act towards others (i.e., their use and development of symbolic tools such as language), how they emerge, or come to understand themselves within their new environment (i.e., through active, adoptive, and subjective exchanges), and how those individuals define and redefine themselves as "knowers" through and within social interactions are analytic strengths for use of this as a theoretical frame. Identifying the social groups or communities in which a learner associates, researchers can better illuminate the influential reference groups involved in their sensemaking network. Shared symbolic interactions are the modes by which groups or communities socially construct knowledge, understanding, and practice.

Close of Literature Review

This review of literature was written to contextualize and provide the theoretical foundation for this focused ethnographic investigation of the situated and informal nature of knowledge construction within a community of practice. Though the chapter provided a general overview of Appalachian Trail history, and theories related to knowledge construction, socio-cultural, social-cognitive, situated and informal learning, and community of practice; the generative and cyclical nature of qualitative research suggests that a continual process of literary review would accompany a study's data collection and analysis (Anfara et al., 2002; Coffey & Atkinson, 1996; LeCompte & Preissle, 1993; Rossman & Rallis, 2003).

Effective informal learning processes situated within communities of practice hold tremendous potential for researchers interested in the study of individual and social sensemaking. Clear connections exist between AT long-distance hikers and communities of practice, because within any cohesive collective, learning takes place (Shapiro & Levine, 1999). However, little is found in the educational literature about how long-distance hikers construct knowledge, or how they learn to negotiate the AT. This study sought to fill the gap in the scholarship by investigating the situated and informal nature of individual knowledge construction within the context of the AT long-distance hiking community of practice.

Chapter 3

METHODOLOGY

This chapter details the ethnographic methodology employed to address the over-arching goal of this study, to explore how long-distance hikers learn to negotiate the AT. This chapter outlines the approaches used to answer the research questions and provides details on the research participants, data collection procedures, and analyses employed.

Research Purpose and Questions

The purpose of this research was to examine the situated and informal nature of individual knowledge construction within a community of practice. Guiding research questions included:

(a) What factors help or hinder the learning processes of AT long-distance hikers?

(b) How are the AT long-distance hikers a community of practice, and what role does this community play in individual knowledge construction?

Rational for this Study

Despite the over 4 million people who participate in AT hiking and trail-related activities each year (Maryland Department of Natural Resources, 2004), little is known about the learning processes of long-distance hikers along the Appalachian Trail. In such cases, when little information exists on a topic or when variables are unknown, a qualitative research study helps to define what is important and what needs to be studied (Genzuk, 2003; LeCompte & Preissle, 1993; Leedy & Ormrod, 2001).

Although ethnographic study in the traditional, anthropological sense involves extensive study of a culture over an extended period of time (see Appendix F), "focused-ethnographies" are conducted over shorter periods of time and tend to involve only two

or three specific aspects of a culture (Hogle & Sweat, 1996; Mull et al., 2001). Designed as a focused ethnography with a limited time frame of three hiking seasons, this study provided the opportunity to explore how long-distance hikers learn to negotiate the AT.

This focused-ethnographic approach enabled me to interact directly with hikers in the contexts of various activities, informal settings where they felt comfortable providing me with intimate insights into their community. Such a direct method was needed to develop the "thick description" (Geertz, 1973) necessary to uniquely understand how knowledge construction processes occurred in this community. The intellectual merits of day-to-day studies of situated and informal learning within a community of practice are of theoretical importance because they advance our understanding of the regulation of individual knowledge construction through social learning dynamics. The AT hiking community of practice provided a viable population for such research.

Research Design

The research design for this study was a focused ethnography that incorporated interviews, observations, and document analysis. Such an ethnographic method was "most attentive to the manners in which people define their situations and accomplish their activities on an ongoing, day-to-day basis" (Prus, 1996, p.23), and as such was appropriate for studying the situated and informal nature of individual knowledge construction within this community practice. This study was ethnographic in two senses: (a) it characterized how AT long-distance hikers established ways of talking about their community and practice of long-distance hiking, and (b) it explored issues of knowledge construction from the hiker's point of view (Erickson, 1984).

Situated in the words and environment of the participants, the focused ethnographic

research approach had certain advantages over other data collection methods previously used with this community, such as the mailed survey (see Mueser, 1998), or trailside administered surveys (see Kyle et al.,, 2004; Pugh, 2003). Though survey methods are effective for gathering large samples of data, they can lack the contextual details and descriptions vital to understanding day-to-day informal learning practice. With a depth of experience that would not be possible using other methods, use of a focused ethnography provided an opportunity to learn more about communities of practice in general, and AT long-distance hikers in particular.

As learning processes in the AT long-distance hiking community of practice was an understudied area, with only two ethnographic studies of this sub-culture in the literature (see MacLennan, 2005; and Rush, 2000), this exploratory qualitative study helped to extend the social context work of Brown, Collins, and Duguid (1989) and Lave and Wenger (1991) by shedding new light on situated and informal learning practices within this community of practice. Studying communities and the dynamics of their informal learning processes can afford researchers insights to enhance learning in a variety of social contexts, including organizational trainings and formal education (Merriam, 2003).

Focused Ethnography

When contemporary ethnographies focus on a particular aspect or issue within a culture (LeCompte & Schensul, 1999; Moss, 1992), this narrowing creates a product known as a focused ethnography (Hogle & Sweat, 1996; Mull et al., 2001). Focused ethnographies grew out of the situational need to collect trustworthy data in a relatively short period of time (see Bentley et al, 1992; and Scrimshaw et al., 1991). Also referred to as a rapid or topic-oriented ethnography (Spradley, 1980), this method strategically

limits an investigation to only two or three aspects of life known to exist in the community. Due to the seasonal, short-term, and mobile nature of my study participants, data collection through interviews, observations, and document analysis focused the topics of interest on individual knowledge construction, and the role of the community of practice.

Pilot Study

Descriptions of individual and group behaviors, conveyed out of social context, often uncover a gap between what participants say and what they actually do. To overcome such a gap and to determine broad categories for initial investigation, I conducted a pilot study in 2003 involving some participant-observation and informal interviews. As participant-observation allows a "researcher to get infinitely closer to the lived experiences of the participants than does straight observation" (Prus, 1996, p. 19), I set out to experience both the practice of long-distance hiking and the AT community itself by personally hiking 300 miles of the AT. As I ate, slept, laughed, and struggled with a small cohort of hikers for over a month, I began to feel a unique sense of shared connection with those hikers and the greater AT hiking community. This pilot work identified some initial inquiry domains (see Appendix J) related to learning, community, and social issues in this community of practice, and it helped me to better conceptualize the qualitative design proposed for this study. Just as Leslie Rush (2000) had found in her study of ecological literacy amongst AT hikers, even a few initial visits to the field and a small number of informal conversations can serve as pilot work and be used for preliminary analysis. For a detailed account of this experience, see Appendix C.

Data Sources and Collection

The primary method of data collection was semi-structured interviews with AT long-distance hikers collected between February and April of 2003, 2004 and 2005. Interviews lasted approximately 60 to 90 minutes and investigated participants' background history, hiking experience, trip preparation, impressions of the social aspects of AT hiking and their lived experience of learning how to long-distance hike. In addition, interviews prompted participant stories about the equipment, language and rituals associated with the AT long-distance hiking community, as well as the participant's sense of identification as an AT long-distance hiker.

Facilitating this inquiry, I used an interview protocol (see Appendix G) with general areas of inquiry outlined to ensure that all informants were questioned about the broad domains of learning and community, as was suggested in the literature and my initial research focus. My pilot data were most helpful for constructing a preliminary coding scheme with clarified sub-domains of analysis. Initial sub-domain questions (Appendix J) were based on categories gleaned from my field notes and informal pilot interviews. The broad domain of learning included sub-domain questions that probed for information about journey preparation, trail encounters, and memorable lessons learned by the individual. The broad domain of community had questions about community-specific entry, sub-groups, structure, language, artifacts, and membership.

Regarding rapport-building, I found during my initial 2003 interviews that heavy-handed academic terminology and esoteric jargon created quite an obstructive distance between interviewees and myself. Comfort, candor, shared experience, and established rapport between the researcher and participant can make a substantial difference in the

quality of data gathered (McCracken, 1988; Patton, 2002; Schram, 2003). Therefore, I kept my interview approach simple so I could attentively listen to the hikers and let them tell their stories. Those interviews were audio taped and transcribed to capture accurate depiction of participant stories.

Follow-up phone calls and questions for clarification were necessary on a few occasions for quality reporting of the participant's lived experience. It is important to note that I chose this methodological design because it was somewhat fluid, for as Hammersley and Atkinson (1995) clarified, "Research is a practical activity requiring the exercise of judgment in context; it is not a matter of simply following methodological rules" (p.23). Therefore, a degree of procedural flexibility was consciously regarded during the ethnographic interviews. On several occasions, I had to employ follow-up probing questions such as, "Where did you learn that word or phrase?" and "What does that mean to you?" to help clarify culture-specific terms unfamiliar to me. For a detailed glossary of known and uncovered community-specific terms, see Appendix B. In addition to data collected through observations and interviews, this study included some unique electronic documents.

Inspired by a helpful online journal entry collected during the pilot study (see Appendix L), I wanted a variety of data sources for this study. Fortunately, in the spring of 2004, I began hiking north from the southern terminus of the AT with a novice long-distance hiker named "Water Buffalo." Following our week of hiking together, this individual offered to send me copies of his electronic journal as he continued north to Maine. Every few weeks over the following seven months, I received e-mailed documents and photographs of "Water Buffalo's" AT experience.

Intended as a record for himself, his family and friends, the journal entries were quite descriptive. The documents contain stories of the people he met, and the challenges he encountered with personalities, gear, insects, and extreme weather. Photographs sent documented the changing environmental scenes as he completed the entire trail, as well as changes to his social cohort and his physical appearance.

A second set of correspondence came from a 2005 thru hiker named "Hyper-Drive." His emailed reflective statements were uniquely informative in two ways. For one, hiking a year later than "Water Buffalo," he provided a different temporal perspective on the AT community of practice. In addition, he had the strength and candor to share personal insight and observations of social responses, to his "walking off trail" and ending his thru-hike prematurely. Triangulation of my overall data library was enhanced through the inclusion of these electronic documents.

Participant-Observation

I joined the AT long-distance hiking community to accomplish three objectives. First, I gained expanded access to a larger and more diverse pool of study participants. Secondly, I was better able to observe individual and social sensemaking within the community of practice. Third, I gained a greater personal understanding of the sub-group tensions surrounding AT long-distance hiking by partaking in local and regional AT events such as three backpack packing clinic at The Gathering (annual community reunion event held in October in Dartmouth, New Hampshire and Pipestem, West Virginia), volunteering twice at the Trailjournal.com table during Trail Days (the largest trail celebration event held annually in May in Damascus, Virginia), and by getting involved with the Hardcore Trail Project (trail repair and construction weekend organized

in May by Kincora Hostel in Tennessee). My role in these activities was largely as participant-observer, and though some community of practice members were aware of my study-in-progress, others simply experienced me as an interested newcomer, an environmentally concerned visitor, or a trail maintenance volunteer. During three years of off-trail fieldwork, I spent 144 hours observing individuals within this community of practice (see Appendix J).

Participant-Participation

A final data collection method consisted of active participation in long-distance hiking as a novice, clocking over 400 total trail miles of first-hand AT hiking experience. Insight into the experiential aspects of AT travel contributed to my understanding of the process of gaining skill, understanding, and status in this nomadic community. I sought opportunities to hike with other hikers, cook meals together, share evening stories in the shelters, and develop new friendships. Data included field notes, interviews and photos.

To provide a baseline point of reference, and prior to my participant-participation in AT community of practice activities, I wrote a self-reflexive account of my prior experiences and presuppositions about hiking and this group of practitioners (see Appendix H). This text documented my initial perspectives on AT hiking and learning and provided some insight as to how my perspective could inform and shape the subsequent data analysis. My cumulative on-trail time, engaged as a participant-participant during the course of this study, was 1,176 hours of situated involvement.

Researcher Positionality

During the course of the study, I made a transition from being a novice long-distance hiker to being more knowledgeable about both community hiking practices and

social norms that surround AT long-distance hiking. As my experience, skills, trail vocabulary, and acquaintance with other members increased, it became increasingly easy to develop rapid rapport with other long-distance hikers. Subsequently I could establish a relaxed interaction that led to the volunteering of learning stories and hiking insights from a variety of participants.

I often leveraged my status as a novice hiker during interviews, which proved advantageous on several occasions. Participants typically understood that they were talking to a sympathetic, yet under-informed and under-experienced hiker who was attempting long-distance AT travel. Assuming more of a mentoring role, most participants provided me with clearly explained and detailed accounts of AT traditions, practices and personalities, as well as gear explanations, demonstrations, and recommendations. Unthreatened by my status, and open to helping the newcomer along, my participants took on the role of teacher, community guide, or hiking coach. They were consistently supportive in helping me learn more about the learning of a practice that was of great importance to them.

Interviews

In this study I used an initial interview protocol with general areas of research questions to ensure that all participants were asked about broad domains suggested by the literature (see Appendix G). However, I found most of the participants, when asked to provide stories of their lived AT experiences, took charge of our conversation and subsequently spoke about additional events and issues they felt were important. Hiking gear, strategies, and challenges were brought up as well as communal and social aspects of shelter interactions and group norms. The less I led with questions, the more they

directed the interview. Subsequently, as more interviews were collected, several unanticipated domains were uncovered such as the phenomenon of "trail magic," the shunning of out-group members, tensions between sub-groups within the AT collective, and the "happy camper versus the happy hiker" concept.

Guided by the constant comparative methodology (Strauss & Corbin, 1990), I adjusted the interviews to gain greater insight into the newly discovered topics. Some research domains proved unproductive and were either greatly modified or completely deleted. Some explicit probing proved less useful and redundant. For instance beginning an interview with a question about gear could inevitably lead to a lengthy description of competing brands and an unhelpful minutia about technical whistles and bells, thread-count stress test reports, and product weights in grams. Questions about hiker motivations generated data far beyond the scope of this study, and discussion of food consumption, though popular and consistent among these calorically deficient hikers, typically lead to long lists of personal taste preferences. When gear, motivational factors, or biological changes were important to participants they emerged more naturally in the context of discussions about trip preparation and hiking strategies. Discourse also became more natural and spontaneous when I asked for noteworthy examples (e.g. "Tell me about a time when you…, or Can you give me a story about your most surprising experience?, Your favorite trial day, your most difficult shelter encounter?). Participants were generated from a number of helpful sources, yet I needed greater community access to learning exchanges.

Participants

I took the advice of Hammersley and Atkinson (1995), who suggested choosing

informants to interview who are especially sensitive to an area of concern and who are willing to reveal information. Additionally, Creswell (1998) advised choosing key informants who are well informed, accessible, and able to provide leads. Based on the pilot study conducted in 2003, it was evident that long-distance hikers were quite approachable, open towards sharing both positive and negative trail experiences, and rather easily recruited as participants for the AT-related research.

Participants for this study were accessed through AT community-organized events. Informants were also approached through referrals, identification as a successful thru-hiker by other community members, or possession of the ATC 2,000 Mile recognition patch. I also recruited participants through direct inquiry. Regional gatherings in the fall and spring of 2003, 2004, and 2005 provided a rich and diverse sample of long-distance hikers to interview and observe.

Informed Consent and Participant Confidentiality

Consistent with recent and historical methodological practices that strive to protect informants from unnecessary risks, Virginia Tech's Institutional Review Board (IRB) approval was sought and received (see Appendix I for submitted information). While actual names were sometimes used during the interviews, pseudonyms were used during analysis and write-up to help maintain confidentiality. All participants in this research study were provided with full details about the research project and were informed of the known possible consequences of participation prior to taking part in the study. Participants' consent was documented through a signed consent form (see Appendix K). In addition, document security measures were in place during this study to help protect participant confidentiality.

Sampling and Number of Participants

I purposefully selected my sample from AT long-distance hikers with a range of hiking expertise, from neophytes to life-long hikers. Hikers in this study were classified into two primary groups. Hikers who had completed 200 miles, but less than 2,000 miles, with at least one trip of 100 uninterrupted trail miles, were considered *novice AT long-distance hikers*. This classification captured both the novice thru-hiker and novice section hiker. *Expert AT long-distance hikers* were those who had completed more than 2,000 miles total, with at least one successful trek of the entire AT. I did not interview any hikers with less than 100 uninterrupted miles under boot. The rationale for this was that a hiker with minimal experience with AT long-distance hiking practices would also have less exposure to the hiking community. As a result, there would be insufficient enculturation experiences and limited member interaction opportunities within the community of practice (Brown & Duguid, 1991).

A general balance of participants including males and females, younger and older, and novice and expert hikers was sought (see Appendix A). While diversity was sought in terms of age, experience, and gender, no particular effort was made to attain sample diversity in ethnicity. Given the demographics of this community and its underrepresented minorities (McGrath, 2000), most hikers I encountered were of European-American descent.

Qualitative methodology does not generally require large data sets, as qualitative researchers argue that there is no direct relationship between the number of participants and the quality of the study (Hatch, 2002; Moran, 2003). Though most agree that smaller numbers necessitate greater attention to provide sufficient data to generate the depth

necessary to justify a study, Kvale (1996) prompts researchers to "interview as many subjects as necessary to find out what you need to know" (p. 101). Knox, Peterson, Hess, and Hill (1997) recommend 8-12 cases as an adequate sample size for seeking some stability of qualitative results. The fewer the number of participants though, the more important it is to include multiple data sources (Hatch, 2002). Therefore, some hiker documents were included in this study's database to support the observational and interview data. Due to the unexpected, yet most welcomed flood of personal referrals, a total of 34 long-distance hikers were interviewed in this study.

General Analysis

Sharing my data analysis procedures in detail, I wish to equip the reader with an internally logical package for evaluating the rigor and trustworthiness of this study. My analysis involved a systematic search for meaning by asking questions of data so that what I learned (e.g., explanations and interpretations) could be communicated with others. Iterative readings and analysis of AT community of practice interviews and field notes lead to certain dimensions in the data and revelations of hypothetical patterns, themes, and relationships.

Looking for Relationships among the Patterns Identified

I took several steps back from individual analyses of categories (e.g., preparation, membership) to look for connections across patterns, relationships, and themes. Having a strong cognitive preference for visual information, I employed what Miles and Huberman (1994) call "data displays." Data displays are visual representations that aid in revealing relationships that might exist between or among categories. In this study, a 2'x4' corkboard was affixed to my office wall. Five colors of 3"x5" Post-It Stickies® were

then arranged in comment constellations around the three major research questions. Additional computer-generated flow-charts, models, and hand-drawn concept maps were rendered and layered over related themes.

Following reflective viewing across categories found in this data display, thoughts were organized into generalizations or expressions of relationship between two or more concepts. Not implying “generalizability”, these were special kinds of statements used to express (to myself and others) relationships found in the specific research contexts being studied (Hatch, 2002). Such generalizations are supported in Chapters 4 and 5 through my selection of powerful context examples and salient quotes from the novice and expert hikers in the study.

Sample photographs found in my field notes depicted seasonal and daily events in the life of an AT long-distance hiker. Preparing meals, conversing with fellow hikers, evaluating gear, or sharing stories over a meal helped me to capture typical images for the memory activation of lived experiences and events, while also providing data not detected during recorded interviews (e.g., dress, communication distance and gestures, living space arrangement). These photos helped add face and form to the voices of the participants in this study.

The term "qualitative research" encompasses a wide range of philosophical positions, methodological strategies, and analytical procedures. What made this study qualitative was that it relied on inductive reasoning processes to interpret the meanings derived from data. This next section will provide an overview of the specific qualitative analyses used in this study.

Specific Qualitative Analysis

Analysis of the study data was completed using constant comparative analysis. Analysis occurred using explicit steps to conceptually interpret the data set as a whole (Thorne, 1997), and by using specific strategies to analyze and transform the raw data into interpretive findings. Thompson (1997) emphasized that personal histories are embedded within the context of personal meanings expressed through "culturally-shared narrative forms" (p. 439). Through my constant comparative analysis of AT hiker stories, I sought greater insight into those narratives and thereby a greater understanding of how individuals constructed community-based knowledge.

Constant Comparative Analysis

Many qualitative studies rely on a general analytic approach called *constant comparative analysis*, which was originally developed for use in grounded theory methodology (Glaser & Strauss, 1967). Grounded theory research involves a process of "identification (and categorization) of elements, and exploration of their connections" (Maykut & Morehouse, 1994, p. 126). While I did not engage in grounded theory development, I used the constant comparative process as my primary analytical approach.

The constant comparative analytical process is a systematic qualitative approach to data analysis that inductively codes textual data based on units of meaning, refinement of categories, and exploration of relationships and patterns across categories leading up to a sensemaking integration of data (Maykut & Morehouse, 1994). Having originally evolved out of the sociological theory of symbolic interactionism (Blumer, 1986; Mead, 1934), constant comparative analysis involves taking one piece of data (e.g., an interview, a statement, or a theme) and comparing it with all other pieces that may be

similar or different in order to develop conceptual relations between various pieces of data. In qualitative studies this process continues with the comparison of each new interview or account until all those sampled have been compared with each other. These comparisons and subsequent understandings are then used to inform future data collection. As this study investigated stories of sensemaking, data analysis was appropriately framed for interpretation through symbolic interactionism (Blumer, 1986; Mead, 1934; Stryker & Burke, 2000).

Theoretical Analysis Frame

My interest in how knowledge was situationally and informally constructed for individuals within a community of practice lent itself well to a symbolic interactionist interpretation. Such an interpretation focused on the social construction of an individual's subjective experience; how the personal sensemaking and structuring of the individual's sense of self was, as Mead (1934) pointed out, reflected in the structure of the various groups of which the individual is a member--in this case the community of AT long-distance hikers. This perspective helped to frame how a community of practice informally shaped an individual member's situated understanding, experiences, and sense of practitioner legitimacy.

The implications of symbolic interactionism for my work suggested that, since multiple "knowledges" can coexist (Guba & Lincoln, 1994), my role as participant-researcher was to tease out the factors that differentiated interpretations of that knowledge. Use of symbolic interactionism "explicitly provides an interpretive portrayal of the studied world, not an exact picture of it" (Charmaz, 2003, p. 314). Furthermore, the symbolic interactionist paradigm suggested that interactions between this researcher and

the participants would lead to a co-constructed interpretation of the long-distance AT hiking culture (Guba & Lincoln, 1994). I found this to be the case.

Through semi-structured interviews, I welcomed 34 participant hikers into my research process. The shared construction, which occurred in a transactional and subjective manner (Blumer, 1986; Green, 1983), better illuminated the situated and informal sensemaking processes and in turn produced a richer interpretation of the learning culture of this AT long-distance hiking community.

Analyzing the Interview Data

"Ethnographers begin to construct members' meanings by looking closely at what members say and do" (Emerson et al., 1995, p. 112). To construct a thematic understanding of this culture, I first translated the "talk" of my study participants into themes for analysis. Data condensation, or coding, is the process of collecting data and synthesizing the material into manageable categories (Kvale, 1996; Moran, 2003). Codes, in word or numerical format, were created to describe this study's data while they were broken down, conceptualized and put back together in new ways.

Through inductive analysis, I identified and articulated patterns, themes and categories out of the data, rather than imposing any prior to data collection and analysis (Patton, 1990). My natural creation of categories began with "the process of finding a focus for the analysis, and reading and annotating data" (Dey, 1993, p. 99). Researcher-created categories of analysis then became the basis for organization and conceptualization of data. The criteria for including and excluding observations, which was rather vague in the beginning of analysis, became more precise through the use of the constant comparative process (Dey, 1993; Lincoln & Guba, 1985).

My constant comparative analysis used two types of coding: open and axial. Open coding fractured the data to allow identification of some categories, their properties, and dimensional locations, whereas axial coding put "those data back together in new ways by making connections between a category and its subcategories" (Strauss & Corbin, 1990, p. 97). Coding data within the constant comparative method (Glaser & Strauss, 1974, 1990) was a four-step process that consisted of:

1. comparing units of meaning across categories for inductive category coding;
2. refining categories;
3. exploring relationships and patterns across categories; and
4. integrating data to write theory

Though the final step applied more to scholars whose research goal is to develop grounded theory, the previous steps were very useful tools for an exploratory and interpretive study. Subsequent focus on these categories and subcategories helped me to illuminate context, interactional strategies (e.g., how trail-related actions and interactions were handled, managed, carried out), and the consequences of those strategies related to the individual and social sensemaking.

Analyzing Electronic Documents

One component of this study's database included the electronic-mailed journal entries of two long-distance hikers received over a two-season period. Similar to the interview data, all e-mailed text segments were assigned representative codes through annotation of recurring phrases and common themes. Some of the codes were driven by the research questions (e.g., knowledge construction and community), while others emerged from unique statements made by the participants, (e.g., "Hike your own hike" or

"Blue Blazing"). Identification of illustrative quotes led to ongoing code work (Rossman & Rallis, 2003) as the description and analysis of electronic-mail documents, interview transcripts and field notes were continually performed through the duration of this study.

Integrating the Data Analysis for Interpretation

To interpret is to explain, or restate, and a qualitative researcher must use his or her training and expertise to clarify the data for others. Interpretation is part of analysis, yet it goes beyond data description and data reduction (Hogle & Sweat, 1996). If data from pattern-level analysis (LeCompte & Schensul, 1999) were discovered that ran counter to my initial findings, I attempted to satisfactorily explain the contradiction, or my subsequent findings were changed. To render and discuss this study's interpretive findings I selected powerful examples that supported my generalizations with data, while taking the reader inside the context through the voices of the participants (Hatch, 2002).

This research focused upon how individual, social, and contextual factors supported, and in some cases constrained, what was learned and recognized by community members as legitimate practice. From a symbolic-interactionist and constructivist perspective, the community-based knowledge of practice was not taken as a given object (i.e., a fixed body of knowledge), but rather one that was socially constructed by community members, and therefore subject to change over time (Latour & Woolgar, 1986). Through the process of analytic induction, the results and my interpretation of them were certainly affected by my subjectivity as the researcher, and partially affected to some degree by the textual data (Thompson, 1997). These limitations of method were lessened through steps to support the validity of this study through quality measures.

Research Rigor

Many researchers have concluded that systematic, rigorous, and auditable analytical processes are among the most significant factors distinguishing good from poor quality research (Thorne, 1997). Researchers are encouraged to articulate their findings in such a manner that the logical processes by which they were developed are accessible to a critical reader (Morse, 1991). The relation between the actual data and the researcher's conclusions should be as explicit as possible for the claims to be evaluated as trustworthy (e.g., believable and credible). Supporting the trustworthiness of this study's analysis through triangulation and documentation of researcher reflexivity, I offer the reader a clear audit trail of my sensemaking processes as researcher.

Audit Trail

Aims for transparency in my analysis and interpretation were provided by way of a data audit trail. Through clear documentation of my processes for theme and concept generation, and with procedure descriptions for data analysis, including justification for their appropriateness within the context of this study, a critical reader can check the consistency and logic of my study interpretations.

Continually taking account of how identity and experience inform analysis is aided by the use of *analytic memos* (Schram, 2003). Memos of my experience were written often and saved throughout the research process, representing my developing thoughts along the way. Used to increase systematic reflection, my memos helped to inform my ongoing analysis, while they also provided reality checks throughout the study (Schram, 2003). "Memos do for ideas what field notes and transcripts do for perception: they convert thought into a form that allows examination and further manipulation" (Maxwell,

1996, p. 12).

The inclusion of my memos of analysis, field notes of observed practice, and my involvement in this community context, were used to enhance the robustness of this study's database. These data were turned into enhanced descriptions of the daily life and situated practices of the AT long-distance hiking community of practice. Including the use of multiple data sources helped me to consistently evaluate the "credibility" of the inquiry (Lincoln & Guba, 1985) through a trustworthiness strategy known as triangulation.

Triangulation

Triangulation is "bringing evidence to bear from several sources that enriches the evidence and guards against potential errors" (Creswell, 1998, p. 211). Corroborating evidence from multiple and different sources and/or methods helped to shed light on various themes while adding verification to my study. My collection of ethnographic data through three seasons of observation, 34 semi-structured interviews (with four repeat or follow-up interviews), and two document analysis opportunities (e.g. through online journalists) were my intentional efforts to reach more trustworthy conclusions than a single data source could have permitted.

Trustworthiness of my interpretations can be judged by the extent to which my accounts seem to fairly and accurately represent the data collected. Using different kinds of data helped provide rich descriptions of the knowledge construction and communal interaction processes of AT long-distance hikers. As the reader will notice, interview responses of study participants distributed across seasons, hiker characteristics, and levels of competency offer consistent accounts of several AT community of practice factors and

phenomena. As Hatch (2002) points out, "Finding several quotations that accurately and clearly convey your ideas is a final check on your analysis. If you have too many good examples to report, that's a sign that your findings are well supported." (p. 160) For this study, the plethora of similar hiker statements, combined with supportive external evidence such as previous studies of this community (see Rush, 2003; MacLennan, 2005), provided comparative data to test the appropriateness of my conclusions.

Additional efforts at triangulation included consistency checks, or going through the data several times to check the consistency of my coding system, and through response validation, which included opportunities for participants to comment on categories generated by the researcher. Overall, validity was increased by including my study participants in the co-construction of a narrative describing their informal community of practice. Their words are prominently heard throughout this text.

Qualitative analysis ultimately depends on the analytic skills, training, and reflective insights of the researcher. Anfara, Brown, and Mangione (2002) emphasized rigorous standards for quality interpretive research, because "how researchers account for and disclose their approach to all aspects of the research process are key to evaluating their work substantively and methodologically" (p. 28).

Reflexivity

Central to understanding the practice of qualitative research, *reflexivity* can be understood as a method for qualitative researchers to examine critically how the researchers themselves make sense of how their study participants make sense of their world (Rossman & Rallis, 2003). To this end, ongoing notes in the forms of my field notes and analytic memos were included to document my meaning making related to

long-distance hiking, my perspective on situated and informal learning practices, and the overall process of studying this community. This diary-like component was scrutinized to evaluate how it informed and shaped my analysis. These data were also content analyzed to support and challenge emergent themes developed through the interview data. The goal of sound qualitative work is not to avoid or minimize such influences, but simply to understand and acknowledge them (Schram, 2003).

Reflexivity on the part of the qualitative researcher helps to ensure an appropriate match between the nature of the researcher and the needs of the study. Achievement of a "good fit" came from a reflective determination of how an ethnographic approach to inquiry was most appropriate for the research questions of this study.

Attention to reflexivity also focuses the researcher on analyzing and discussing the unavoidable influence he or she has on what is being studied, as well as how the research setting inevitably influences the researcher. This extends to making known the background experiences and beliefs that the researcher brings to the process (Merriam, 1998). In keeping with the recommended task of identifying one's premises for a more genuine methodological treatment (Blumer, 1986; Hatch, 2002; Nespor, 2002; Schram, 2003), I reflected upon my starting beliefs and assessed my presuppositions as they related to this group prior to collecting the interviews (see Appendix H).

Humans construct the societies and communities they live in. To better understand a society or community, one must learn about its cultural symbols and what meaning those symbolic behaviors and artifacts convey within that society (Canfield, 2004). For this study, the qualitative method of a focused ethnography, theoretically framed through a symbolic interactionist perspective, sought to examine the situated and informal nature

of individual knowledge construction within a community of practice. Chapter 4 provides a deeper understanding of what factors help or hinder the learning processes of AT long-distance hikers, thereby answering my first research question. Answering my second research question, Chapter 5 discusses how AT long-distance hikers represent a community of practice and the role it plays in individual knowledge construction.

Chapter 4

FINDINGS RELATED TO LEARNING PROCESSES

This chapter begins with a descriptive scenario to orient the reader to life on the trail, followed by a discussion of two types of knowledge--universal and contextual--that are found to be important to individual long-distance hiking and effective AT negotiation. The current study defines five general competencies of universal knowledge for long-distance hiking, as well as illuminating the information exchange and social support mechanisms that are understood uniquely through AT contextual knowledge. After conceptually framing AT long-distance hikers as individuals on a pilgrimage, the chapter closes with a detailed discussion of the three phenomena that emerged through my analyses of this study. The phenomena of deprivation accentuated epistemic shift (DAES), perpetuated megacognitive ignorance (PMI), and Gollumania offer provocative findings that help answer my first research question about what factors help or hinder the learning processes of AT long-distance hikers.

Delving beneath the dirt, long hair, and strong smell of bodies at work, one uncovers the common features of daily life for the AT long-distance hiker. To interact with these practitioners was a uniquely challenging endeavor. At first, I was quite overwhelmed by their body odor, yet over time and exposure I was able to develop a tolerance to it. This was a helpful, and perhaps necessary, adaptation as I spent the next three years of field observations traveling among, sleeping next to, and interviewing these unique adventurers. Now, I welcome you inside their world for an awareness-raising trek through the situated practices of AT hikers. The following section offers a glimpse of a start to a day in the life of a long-distance hiker. I use a participant narrative from my

field notebook to tap into a collective profile of the sights, sounds, feelings, and smells of the AT experience.

Day in the Life

A day in the life of any AT long-distance hiker is anything but predictable. Hikers often deal with technical and procedural modifications due to changing weather and personal adjustments due to close and awkward social quarters. Some notes from my field journal provide a good illustration:

> On a typical day, you wake up in an AT shelter to the presence of several sleeping bodies around you, many of them strangers. Some acquaintances you may have met in camp the afternoon before, others slid into places inches away from you while you slept. With the new day you stir to consciousness. The sun will not rise for another 30 to 60 minutes, yet you leave the warmth of your sleeping bag to dress for the day and collect all of your indispensable possessions into one pack bag. Though some travelers continue to snore and shift in their cocoons, you notice more and more hikers slowly moving about the darkness. Crackling is heard with the extending of worn knees, sore legs, and stiff backs as they prepare themselves for another day of walking the AT. Between 6 and 7am, most have set out. By 8am the shelter is again empty, awaiting lunchtime visitors and the next evening's gathering of hikers. (Field Notes, July 2004)

This description of a typical morning in an AT shelter highlights some of the social tolerance and consideration issues associated with AT long-distance hiking. Expert and novice AT hikers alike must make comfort-level adjustments from their clean, private, and resource-abundant ways of the off-trail civilized world, to the dusty, shared, and

resource-limited world of backcountry travel. For a less physically difficult hiking endeavor, this transition actually begins at skin level, as AT long-distance hikers learn to adopt strategies of dress that minimize pack weight and thereby limit garment variation.

Same Shirt – Different Day

> You wake up in the morning and you pull on that wet set of shorts, you pull on that stinky, wet t-shirt. ("Kickin' Chicken"-expert)

The daily aspects of trail life are conveyed through a popular AT t-shirt slogan that reads, "Same Shirt, Different Day." In an effort to reduce both pack volume and weight, the more spartan of long-distance hikers reduce their entire wardrobe to the outfit they are wearing and one change of clothes. After walking for 8 to 12 hours a day, the sweaty outfit is either hung in the shelter or tent to air out or placed inside the owner's sleeping bag to be dried by nocturnal body heat. The second outfit is donned in camp, or when visiting trail towns. So common is this practice that several hiker hostels, as a service to their guests, have boxes of spare clothing located by their clothes washing facilities. This allows a hiker to wear a loaner pair of clothes, while laundering their two main outfits. During colder weather, often a combination of both outfits is worn as an insulation strategy. Interestingly, I found that over time I could identify certain hikers from a greater visual distance because I recognized their signature clothing. "Rasta-B" (expert) confessed, "I get pretty nostalgic about my clothing when you wear the same outfit for six months on the trail. You know, I have been walking around Trail Days for most of these past few days wearing the same exact outfit that I wore on the entire trail, and I think people identify me with it and so I just get attached to it."

Long-distance hikers also have a signature smell to their well-seasoned work

clothes. With a hint of mildew or iron-rich blood from healing wounds, the predominant aromas associated with these travelers is human perspiration and urea; a natural waste product of active bodies. Over weeks, their backpack shoulder straps, waist belts, hats, boots, and sleeping bag take on a powdery, ashen appearance from many layers of perspiration salt. So distinctly identifiable is their collective "pheromone," that in 1990 a visually impaired hiker named Bill Irwin walked the entire trail with the aid of his seeing-eye dog, Orient. The trained German shepherd guided the blind hiker simply by following the traces of hiker scents that would lead from the primary hiking trail down to campsites and water sources (see Blind Courage, 1991). In all seasons, sweat and dirt are common factors among hikers.

Another phrase often heard on the trail further helps to summarize a basic long-distance hiker's day: "Walk, eat, crap, sleep – repeat!" This simple phrase captures the experiential, including biological, gist of daily AT activities. Such context-specific practices from this trail, and the general competencies and techniques common to most types of long-distance hiking, are complementary types of knowledge that operate together for AT long-distance hiking. Two such forms of knowledge are discussed in the next section.

Types of Knowledge

What exactly do AT hikers need to learn before, or during, their hike? The initial tasks in my study were to develop a general understanding of long-distance hiking, and a better understanding of the information and skills needed to be an effective practitioner. What should be understood or known by a practitioner for AT long-distance hiking can be grouping into two categories: universal knowledge and contextual knowledge.

Universal Knowledge

"Universal Knowledge" is the traditional, codified, and transferable knowledge of backpacking, trekking, and camping that is foundational to most long-distance hiking across a variety of settings. Before a hike, most hikers educate themselves to what information, techniques, and technologies are available to contend with the needs of backcountry travel, and what are the potential threats to their well-being. These general competencies are the schemata and scripts for extended pedestrian movement in an outdoor environment. Universal knowledge also includes environmental information such as weather, flora, and fauna, packing activities, camp selection and preparation, and awareness of some of the physiological aspects involved with extended backpacking. This kind of hiking information is commonly found in literature, web, and video resources, and is generalizable to a multitude of settings (i.e., hiking in Africa, Alaska, or Antarctica).

The next section will illustrate the practitioner knowledge that is more specific to the AT. Representing the dispositions consistently found among expert AT long-distance hikers, examples are provided to paint a more detailed picture of the contextual knowledge embedded within the AT community of practice

Contextual Knowledge

There is a system of contextual, or local, community-based knowledge about the practice of AT long-distance hiking. Experienced AT hikers with a developed sense of contextual knowledge have the situational awareness (Klein, 2003; Zsambok & Klein, 1997) to detect, and use, helpful AT-information exchanges and social support mechanisms that enhance individual hiker practice.

The who, what, when, and where of hiking the AT is a highly contextualized and place-based understanding. This localized or 'indigenous knowledge' base constitutes what is communally and implicitly understood as legitimate AT hiking. This contextual knowledge includes awareness and understanding of topics and behaviors that a cross-section of community members agree upon as being typical or common aspects of AT long-distance hikers' situated practice. Through social engagement and a situated learning process of co-participation in authentic contexts (Lave & Wenger, 1991), newcomers to a practice such as AT long-distance hiking develop contextual knowledge as they move from the periphery towards full participation in the socio-cultural practices of the community (Wenger, 1998).

Study of epistemology suggests that since knowledge develops with the use of community norms, then normative facts are constructions. As such, normative facts can be investigated empirically as acts of judgment (Piaget, 1985). By bracketing community-based knowledge, I began "to account for the behavior of people by describing what it is that they know that enables them to behave appropriately given the dictates of common sense in their community" (McDermott, 1976, p.159).

Community-based Knowledge

> The people that do the best out here are people that are comfortable in the outdoors, and more to the point, people who have a realistic idea of what we are getting into. ("Maryland Mack"-expert/pillar)

The combination of universal knowledge and contextual knowledge converge to represent the community-based knowledge for the AT long-distance hiking community of practice. Under the umbrella term "community-based knowledge," the next two sections

will provide an overview of the 5 general competencies included in universal knowledge, and two unique practices associated with AT long-distance contextual knowledge.

General Competency Areas

> Heck, if you don't have your basic backcounty skills down, you won't make it one night out here on the AT. Believe me, over the years I've seen enough folks go home hurt and crying after just one day in the woods. You gotta know what you're doing out here. ("Swiss Army Watch" –expert/pillar)

Extended involvement with experienced practitioners, a review of hiking literature, and analysis of expert stories identified 5 consistent competencies or categories of knowing vital to effective participation in long-distance hiking. Competencies, as defined in this study, are determinants of standard performance or what a long-distance hiker can effectively accomplish. Advanced competencies, later discussed in this study under the heading *expert dispositions,* are the evolutionary behaviors of "generating and securing knowledge, learning, and adaptability" that allow expert AT hikers to do "better than the others." (Amin & Wilkinson, 1999, p. 121) These general competencies can be classified into the 5 categories of decision-making, fuel, shelter, technology, and wellness.

Decision-making. The brain is exercised as much as the body when one takes a long walk in the woods. Hikers must constantly gather information, plan logistics, and adapt to new situations. Hiker decision making, both pre-trip and during, can make a difference in journey comfort and completion, or individual health and survival.

Hikers must gather relevant information from maps, data books, shelter registers, and fellow hiker accounts. They need to calculate anticipated travel distance to available water, trail crossings, supply locations, sites of interest, and the next shelter for the

evening. They set individual distance goals based on their assessment of physical conditioning and pace, current muscular and foot conditions, weather and trail conditions, and social group desires (e.g., remaining together, reconnecting at a shelter, or meeting in a town). Additional cognitive processes include predicting the amount of available food, water, and fuel for the day ahead. Contingency plans must also be prepared in the event of a low-water season (i.e., dry springs), a high water or snow season (i.e., slower trail travel), and during the early, late, or off-season when some hiker supply locations and services may not be available.

Savvy hikers understand the potential mental challenges of long-distance treks. Leaving the familiar, civilized world for an informal and environmentally primitive setting entails major adjustments. Coming to terms with contextual adjustment, social isolation, extended physical effort, potential for injury or health challenge, and the unpredictable nature of the environment can be stressful for hikers. For example, desired products may be unavailable for weeks; emergency help may be hours away; and trail pathways may not be maintained or repaired for months following storm damage. Daily challenges and considerations with possible "life or death" consequences require strong decision-making abilities on the part of long-distance hikers.

Fuel. Fuel includes the food and fluids that a hiker consumes to maintain proper body energy, nutritional balance, and hydration. It also refers to the batteries and liquid combustibles required by hiker tools such as flashlights and cook stoves.

Extended physical effort in changing conditions demands proper diet, yet backcountry menus vary by individual preference and pragmatic consideration. Some choose the most simple of breakfasts: dry oatmeal out of a bag, pop-tarts or breakfast

bars, or a combination of trail mix and beef jerky. Others may take the time and fuel to prepare coffee, hot oatmeal, or cook pancakes or instant biscuits. Most choose simplicity over time-consuming preparation and the subsequent need to clean cookware.

In recent years, more commercial companies have begun to market dehydrated hiker meals that are more convenient, flavorful, and balanced in the delivery of carbohydrates, protein, and fat. Prepared in their own foil pouch by adding hot water, these meals reconstitute to tasty, albeit expensive, trail feasts. Hikers also learn how to effectively create meals from non-perishable, common grocery store items. Often these culinary strategies are learned by observing other hikers on the trail. Novice hiker, "Aristotle", speaks of his modeling of others' diets:

> And one thing that struck me right away was how much peanut butter people were eating, and I hadn't taken peanut butter because I thought it was heavy, but I have a background in science and it didn't take me long to realize peanuts and peanut butter and peanuts in a bag basically are the same weight for the same amount of calories. Mashed potatoes are something I had never thought on my own. I saw somebody having that, and it has a lot of calories and serves well. I was able to fit into something that worked for me, a basic pattern, but a lot of details and a variety that I have gotten in my diet has come from other people that I have begun to meet since the first month I spent on the trail. ("Aristotle"-novice)

In any endurance sport, the maintenance of proper body chemistry can be directly correlated with effective athletic performance. Proper hydration is critical. The subtle threat of dehydration can go undetected by hikers, yet can negatively affect their physical and cognitive functioning. One novice recalls her disorienting experience:

> Well it happened to me. I made the mistake of not refilling my bottle the second day, and I was trying to get water off of people on the trail, but they didn't have enough to spare. It wasn't like they didn't want to help, it's just that they would have put themselves in jeopardy. But somebody saw the way I looked and everything, and this fellow gave me some water and he stayed with me until we got to the next shelter just to make sure I was okay. Then later he told me 'you were in really, really bad shape.' I didn't realize I was that bad you know. ("Hollanderin"-novice)

Listening to your body and staying within the limits of your ability is vital to safe long-distance hiking. "Alaskan Aviator" stressed this importance with a recommendation to self-monitor reasonable physical exertion levels:

> You have to walk it at your own pace, at the speed your body dictates to you because if you over extend yourself, you are going to slow down and it's going to get hard, and you are going to become miserable, and you are going to quit the trail. If you are healthy and enjoying it, it's not going to bother you, and you are going to finish the trail. ("Alaskan Aviator"-expert)

Shelter. Hikers protect themselves from harmful traumas such as extreme temperatures, fractures, punctures, abrasions, and assault through the combined effects of hiker dress, sleep and shelter systems, and contextual techniques used to avoid or minimize threatening encounters with flora, fauna, and insects. Contingent upon season, altitude, and location, hiker protection through clothing, shelter, and technique can become a life or death issue. Fatality from hyper and hypothermia are legitimate concerns among hikers who travel several days from the nearest rescue personnel. Lightning,

snowstorms, and disease-carrying insects all present threats to the hikers, yet hikers can safely endure many of these through the use of hiking shelter systems.

Daily shelter processes include wearing clothes that shelter you from the elements, a structure that protects them from inclement weather (e.g. shelter, tent, tarp, hostel), and the sleeping bag and pad that insulates them from the cold air and ground. Proper footwear protects feet and ankles, a well-fitting backpack safely harbors most other gear, and a walking staff or trekking poles helps to stabilize foot travel over precarious earth, rock, and water.

Walking can be surprisingly dangerous on roller-coaster peaks and valleys when rocks shift, mud slides, and ice disrupts hiker balance. The range of foot and leg motions experienced can be both erratic and wrenching. When asked how she got her trial name, "Mud Butt" told the scary tale of catching her foot in a downhill loop of a tree root. As the momentum of her body and pack weight continued down the fall line of the hill, her right leg remained behind until "breaking" free. Escorted to a nearby town by hikers, and given medical attention, she later continued walking the AT for two weeks in a waterproof cast. Because she had to slide on her backside down several steep trail sections, her progressively darkening wardrobe resulted in the trail name of "Mud Butt."

Hiker refinement of sheltering technologies is critical for the protection of the body from hyper and hypothermic threats, punctures and abrasions from insects and wildlife, toxic plants, abrasive friction, and dermal burns from sun, wind, or fire. "I knew myself well enough to know that I wanted to be warm at night, so I got a zero degree down bag" ("Pathfinder"-novice). Much trial and error goes into the selection of properly fitting clothing, backpack, an adequately insulted sleeping bag, and an overall gear weight that

the hiker can safely bear.

Technology. The tools (i.e., hardware) and processes (i.e., techniques) to transport, shelter, protect, and maintain a hiker over time in an outdoor environment, are collectively grouped under technology. This category includes the use of modern products for washing the body and hair, dental cleaning, protection from insects, along with the use of medications and vitamins to manage pain, avoid illness, and to maintain proper nutrition.

Tools may include the technologies of hiker clothing, backpack, portable shelter, lighting and cooking devices, water treatment and water transportation systems, and safety and hygiene supplies. On occasion, these tools are dispersed and carried among a hiking pair or small group. The sharing of tools and the division of equipment among fellow hikers is advantageous since it helps to reduce both weight and bulk. Doing so can be precarious because hikers sometimes become separated due to weather or injury, resulting, for example, in one hiker having poles but not a tent for the night, or fuel but no stove for a meal.

Not all forms of technology must be carried individually by hikers. Some items consistently found in shelters are used as daily tools. These may include the hanging devices (e.g. clothes lines, strings with attached tin can lids, elevated bear cables or 12' high metal poles topped with flared hooks). These tools are used for both drying clothing, storing gear, and providing an obstacle to the mice that often scurry through backpacks to scavenge food particles or insulating materials for their bedding. The hanging cable and pole are used to separate food and trash from the sleeping area and to protect the edible supplies from mice, rats, squirrels, raccoons, and bears. A tool for human waste

management is the constructed privy, found at all shelter sites. Though hikers daily employ Leave No Trace ethics (see www.lnt.org) in their use of the woods as a bathroom, the environmental problem of handling twelve to twenty humans' waste per site, per night, is alleviated through the volunteer construction of privy pits. Additionally, these portable and stationary tools require proper maintenance. Cleaning and repairs are inevitable with the extended use of tents, stoves, bootlaces, pack straps, hydration bladders, and clothing. Wet clothes, foot attire, and backpacks must be dried to prevent mildew and rot. Cuts, blisters, sunburns, and insect bites must be treated to both relieve pain and prevent infection. All of these contribute to the overall wellness of the hiker.

Wellness. Avoiding injury and illness are vital when attempting a continuous four to eight-month walk. Couched in the AT phrase, "No pain, no rain, no Maine," the presence of body pain and the potential of body damage is a fact of trail life. The trail is also a rather challenging setting for illness prevention and trauma treatment. Most hikers carry various forms of medical ointments, medications, and first aid supplies. Blisters, rashes, cuts, sunburns, and insect bites all require attentive care in this less-than-sterile environment. Additionally, effective water treatment to avoid giardia and other harmful water-born pathogens is achieved through filtration or chemical treatment. To minimize the potential for an interrupted journey due to sickness, the use of antiseptic lotions and towelettes, or biodegradable soap is important to long-distance hikers for daily hygiene, wound treatment, and cleaning hands prior to meal preparation.

Instructional hiking books do include first aid sections, yet rarely do they address the management of daily pain and minor injury. Again, an entry from my AT field journal illustrates this part of the experience:

> Everyday you wake up sore. Every night your feet are tired, swollen, and sometimes raw from the repeated impact of thousands of weighted steps. At night it is not uncommon to see hikers with their feet propped up on the shelter wall or their pack attempting to drain the engorged feet and leg muscles before falling asleep. Whether one self-medicates or not, body discomfort is very much a daily aspect of long-distance hiking. Along the trail there is a common reference to the daily use of ibuprofen or "Vitamin I." This little blue pill helps many long-distance hikers with both pain management and the daily reduction of swollen joints, ligaments, and muscles. (Field notes, July 2003)

My observations of hikers' use of pain relief medications was supported by "Hyper-Drive's" self-reported appreciation for, and use of, modern pharmaceuticals:

> My knees gave me problems off and on, but I think the *Celebrex* did wonders to keep me going without doing more damage. I did strain my tendon and muscle on my right leg, and had to take 8 days off the trail. After about a week back on the trail, that problem was gone, though I had a similar problem on the other leg for a couple of days. A number of other issues came up with my feet, legs, back, and elbows (from the trekking poles), but nothing I couldn't continue hiking with. ("Hyper-Drive"-novice)

Muscular trauma, joint strain, and blister pain are commonly expected and typically experienced among long-distance hikers everywhere. The preventive measures and treatment of such discomforts can be considered part of the universal knowledge of most long-distance hikers.

This section provided an overview of the universal knowledge for hiking, consisting of 5 general competencies. Every day a long-distance hiker manages transportation of self and possessions by foot. Every day these individuals must fuel their heavily taxed bodies with necessary calories. Shelter from sun, wind, insects, brush, rain, and snow is accomplished through proper wardrobe, rain gear, sleeping bag, and the use of a tarp, tent, hammock, or AT shelter. Daily routines include the maintenance of body and gear for continued performance. Mediated through a long-distance hiker's daily decision-making, each of these competencies and related actions constitute the universal knowledge and skills that are generalizable to many hiking scenarios. A second type of understanding that falls under community-based knowledge is the contextualized knowledge unique to AT long-distance hiking practices and environments.

AT Information and Support Mechanisms

There are two unique practices associated with AT long-distance contextual knowledge. Interestingly, these two practices have the same delivery mechanism-the AT shelter register. Though information relevant for hiker decision making is often collected through informal on-trail and in-shelter conversations, reading the hand-scribed collection of daily entries in shelter registers offers a helpful repository of local, trail-specific information and social inspiration for AT long-distance hikers.

> Yeah, that is a huge part of the community aspect is leaving notes for people. ("Water Buffalo"-novice)

Shelter Registers. The use of a shelter register, or communal journal, is unique to AT hiking, and provides an artifact of helpful information-transfer, and social motivation. Individuals and small groups use shelter registers for a multitude of reasons. Some use

the registers to track hiking acquaintances, to document progress and emotional/physical states, to log complaints about trail conditions, and in some cases as an emergency communication line. Some hikers simply sign their name, while others write mini novels with chapters distributed in shelters across 14 states. Some relay messages of greeting and peer motivation as pointed out by "Water Buffalo," "Mostly I use it as an informational practice, but then every two weeks or something I try to say hi to all of my friends behind, miss you guys or whatever, hope you guys are doing well."

Most AT hikers embrace this community practice, though participation does vary. Some confessed to resisting writing, feeling they lacked clever things to say, while others took tremendous pride in crafting in-depth reflections, attractive illustrations, inspirational poetry, or humorous anecdotes. Variations between a hiker's social personality and written voice often surprised "Pub Grub" when he finally met the person behind the prose: "Some quiet people write the longest stuff . . . and some hikers who never shut up only sign their name in it."

Typically, shelter registers are read and signed during the day by passing hikers on lunch or water breaks, but evenings see the most writing activity. After the completion of their evening tasks of shelter arrangement, dinner preparation, cleaning and stowing of gear, surveying of maps and data books, and calculating of travel goals for the following day, then the register is passed around the shelter for overnight hikers to read comments from other hikers and record their own thoughts. The resulting fellowship sometimes leads to collaborative trip planning, as when same-direction travelers agree upon a destination of interest or town rendezvous schedule. "Starving Musician" (expert) explains how trail acquaintances become in-town friends:

> Because we all get to know each other rather well and keep tabs on each other, we figure out who is going to be where, and the relationships develop. It's something that evolves over 2,000 miles. I don't know. It's just who you know. You get into town and you don't know the towners, but you know these people.

Shelter entries from opposite-direction travelers also offer valuable information on recent trail conditions and upcoming town events. Such knowledge exchanges, either through conversation or register text, are more consistent during the high traffic times (e.g., May -Aug) of each hiking year. Early season northbound hikers are generally not afforded this swapping of information because southbound hikers don't cross their paths until mid to late season.

A notable challenge for many AT long-distance hikers is their fluctuation of motivation in the absence of a familiar social network. Waning spirits can spread rapidly among newcomers during the first 2 months of AT travel. Interestingly though, AT long-distance hikers high-frequency participation with ceremonial mechanisms, such as writing messages in the shelter registers, somehow helps to address this predictable need. It offers a subtle form of social support to new and experienced long-distance hikers of the trail.

A newcomer can benefit from simply spending time in the community, though. Distributed exposure often turns trail acquaintances into trail friends, as mentioned above by "Starving Musician" (expert). Reading shelter registers also helps to illuminate the variety of social identities that create the seasonal social tapestry within the community. The daily use of trail registers is an example of one typical, contextual practice for AT long-distance hikers. These print-based tools are "a way of communicating with sort of a

loose family" ("Aristotle"-novice). Such a motivational mechanism may be an outgrowth of the AT community of practice ethos, which will be discussed more in depth in chapter five.

Though experienced AT long-distance hikers possess the contextual knowledge to utilize this situated exchange mechanism to gather helpful, up-to-date, trail information, the shelter register is also used to garner playful social motivation to support individual hiker practice. Members of such a loose, mobile, and informal community have often been likened to pilgrims on a walking quest. Socially constructed, ritualistic scripts for learning can be uncovered by examining the metaphor of the pilgrimage and its formulation as a rite of passage (Arnould & Price, 1993). The next section makes an evidence-based argument for considering the "AT hike" as America's ubiquitous path for individual learning, life sorting, and growth through an extended pilgrimage.

Not All Who Wander are Lost

> The most powerful organizing forces in modern life are the activities and associated interpersonal relationships that people undertake to give their lives meaning (Schouten & McAlexander, 1995)

Epic experiences, such as those reported by AT long-distance hikers, have the ability to alter how an individual views knowledge, beliefs and behaviors related to self and others. Through such an extraordinary, engaging, and challenging experience comes reflective clarity (Arnould & Price, 1993). Historically, pilgrimages around the world have provided a mechanism for personal reflection and spiritual development through a publicly endured challenge. In this study individuals in various stages of life transition (e.g., graduation or retirement, job loss or career change, or mourning a death, empty-

nest, or medical diagnosis) sought an extended physical experience as an opportunity to make sense of their thoughts, emotions, and unclear future.

More accessible than several of the global religious pilgrimage sites, and far less expensive than a Himalayan mountain expedition, the Appalachian Trail offers individuals access to a culturally acceptable "life sorting" activity. "Rasta-B" (expert) explained her motivation, "I just needed to do some soul searching, and I needed to do something that was going to push my limits, and I knew there was going to be times that would suck and be really emotionally draining, but I knew that I would come out on the other side a stronger person with more trust in myself."

The dirt and rock path of the AT offers some long-distance hikers a unique and accessible opportunity to endure, reflect, and order mental and emotional life through a shared communal experience. Though the motivations for doing so vary among participants, a pilgrimage is typically voluntary, unlike many rites of passage (van Gennep, 1960). The pilgrimage incorporates three essential features—separation, transition, and reintegration. AT pilgrims depart from their ordinary lives at home, work, or school (i.e., separation), to take their first steps upon the trail and begin the initial phase of transition. Common to the transitional phase is the stripping of societal markers of rank and status. Most AT long-distance hikers will never ask what a fellow hiker does or did as a profession. Social titles such as doctor, vice-president, or Ms. are rarely uttered. In addition, the taking of a "trail name" is a rite of passage and a predictable transitional activity for new AT long-distance hikers. By stripping themselves of their birth name, initiates to the AT community "experience a fellowship with other co-ritualists who, like themselves, perceive themselves in their basic, common humanity"

(Arnold & Price, 1993, p. 27). Even for those who don't intentionally seek a pilgrimage, the common experience and social norms surrounding an AT long-distance hike replicate the common features.

Intense fellowship and a spirit of solidarity characteristically develop through the shared suffering of micro-groups during a pilgrimage. Studies of small groups enduring extreme challenges (e.g., initiation, natural disasters, pilgrimage) demonstrated this to be a predictable social development (Turner, 1974). Once hikers begin to identify with a peer cohort, their welfare becomes intertwined with the welfare of the larger community. It is a vulnerable yet open bonding experience as "Rasta-B" points out, "You are just dealing with this really intense lifestyle and so you have a lot in common. So, you are able to get to know people really quickly and it can be in a pretty intense way because everybody's walls are down." The collectivist ways of these small, roughly independent cohorts is where strong bonds of trust and localized identification develop within the larger, nested system of AT communal support.

> If I was around other people you know we would moan and groan a little bit, but we would keep walking and what you found in the long haul was that you could get through it. ("Kickin' Chicken"-expert)

Individuals on a quest are often in search of some form of personal development (Solnitt, 2000). Though individual hikers define their experiences as unique and authentic, they "get through it" together with an integration of activities that offer transformative support from their community of practice. These culturally embedded activities help scaffold member learning and growth. "Pathfinder" (novice) shared, "The trail has definitely taught me that not only can you go this tremendous distance by just

one little step at a time, but you can go such a long way one step at a time." Through traditions of trail activities and rituals, a long-distance quest along the AT allows for both individual clarification of self, as well as exploration of one's social identity within the community context.

The pilgrimage-like experience of an AT long-distance hike offers participants unique personal growth opportunities that are not easily simulated in our modern societies. During my interview with "The Momma" (expert), I asked whether she could find similar personal benefits through something other than AT hiking? She responded:

> Okay, I can find camaraderie, I can find challenge, I can find beauty, but in most cases you have an hour here, a week later an hour there, maybe a day hike once a week to get some beauty. On a thru-hike it's 24 hours a day, seven days a week, six months, whatever, it is so intense and dense an experience… almost every moment. A week on the trail feels like six months of ordinary life. It's a totally different experience because you are so much more alive, and so much more awake. I go through life more or less sleepwalking. Get up, get on the train, go to work, oh yeah I am here, okay, turn on the computer, do the email, whatever. The only time I feel alive is on the weekends when we are in the mountains again. You know I do what I have to do. When I'm thru-hiking I am awake, I am alive and living life, and not just getting through it. That is very different.
>
> ("The Momma"-expert)

The essential features of a pilgrimage, situated in the AT long-distance hiking community, were clearly observable in the voluntary separation practices (e.g., setting out on a thru-hike, signing in at Amicalola Falls), and identity development rituals (e.g.,

adopting a trail name). Reported as beneficial to those who participated, examples of personal transformation of understanding and increased self-efficacy, were found in both the AT literature and across my interviews. Solnit (2000) points out "when pilgrims begin to walk several things usually begin to happen to their perceptions of the world which continue over the course of the journey…each step is a thought" (p.51). With millions of steps taken during an AT long-distance hike, individuals had much reflective time to test and define their understanding of practice and sense of self as a situated practitioner. All pilgrimages share one defining condition though, that of extended personal deprivation. This study found the condition of "doing without" an interesting catalyst to learning. Addressing my second research question, the next section entertains the idea that the "hindrances" of deprivation may actual "help" individual AT learning processes.

Contributors to AT Learning Processes

Long-distance hikers arrive to the trail with a collection of ideas about what consists of "knowledge" and "learning." When exploring the foundations of everyday knowledge within this community, I was drawn to question the communal assumptions of reality. Former studies of the "sociology of knowledge" have sought to understand the social processes by which community-established knowledge develops into taken-for-granted "reality" within societies (Berger & Luckman, 1967). My study of the learning on the AT raised questions about what specific events challenged the body of knowledge that novice AT long-distance hikers brought to the task of hiking the AT.

Epistemology, an area of interest for psychologists and educators, is concerned with the nature and justification of human knowledge (Hofer, 2002; Kuhn, 1999). Study of epistemological development includes how individuals come to know, the theories

they hold about knowing, and the manner in which such epistemological premises influence their thinking and decision making (Baxter-Magolda, 2002; Hofer & Pintrich, 1997; Perry, 1970). Beliefs about knowing something and how we 'know what we know' include socially shared perspectives on the certainty of knowledge, the structure of knowledge, the source of knowledge, and the criteria for determining truth (Kegan, 1982, 2000). Though the field of educational psychology provides great insight into how humans learn, it does not always illuminate just what is responsible for that learning. Jean Piaget (1959, 1971, 1985) was one of the earlier educational researchers to extend this philosophical area to include empirical investigations of how learners think and learn about the world around them, and what contributes to their knowledge constructions.

As individuals move beyond routine learning processes into more complex challenges, they rely heavily on their community of practice as their primary knowledge resource (Alee, 2000). Yet inherent conflicts about what is legitimate knowledge arise. This study found that a state of deprivation helped to accentuate hikers' questioning of personal and community held assumptions, which in turn led to the restructuring of their knowledge of long-distance hiking. The next three sections help to clarify how these processes unfold along the AT.

DAESed and Confused

> They would have to understand that it would be the absolute most difficult thing they have ever done in their life, the most difficult. And you could tell them that for six months and until you do it, you just have no clue how tough it is. You just have no clue. ("Quest"-expert)

One of the primary contributors to significant learning by AT long-distance hikers is the factor of deprivation. Though many hikers came to the AT confident in their prior hiking experience, a disequilibrium with previous schemata and scripts for hiking often became evident through un-ignorable discomfort brought on through deprivation. For several novice AT long-distance hikers, this unique aspect of their initial sections of the AT contributed to their questioning the nature of knowledge and their evaluation of information. This healthy form of skepticism and critical thought, which I labeled "deprivation accentuated epistemic shift," (DAES) can be viewed as a positive developmental learning stage from an otherwise negative experience.

The first weeks of AT travel offers a gritty orientation to long-distance hiking that comes quite unexpected following rather clean, promotional, storybook accounts of hiking the AT. There is a qualitative difference between extended weekend camping and traveling the AT. Feeling cold and wet on a day hike and sleeping cold, wet, and dirty for a week during a thru-hike grabs at this difference. Resources are limited to what each person can physically carry, so proper provisions and planning becomes more of a serious logistical consideration. "Everybody has a very limited supply of everything. Its not like you have got lots to give." ("Pathfinder"-novice)

Lack of familiarity with the setting, taxing physical challenge, unpredictable weather conditions, and the mixture of isolation by day and social tensions by evening, has surprised many novice AT practitioners. "You get a great deal when you are out there and you give up a great deal. You give up your home, you give up your possessions, your friends, the people you are in constant contact with, telephones, and computers and instant messaging and the ability to always be in contact with whoever you wish. And,

various things that affect your personal comfort and hygiene." ("Maryland Mack"-expert/pillar)

Grumblings of body discomforts and growing pains speak to the significance of the initial physical challenge encountered by newcomers. There is more to learn and adapt to than most novices expect. Talking with "Hollanderin" (novice), who had been on the AT for just over one month,

> We are detached from the rest of the world, in some way in our own little world you know, and we only mingle in the rest of the world when we come into town and re-supply. But yeah, sometimes you can get a little crazy out there. It just gets to you after about five days or so. At least it happens to me. I can't believe I am still here. {laughter!} I am glad I am still here, yeah.

Discomfort, disorientation, and disconcertedness therefore create a fascinating dynamic for individual learning. In line with Piaget's concept of 'perturbation' (Piaget, 1985), confused individuals were primed for a shift of perspective on their hiking knowledge, skills, and use of technology. Confused and frustrated, the novices directly and indirectly turn to fellow hikers to help make sense of the incongruencies of prior knowledge and current practice. Participants in this AT study offered interesting perspectives on how the perturbation of discomfort and deprivation helped to initiate individual epistemic growth.

Facilitated Epistemic Shift

Struggles among novice hikers with the idiosyncrasies of the AT travel and attempts to achieve an effective equipment system were the primary mechanisms for a shift in hiker learning. As Fosnot (1996) suggested, learning is "a self-regulatory process

of struggling with the conflict between existing personal models of the world and discrepant new insights" (p. ix).

> When you are carrying it, and you are about to die walking up a hill, you start thinking real hard about what you are carrying. You are thinking, "Why am I bringing that?" You know at home it seems logical. ("Pathfinder"-novice)
>
> Ah, my perspective has changed. So, it's kind of a change of perspective and a change of equipment. ("Dancin' Cub"-expert)

Though bands of novice hikers traveling together in the early stages of their hikes help to create a symmetry of ignorance (Rittel, 1984) where the knowledge of one hiker complements the ignorance of another, it is conversations with differing viewpoints that help to cognitively tease out the tensions of situated problems, and the diverse approaches to problem solving. Through tensions and disequilibria of practice "each individual is led to think and re-think the system of collective notions." (Piaget, 1985, p.76)

The vulnerability of such an experience also elicits individual awareness of their interdependent nature as practitioners, and their embodied sense of control through material possession and presentation. "Pathfinder" (novice) commented on her experience of this shift in perspective,

> When you are stripped of everything you are used to--your car, your phone, your everything--and you are waiting to hitch a ride into town or to get somewhere, I mean you learn, I almost equate it to being like a homeless person. Well you are homeless, and you are sort of at everybody else's mercy, and I think that teaches a different outlook. I think being stripped of the things that we think give us control

of our life is a huge lesson, you know, whether that be clothes, house, cars, you know, looking nice, you certainly do not out there. ("Pathfinder"-novice)

Perturbation, or the disruption of hiker cognitive equilibrium, resulted from tensions in three areas: (a) incongruence between pre-hiker preparation and lived experience; (b) confusion over discrepant perspectives on practice; and (c) challenges with gear selection.

Preparation vs. experience. Despite the availability of detailed how-to books, videos, web pages, workshops, and advising sessions, first-time AT hikers are quite surprised and subsequently troubled by what they encounter once they reach the trail. Interestingly, many of those practitioners possessed extensive prior hiking experience (e.g. through scouting, military training, or family vacations), and most had invested months, and in some cases years, in pre-trip research prior to departure. Their previous knowledge was only partially transferable to the AT environment, and their pre-trip research often failed to prepare them for the requisite skill set needed for AT-specific challenges.

Controversial perspectives on practice. Novice AT practitioners, who solely used print and online resources and outfitter recommendations, were more likely to encounter disequilibrium in their first week of the journey. As hiker problems appeared, individuals attempted to reintegrate the problem into the overly matter-of-fact, taken-for-granted reality presented by the literature and recommendations of gear merchants. Often, experienced hikers' acts of judgment regarding what constituted legitimate long-distance hiking strategies were based on psycho-social implications "…which were normative, not causal." (Piaget, 1985, p.76)

As novices receive a multitude of opinions and recommendations from fellow hikers, some realize the necessity of critical thought and information source evaluation. “The Momma” (expert) spoke of how she learned to critique recommendation sources, and how the creditable expertise of a community pillar offered her a more valuable channel for information,

> People give all sorts of advice, and we don't necessarily know whether they have a background. I know this is the greatest thing and this is the best pack ever made, but it turns out they have been backpacking twice. Its really difficult to know, if you have somebody like Maryland Mack who is talking, people are going to listen, but it doesn't necessarily mean that his experience is going to be helpful to them. (“The Momma”-expert)

The first month or two of trail on the trail also sees a winnowing of sophomoric and unsolicited advise amongst fellow hikers. “Chewbacca” and “Giggles” (novices) observed this change over time and a shift in practitioner knowledge posturing,

> Yeah. That is a pretty big deal is people’s egos and people’s you know the whole authority and “I know what is right and what is wrong.” I guess I have been seeing that breakdown on the trail, the whole ego thing, I don’t know, but we definitely experienced the same thing.

This type of shift from a black and white, right and wrong view of knowledge is nicely explained in the epistemological developmental models of Baxter-Magolda (2002) and Perry (1970). Represented in both models, the shift from *absolute knower* to *transitional knower* marks a qualitative shift in epistemic understanding of the nature of

knowledge. As changes in a hiker's perspective on knowing leads to changes in practice and gear, so comes a potential change in self-concept related to knowledge and practice.

Challenges with gear selection. Novice and experienced long-distance hikers alike contend with a rather precarious relationship with modern technologies. Every season a new collection of technical hiking gear and backcountry electronics are presented to hiking consumers by merchants, catalogues, and web sites. Every season there are more and more backcountry rescues by park rangers and local police. Lost, cold, wet, and scared hikers have been located without raingear or a map. Related to this, "Alaskan Aviator" (expert) expressed his concern with his observation of an apparent increased over-reliance on technology,

> Sometimes it just boggles my mind that most hikers now carry a cell phone and a GPS. They are in the woods, they are in trouble, they pick up the phone and call somebody and have a helicopter come out and pick them up. When I was a kid, this was unheard of, we couldn't do that. We had to rely on ourselves. I don't know if this is going to be a problem years down the road when you don't have to rely on yourself. You have to make sure you have enough batteries in your cell phone.

The concept of *Deprivation Accentuated Epistemic Shift* (DAES) captures the knowing-doing gap between novices' prior knowledge and intended goals (i.e. journey preparedness), and their lived experience (i.e. journey response). The deprived state of discomfort, disorientation, and disconcertedness acts as a catalyst to reflective learning. In some cases, confused individuals were primed for an epistemic shift of perspective on their hiking knowledge, skills, and technology as relevant to AT-specific travel. In this "DAESed" state, the hikers' deprivation from what is known, predictable, and

comfortable initiated a pragmatic need for change. A shift that forced epistemic reflection, the hiker began to assess the nature of knowledge and the validity of advice with every step. This shift can be framed as a helpful outcome for learning, albeit an uncomfortable one for the AT hiker going through this developmental process.

Challenges to AT Learning Processes

Overwhelmed by the discovery that gear and/or their bodies are not performing as planned or portrayed in books (i.e. DAES), individuals have become frustrated, impatient and despondent, sometimes choosing to leave the trail. Over-weighted packs and exhausted packers have also led to unfortunate accidents such as strained ligaments and broken limbs. Such trip-sacrificing injuries were not uncommon during the first month of induction to long-distance hiking. Of the 1,500 to 2,500 people a year that attempt this journey, only about 20 to 25% actually complete the entire trip. As much as 15% quit in the first week of the 4- to 8-month trip (ATC, 2006). These disturbing statistics speak to some of the learning problems hidden within the AT long-distance hiking community. This section discusses two phenomena that hinder learning, "Perpetuated Megacognitive Ignorance" and "Gollumania," also uncovered by this study.

Perpetuated Megacognitive Ignorance

> …but the advice they give is not how they actually do it out here.
>
> ("Movie Girl"-novice)

> …that's how I learned it…but this is what you should go and do…
>
> ("Swiss Army Watch"-expert)

One emergent phenomenon in this study, "Perpetuated Metacognitive Ignorance" (PMI) offers one perspective on how the AT hiking community actually hindered the

effective practice of members and newcomers. Experts within the AT long-distance hiker community of practice lack of awareness of the variety of possible learning trajectories, as well as the variety of pedagogical approaches for newcomer orientation. This lack of awareness is perpetuated through: (a) experts' ignorance of their own developmental experience and learning strategies, and (b) novices' confusion stemming from contradictory advice from fellow practitioners and authoritative print sources. Metacognitive ignorance on the part of those who assume information disseminating and teaching roles is one set of consistent challenges to AT sensemaking.

Though hikers develop expertise of practice over years of experience, they often offer erroneous or contradictory learning advice to newcomers. Ignorant to their own learning process, and unaware of the tacit knowledge that defines their expertise, author after author produce articles, books, and multimedia presentations that offer the newcomer accurate technical information, but lack the relevant contextual wisdom and psychological considerations that play a major part in practitioner learning and success in long-distance hiking. The "noise" of what the expert thinks she knows and the useful information professed can be overwhelming for novices to filter and discern. For example, "Kickin' Chicken" (expert) believes psychological factors and pre-trip mentoring should be emphasized more with novices.

> The books don't tell you what it's like. If you start on a Sunday, let's say, and the hills and trails are crowded, by Wednesday the trails are totally abandoned. There's no one there but you. And then the books don't talk about that--most of the books. There are some personal account books out there that do a fairly good job of it, so if I was going to prepare someone for the trail, I would introduce

them to good reading material on equipment, clothing, gear, food, but I would spend more time personal one-on-one, talking to them about what it's really like on a day-by-day basis to get up in the morning.

This is not to say that authors are not well intentioned or knowledgeable about their experiences. This speaks more to the perpetuation of static, a-contextual information versus situated knowledge. These ironic omissions capture the space between what expert practitioners say, write, and teach and what practical knowledge the novice most needs to understand. The stopgaps are the war stories and modeled behavior of experts. Within these gaps lie tacit goldmines of knowledge and wisdom about effectively living and moving along the AT. Yet the increase in print-recorded expert recommendations, and the decrease in opportunities for expert-to-novice storytelling or apprenticeship-like field experiences, only perpetuates the frustrating incongruence between what is offered as instruction and what is needed for informed practice.

The literature and educational materials, initially studied by novice hikers, primarily focus on "just-in-case" preparedness strategies. Experts' stories of lived experiences, on the other hand, stress adaptive and often simplified behaviors, and a mental approach that emphasize readiness and adaptability. It is interesting to note that these consistent suggestions, offered in expert stories, are absent from the expert-produced literature and instructional workshops.

Analysis of the challenges of the novice, and the war stories of the experts, are remarkable in their congruence. The assertions of countless AT books got in the way of novices listening to the situated, think-aloud stories of experts. The vital knowledge for effective AT long-distance hiking was tacit and unaddressed by those experts who wrote

the books and led the workshops on which so many novices rely for preparatory instruction. Tacit knowledge is that which is procedurally and semantically known by an individual, but not ordinarily accessible to their consciousness (Reber, 1995). Because AT experts, pillars, and authors don't know what they know that makes them an expert among practitioners, they fail to consciously address their specialized problem solving and adaptive skills when advising novices.

Necessary psychological tools such as cognitive flexibility, skill adaptability, and modulated motivation are absent or reduced to generalized recommendations in the how-to literature. Even with the best of educational intentions, expert-hikers-turned-writers failed to include the unconscious information that makes the profound difference in effective practice. Therefore, novices typically focused on, and packed more, 'just-in-case supplies' and technologies; whereas experts' actual and unreported practice focused more on developing flexible knowledge and skills, packing lighter, and embracing the AT social support system.

Counter-experiential Advice from Practitioners

Several experienced AT long-distance hikers will approach teaching newcomers about their practice by giving them the same books they've read, sharing information about the specific locations along the trail, and by telling the newcomer to simply go out and practice hiking progressively longer distances. Others will tell novices to go to the Internet and backpacking stores to check out the 'decent brands,' determine what's available and what is best for them, without discussing what makes for a 'decent' brand, or how one might evaluate what is best for the individual. This stands in contrast to the

lived stories of how those very same experts learned to make sense of long-distance hiking for themselves.

One expert shared an hour and a half of stories about the importance of taking individual differences into account, adjusting gear as you go through observation of other hikers and personal experimentation, and making technique modifications based on your personal preferences and comfort levels. He offered rather contradictory advice when asked how he might help a novice prepare for an AT hike for next year. That same expert, now in a perceived advising or teaching role, recommended, "Stay out of the groups and do your own thing." This was rather surprising because, according to this expert's own lived experiences, he made sense of AT long-distance hiking through a process of social observation and modeling, personal trial and error, and reflective adaptation of techniques. Little was mentioned about why not to take recommendations at face value from just any books or web pages, nor was there any suggestion of going to an authority to have them select one's gear or dictate one's procedures of practice. In his next breath, he recommended that any newcomer should simply come to him, they'll walk over to an outfitter shop, and he would "get them squared away." This expert's recommendation exemplifies the PMI phenomenon confounding novice AT learning processes, and plaguing expert instruction and publication practices.

From my findings, a newcomer to long-distance hiking can potentially harness more wisdom from the expert stories and situated observation and involvement than by simply reading the books by experts, or by summarizing the opinions of online debates.

> I spent like hours pouring through Backpacker Magazine's Gear Guide trying to figure out which tent is the best one to get… I thought I had it set and then

> basically after going to the Gathering it was pounded into me how important it is to cut weight. I started realizing that I am willing to live without some of the comforts that carrying some of these things provide…After "Rosebud" (expert) showed me his system, it was the first time I was ever convinced it could work. I had read about it in books, but I was really not convinced that it was a working system until I met someone who actually had used it. ("Movie Girl"-novice)

"Progression," as illustrated by "Movie Girl's" example, is evidence of advancement (Cook & Smith, 2004). McGivney's (1999) study of informal learning routes in community settings points out, "in the context of adult learning, 'progression' can mean several things – personal progression, social progression, economic progression, and educational progression. These frequently overlap" (p. vi). In my study, progression was taken to mean evidence of an advancement of a hiker's comfort levels, confidence, skills of adaptation, and sense of self within the community. This progression varies over time, by hiker developmental level and access to social interaction. Situated modeling played an integral role in helping "Movie Girl" progress from doubt to technique adoption. An empowered, reflective, and adaptive personal system, situated within a dynamic and social network, is strongly associated with progression from novice to expert and effective practice.

Each year the attrition rate among thru hikers attempting the AT exceeds 75% (ATC, 2006). The recent increase in print-recorded expert recommendations, and the decrease in opportunities for apprenticeship-like field experiences, only perpetuates the incongruence between what is offered as instruction and what is needed for informed practice. Unreflective advice and unskilled mentoring is costly in time, money, and

frustration for newcomers to AT long-distance hiking. Yet specialized knowledge can be better elicited from expert practitioners when hikers and researchers alike examine the strategies and mentalities employed in context by wise AT hikers.

While Perpetuated Metacognitive Ignorance poses a significant barrier to learning and negotiation of the AT by novice long-distance hikers, a phenomenon here called "Gollumania," was another significant hindrance. Several hikers interviewed in this study were resistant to removing certain heavy tools from their packs, despite the taxing weight and consistent recommendations from other hikers. Reasons for not modifying their situation included, "I paid a lot of money for that stuff" and "But it's what the (Backpacker) magazine rated as the best." In the next section, J.R.R. Tolkien's fictional character "Gollum" offers a provocative analogy of the mentalities of some of these novice hikers, again illuminating a hindrance to AT learning processes.

Gollumania

> I had no one to tell me anything about equipment or planning or anything like that. So, I over planned, I over equipped myself, and I overdid everything. ("Dancin' Cub"-expert)

In Tolkien's widely acclaimed fictional novel, Lord of the Ring, the character Gollum was completely obsessed with ownership of a gold ring. Considered most special, this character clung to the item despite the loss of his friends, health, and his sanity. Similarly, some AT long-distance hikers become overly bonded to certain items despite their lack of necessity or even problems resulting from these objects. With an almost 'Gollumanic Obsession,' some hikers covet new technologies (i.e., hiking gear), which

actually seems to be contributing to the increasing attrition rate of AT long-distance hikers.

Though a healthy skepticism about whether or not the latest change in gear represents genuine progress is assumed (Brown, 2001), many hikers simply failed to question how a new technology would operate in context. Like the *bandwagon fallacy* (Rohlfs, 2003; Tversky & Kahneman, 1974) of uncritically following the crowd or latest trend, I found that many hikers mistakenly put their trust and dependence in technology instead of knowledge and skills. “Ford F-150” (expert/pillar) observed over the last decade such a newcomer overemphasis on the importance of the gadgets of practice, “I think almost all (novice) hikers are anxious to show others what they know and the gear they carry. Hikers get together and the first thing they start talking about is gear.”

Several novice AT long-distance hikers develop a false sense of effectiveness, embodied in their gear. Their irrational confidence that technology somehow answers their needs presents challenges, and potential dangers, when learning long-distance AT hiking. Lacking AT knowledge and experience, they consult magazines, catalogues, and outdoor stores for the latest gear. “Rasta-B” (expert) admitted, “It's easy to get sucked into that, and I think there's a lot of thru-hikers who don't make it because they spend too much money on gear thinking that, ‘Oh if I just have this it will make it so much easier’.” Compensating for the lack of situated ability, some equip themselves with a collection of expensive and unnecessary gadgets. “Movie Girl” (novice) warned, “Some people basically try to make more money selling you things you really don’t need.”

Many novices over pack with gear they will inevitably mail home, or overload themselves with concepts they will inevitably reform. In others words, several new hikers

began their journey with an unrealistic appraisal of their knowledge and skills. Substituting tools for experience, they reported having 'everything they would need' for the hike, only to discover later that they had too much gear (a physical burden) and not enough contextually-appropriate knowledge or skills. "Pathfinder' shares an example of her schema modification from what seemed logical in the comfort of her home, versus the challenge of the trail,

> I mean, the first time I left home, I thought there was nothing in this pack I cannot live without. I went through it like 10 times, there is nothing. After one week I sent a garbage bag full of stuff home. That to me is the amazing thing you can live without way more than you think you can. ("Pathfinder"-novice)

Some novice hikers were disappointed in their initial gear investment, despite accolades and recommendations for a product from friends or hiking publications. The backpack that looked so attractive in the shop cut friction wounds into their shoulders. That high-tech stove from the magazine doesn't perform well in cold temperatures. That expensive tent is too big for one person and is terribly heavy to carry. They feel cold every night even though they purchased their friend's favorite winter sleeping bag. The hiker then shifts to critical questions: 'What type of body was that backpack designed for? Why was stove so highly recommended? How much shelter does one person require?'

Some experts observe these frustrations and express concern that many novice hikers find themselves overwhelmed by the vast selection of gear. "Rasta-B" felt that too many new hikers become stressed through excessive social comparison or 'keeping up with the Joneses' attempts to copy other hikers' equipment collections,

> use what you have so that you can just be out there and enjoy being out there and not stress so, not be putting so much energy into "oh, so and so has this and I want that, too. ("Rasta-B"-expert)

"Dancin' Cub" (expert) has developed an alternative perspective over time and through extended field experiences,

> It's a question of need. Learning to live out of a backpack you really don't need much to get by. I mean you have got your shelter with you, maybe a change of clothes, maybe a book, you know you really don't need much. It's a very simple life. So you come out of the woods and go back into civilization, and you realize that you don't need all of these things. It's just an illusion really. I realized that I have no attachment to material things because I just don't need them. ("Dancin' Cub"-expert)

A "tyranny of choice" (Schwartz, 2004) burdens the novice AT hiker when what appears like a simple decision of picking a backpack becomes a comparative study of the 4oo different backpacks available on the market. Overloaded with information, novice hikers turn to consumer channels for simple and fast feedback. Using an *availability heuristic* (Tversky & Kahneman, 1974), novices often turn to magazine evaluation and outfitter recommendations to reduce the selection field to five to ten options. Herein resides a problem of choosing gear based simply on authoritative recommendation or by popularity (i.e. availability heuristic). Experts on the other hand, acknowledge metacognitive and motivational tools serving their demands of practice,

> There's been a tendency I have seen lately to think ultra-light is the solution to

> hard work. People buy all this lightweight gear and think it will help them get all the way to Maine. Your gear is not what gets you to Maine. It's your attitude and how you think about it. A guy can make it to Maine with 65 pounds of gear and be happy all the way and people with 20 pounds of gear get miserable because they don't like it and it still is hard work and they quit anyway. ("Captain Courageous"-expert)

For many novices, the introduction to the unpredictability of daily trail challenges and routines is grueling (i.e., DAES). For some, the realization that the latest and lightest gear was not as important as a realistic attitude and enduring motivation (i.e., Gollumania) was disappointing and hard-learned. Even among intermediate practitioners, the incongruence between their prior hiking histories of shorter trips and their AT long-distance hiking experiences led to a sense of frustration and an initially reduced sense of self-efficacy (i.e., PMI). The three phenomena (DAES, PMI and Gollumania) described in this section were found to be to be hindrances to effective learning processes on the trail. Interestingly though, the stage of discomfort and discovery experienced through DAES was also found to help individual learning.

When learners enter a community of practice they seek to understand the ways in which meanings, beliefs, and understandings are negotiated and reflected in certain social practices (Buysse et al., 2003). Learners gain knowledge, but also support, reassurance, insights, and exposure to the value system and beliefs established by the social collective. Group consensus is where the construction of knowledge occurs (Bruffee, 1993; Doolittle & Hicks, 2003) and, as explained by social constructivists, the determination of meaning and value is arranged, or constructed, by the individual who seeks to match a culture's

paradigm of knowledge and truth. The next chapter illuminates the components that collectively define AT long-distance hikers as a community of practice.

Chapter 5

FINDINGS RELATED TO COMMUNITY

This chapter answers my second research question by describing how are AT long-distance hikers a community of practice, and the role that the community plays in individual knowledge construction. The first section of the chapter addresses the first half of this research question by detailing how a newcomer becomes a community member, and the symbols and enculturation rituals that define AT long-distance hikers as a community of practice. Through stories and hiker quotes, I profile community ethos, structure, affiliations, and hierarchies. In addition, the nested support system of this community of practice is discussed. The second half of this chapter answers the second half of my research question by examining the social spaces and roles of particular community components that aid individual knowledge construction. Here, I trace the situated and informal learning dynamics of AT long-distance hikers.

The AT Long-distance Hiking Community of Practice

> Wow, where do I begin? I believe the best part of the experience was being part of the thru-hiking community. You've got an incredibly diverse group of people, who loosely join together, sharing a common path and goal, but for very different reasons. ("Hyper-Drive"-novice)

Unbound by formal institutional structure or procedures, the organic and nomadic AT long-distance hiking community provided a unique opportunity to examine the situated and informal nature of individual knowledge construction within a *community of practice* (Lave & Wenger, 1991). Communities of practice are defined through their engagement in practice, and not through institutional affiliation or boundaries (Brown &

Duguid, 1991; Wenger et al., 2002). As introduced in Chapter 2, it is important to remember that a community of practice, such as the AT long-distance hikers, can be defined conceptually along three dimensions (Wenger, 1998):

Purpose *What the community is about* – its joint enterprise as understood and continually renegotiated by members of the community (e.g., long-distance hiking, trail and shelter use, development, maintenance, and protection)

Action *How the community functions* - mutual engagement that binds members together into a social entity (e.g., hiking 2,000 miles, carrying all needed supplies in a backpack, sleeping outdoors, withstanding harsh weather conditions)

Outcomes *What capability the community has produced* – the shared repertoire of communal resources (e.g., hiking routines, outdoor sensibilities, shelter artifacts, AT vocabulary, packing styles, etc.) that members have developed over time.

These defining conceptual dimensions are cross-cut by the community's enculturation processes.

Evolving as a community of practice "insider" comes through a gradual and socially attentive enculturation process (Sielh, Bowen, & Pearson, 1993). This surprised some newcomers like "Stewart Little" (expert) on his first thru-hike, "It's definitely not a solo adventure. When I did my hike, I assumed it would be a solo adventure. I didn't expect the social interaction that actually took place. It took me a while to make that adjustment and to realize that there was more to hiking the trail than just doing the miles."

The AT community of practice allows the "social" in socialization to unfold naturally through a less structured, yet caring, orientation process. By word-of-mouth, mentoring partnerships, open-door events, and experiential invitations from informal groups, the loosely defined community tends to "pull in" participants more than "push in" newcomers. Providing an example of a cultivated, more than structured, initiation process, the socialization patterns of the AT long-distance hiking community of practice fall in line with Vygotsky's emphasis on the social component of learning, and the internalization of external forms of knowledge (i.e. community-based). As Vygotsky (1981) pointed out:

> When we speak of a process, "external" means "social." Any higher mental function was external because it was social at some point before becoming an internal, truly mental function. It was first a social relation between two people. (p. 162)

How a novice hiker relates to experienced long-distance AT hikers, and the kinds of transactional social relations that develop through community involvement, hold some of the keys to understanding individual knowledge construction. Newcomers learn through informal group socialization, and continual development of knowledge and skills is closely tied to progressive movement through the community of practice. AT hikers move in, and out of, this community of practice in predictable ways.

Modes of AT Community Entry

AT community of practice entry occurs most commonly through four gateways: (a) acquisition of a friend or family mentor involved with the community of practice; (b) incidental encounters with AT long-distance hikers; (c) AT community-organized events,

and to a lesser degree; d) by way of linked online venues.

The process of socialization, especially of children, has been studied extensively in educational psychology (Bandura, 1977; Bronfenbrenner, 1994; Piaget 1980; Rogoff et al., 2001,Vygotsky, 1978). Recent studies of adult socialization processes in the workplace have offered critiques of institutional attempts to "push" enculturation with new employees (Chaiklin & Lave, 1996, von Krogh, Ichijo, & Nonaka, 2000; Wenger et al., 2002). How the AT community of practice draws in newcomers each year offers an interesting and alternative perspective on membership recruitment and group norming.

Family and friends as mentors. For some, socialized entry into the "trail family" comes through co-participatory invitation from family or friends. Summer section hikes with relatives, a post-graduation thru-hike with a college roommate, or seasonal trail maintenance with neighbors can all serve as facilitators to community entry. For example, "Flower's" sister first took her on extended weekend trips in the White Mountains of New Hampshire. A year later she was hiking north with her sister, learning new techniques and motivated by a communal sense of inspirational inclusion. "There is definitely a common bond I share with all of these people, something we all have in common, which is hiking and living on the trail, and getting to Maine." ("Flower"-novice) Sometimes a friend or family member may be involved with local community service work, and thereby introduce a newcomer to the AT through trail construction and repair projects.

Incidental encounters. Sometimes just meeting a long-distance hiker on the AT, or sharing a shelter with a scout or trail-repair crew can be enough to spark some curiosity for further involvement. "Thru-hikers invite and help you have a good hike. It's

something I certainly don't fully understand," admitted "Aristotle" (novice). For those mildly curious about the AT, but not necessarily bound for an extensive hike, there are more accessible regional practitioner groups (e.g. trail maintenance crews, organized outing clubs, small training partnerships), which can be found in the 14 states traversed by the trail. Such regional groups often advertise their meetings through posters, newspaper ads, and online announcements. Even volunteer trail work, helps to initiate the enculturation process through subtle, informal, and social interactions that underscore community ethos and norms. Through such volunteer work with a club, friend, or family member, a newcomer can develop interest and commence enculturation with the assistance of involved mentors.

Community-organized events. When a novice long-distance hiker seeks inroads to the AT community of practice from the periphery of non-membership, they search out situations to coordinate their desired activities of practice (e.g. hiking) with the rhythms and contours of the established community. Informal member interactions are distributed across the entire AT during the prime hiking season of March through October, while community organized events are held annually to facilitate connections between newcomers, experienced hikers and trail supporters (e.g., trail angels and hostel owners).

> I would tell them (newcomers) to come down to Trail Days or the Gathering; That's where you can really gain the knowledge and see what the culture is like. ("Dancin' Cub"-expert)

Celebration of the AT hiking practice, its community members, and the welcoming and preparing of new participants are the primary themes surrounding events

such as Trail Fest and Trail Days in the spring, and The Gathering in the fall. “Blue Man One” recalled his initial introduction to these practitioners.

> Oh it’s a total sub-culture, yeah definitely. Especially since I experienced in 1999, and I am experiencing it right now. I have seen faces, and I am hearing names that I also heard back then...I mean people that are in it year after year after year, you know who they are. Or at the Gathering, it’s like a big family reunion you know. You are walking around shaking hands and giving hugs and seeing a lot of folks you haven’t seen in a while, and its cool like that. It really is a small community I think. (“Blue Man One”-expert)

Large scale events like the Gathering (approximately 2,000 visitors) and Trail Days (10,000 visitors) provide presentations, slide shows, and workshops addressing a variety of backpacking and AT related topics, while a small-scale, regionally organized meeting known as a “Ruck” allows 10 to 20 people to get ready for a long hike by sharing short, preparatory hikes. Section and thru-hikers who have successfully completed the trail one or more times usually organize such events. Those who have earned a level of legitimacy among trail community members, and who have some instructional and communication abilities, tend to assume educational roles within the community. At these annual events, members of the AT long-distance hiking community come together to reconnect with friends, discuss techniques and technologies, and mentor “dreamers,” those who are considering their first long-distance hike of the AT.

Affectionately labeled “dreamers,” individuals interested in initiating a long-distance AT hike are invited to, and are most welcome at, all AT community functions. Some “dreamers” have some prior hiking experience, whereas others may none. Both

types are novices to the contextual nature of AT long-distance hiking. Invited by former hikers, or attracted through organizational announcements, dreamers are offered specific programs such as slide shows, gear talks, book signings, and planning workshops to help them gain knowledge and prepare for the trip. A fascinating feature of this AT long-distance hiking community of practice is the permeability of its peripheral boundaries. Interest in the community generally invokes invitation to the community. Once a "dreamer" expresses genuine interest in AT hiking, volunteers at these events literally step forward to help guide the novice towards developing their "trail legs" and a set of effective travel practices.

Because tacit knowledge is bound to the senses, personal experience, and bodily movement, it cannot be easily passed on to practitioners without interaction in close physical proximity (von Krogh, Ichijo, & Nonaka, 2000). Despite the pervasive opinion among expert AT long-distance hikers that the organized community events offer important preparatory experiences for "dreamers," few of the novice hikers in my study actually took advantage of these formalized educational programs, and instead prepare themselves through print and online sources.

Linked online venues. People at various levels of practitioner readiness can also gain access to community discourse and points of contact (i.e. gate keeping members) through online interactions on trail-related web pages, newsgroups, blogs and listservs. Serving a role of virtual mentor for her, Quest recalled the benefits of reading other hiker journal entries as they occurred:

> Three months before I left, I started to read about it. I read everything I could get my hands on. I learned more on trailjournals.com than I could have learned

anywhere. It was TrailJournals (that) gave me so much knowledge. ("Quest"-expert)

More inclusive in its presentation of what constitutes an AT long-distance hiker, the trailjournals.com web page is often referenced as a cyber resource for community members and potential members. Originally created to allow his family to follow this trip, the co-creator of the online AT journal shared his surprise at the heavy use of the web site, "I didn't necessarily know that (so) many people on the AT would use it like they are now." ("Viking"-expert) The creators of trailjournals.com explained that their start-up philosophy was that AT membership includes more than those who complete the trail in one season. This resulted in a more pluralistic, electronic venue that allows for the sharing of alternative experiences (e.g. multi-year, alternative route, short-term involvement, change of attitude). One expert recalled why and how she used the resource,

> What is so neat about TrailJournals is people don't sugar coat it. I mean they cry and they whine and they hurt and they swell and they take care of it and they either move on or they quietly disappear and you never see another journal. But I would take the people that were successful and read their gear lists, I would take women that were in my age group and read their gear lists if they were successful. ("Quest"-expert)

Creators of trailjournals.com, "Gigabyte" and "Viking" (experts) have been shocked by the overwhelmingly positive response and use of the knowledge-sharing medium.

> You know people talk about 'we are following you' and some of the readers will like send them packages and stuff and they just love reading the journal. Yeah I

> mean I haven't experienced it myself because when I hiked it (the web page) was still getting going and mostly it was my friends and family… so I haven't really experienced that myself to see what, basically opening yourself up and your stories to not just your local friends and family, but more to a general hiking community and audience that is very supportive. ("Gigabyte"-expert)

"Viking" (expert) added his amazement in how the journals wove a community together,

> It is 2004 now, I thru-hiked in 1998, and there is such a community that is built up when you are hiking. Through TrailJournals, I have been able to stay connected to that community and stay in touch with the people that I grew to love and like when I hiked. And I have learned a lot by being able to stay in touch with the hikers that are going through it.

Of those individuals familiar with the AT-specific websites like trailjournals.com or whiteblaze.net, both novices and experts reported the beneficial details and psychological insights that can be gleaned from such a communal online resource. Offering more than a digital how-to book, the open-access web logs provided opportunities to read some of the decision-making processes behind long-distance and/or lightweight hiking strategies, gear modifications, or shelter diplomacy.

With four avenues for newcomer entry, potential members are afforded extensive learning opportunities and access points to community of practice membership. People at various levels of prior experience enter through mentoring relationships with family or friends, through incidental encounters with members of the trail community, through organized public events, and in recent years, virtual gateways have opened additional doors to AT community membership. Community exit can also occur in several ways.

Reasons for Community Exit

> A multitude of things can take you off the trail and everybody is susceptible to them. ("Star Light"-expert)

Less than 25% of those who set out each year on a thru-hike actually complete the journey (ATC, 2006). For many, movement through the community of practice results in premature exit for one, or a combination, of four reasons. Bodily discomfort, including illness or injury; decay of personal motivation; urgency of off-trail events; and in rare occasions, social shunning, are the primary reasons hikers gave for not completing an AT hike.

Bodily Inhibitions. Physical vulnerability is a dark reality for long-distance hikes. The longer one is on the move, enduring extreme physical conditions, and deprived of certain staples of civilization, the greater the susceptibility to loss of wellness. Sadly, even hikers who have completed 90% of the journey have been known to become sick and/or injured, going home just shy of reaching the trail terminus. With a collective, non-judgmental empathy, the members of the AT community of practice typically describe anyone who leaves early as "walking off trail." A subtle sense of social understanding and respect is found in this euphemism. "Compassion, you feel for them because you know leaving the trail was hard for them to go back home. It's not really like a negative kind of thing because it's reality. It is reality. It could be you." ("Star Light"-expert) Some trip ending conditions include broken bones, fallen arches, damaged knees, severe infections, malnutrition, and any number of viral ailments (e.g., Lyme's Disease). This vulnerability crossed all AT hikers' minds,

> I definitely had some times when I was worried about maybe not being able to

finish. I dealt with a lot of ankle sprains. I got sick once way up north, but I was pretty determined to do the trail. ("Rasta-B"-expert)

Motivational Decay. Though long-distance hikers typically start their journey heavily inspired, their sustained drive can diminish over the typical four to eight month completion period. Quest recalls, "It's literally putting one foot in front of the other and having your mind in the right place, that is the tough thing because its psychological, that's what gets to you." One such psychological strain is referred to as "The Virginia Blues." Though some argue that the number of hikers who leave the trail after those first 500 miles (i.e., in the case of northbound hikers, by the time one enters into Virginia) may be correlated with poor nutrition and muscle recovery, others believe it to be more of a socio-emotional fallout.

You have heard about the Virginia Blues right? They are getting real hard right about now…you may meet up with a group that you really, really enjoy and its heartbreaking when you lose them for whatever reason, illness or finances. ("Othello"-expert)

Decay of personal motivation or changes in personal priorities are significant contributors to the high attrition rate among those hikers who attempt a thru-hike. "Kickin' Chicken" (expert) told a story of how weather put a damper on several hikers' attitudes:

We had, just as an example, so much rain in 2003 I believe one of the months we had 23 days of consecutive rain morning, noon, and night. So, there was no escaping it. Was it fun? No. Did a lot of people quit? Yes. And the people who quit, I think really it came down to the priority, "Did I really want to be there?"

> And so if you really wanted to be there, weather became something you accepted. ("Kickin' Chicken"-expert)

"Hollanderin" explained how the extended effort in a new environment led to a questioning of her own motivation and priorities for being on the trail:

> I did push myself the first month a little too much, so it has made the whole atmosphere, the environment of the trail for me is totally different… I was getting very frustrated, I was cursing it, and I am like you know 'why am I here?' I wasn't thinking about getting off the trail, it was just it was getting to be stressful, and that is not why I am here. So this week I am taking it really easy. In fact I am taking four zeros this week all together, and slack packing you know. I think I am going to have a better attitude once I leave (Miss Janet's Hostel) and get back on it again. ("Hollanderin"-novice)

Off-trail Demands. For a few unfortunate AT hikers, the urgency of off-trail events can cut their trip short. Illness or death of a family member, home emergencies, issues with private businesses, or the matters of dwindling financial means can disrupt a long-distance hike at any time. Some hikers temporarily leave the trail to attend to such matters, or to seek additional monetary support, and then return to the hike within a few weeks. Others miss the weather-dependent window of time that would allow them to complete a northbound trip ending in Maine.[2] Though some hikers have returned in later

[2] Baxter State Park in Maine is the access park to Mt. Katahdin, northern terminus of the AT. Due to extreme weather conditions late in the season that make trail ascend dangerous, the park officially closes on October 15th of each year. Hikers who are unable to finish the trip by this date often return the following season just to complete the 10 mile trip up the majestic 5,267-foot summit, bringing closure to their long journey.

seasons to re-attempt the journey, many lose the opportunity to take a four to eight month hike.

Social Shunning. Though extremely rare, some members become the equivalent of an AT community "deviant" when they display "any thought, feeling, or action that members of a social group judge to be in violation of their values or rules" (Douglas & Waksler, 1982, p. 10). Shunning deviants is not unheard of from this typically accepting community. "Blue Man One" (expert) discussed the community norm regarding trust and personal gear,

> If anyone were to betray that trust, for example, rummaging through someone's pack or something like that you know that person would just sort of become ostracized from the group. And I couldn't see anyone planning a thru-hike who would intentionally betray someone's trust like that. I think there are some people who kind of end up on the trail because they are running away from something, or you know they just need to get out of society. And there have been a few examples of bad encounters on the trail, but those aren't people who are out there because they wanted to do a thru-hike, they are just on the trail. ("Blue Man One"-expert)

This social norm of extended trust and respect for personal gear was echoed by "Swiss Army Watch" (expert), who clarified that shunning, for him, results from violating norms,

> It's forced upon you because it's a narrow trail, and when it gets to a shelter, it's just a small space and whoever is there has got to deal with it. So yeah, there is enough awareness of people talking and you have got those people, (that) if they don't wise up or find a way to get along, they are generally hiking by themselves.

> Ostracized. People move on to the next shelter and most of those people need the support anyway. ("Swiss Army Watch"-expert)

Identified, marginalized, and ostracized through the informal, yet elaborate trail gossip system, some hikers are slowly pressured towards non-involvement through collective anti-social treatment. As "Maryland Mack" (expert-pillar) summarized it,

> Are you a good hiker or bad hiker? Which is funny because (it's) like are you a good witch or a bad witch. Are you fun to be around, or are you a pain in the ass? Do you help people out, or are you a constant whiner and complainer? When you hike into a campsite or a shelter at the end of the day, are people saying 'oh cool, so and so is here', or do they roll their eyes and go 'oh crap, I have to go' because they know you will start whining or complaining or doing whatever.

During one of my five-week participant observations, I witnessed an informally organized effort to alienate an older, belligerent, alcoholic male. Becoming intoxicated every night and verbally harassing hikers across several shelters, word of "Jackass John" (a local community-ascribed trail label more than an affectionate trail name) traveled quickly through shelter registers. Through the register entries, I knew of some of his egregious shelter tirades three days before I actually encountered the individual. Though he spoke of plans to hike half of the AT that summer, he was strangely absent from the trail after just two weeks. Cold and critical treatment by that season's wave of long-distance hikers may have contributed to his early departure. Another off-trail example is that of a systemic effort currently underway within the community of practice to ostracize an established community "pillar" who is operating in conflict with the current community-based norms and ALDHA organizational standards.

Other Reasons. The four main reasons that hikers abort their attempted thru-hikes are described above; however, AT long-distance hiking community members that do complete the thru-hike and continue to participate in the community may also exit at some point for other reasons. Sometimes a hiker's interest or priority to interact with such a widely distributed community declines over time. Some no longer choose to cross the country for reunion events, while some choose to focus on alternative hobbies and associated communities. Inevitably, as some hikers age, they opt less to travel with weighted backpacks and sleep in hard, primitive shelters. The challenging terrain combined with strained or aging joints and ligaments can also reduce senior member involvement with hiking and trail maintenance.

Summary

This section focused on the community acculturation processes involved in learning a new practice, specifically long-distance AT hiking. Newcomers entered the community of practice through four gateways, and member exits generally occurred for four reasons. While clearly acknowledging variable distinctions of motivation and behavior across trail settings, this research found the AT system of informal socialization events played a helpful role in the initial orientation to, and presentation of, mentors and trail-related information to those who take advantage of such opportunities.

There are naturally emergent tensions that arise though due to close quarters, individual hiker differences, and varied perspectives. There are also unwritten, yet clear boundaries for social behavior guided by community of practice norms. The next sections examines those norms situated in the symbols, identity, and ethos of the AT long-distance hiking community.

Community Symbols, Identity, and Ethos

> Where does ethnography begin if not in a disciplined attempt to discover and describe the symbolic resources with which the members of a society conceptualize and interpret their experiences? (Basso & Selby, 1976, p. 3).

Symbols are any artifact of a culture. They can be language, art, clothing, technique, or technology. Community members inevitably share their symbolic interpretations about the meaning of shared experiences. Researchers work to understand the cultural connotations and individual meanings associated with symbols, and ethnographers seek to understand symbols, not in isolation, but as elements of a whole.

AT Symbols

The AT community is a cultural milieu loaded with symbols that create meaning to those who use them. Making sense of cultural symbols requires newcomers to learn a new language of trail terms, hiker signs, and community codes. Social semiotics, or the science of verbal and nonverbal language, helps us understand that interpretation is usually framed in context (Kim, 1996). For example, a reddened face may indicate that the owner is embarrassed, sunburned, or weary from physical exertion. More specifically, when a long-distance hiker's face is reddened from the effort of a hill summit, one understands that she is not embarrassed. The context furnishes the clues to the meaning of the reddened face.

Humans create symbols arbitrarily to represent things, people, or events (Canfield, 2002), yet symbols, and their usage, vary across cultural contexts (Hodges & Kress, 1988). Symbols, such as the AT long-distance hiker lexicon, may be non-specific to 'outsiders,' but highly meaningful to 'insiders' acculturated to their social significance.

Master, or overarching, AT symbols (e.g., phrases and terms like 'Hike your own hike', 'Leave no trace', Benton, Earl, thru-hiker, Katahdin) are recognized by all AT community of practice members, though their interpretation of those symbols may vary across community sub-groups. These master symbols are "embedded" deeply in the culture (Duncan, 1968), with their symbolic value couched in the interpretation of the observer and their frame of reference.

Trail terms include the domain-specific vocabulary that is generally understood by several backpackers, yet specifically understood by most AT hikers (see Appendix B). Signs include the images, settings, and behaviors that are unique to AT long-distance hiking, while codes are the broadest category found within a community's symbolic language. Codes represent unfixed entities that are modified over time to keep pace with social change (Canfield, 2002). Interpretation of AT language and its set of codes depends greatly on contexts, therefore, conducting a field-situated study of membership and practice was crucial to my research.

Acquired through informal and indirect socialization, codes inform members of social expectations for appropriate behavior (Canfield, 2002; Duncan, 1968). Subsequent social behaviors and belief systems are constructed around underlying, yet unwritten, community rules. The essence of community behaviors, signs, symbols, and codes can be collectively understood as the ethos of a community. Knowledge of community history, which contains the foundations of the community's culture, is important to being a member.

History. A vital part of community membership is knowledge about the history of the trail's founding father and initial construction, as well as the ongoing conservation

efforts sponsored through stewardship organizations. Trail history is the genetic map of the AT hiking practice. Equally important as hiker-to-hiker communication is awareness of the lore of the trail (e.g. time-worn and recent tales of trail personalities and events), commonly shared through community-specific terms and phrases. Whereas a review of trail history can be easily collected through a survey of AT-related literature, the lore of the trail is best obtained through trail tales and camp stories. Hikers learn about trail lore during evening chats or visits to community-organized events. Stories about significant figures involved in the development, use, and protection of the trail help introduce the novices to the personalities that they may actually meet at an event or along the trail. These experiences also introduce them to the specialized lingo of the AT long-distance hiking community.

Lingo. AT hikers have a unique way of talking and writing between members of their community of practice. When visiting trail towns, I observed passing strangers intuitively exchange trail-related jargon (e.g. "Taking a zero day?" or "Any AYCEs around?") and then stop to introduce themselves to one another for the first time. With a specialized lexicon for communicating about long-distance hiking (see Appendix B), these community members use a form of private code. This code includes the use of trail names, labels for community-specific behaviors and events, and terms that distinguish hiker hierarchies within the community of practice, all of which I detail later in this section. Extended observation of the codes and sub-groups from this collective helped me to better understand the subtle nuances of hiker identity and small group formation that stratified this community of practice.

AT Identity

> If you meet another thru-hiker, in 24 hours you are brothers essentially.
>
> ("The Papa"-expert)
>
> It is like going away to college…I am an individual going there, but there are a whole bunch of other individuals going there too, and we are going to form tight-knit friendships and we are going to hang together and look out for each other.
>
> ("Movie Girl" - novice)

Long-distance hikers typically search for fellow hikers during the hiking season, both on and off the trail. Within anonymous crowds at trail towns, subtle and not-so-subtle cues are used to tip off one hiker to another. This facilitates finding a new acquaintance with local outfitter information, a lodging recommendation, or simply someone with which to share a meal. This "connection identification" schema also helps experienced AT hikers to quickly discriminate fellow thru and section hikers (i.e., legitimate long-distance practitioners) from the random weekend and day hikers on the trail. Such a connection extends off-trail as well as "Stewart Little" (expert) recalled, "Even if I hadn't met that hiker, if we hadn't hiked the same year or whatever, we would seem to automatically have that connection because we both hiked the trail."

AT hikers identify each other as fellow practitioners in four ways: how they dress, their overt physical movements, how they speak and write, and the attitude/presence they project. One symbol that serves as a potential indicator of community membership is the appearance of one's hiking attire, which differs from that of other people utilizing the AT for shorter periods of time.

Clothing. Contrary to the romantic images of the wilderness backpacker portrayed in literature, film, and advertisements, long-distance hikers generally don't wear safari-like attire, nor do they wear cotton clothing such as sweatshirts or flannel jackets. Since the advent of polyester in the 1970s, and some of the modern 'technical' garments (e.g., Coolmax®, Dryclime®, and Goretex®) currently available, today's hikers tend to carry fewer articles of clothing. Unlike cotton or wool, which is heavy, bulky, and requires a long time to dry once wet, technical hiking clothing is more effective at keeping the long-distance hiker dryer, warmer, and more comfortable during their travels by effectively blocking wind and rain, and wicking unwanted moisture away from the body. With a relatively small variation of dress, AT long-distance hikers tend to identifiable through their outfits. Flower explains how she visually sorts for dress:

> Usually hiking clothes in town are a dead giveaway, but if I saw people, usually beards are a dead giveaway, but I don't think I could tell if a woman was a thru-hiker or not unless she was in hiking clothes. If she was wearing regular town clothes, I think it would be very difficult to distinguish her from someone else if she was just in town. ("Flower"-novice)

During this researcher's experiences hiking long along the AT, I also found it took some adjustment to have only one set of attire (i.e., one on my body, the second in my pack). Over time, AT hikers recognize fellow hikers simply by the color of their shirt or rain jacket. Chuckling, "Pathfinder" (novice) agrees that clothing is a helpful identifier, "You are filthy and wearing the same clothes you have worn for the past everyday." She laughingly explained why others might also view her as a legitimate, hardcore AT hiker, "Maybe because I limp!"

Movement. The physical movement of people who walk great distances over time, carrying heavy weight upon their backs, can become rather apparent through their modified gait. One weekend hiker, sharing a shelter with several thru-hikers, inquired as to whether Star Light's husband had arthritis. "And I said, 'No, I don't think so. Why?' She said, 'I just noticed when he got up this morning he was having trouble walking.' I laughed. I said that is called the hikers' shuffle. Everybody looks like that when they get up in the morning. I don't care if they are 20 years old or 70, you know, you can barely move." ("Star Light"-expert)

A stereotypical "shuffle" is one key to practitioner recognition. With or without backpacks as calling cards, long-distance hikers profile each other. "Pub Grub" shared his amazement in hikers' feelings of connection upon identifying one another,

> It's tough to say how people just meet in towns like this…immediately when you see someone who is walking with a backpack you immediately have this connection. So whether you know them or not, or seen them before, is irrelevant. You are doing the same thing so you have instant community built from that.

AT community members often appear virtually indistinguishable to non-community members. 'Passing' as a member of a community involves an evolution of personal involvement with tasks, marker events (i.e., rites of passage), and changing involvement levels that influence community status (Arnold& Price, 1993).

Trail names. Adopting a trail name during one's trek is a common practice for AT long-distance hikers. Trail names may be derived from a humorous event or personal characteristic. Hikers sometimes choose their own trail name and sometimes adopt a name their fellow hikers give them.

> Most long distance hikers adopt a nickname or trail name that they use for the duration of their hike and in many cases it lasts after their hike. When I first heard about this, I thought quite frankly it was really a queer, stupid thing. And then when I got to know it, I really liked it. It's kind of like the French Foreign Legion where, when you join, they let you write your real biography and then they let you write a fake biography… and you can become whatever you wish to become and from that point on you are judged as a Legionnaire and how you perform as a member of that particular organization. I think that is wonderful! …The neat thing about the trail community is that nobody cares what you did before you hiked. That is one of the reasons that the whole phenomena of the trail name rose up. ("Maryland Mack"-expert/pillar)

Though the genesis of most trail names comes from a memorable event or characteristic, some hikers use a new moniker to introduce an old, and sometimes misunderstood, identity. "Cherokee" confessed, "I got it before the trail. I gave it to myself because I hunt all the time, and I knew that was not something that the trail people know about. You don't see a lot of hunters on the trail, and I wanted to advertise it and that there wasn't anything wrong with it." I met one retired military officer who explained that he deliberately chose to hike the trail going by his first name of "Earl." Though this a bit counter-cultural for AT hikers, Earl explained that after being called "Captain" and various other organization titles for over twenty years, he just wanted to hear his actual birth-given first name for the duration of the trip.

The AT long-distance hiking community of practice has a cadre of contextual tools to assist the individual hiker to grasp the folk system of communal ways of

behaving. Understanding the essence of this community requires awareness of the AT history, trail lore and rituals, etiquette, lingo, recent trends, phenomenon, and controversies within the community. Awareness of AT "ways" and resulting ethos plays a significant role in a hiker's potential identification, and subsequent involvement, with the community of hikers.

AT Ethos

> The trail has rules and guidelines that are understood that aren't written down anywhere. There is definitely etiquette. ("Blue Man One"-expert)

> I kind of found, I mean there is obviously some kind of unwritten code out there, but I think its just simply, I think its more instinctual when you have a group of people who are coming together for the first time. I mean it's essential that everyone trust each other completely. And you don't sit down and work things out how things are going to be. I mean it just comes together. ("Stewart Little"-expert)

> So it is this little peace, love, and everyone will take care, but at the same time if you abuse that, you will be the Eskimo grandmother out on the ice flow. Buddy, sorry you can't keep up, here is a piece of blubber to chew on, but we have to keep going. It's not usually that cutthroat, but it is a community that will take care of each other, but there are boundaries. ("Maryland Mack"-expert/pillar)

One of the uniting and, in many ways defining elements of this community of practice is their apparent value set or ethos. The concern and care of practitioners for other hikers' wellbeing, learning, and goal attainment develops some strong ties between community members, their organization, and their location (i.e. on America's longest

continuous footpath). This strong attachment through informally distributed experiences eventually leads to a strong tie with the AT community of practice and a collective ethos. The ethos of AT long-distance hikers can be grouped into two categories: care and trust, and stewardship. The ethic of care and trust is directed towards fellow AT hikers, while the ethic of stewardship is focused towards the trail and its neighboring lands. The mechanism for the presentation of these communal values are distributed across hiking seasons by the returning AT experts and AT expert-pillars that annually return to the trail and serve a role of institutional memory for the AT community of practice.

Institutional memory. Each season, the AT community strongly depends on the return of expert hikers and section hikers to serve the role of institutional memory and educator for community norms. The most established personalities of the trail, the community "pillars" are the more influential social agents of group norming. Social expectations are transferred laterally across membership through member comments and suggestions made during shelter conversations. As "Maryland Mack" (expert/pillar) noted, "the interesting thing about the codes of thru-hiker life is that they are all unwritten." Through these informal enculturation tools, the AT pillars of the community begin to frame the newcomer's experience into how they should interpret their hike, and into how they should behave among other long-distance hikers.

Entering the AT community of practice as a novice long-distance hiker, this researcher found the familiar faces and charismatic personalities of the community pillars to be both educationally helpful and behaviorally influential on many levels. Working with several known and referred AT pillars during my three seasons of data collection, I certainly detected their employment of both overt and sometimes quite subtle

psychological and sub-cultural prompts for legitimate community behaviors and interpretations of those symbolic interactions among their AT community of long-distance hikers. AT pillars nudge collective social understanding from season to season.

Pillars certainly influence organizational norms over time. When "Maryland Mack" or "Dancin' Fool "was mentioned during our interview, "Time Off" (expert) commented, "Those are the makers and shakers of the organization, the people have been here for years and that would be true in any type of organization, the people who have been doing it the longest are really the ones who give the organization its direction." Developing out of repeated caring behaviors is the developmental sense of trust for peers felt by community members; or as "Maryland Mack" (expert/pillar) professed, "There is an old saying you know, on a really bad night, the shelter is full when everyone is in it."

Care and trust. Part of the social climate found across the trail and its shelters is the care provided, and trust extended, to hikers by one another and the townships that line the AT (e.g., Hot Springs, NC; Damascus, VA; Hanover, NH). For many newcomers, this consistent group norm is an emotionally welcoming and promising environment to become a part of, and may help to explain both place attachment and conservational concerns for the AT that develop in individuals over years of involvement (Rubinstein & Parmelee, 1992). Despite the heterogeneity of AT long-distance hikers, an "equalizing" social dynamic develops. Woven together through the ethic of care, community members become more open and secure with others in their hiking pod and wave, despite the apparent vulnerability of the shelter dynamics. "Blue Man One" (expert) explained,

> Trust is essential to have a thru-hike because at night, if you are staying in the shelters, which I did most of the time going south, I was with a different group

every single night so I was sleeping next to new people every night. In order for it to succeed, I had to be able to trust everyone there completely.

Over time, newcomers began to take note of a progressive trust development among practitioners. “Giggles” (novice) observed among her fellow AT newcomers,

> When I think of the word community or the concept of community, I think the first thing that comes to my head is sharing and sharing resources. And I think that a lot of people are starting to realize that. We are starting to help each other out a lot more I think and offer things. And it’s been nice to see that start happening. When you get to town, people (hikers) are more willing to give you information than they were in the beginning and it’s evolving into a community. I think it would be very strong by the end hopefully.

Across three years of participant comments, I detected this consistent theme of care and trust, expressed during their shared practice of hiking. Repeated accounts speak to the expected hiker differences, yet “equalizing” quality of the community,

> It's just the way the culture is. It's a very accepting culture. I mean, of course, there's squabbles like there are in all walks of life, but there's so much commonality that people are automatically accepting. (“Dancin’ Cub”-expert)

The commonality that “Dancin’ Cub” suggests consists of setting, goal and challenge, than homogeneous uniformity among hikers. Pathfinder mentioned such hiker variability,

> I mean there are different groups, but even those groups welcome each other in general, you know, because here I am a middle-aged mother, and yet I will hang out with the 19-20 year old kids and its just a great equalizer, it really is. You know

people hike differently and move about differently, but I feel like people are all very, you know, I can't think of anybody that would be, you know excluded. ("Pathfinder"-novice)

Caring and supportive partnerships emerge both on and near the trail, between AT hikers and those who support their efforts (i.e., hostels, outfitters, shuttle drivers, restaurants near trail crossings). Through analysis of emic accounts, I detected levels of support that varied greatly from what the hikers knew at home. Hikers I met often contrasted the level of caring for others in "real" (i.e. civilized) life, versus in trail life. "Pathfinder" (novice) expressed her puzzlement with the group dynamics,

> There is no way people can understand whatever it is, subculture or group, that is going on along the trail. The people on the trail make it easier and more fun. They are the support system. I think it would be real hard to do the trail without them… People are watching out for you, (and) we all make great efforts to keep the group together.

Post-thru-hike, "Kind King" commented on how some behaviors, such as greeting others, had become common practice within the AT community during his hike,

> "I came home and went to a crowded gym, and I was there for an hour and saw 100 people and no one spoke, silence. You would never pass anybody on the trail that didn't say hi." ("Kind King"-expert)

Equally impressed with the trusting friendships that developed, "Alaskan Aviator" (expert) mentioned his attempts to extend such relationships even after finishing the trail, Its one of the things you want -- to keep this comradeship going and to have this other family. "Hollanderin" (novice) found the ethic of care extended along the trail quite

refreshing,

> People just wouldn't do that to me in the normal world you know. I mean I have been in cities where just walking down the street and there is somebody laying on the ground and spew coming out of their mouth and people just walk by and totally ignore it. And it's like you don't have that problem here. People just help.

Yet the community norm of care and socialization may cause some hikers to opt-out of community participation. Hikers who desire more solitude and personal time may encounter tensions to conform from the established and more socialized AT hikers. Consider Flower's observation early into her trip,

> I feel this is the most non-judgmental environment that I have been in. I feel its really very open and accepting as long as an individual wants to be accepted. If someone exhibits behaviors that tells us they want to be social, and they want to be part of who we are, I think most people are open to letting that person in. It's just like anything else, once you get to know them they become incorporated even if they are not like a super social person or very talkative, even if they tent. It shows they are interested in the wellbeing of all of us and therefore we become interested in them, and think about where they are on the trail, and what they are doing, and if they are making it all right. ("Flower"-novice).

Emergent tensions. Because the AT long-distance hiking community of practice's normalized ways of care and trust are not always welcomed by all hikers, social tensions do naturally emerge.

> There is a real concern right now about some misbehavior on the trail and unfortunately we are hearing about it more and more. I don't know where it's

coming from and if it's just inconsiderate people. ("Star Light"-expert)

The AT is no utopia, and just as in any community, there are clear tensions between practitioners of different ages, experience levels and concepts of courtesy. Subtle struggles for "ownership" of space (Goffman, 1959) are quite obvious and detectable in the shelter tensions among the diversity of trail users. This next section explores some of the "rub" between fellow practitioners.

> Out here you very well could spend eight to ten hours walking with them. We normally don't do that, you don't spend that much time with somebody, so you get to know them well and quickly, or as well as you or they want you to. ("Pathfinder"-novice)

Hunger, fatigue, and close proximity often facilitated my detection and observation of what controversial issues exist within this generally friendly and inclusive community of practice. The tensions of difference were most detectable in the late afternoons and early evenings when the tired hikers, with their diversity of hiking styles, mentalities, and companions, converged on a shelter to spend the night in a limited and rather confined space for cooking, changing, and sleeping. The delineation of sub-groups was never more salient than within the intra-group dynamics that emerge in close communal spaces.

More often displayed among younger hikers, there exists a tendency to define essentially public or communal space as their personal space. When this occurs in an AT shelter, often combined with inconsiderate behavior (e.g., loud and boisterous interactions, substance abuse) tensions can arise. A powerful example of such behavior is found in this tale from a first season novice who had almost completed the trail,

> There are lots of river crossings that must be forded because bridges always wash

out. I crossed and was planning to camp on the opposite shore but when I got to dry land there was a big, clear sign on a tree directly adjacent to the water saying, "Hikers, please don't camp here or for the next two miles due to the heavy traffic in this area. Please respect this sign." I did what any thru-hiker would have done and set up camp.

Though this hiker's perception of what "any thru hiker would do" would agitate more than a few established community members, his conscience eventually spoke to him, "After I was set up I started to feel guilty that I was out in plain sight and right in front of the sign. I decided that I could be a little more discrete about my location so I packed up and looked around for a more camouflaged spot." ("Water Buffalo"-novice)

As discussed earlier in the community exit section on social shunning, insensitive and damaging behavior toward other AT long-distance hikers or hostel management can lead to individuals being systematically ostracized by the community of practice. Social concern for the welfare of the overall community and its reputation can lead to social shunning (in rare occasions), yet the more common display of social care for the welfare of other hikers is shown in the practice of offering "trail magic."

Trail magic. At the convergence of trust and care is the AT long-distance hiking community-specific practice known as *trail magic*. This community-based practice is best described as a pervasive ethic of care and social support for other long-distance trail users.

The hiker magic is the best part of the trail! ("Star Light"-expert)

Trail Magic is sort of the philosophy that positive energy you put out comes back to you. ("Dancin' Cub"-expert)

Kind of like a give back to what you got previously. ("Blue Man One"-expert)

Trail magic typically takes the form of unsolicited, and often anonymous assistance to AT long-distance hikers, such as cold drinks places in coolers at trail crossings, a vehicle ride to and from town, a home-cooked meal, a free place to stay. Growing out of a characteristic of being an inclusive community that celebrates the diversity of its membership, the social expectation of shared trust and respect appears to be a common thread not just among trial users, but also among trail supporters and maintainers.

> A lot of people get spiritual and say Trail Magic is closer to whatever it is that hears our prayers out here. I am definitely not a religious person, but I understand the perspective. So, things seem to come to you when you need them out here. And I guess when you get off the trail you feel indebted, or very thankful for those things, and you just want to give back. So, for that reason I am always trying to provide Trail Magic. ("Dancin' Cub"-expert)

Unsolicited support of hikers by former hikers and even non-hikers is a defining aspect of the AT hiking community of practice. Mentioned in hiker stories dating from the 1970s (Bolduc, 1973; Garvey, 1971; Hills, 2005; Mueser, 1998), trail magic has grown into a regular occurrence, more than a help-offering anomaly. This pervasive phenomenon was a pleasant shock to some newcomers such as "Hollanderin" (novice),

> Where I live nobody helps anybody unless there is something in it for him. But here its totally different, we will just help. If you look like there is a problem, people will ask you, if you are afraid to ask, they will just come out and say.

It is important to note here how newcomer "Hollanderin" has identified herself with the AT community of practice and has accepted the community expectation of care

giving in her comment "we will just help." Social identity theories suggest that people who identify with a group may engage in activities to help the group even if it would involve making a personal sacrifice (Brewer, 1979; Levine & Moreland, 2002). Studies of small groups enduring extreme challenges (e.g. initiation, pilgrimage, natural disasters) demonstrated this to be a predictable social development (Turner, 1974). Once hikers begin to identify with a peer cohort (or Turner's term, *communitas*), their personal welfare becomes intertwined with the welfare of the larger community. Shared conditions of struggle and a common quest unites even the most introverted of people. As "Chewbacca" (novice) theorized,

> It's been boiled down to just the essentials. I mean everyone is going through the same thing and it's just so simple, you need food, shelter and water. Everyone is experiencing that same thing. I think since everyone is on the same level, everyone is knowing what everyone else is going through, so it's a real sort of a connectedness that emerges out of that. I think maybe born of that is what a lot of this (giving nature) comes out of. People really have that connection with people and are so much more willing to extend themselves partially because of it, I think.

Extending oneself for the sake of others is one social identity indicator, as Brewer (1979) noted, "The reduced differentiation between one's own and others' outcomes associated with in-group formation provides one mechanism for increasing the weight given to collective outcomes in individual decision-making" (p. 322). Staying in order to help their group when people could receive better outcomes for themselves by leaving can be seen as an act of group loyalty (Levine & Moreland, 2002). Commitment and loyalty to the AT long-distance hiking community of practice was often demonstrated by

members through these random acts of kindness. “Star Light” (expert) provided an example story of this phenomenon from a hiking accident that happened during her first AT hike,

> It was hard for me. All the way up and down the trail everybody knew I had broken my arm. I want you to know that when I came out of surgery, they had collected $500. The hikers don't have money, but they said “we know you are going to have to spend some (on medical bills) so this is a love gift.” And it was what all of the hikers had sent back and there it was. And then the people we were hiking with, we had just met on the trail, stayed with me for five days. Every one of them! There were five of us in the waiting room, all of them around me. I had to have surgery so it was like consoling. And I mean that to me is trail magic. It was awesome!

“Quest” (expert) experienced a similar form of care from hostel owners in Maine,

> I stayed at the Caratong House and I had injured my knee. I was there for three days I think and two nights. And somebody drove 10 miles to a store and bought me an Ace bandage. They just showed up with an Ace bandage for my knee, but that is not, that is the norm, that is not unusual. Everything you need is there, you just have to be open to it. And there was never a time when I got into trouble that I wasn’t taken care of somehow by somebody and most often it was people you never saw before, that you will probably never see again and they just do it because it’s the right thing to do and it makes them feel good and they know how important it is to us. And it happens over and over and over again. It’s really fantastic.

Surprised by these experiences, some newcomers struggle to make sense of such group demonstrations. “Pathfinder,” like “Chewbacca,” believed the state of shared

challenge among hikers somehow contributed to these giving ways,

> I think it's a huge lesson...you are out there with everybody and everybody is in the same boat. And I think that equalizing is fascinating to me too because people are so willing to help and share the tiny little bit that you have. If somebody doesn't have something, I mean you are "Here, have mine." ("Pathfinder"-novice)

One expert frames trail magic, not as a transactional model of expenses and debts, but rather an expression of appreciation for the AT ways,

> I think there are more and more realizing the importance of giving back to the trail. There are just so many different ways that people give back to the trail. A lot of people do trail magic because somebody did trail magic for them when they hiked. Some people shuttle, go to trail heads and pick up hikers. There is a lot of different ways that people need to be more cognizant of that if they have had this privilege and be able to give back and not repay a debt because there is no debt, but show an appreciation for what you have been given. ("Star Light"-expert)

These care-giving behaviors may transfer to off-trail acts over time. Post-hike, "Movie Girl" (novice) also plans to help by giving trail magic to others. Thankful and motivated, she desires "…to kind of give back a little bit because it's just such a, you just receive so much when you are thru-hiking. It's hard not to want to give back something." This type of care for the injured, the tired, the cold and hungry, and the poorly prepared had a profound influence on "Chewbacca's" view of people on and off the trail,

> It's amazing what people extending themselves to help other people is like, and as often as I have seen it. So for me it's been reaffirming in my faith to put my trust in other people, and I think it's been really valuable. I have seen strangers and hikers

alike really reaching out to each other and putting trust in each other so I think it's a cool thing. ("Chewbacca"-novice)

Stewardship. Though the conservancy of national landmarks and wildernesses is formalized by National Park Service in the "Leave No Trace" philosophy of seeking to minimize user impact on the natural resources during backcountry travel (see www.LNT.net), AT hikers feel and create a sense of responsibility within the community of practice,

I believe in putting something back to the sport, and it would be wrong of me just to go and walk on a trail and not put something back. So I do, I maintain 20 miles of trail, I am on the Board of Directors with the Florida Trail, and I belong to different organizations that are promoting and trying to build trails. ("Time Out"-expert)

An expectation of stewardship for the trail has become a social expectation among AT community of practice members. "You have to be willing to give and willing to become part of things. That is what the hiking community is, but that is something you don't get just walking the trail." ("Star Light"-expert) As Stumpf (1998) suggested about the development of community-wide environmental responsibility, "A caretaking relationship is necessary for us to survive, much less prosper. Nothing will change until we take personal responsibility for caretaking of not just what we own, but what we all share." (p. 141). This environment caretaking ethic is strongly demonstrated across most of the AT community of practice membership.

The symbols, identity, enculturation rituals and ethos that define AT long-distance hikers as a community are intertwined with its supporting structure. In the following section, I describe that complex structure. Through stories and hiker quotes, I profile the

community structure, affiliations, and hierarchies, and discuss the nested support system of this community of practice.

Community Structure, Sub-group Affiliations, and Hierarchies

The AT long-distance hiking community of practice has a unique set of symbols, which its membership uses to construct hierarchies and to identify one another with respect to these hierarchies. The structuring of an individual's sense of self is, as Mead (1934) pointed out, reflected in the structure of the various groups in which the individual is a member. Examining how this group of practitioners is organized helped lend conceptual shape to the informal nature of this community, and offers insight to its strengths of structural and social capital. Because individuals associate with more than one group, they must then grapple with varied social identities when making connections with others and overcoming adversity (Downey, Eccles, & Chatman, 2005). This section begins by addressing aspects relevant to the emergence of a community of practitioners, and then the development of group structure nested within the AT community of practice.

Nested Structure

Whereas intellectual capital is the knowledge that is of value to an organization, structural capital consists of the structures, processes, and information systems that remain when members leave an organization (Saint-Onge & Wallace, 2003; Stewart, 1997). Through macro-level analysis of the AT community of practice, I discovered concentric social elements that offered hikers a distributed system of support. Progressive networks of cooperative relations were identified beginning with the innermost "hiking pod," nested within the seasonal "wave," within the annual AT "class," within the AT-business infrastructure, within the volunteer and organizational network, and

circumscribed by the cyber involvement of individuals through the web. Offering support through motivation and assistance with individual sensemaking, the "hiking pod" had the most defined membership boundaries, whereas the boundaries of the overall AT community of practice (including the so-called AT "web-blazers" of the online world) were far more liminal.

Through community-organized events, trailside conversations, newsletter publications, trail service projects, 'trail magic' encounters, and online discussions, these multiple agents interact in through an informal, yet linked web of activity. "Activity systems" such as these are mutually constructed and continuously reconstructed by AT community of practice members who use physical and cognitive resources. An activity system is any "ongoing, historically conditioned, dialectically structured, tool-mediated human interaction" (Ardichvili, p.36, 2001). With the social division of hiker service provision and trail conservation distributed across thousands of support volunteers (e.g., 'trail angels'), trail maintainers, AT hikers, and even non-hiking financial supporters (e.g., members of the ATC and ALDHA), networks of activity systems arise and proliferate.

Mutually beneficial collective action (Uphoff, 2000) is the social capital of the AT community of practice. The AT long-distance hiking community of practice sustains itself through a structure of prevailing relationships. Through such social capital (Bourdieu, 1980), existing relationships form a reproduction network (Coleman, 1990; Gordon, Kogut, and Shan, 1997) that sustains the community over time. The formation of a nested system stems from the accumulation of hikers' social capital, which serves to preserve and perpetuate a maintenance pattern among community members. Such capital

is "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu and Wacquant, 1992, p.119).

The social capital of the AT community of practice remains long after each hiking season, and is preserved in two categories, structural–the roles, rules, precedents, and procedures–and cognitive–the norms, values, attitudes, and beliefs (Uphoff, 2000). Whereas prominent community roles, such as trail maintainer or Gathering organizer, or rules such as the National Park Service guidelines for trail use, are clear forms of the AT community of practice's structural social capital, the cognitive aspects of social capital are far more subtle. Nonetheless, hikers detected how social values and strong beliefs help to connect individuals to the trail experience and community,

> I think the trail covers this huge geographic area and so many people have ties to it in some way or another. It's their home and they know people that are hiking it like they have hiked it themselves. In some ways they know about it and they are connected to it and it just all feeds into the trail itself and why people do it because they are connected to it, it's a part of their community, it's a part of their friendship with somebody, and they want to share that and keep the trail strong I guess in a way. ("Giggles"-novice)

Across the "connected" or nested system, different affiliation levels correspond to the degree of community member engagement.

Engagement Levels

Based on extended observations and interviews, four categories of engagement represent a hierarchy of community involvement identities. The first category is the *user*.

The simplest level of engagement, the user refers only to the individual who uses the trail and its nested resources for personal benefit. This category is not truly a role as much as it is a label of involvement.

The next level in the hierarchy is the *affiliated user*. The affiliated hiker is one who is formally recognized as a trail community member through her affiliation with ATC, ALDHA, or a trail conservation group. She is typically listed in a database of members, and generally receives association-related publications. Membership has its privileges (e.g., magazines, stickers, t-shirts, and organized events), but the affiliated user may only take from, as opposed to giving to, the overall trail community.

The *maintainer* is a community of practice member who takes an active role in giving back to the trail community in some way, either through building and repair, fundraising and trail conservation, or through their organization and facilitation of community-sponsored events (e.g., Trail Days, The Gathering, The Ruck). Though most maintainers are also affiliated users, this is not always the case. Some maintainers are less overt, behind-the-scenes community members that may not consistently (or ever) hike, attend large gatherings, or participate in online discussions.

The most engaged level of membership is the role of *leader*. The AT community of practice leader is frequently accessible and influential, motivated and involved. They are the public faces of trail conservancy and the powerful voices of community norming. When these folks talk, whether in large-scale forums or small shelter registers, people listen. They are the opinion leaders and organizational shakers that use their status and social capital to influence AT community affairs. For this research, all four types were classified, observed, and interviewed. While several hikers I encountered fell into more

than one category, I classified them according to their primary role in the participant matrix. For a profiling of hikers in this study, see the last chart column in Appendix A.

To outside members of the community of practice, variations among the hiker sub-groups may be indistinguishable at first, yet as newcomer enculturation proceeds, new hikers begin to discern the subgroup mentalities and move toward affiliation based on personal fit with subgroup practice and personalities.

Sub-group Affiliations

> Well it was obvious during Trail Days if you see the way everything was broken up. It's very cliquish. ("Othello"-expert)
>
> White, Blue, and Yellow Blazers – All are welcome at Rusty's Hard Time Hollow. (Sign posted at entrance to AT hiker hostel in Afton, Virginia)

Though there is an absence of formally assigned titles or accolades for hiking accomplishments, an unwritten membership hierarchy runs along a continuum. Members of the community classify themselves and one another into three categories, based on their way-making approach to AT long-distance hiking. Within the seasonal grouping of trail users into such a hierarchy, one finds salient tensions between trail use mentalities. As "The Papa" (expert) pointed out, "There is a lot of debate and argument between blue blazers and yellow blazers and purists." Each sub-group, from the most hardcore purist, to the laissez faire Blue Blazers, to the vehicle hopping, irreverent Yellow Blazers, will be discussed in detail in this section.

White blazers. Members of the first group, representing the inner circle, or hardcore purists, of the AT long-distance hikers are the White Blazers. These practitioners seek a more consistent and traditional adherence to hiking the original path

of the AT as it was first designated in the 1920s and 30s. Since the AT is designated with white blazes painted upon trees, these long-distance hikers believe that the only true, legitimate practice of AT hiking includes 'the kissing of every single white blaze.' In other words, physically hiking past every single white blaze marking the trail. Deviation from the 2,175-mile, white-blazed path is only considered acceptable in the event of inclement weather or safety hazard (e.g., a summit lightning and hail storm or a torrentially washed-out foot bridge might necessitate a re-route around the white blazed path). Purists also have to go into town for food and other necessities, but will often return to the trail through the same route they exited in order not to skip any blazes. White Blazers consider themselves the purist of the AT hikers due in part to their dogmatic adherence to walking every mile of the path as it is marked, though how they achieve that varies. Though most White Blazers tend to also be thru-hikers, they can be purists who use a section hiker approach. Referring to the hardcore White Blazers, Star Light offered her expert candor, "Well, like any other social community there is some snobbery you know. Those who are elitist. That would be our white blazers." Incidentally, the purist paradigm is reinforced by the ATC guidelines for obtaining a "2000 miler patch." The patch represents the only formal or organizationally sanctioned symbol of an AT hike completion.

Ironically, the location of those blazes and the route of the trail has changed every year since the trail's creation. Responding to state, county, and regional re-routes, the course of the trail and overall distance that an AT hiker completed in 1975 is very different from the mileage of a 1990 or 2007 hike.

Blue Blazers. Blue Blazers interpret a long-distance thru-hike to involve the walking from trail terminus to terminus (i.e. Georgia to Maine or Maine to Georgia). Their travel from point A to point B is not restricted by adherence to the white blazed path. Blue Blazers will take side trails marked by blue rectangles to scenic overviews, historic markers, swimming holes, side towns, or less extreme routes around certain mountaintops. Though controversial to some purists, some hikers choose this identity.

> I am a blue blazer. I made the choices for my own reasons. I have no problem with it. I have been hurt a couple of times by people saying I am not a thru-hiker. Yeah, and I would make the same choices again for the same reasons. And I am happy with the results. ("The Momma"-expert)

Blue blazers seek to experience all that the AT corridor affords in environmental, cultural, or social opportunities. If they encounter a mountain with a white blazed trail climbing up and over a physically challenging peak and a blue blazed trail going around the base of the mountain, they have no reservations about taking "the road less strenuous." Though they may circumnavigate and miss a mile or more of the designated AT path, joining it further along is consistent with their 2,000 mile walk north or south. This more liberal interpretation of long-distance hiking draws a cult following from hikers who believe the experience is more important than the route. Expert hiker "Star Light" downplays the condemnation of the approach:

> Blue blazing is pretty frowned upon except by those who revel in it. And blue blazing is not as bad as they make it out to be because very often the blue blazed

trails are the old AT. That is what Earl Schaffer[3] walked. And I said if it was good enough for Earl Schaffer, it was good enough for me. ("Star Light"-expert)

"The Papa" (expert) concurs with her sentiment, "The trail is ever-changing with relocations. In five years one might be hiking a very different path." There is no sacred original path, the AT was, and will continue to be, a dynamic footpath for discovery.

The sub-group identity of Blue blazers can be overtly detected through the presence of a blue blaze of electrical tape on a hiker's backpack or t-shirt, as well as symbolic tattoos, or Mohawk haircuts dyed blue. More of an approach than an anti-authoritative group, expert hiker "Cherokee" freely admits that he would do more Blue Blazes next time. "They are beautiful blue blaze trails, and they take the pressure off of the AT." One is also able to meet more of the local people and see things in nearby communities.

Yellow blazers. The term yellow blaze does not actually refer to a marking found along the AT, but is rather a reference to the yellow highway stripes dividing motorways. Yellow blazer is the designation for a hiker who may occasionally, or frequently, hitch hike or drive north or south along the trail. Encountering difficult terrain, uncomfortable environmental conditions (e.g. insects or inclement weather), or even a dislike for the regional culture or landscape, these hikers use motor vehicles to ferry themselves over small or large sections of the trail. Such decisions elicit strong reactions and judgments from other community members like "Star Light" (expert), "Yellow blazing is cheating."

Considered to be an unethical practice among other AT long-distance hikers (i.e., white and blue blazers), yellow blazers are frowned upon as the most marginalized

[3] Earl Schaffer was the first long-distance hikers to walk the entire length of the AT in one, uninterrupted "thru hike" from Georgia to Maine. His personal account of that trip in 1948, Walking with Spring, is a perennial classic book on the shelves of many AT hikers.

members of the AT community.

With the advent of the ATC's "2,000-miler" patch earned by completing and documenting a completed thru or section hike, issues of fairness, honesty, and representation often simmer to the social surface during campfire discussions. "Time Off" (expert) expressed his irritation with misrepresented accomplishment,

> You have other people who feel 'well I didn't feel like doing this particular area so I skipped it, but I am still entitled to consider myself a thru-hiker. Some people say 'hike your own hike' and do whatever you want to do. If you don't feel like doing the whole AT, do some blue blazes and go take yellow blazes or hitch around different areas. My argument, of course, is that if you didn't do that then don't sign this form saying that you did something that you didn't.

Awareness of this disdainful label might help non-community members to better understand the general dislike by a majority of AT hikers for the author Bill Bryson, writer of the best selling novel, *A Walk in the Woods*. Though Bryson's journalistically styled account of the AT raised national and international awareness of the trail's existence and history, many considered his book to be more detrimental to the trail condition due to a boom in visitation following publishing of the novel. Bryson's failed attempt to hike the AT included taking taxi cab rides from one state to another because he either didn't enjoy those sections of the trail, or his interactions with locals in trailside towns. His minimally-informed interpretation of the trail culture, his shameless account of skipping 90 miles of the trail by yellow blazing, and his eventual abandonment of the endeavor, has earned him the status of being the butt of several community-based jokes. At the annual Gathering, one slideshow image repeatedly brings the hall of 800 guests to

roaring laughter. It depicts one of the community's respected pillars wearing a t-shirt that reads, "Bill Bryson was a candy ass."

Additional community rejection for this novelist's misrepresentation of the AT culture can still be seen on t-shirts and bumper stickers that read, "Hiking the AT is no walk in the woods." The sticker's message underscores Bryson's insensitivity to the complexity and personal trials inherent in any attempt to thru-hike this 2,000-mile footpath. Beyond t-shirts and bumper stickers, the community's admonishment of Bryson can also be found in the back cover literary review of Robert A. Rubin's *On the Beaten Path: An Appalachian Pilgrimage*:

> "With *The Canterbury Tales* in mind and his wit at the ready, the author quit a successful publishing position and went thru-hiking…to eventually find home. Along the way, he found all the things Bryson missed!"

It should be mentioned that, though millions of individuals access the AT for various recreational pursuits each year, only a small percentage become involved with this unique long-distance hiking community of practice. Though several participants in this study became quite heavily involved in the practice of AT long-distance hiking, others preferred to remain unaffiliated with any communal or shared group performance of long-distance hiking.

North and south. There is a growing trend among the more introverted of AT long-distance hikers to choose to hike the AT southbound, which virtually guarantees less company along the way. These hikers chose individual or solo trips and actually resisted excessive interaction with other trail users. Offering advice to the friend of a fellow hiker, "Movie Girl" suggested,

> If she really wants to be alone, I would ask her if she ever thought about going southbound. But if she doesn't know anything about the trail, she might not realize what southbound is like compared to northbound. If she is really into being alone, she probably has already thought about doing that. ("Movie Girl"-novice)

Expert hiker and community pillar "Swiss Army Watch" further clarifies a potentially challenging distinction regarding the environmental and social conditions encountered by north and southbound AT long-distance hikers:

> The south bounders lose 40% of the people hiking south within the first 117 miles because that is the 100-mile Wilderness, there is nothing there. If you don't have enough food, you have to get off. That first introduction of tough trail, there is nobody to whine to. …you have a better success rate coming north and the reason for that is that you are influenced by a whole bunch of people.

Questions emerge as to how is being "influenced by a whole bunch of people" critical to issues of learning, motivation, and safety? In what ways is the process of becoming "influenced" as "Swiss Army Watch" mentioned, key to effectively negotiating the AT? Whose advice or influence should a novice AT long-distance hiker heed as accurate and legitimate?

Legitimacy

Experience encompasses legitimacy, and legitimacy begins with miles under boot. The basic level of credibility is earned upon completion of the entire AT hike. This full experience is the accumulation over 2,000 AT miles of hiking, observed by peers and, in most cases, documented in shelter registers. As Othello stressed, "…the only way you can be accepted by anybody is hike the miles." (Othello-expert) This measure of

credibility is formalized to a degree by the records of the Appalachian Trail Conservancy, headquartered in Harpers Ferry, WV. Currently there are approximately 9,000 community members documented by the ATC with the 2,000-miler distinction. Some community pillars such as Maryland Mack and Dancing Fool have long since passed such a threshold by logging decades of consistent AT travel, as noted by "Timeout,"

> Who is the core here? I guess as far as this organization it's really some of the hard core hikers and some of them don't even want to be known for what they have accomplished in hiking. You have people like Maryland Mack, who has God knows how many miles because he won't even tell you how many times he has hiked it. A lot of people who have spent years out on the trail, (like) Dancing Fool who you know hiking has been such a big part of his life. ("Time Out"-expert)

Boot miles. Eager to uncover the symbolic authenticity markers within the AT long-distance hiking community of practice, several of my interviews included the question, "How many boot-miles establish community membership? The responses varied slightly by distance and time, and by the respondent's achieved boot-miles. For example, novice hiker "Water Buffalo" felt that 600-700 miles established credibility. At the time of his interview, he had accomplished just under 700 northbound miles. Novice hiker "Movie Girl" felt that the milestone of reaching Damascus, Virginia (459 boot-miles) marked legitimate practice, while physically making it for the first 8 weeks of hiking was a positive indicator of one's physical potential to complete the entire trail. Expert and community pillar "Swiss Army Watch" believes, "You have already become a hiker if you've been out for more than 30 days." Though most hikers cite boot miles as helping qualify someone as a legitimate AT community member, other factors are equally

important over the course of the entire journey.

Expert hiker "Pathfinder" didn't think boot miles alone qualified someone as a "real" hiker. Instead she emphasized sustained psychological endurance, "The first three weeks were physical, and if you make the first three weeks, you physically are able to do it. You are fit; you are good. It's mental beyond that, and it takes a great deal of mental maturity to finish because you get bored and your mind starts going, "What is this? Why am I doing this?"" Responses to the question of what qualifies someone as "real" varied widely, which brought an interesting tension surrounding identity to light–how and when do individuals define for themselves what constitutes authentic practice? How is legitimacy clarified when the standards of authenticity are variable and when those standards are idiosyncratically and loosely defined within the community?

After novice hiker "Aristotle" had already walked 250 trail southbound miles, he met his first group of northbound AT thru-hikers. Whereas he felt himself to be a thru-hiker, he commented on not being socially identified as a "real thru-hiker" until much later in the trip (once he began hiking with a consistent pod). Conversely, expert hiker "Time Off" felt an immediate social bond with other hikers he met because of their common practice and love of hiking. He clarified that his personal sense of legitimacy resulted from a combination of being accepted by other hikers as a "thru-hiker," combined with his own "I've proven myself" sense of personal achievement. Such tensions between personal identification and public recognition of authenticity present an interesting dilemma when investigating community of practice status identification.

Experts and expert-pillars. An authenticity pecking order exists in the AT community of practice, and its general membership have an intuitive sense for

rapid expert identification. For my study "expert AT long-distance hikers" were classified as having completed over 2,000 AT miles. There are varying community markers of proficiency though, and thru-hiking experts are reported to carry themselves with a slightly different presence and identifying persona than novices. Both "Movie Girl" (novice) and "Cherokee" (expert) felt they could quickly identify another trail user as "expert" among hikers.

> You could feel it coming out of him. It just kind of oozed from him. He was all about the trail community. I could tell a while after reading his entries in the shelter registers that he really was in tune with the hiking community. He was always leaving messages for the maintainer, or come on people, you know, pack it in, pack it out. He was always leaving messages to people to remind us about what the Leave No Trace principles are about. So I could tell he was part of the community, he was fully part of the community, yeah. ("Movie Girl"-novice)

"Cherokee" (expert) suggested that as soon as you speak with the legitimate long-distance AT hikers, or they ask a question, you know their level of AT experience.

> It's what they don't ask. People who have hiked it don't ask. They know that you know. The only way you can know is to do it. You can take one look and tell a thru-hiker. They have a different attitude. It's not good, it's not bad, it's just an attitude. It's just a thru hiker look. I don't really know how to describe it.
>
> You just are.

An established presentation of attitude is common to expert-pillars in the AT community of practice. Again, "pillars" are the perennial personalities of the AT long-distance hiking community who have distinguished themselves through years of AT

community involvement, multiple hikes of the trail, and a long community history with roles such as trail maintainer, event organizer, or book author. This observation of distinguished confidence was shared by "Star Light" (expert), who felt that expert-pillars project a certain membership status, air of confidence, and comfort with their surroundings that quickly identifies them as core members of the community. According to "Swiss Army Watch," such embodied confidence and attitude comes to experienced thru-hikers from becoming "trail wise," a form of intelligence or wisdom he likened to that of being streetwise. Questions remain, though, as to what other membership benchmarks or social rubrics qualify AT community of practice legitimacy.

Hierarchy

Within the greater community of long-distance hikers there is yet another system of distinction; a hierarchy based on seasonal commitment to practice. This stratification of status, within a membership hierarchy, is informally determined by community pillars and vocal members, yet is subject to change through annual community member debates and shifts in popular culture. There are four commitment distinctions within the AT long-distance hiking community of practice that are partially determined by an individual's motivational and temporal involvement with long-distance hiking. The continuum ranges from the least to most amount of time and effort expended, starting with the day hiker, who represents the least amount of AT commitment, followed by the "slack packer" or externally-supported hiker, then the "section hiker," and lastly the more esteemed "thru-hiker." Though this hierarchy reflects general perception among AT long-distance hikers, it could be argued that the multi-season section hiker may actually have the higher level of commitment over time than the thru-hiker.

In spite of the controversy of esteem surrounding section and thru-hikers, my field observation of a subtle status differential across subgroups was recorded during my stays in shelters, where higher status thru-hikers were given subtle preferential access to shelter space than section or weekend hikers. Though the shelters are first-come, first-served, the extended nature of the thru-hiker's journey often allows them to secure a sleep spot within the shelter while section hikers or weekend hikers who have arrived earlier opt to "squeeze in" along the shelter floor, or "tent out" in the nearby tent sites.

There is a degree of irony in this community-based, folk hierarchy in that hikers can profess to be thru-hikers before they have completed the journey. So for some, membership in the thru-hiker subgroup is a profession of intent instead of an earned distinction. Relatively speaking, etic evaluation of the temporal commitment levels demonstrated by AT long-distance hikers suggests that section hikers demonstrate the greatest longevity of community involvement. Whether through trail maintenance, community event attendance, or actual cumulative time on trail, section hikers amass the greater number of contacts (and thereby social capital) in the community than do one-time thru-hikers.

Strangely though, hikers who set out to walk the entire trail in one four to eight month season are often regarded by newcomers as having the highest level of AT commitment, followed by section hikers who may connect parts of the trail completed over several years. This logic can be somewhat confusing to community and non-community members alike because the interpretation of what constitutes a legitimate or authentic AT long-distance hiker is subject to the dynamics of individual and community perceptions.

Expert hiker "The Mamma" believes there are clear levels of commitment, with the core of membership being the thru-hikers and section hikers. The middle zone of the community contains the assisted thru-hikers and section hikers (e.g. vehicle-supported slackpackers and commercial expedition groups), and lastly, the more ubiquitous day and weekend hikers represent the outer limit of community recognition.

Community Caregivers

> I have gotten a lot of support from everybody. You know, like people say, "You can do that, just go out there and do it." Yeah. Definitely. I think this is one of the most supportive environments I think I have been in. ("Flower"-novice)
>
> So Shufflin' Along hasn't quite crossed over you know. He is still just hiking. He doesn't have the bond yet. ("Star Light"-expert)

Though organic in its generation and variable in its membership, hiker identification with the AT long-distance hiking community acts like a "social glue" that provides stability to small, voluntary, informal groups that might otherwise collapse (Van Vugt & Hart, 2004). The combination of community ethos and sense of identity provide this group of practitioners with a binding, although invisible, structure of support. Newcomers to this informal community often reported surprise and puzzlement over the consistently accepting and caring assistance provided to members by both internal and external supporters. Whereas internal motivation and knowledge-sharing support was provided by the hikers' pod and wave, the hostels and outfitters along the trail provided external motivation and knowledge-sharing support.

Role of Hostels

> Going to those places [hostels] is very much like going home because the second

you put your foot on their property, they put their arms around you. ("Quest"-expert)

Hostels are the familial islands of respite along the trail, and many of the lodging hosts and hostesses are legends within the community. Familiar faces season after season, the proprietors of these hiker hotels are woven into the community of practice's social capital and play a significant role in the community's system of support. "Pathfinder" (novice) confessed, "You know there are times when you are maybe a little down and they are there as a friend. It's that kind of thing that I think would be real hard to do the trail without." Of the several hostels mentioned in guidebooks and trail registers (e.g. Walasi-Yi, Elmer's, Rusty's, Bear's Den, The Doyle, The Cabin, The Barn, The Pie Lady, Shaw's Andover Guest House, etc.) two individuals emerge as heroes and heroines in many hiker stories.

Miss Janet's House in Erwin, TN and Bob Peoples' Kincora in Dennis Cove, TN are two of the most visited hostels south of Damascus, VA. The stable presence of Janet and Bob and their locations along the first fifth of the trial (for northbounders) contributes to both their high levels of contact with hikers and their strong acceptance within the community of practice. Miss Janet and Bob Peoples are certainly "pillars" of the AT community of practice, and mentioning their names would receive acknowledgement of familiarity from most AT long-distance hikers. "Miss Janet, now there's a perennial of the trail," reported "Maryland Mack" (expert/pillar). "Blue Man One" (expert) further commented on how vital such hostel owners and their support are for the thru-hikers,

They are all part of a community you know, like Miss Janet, they definitely help thru-hikers. She has never thru-hiked, but that doesn't make her any less of a hiker

than anybody else out here. She is probably more well-known than any thru-hiker I have ever met I would say, just because she has touched so many people. They all know who she is.

"Pathfinder" (novice) spoke about Miss Janet's safe haven,

If somebody is having a bad time like emotionally, you just sit around and talk things out and the next thing you know the person that was having problems is packing up and ready to get back on the trail again. It's just really nice to see that. ("Pathfinder"-novice)

Differing in essence from a "for-profit" business, the support network of AT hostels offers practitioners a home away from home experience. Their presence and support are seen more as a form of community service than a business enterprise. "Aristotle" (novice) added "Some people are in it for business, but most of the hostel owners have some previous experience on the trail either as hikers themselves. Miss Janet grew up in Erwin. She knew hikers all her life, and she has been shuttling them since she was a teenager…decades later she began doing it as a business, but it was a natural outgrowth of something she had been doing all along." Ongoing respect from community pillars like "Maryland Mack" (expert) furthers the community's reverence for them.

The people that I admire most are the people like Bob Peoples. They neither ask nor expect anything. They like helping people. They help people because they enjoy doing so, and they don't give up. In 18,000 miles there is no one I have met that I admire more than Bob. ("Maryland Mack"-expert/pillar)

Hugely influential in this community of practice, Bob Peoples doesn't even hike long distances. Consistently modeling the community ethos of environmental

stewardship, he runs the Kincora hostel when not involved in building or repairing trails across three states.

> Bob Peoples, he is a character. I can't think of many people, or anybody for that matter, who has probably done more for the sport or hobby itself. The amount of time, effort, and what he has done for thru hiking is amazing. And I hope he is being rewarded for it. I am sure he is. Every time you see him he has a big smile on his face so obviously he is doing what makes him happy. He is an extraordinary person, and he has got some great stories. He and I hit it off pretty well because I believe in putting something back to the sport. I love hiking, and it would be wrong of me just to go and walk on a trail and not put something back. ("Time Out"-expert)

The situated presence of hostel owners like Miss Janet and Bob Peoples, along with their caring and supportive ways, offers AT long-distance hikers much needed socio-emotional recharging through a "home away from home" experience.

In this section, I described how AT long-distance hikers are a community of practice and illustrated the processes through which a newcomer becomes a community member. I detailed the symbols and enculturation rituals that define the AT long-distance hiking community, and further profiled community ethos, structure, affiliations, and hierarchies, and discussed the nested support system of this community of practice. The following section answers the second half of my research question by examining the social spaces and roles of particular community components that aid individual knowledge construction. Here, I reveal the situated and informal learning dynamics of AT long-distance hikers.

Education through Community

I would love to have somebody to mentor on the trip and support along the way. ("Quest"-expert)

Whereas trail angels, hostel owners, online followers, and hiking peers in one's wave play a supportive role for individual AT long-distance hikers, situational education is distributed across four distinct yet interacting components. Exchanges with AT experts and community pillars, peers in AT shelters, the individual's specific hiking pod, and one unique gear outfitter emerged as key in the community-based learning of individual AT long-distance hikers.

The long-distance hikers of the AT are an informal collection of practitioners that share a blended and contextualized learning experience. There are no formal teaching or training positions, yet this collection of hikers share and tutor trail-related knowledge to help improve the practice among its members and newcomers. Though some of the information shared by community members is abstract, biased, and in some cases inaccurate, other bit of AT-specific wisdom is quite helpful. It is often the AT expert, or expert-pillar who shares this helpful knowledge during their shelter interactions with other hikers. Expert "Star Light" explains how accessible some of the community's "pillars" or living-legends are for mentoring and socialization:

> Say you were a golfer. You might get to meet Tiger Woods when you go to the Masters, but only for a flashing moment and then nothing. In the hiking community it's so close-knit. . . . I have met all of the legends one-by-one. Eaten meals with them. Earl Shaffer, Maryland Mack, Swiss Army Watch, Stormy Vegetable, Dancin' Fool, you know all of the trail legends. It doesn't happen other places like

that. (“Star Light”-expert)

Situational teachers assume informal mentoring and instructional roles among their co-participants, and as their roles change, so change their identities within the community of practice (Lave & Wenger, 1996). Some expert practitioners are conscious of this and welcome their evolving status to AT mentor, backpacking consultant, or hiking coach. Others, while not resistant to the responsibility, are far less aware or intentional in their knowledge sharing behaviors. When asked if he considers himself a teacher following the second printing of his book, “Ford F-150” (expert/pillar) responded,

> I guess, I think we are all teachers; at least we are all role models. If you are a role model, people are looking up to you. Somebody is looking up to me and everybody in here (the shelter) at some point in time. And I try to… yeah I think I am a teacher. The book, I have had several people to email me and say, “you know I have read your book and I am going to go out and hike.” For me that is what I have tried to accomplish. It really makes me feel good.

Positive feelings associated with sharing knowledge through advice or modeled behavior reinforced the role of educator, whether those behaviors were overt and intentional or not. “Pathfinder” pondered her role in casually recruiting more female hikers,

> Yes (I influence other women). I really do. I have a lot of women friends, and I think that yeah I did. I wish I could get more of them out here. (“Pathfinder”-novice)

When another expert hiker “Kickin’ Chicken” who is very active in both online trail community discussions and community-sponsored events, was interviewed at Trail

Days, he took a moment to consider his ongoing educational influence upon others, "I think I am seen by at least the people who I met as a positive role model. In the last three days here (Trail Days 2006), you know the reception I get in just walking into a crowd is positive." Such positive reactions and appreciative acknowledgments support continued instruction-like behaviors among the established community members. Indirect instruction in the form of stories of conservation and support also serve it promote further member role assumption within the community. An established AT community member who demonstrates a "concern for the physical environment as something that is worthy of protection, understanding, or enhancement" (Gifford, 2002, p. 57), can influence others by their example. Typically a member of the Appalachian Trail Conservancy, American Long Distance Hiking Association, or a volunteer trail maintainer, hardcore members and community of practice 'pillars' show their care and concern for their commonly shared environment of practice through AT service involvement. Such notoriety and newfound influence can be surprising to hikers in informal teaching roles, as noted by web-based mentor "Captain Courageous" (expert),

> You know, honestly, I didn't see myself playing any role in it. I am just kind of surprised every time I am out here and some guy is like "I was on your website and I learned this from you or hey I saw your website, I saw this, and I thought about it, and I played with it, but it didn't work for me, but I appreciated it." So, I guess in a way I am just sort of a facilitator. I try to make the information available and it's worked for me, and I try to explain why it worked for me and how to do it and just let people make their own decisions and never try to be you know dogmatic as this is the only way to do things you know and it's just gear, it's

> technique… it's you know, teach people how to think instead of what to think and allow them to do what they do and I guess that's it. I guess I am a kind of teacher in a way, not really a hands-on teacher because it's hard to get with this many people, but the worst part about it is I can't walk into a campsite anymore without somebody saying "hey, I know you from somewhere."

The presence of expert AT long-distance hikers in shelters contributes positively, for the most part, to the knowledge construction of novice AT hikers sharing the same shelter. Through the negotiations of various interpretations of practice, comes the opportunity for novice practitioners to learn from AT experts while wrestling with their own cognitive disequilibrium of understanding. Of interest to this study is that, through adaptive collaboration (i.e., between expert and shelter group, between shelter group and hiking pod), a community of practice generates a common, shared understanding of domain-specific events while also providing members with an action-orientation for dealing with situational challenges of practice (Sharp, 1997). This transfer of adaptive knowledge was repeatedly demonstrated through the under-examined, informal mentoring processes I observed between experts and novices. I also witnessed the direct instruction and AT-specific consultation provided by one particular outfitter in Georgia, which proved to be a significant learning experience for many of my study participants.

The Role of the Outfitter at Neel's Gap

> Well the first thing I would do is tell them just drive down to Neel's Gap and buy your equipment there because those guys were like really, really helpful as far as telling you your possibilities, the choices that you have, and they have the equipment there. ("Hollanderin"-novice)

> Do your homework, read everything you can read about the gear and on Trail Journals (.com). Talk to everybody that you can, do the best you can, because you only have to walk 30 miles and you can change everything you have at Neel's Gap. ("Quest"-expert)
>
> I urge them to use whatever old stuff that they have, and just get out there and then see what gear is around before they buy. Go out there with enough money to re-outfit yourself once you've seen what's out there because the outfitters along the trail are the best ones for thru-hikers because they are catering to the thru-hikers as opposed to the EMS's and REI's that are around other places. ("Rasta-B"-expert)

The situated placement of the Mountain Crossing gear outfitter and hostel at Neel's Gap, Georgia made it a critical site for knowledge negotiation, technology adaptation, and technique modification. Located 30 miles into a northbound AT hike and where the trail first crosses a major highway, this outfitter commands an interesting position of influence over frustrated hikers. As mentioned in Chapter 4, the first week of AT northbound hiking is often a disruptive encounter with discomfort and deprivation for many novice hikers. Acting as part therapist, part consultant, and part salesperson, a staff person at Mountain Crossing literally sees hundreds of AT hikers each week during the prime months of the hiking season. As hikers began their journeys and encountered problems, they knew that help was available just a few days' hike away in Neel's Gap. Once there, informative staff worked first to modify the gear system of the troubled hiker, and second to suggest strategies and products that might be welcome and useful to the hiker.

Though this outfitter is clearly a "for-profit" business, hikers I interviewed

consistently perceived their experiences there to be more of a consultation session than a sales pitch. In addition, the outfitters' contextualized understanding of the specific challenges faced by AT hikers made them a very informed and reliable source of information to novices and experts. "Hollanderin" (novice) recalled her experience and offered me these suggestions on equipment, informed purchasing, and preparation,

> You know, no matter what, you are going to spend the money on the equipment. I have already spent, like over the years you know, well over $1,000 just in equipment, but you don't have that opportunity on the trail. It's like now or not. So you know the best thing I would say is just go right down to Neel's Gap and talk to these guys. You know they don't push you into buying anything, they suggest it, they show you the items they have and if they see that you need to sit there and think about it, they will walk away and give you that time and come back and see if you want to move on. They will help you. ("Hollanderin"-novice)

How they "helped" was an interesting technique that I learned about through trail stories and then through personal experience. Mountain Crossing staff will conduct an intervention activity known as a "shake down." The shake down involves a process of dumping the contents of your pack onto the floor in the corner of the shop. The outfitter will then take the next 30 to 60 minutes to go through each item and ask the hiker about its value to the hiker. After assessing the tools and priorities of the hiker, the staff then offers advice as to how items might be removed (to reduce pack weight), combined as dual-use tools (to reduce pack size), or replaced (by equipment found in their shop). "Hollanderin" (novice) recalled her 'shake down',

> You can go in there and ask them to tear down your pack and give you advice.

> They are awesome you know, and like I said they don't push you. They are very informative and very helpful. So I wish I had known that. ("Hollanderin" -novice)

Several hikers I encountered after Neel's Gap reported that they had taken full advantage of this service and received as much as an hour's worth of individualized attention tailored towards AT long-distance hiking. Though many reported no subsequent purchase, others spoke of replacing almost all of their initial gear and feeling much more informed about pack packing. Hundreds of pounds of gear are mailed home from this location by hikers each hiking season.

Mountain Crossing at Neel's Gap served as a uniquely situated educator for northbound AT long-distance hikers. The collective AT shelters proved another site of significant situated learning for trail community members.

AT Shelters

> Places have an impact on our sense of self, our sense of safety, the kind of work we get done, the way we interact with others, even our ability to function as citizens in a democracy. In short, the places where we spend time affect the people we are and can become. (Hiss, 1990, p.xi)

Though the majority of long-distance hikers were traveling solo, small group formation and interaction support played a major role in the reported enjoyment of the experience, learning of AT-specific knowledge, and the effective completion of the journey. This study found some predictable spaces where knowledge transfer and cognitive modeling were more consistently observable among small groups and individuals.

Paramount to social sensemaking is the face-to-face meetings that can cultivate

knowledge-sharing relationship development between hikers. Because most hikers travel alone, or in pairs, during a day of hiking, it is in the evenings when AT long-distance hikers have the most social interactions. Situated in AT shelters, the close social bonds that emerged were paramount. Identifying oneself as part of a community developmentally leads to learning about the practices and values of that community. Wenger et al. (2002) point out that the sharing of knowledge, and the subsequent construction of meaning by an individual requires social interaction and informal learning processes that communities help to provide because they act as living repositories for embodied expertise and tacit knowledge. Yet how accessible to novices is the vast array of community knowledge?

Research on workplace learning suggests that sites where there is a mix of non-formal learning in organized environments can become deeply unequal, with individuals higher in status afforded more and better opportunities for learning than those towards the bottom of the organizational hierarchy (Billett, 2001; Evans et al, 2002). The AT long-distance hiking community of practice appears to contradict this research. With heterogenous groups of experts and novices sharing shelters, the open conversations and modeling of behavior offers all levels of practitioners equal access to opportunities for learning. Though expert long-distance hikers may associate and converse more with other expert hikers, their knowledge-sharing stories and comments are open most within the public and informal space of the AT shelter. Though the knowledge and behaviors of higher status hikers are accessible, often times it is a hiker's small group of trusted fellow hikers who help most with the sensemaking and integration of the new knowledge.

The places and gathering points, whether face-to-face or virtual, that provide a meeting ground for group members act as knowledge repositories for the "work," actions, and learning activities of a community (Lesser, Fontaine, & Slusher, 2000; Wenger, McDermott, & Snyder, 2002). Using a spatial lens to further examine the members of this AT community of practice helped me to define the critical "places" for interaction and learning of community-based knowledge. Though their interaction spaces included hostels and restaurants in towns located along the trail corridor, community-organized events, convenience and grocery stores, and to a lesser degree, in cyberspace (through email, online listservs, and journal sites), the AT shelters represented a critical site for knowledge negotiation and sensemaking of practice.

Reminiscent of the fireside, storytelling practices of nomadic human tribes, the AT shelter offers a one-room schoolhouse setting for observational learning, direct instruction, and dialogic exchange. The distributed placement of shelters along the path and the information system of knowledge exchange represent "known trajectories of events which…are anticipated to unfold in a more or less similar sequential manner in the future" (Clark, 1993, p. 143). Representing predictable stages of learning, these trajectories are realized most effectively by AT long-distance hikers who engage in shelter interactions.

There is also a cadence to learning along the AT that uniquely taps collective practitioner knowledge. As a participant-participant in 2003, much like my fellow hikers, I too wrestled with issues of gear appropriateness, packing strategies, and first aid issues (e.g. blisters, insect bites, joint pain). As these concerns presented themselves, I tried various solutions during the day, yet needed additional help with my own sensemaking.

During my hike of just over 400 miles, I slowly came to appreciate the evening problem-solving interactions with my fellow hikers. There, in these shelters I could quietly observe or directly ask about various techniques and treatments with which I was experimenting. This greatly expanded my options through hiker-suggested strategies. My own familiarity with recent trends of environmental practices (e.g., Leave No Trace) and technological advances (e.g., hammock camping) were gleaned or advanced through shelter-based show-and-tell sessions and debates. My own daily problem-solving cadence became one of experience-reflect-observe and discuss. On nights when I met no one or sheltered alone, I felt like I had missed a day at AT school. Though those general shelters experience were found to be very helpful, the primary component for AT long-distance knowledge construction is found in the micro-groups that form, bond, and travel together.

The Hiking Pod

> This reminds me of some kind of tribe. It's like we all become this tribe moving forward and there are smaller tribes, you know, the different groups. It's just so interesting, our own little world going on here. ("Pathfinder"-novice)

The smallest of units within the seasonal hiking community this study refers to as the *hiking pod*. The pod is the close-knit, similarly paced, compatible personality group that shares the most experiences, establishes the highest level of trust, and not surprisingly, develops the strongest collegial bond. "Flower" (novice) watched the formulation of such 'pods' in the early months of the journey, "A lot of time women get in pockets with other hikers and they are little families you know. It's like them and 4 to 5 other guys."

The AT "hiking pod" became the mobile repository of community-based and

community-modified knowledge, with *socio-reflective exchange* serving as the mechanism for social sensemaking, which aids in individual knowledge construction. As individuals attempting an AT long-distance hike began to associate with other hikers, they formed small groups of co-participation, social interaction, and motivational support. These learning pods are the key to the construction of community-based knowledge "... in the places where hikers have the most interaction with each other, which is in the evening or mornings at established camp sites or trail shelters" ("Maryland Mack"-expert/pillar). Thus learning pods, situated in shelters, embody the space where AT culture and social cognition interact and give meaning to individual hiker experience (Cole, 1985; Kvale, 1996; Vygotsky, 1986).

The small learning pods offered a supportive micro-climate for personal cognitive growth and the boundary testing of social knowledge. As one novice pointed out, the trying experience seemed to accelerate social connection:

> It's probably one of the most interesting tight-knit communities I have ever experienced, and I think that by virtue of the fact that you are hiking the trail it's almost like you jump into a situation that almost we are all saying, 'okay we are kindred spirits on one level. Okay, all we have is what is on our back' and so there is like an immediate, I don't want to say intimacy, but ease with which you just get together with people. ("Pathfinder"-novice)

Victor Turner's concept (1974) of the tight-knit groups, what he called *communitas,* that emerge from a shared pilgrimage captures the essence of the AT hiking pod. Communitas forms as a characteristic of people experiencing liminality together (Turner, 2005), and the nature of their interactions is quite unlike a home or work environment.

Bonding experiences in the informal “third place” (Oldenburg, 1999) of the AT shelter, is the non-threatening and situated experience where hikers have the opportunity to connect with other practitioners and develop small group attachment. Membership in modern "tribes" like an AT pod is a voluntary experience, as these bonds are not based on deep cultural traditions or kinship ties (Maffesoli, 1996). Though the hiking pod develops over four to eight months, participants report the development of lifelong friendships with pod members.

> They are always welcome in my home. It doesn't matter if they are doctors, lawyers, whatever, garbage men, they are people that I spent six months of my life with under some of the most trying conditions at times. (“Kickin’ Chicken”-expert)

It is the powerful social connections, the focal interaction space, and the predictable *socio-reflective exchanges*, in the forms of dialog and modeling that converge to create a shelter learning system for these AT hikers. Findings from this study support the idea that the trust and bond found in hiking pods were key to hiker feelings of overall community of practice attachment, and paramount to their individual knowledge construction of AT long-distance hiking. This bond exists not only between the hikers and the AT, but extends to the larger AT family which surrounds and supports trail use and conservation (i.e. the nestled support system). This gap between theory and practice, knowing and doing, was bridged for those who stayed on the trail long enough, through small group reflective conversations and expert storytelling. In contrast with the extensive “how to” literature and AT preparation media, this study found that the knowledge most valued by participants for this journey was acquired implicitly, transferred through shelter-situated small group interactions.

In many ways, the evening shelter exchanges model the concept of *dynamic assessment* (Karpov & Gindis, 2000), in that group reflection and dialogue serves as a prompt for practice modification and a catalyst for capacity development. These shelter learning interactions help to facilitate the novice-expert transition. Because substantive changes can occur when feedback is provided across an array of increasingly complex and challenging tasks (Swanson & Lussier, 2001), the AT shelter may be more than just shelter from the elements; it is the type of place that facilitates knowledge transfer, community bonding, and development of a social sense of self. It is the informal gathering of members in these critical sites that contributes to powerful social bonds that are the "bedrock of community life" (Oldenburg, 1999, p.284), and a vital component to this learning system. This form of social learning also facilitates individual development of abilities for critical and creative thought and behavioral adjustment.

The AT experience offers certain core conditions that help to create personal growth zones. Conditions of growth and self-discovery, along with the helping of others to develop understanding and potential as long-distance hikers, are common elements to hiking pods and the shelter learning system. Acceptance and empathy of group members leads them to authentically encounter each other in this challenging and dynamic environment. Key to such encounters of engagement and growth with and through others are the conversations generated (Buber, 1947). Martin Buber's (1958) comment that "all real living is meeting" (p.24) underscores the revelatory processes that take place along the AT which only occur through shared encounters and dialogical relations. The initial bonds that occur in AT pods are powerful and serve as precursor to subsequent long-term affiliation and role adoption in the larger community of practice.

Summary

This section addressed the latter half of my second research question by examining the critical spaces and roles that aid individual knowledge construction. Two primary roles were identified as key to sustaining hiker motivation through distributed support, and contextualizing learning through situated reflective exchange. Found in AT shelters, hostels, and at one outfitter in particular, these roles positively assist individual long-distance hikers with AT negotiation. As individuals come to establish and depend on the care, trust, and fellowship of other hikers, they develop a connection to the hiking community in general, and to their hiking pod in particular. Feelings of group loyalty work with the community's nested support system to form the powerful social bond (Van Vugt & Hart, 2004) that kept challenged hikers going.

In chapter 6, I will discuss the broad findings of my research that speak to the situated and informal nature of individual knowledge construction within the AT long-distance hiking community of practice. As an ethnographer and hiker, I offer the insights that I have gleaned from this study, and would use if I were to thru-hike the AT. I also profile the reflective, proactive, and adaptive strategies used by expert AT long-distance hikers. The chapter concludes with a discussion of the educational and conceptual contributions of my research.

Chapter 6

SUMMARY, DISCUSSION, CONTRIBUTIONS, AND CONCLUSION

The next sections of summary and discussion change gears in that the tone I assume here is more personal and informal. This is done to briefly recap the details of my research and to invite the reader to explore the emergent findings of my research, which I find to be quite compelling.

Summary

As a reminder, the over-arching goal of this study was to explore how long-distance hikers learn to negotiate the AT. Unbound by formal institutional structure or procedures, the organic and nomadic AT long-distance hiking community provided a unique opportunity to examine the situated and informal nature of individual knowledge construction within a community of practice (Lave & Wenger, 1991). Through interactive and reciprocal relationships, the individual, by way of the community, comes to understand the subject matter, associated skills, and the community's overall practice.

To better understand its learning processes, I examined cultural symbols and the meanings conveyed by symbolic behaviors and artifacts within the AT community of practice. I designed and conducted my research as a focused ethnography (Hogle & Sweat, 1996; Mull et al., 2001), and used a symbolic interactionist theoretical frame (Blumer, 1986; Stryker & Burke, 2000). This enabled me to examine the situated and informal nature of individual knowledge construction within a community of practice, and to identify factors that helped and hindered the learning processes of AT long-distance hikers, including the role of the community in individual knowledge construction.

To review, I described how AT long-distance hikers are a community of practice and illustrated the community's enculturation processes, modes of community entry, and reasons for community exit. I detailed the symbols and enculturation rituals that define the AT long-distance hiking community. Through stories and hiker quotes, I profiled community ethos, structure, affiliations, and hierarchies, and discussed the nested support system of this community of practice. I was also able to identify the critical social spaces, roles, and exchanges that influence individual knowledge construction.

Findings Related to Learning Processes

While my inquiry and the overall structure of the document addressed separately my questions about individual learning and the role of the community in that learning, I found the two areas to be thoroughly intertwined. I found that two types of AT knowledge--universal and contextual--were important to individual long-distance hiking and effective AT negotiation. Context-specific practices from this trail, and the general competencies and propositional techniques common to most types of long-distance hiking, are complementary types of knowledge that work together to enable AT long-distance hikers to negotiate the trail. Universal knowledge and contextual knowledge converge to represent the community-based knowledge for the AT long-distance hiking community of practice.

I found five general competencies of universal knowledge for long-distance hiking, along with inherent reflective practices, information exchanges, and social support mechanisms that are understood uniquely through AT contextual knowledge. The phenomena of *Deprivation Accentuated Epistemic Shift* (DAES), *Perpetuated Megacognitive Ignorance* (PMI), and *Gollumania* offer provocative findings that help

answer my question about what factors help or hinder the learning processes of AT long-distance hikers.

Contributors to AT Learning

Members of such a loose, mobile, and informal community have often been likened to pilgrims on a walking quest. I argued that the long-distance AT hike can be considered America's path for individual learning, life sorting, and growth through an extended pilgrimage. Even for those who do not intentionally seek a pilgrimage, the common experience and social norms surrounding an AT long-distance hike replicate the common features of historic pilgrimages. The essential features of a pilgrimage, situated in the AT long-distance hiking community, were clearly observable in the voluntary separation practices and identity development rituals. All pilgrimages share one defining condition though, that of extended personal deprivation. In this study, I found the condition of doing without an important catalyst to learning.

The concept of DAES captures the knowing-doing gap between novices' prior knowledge and intended goals (i.e. journey preparedness), and their lived experience (i.e. journey response). The deprived state of discomfort, disorientation, and disconcertedness acts as a catalyst to reflective learning. In some cases, confused individuals were primed for an epistemic shift of perspective on their understanding of the nature of knowledge, the importance of skill development, and the awareness of controversies about technology as relevant to AT-specific travel. Mezirow (1991) speaks to transformative progression and learner development by stressing that, "perspective transformation is the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these

structures of habitual expectation to make possible a more inclusive, discriminating, and integrating perspective; and finally, making choices or otherwise acting upon these new understandings" (p. 167). Gaining new perspectives, which in turn affect future behaviors, can be facilitated through the disturbing challenges and diverse interactions that individuals experience within a community. This shift can be framed as a helpful outcome for learning, albeit an uncomfortable one for the AT hiker going through this developmental process.

Challenges to AT Learning

That only 20 to 25% of people that attempt this journey each year actually complete the entire trip (ATC, 2006) speaks to some of the learning problems hidden within the AT long-distance hiking community. The phenomenon of PMI emerged from this study as one way that the AT hiking community actually hindered the effective practice of members and newcomers. The vital knowledge for effective AT long-distance hiking was tacit and unaddressed by those experts who wrote the books and led the workshops on which so many novices rely for preparatory instruction. Tacit knowledge is that which is procedurally and semantically known by an individual, but not ordinarily accessible to their consciousness (Reber, 1995).

Experts within the AT long-distance hiker community of practice were often unaware of the variety of possible learning trajectories within the community, as well as the variety of pedagogical approaches for newcomer orientation. This lack of awareness is perpetuated through: (a) ignorance on the part of experts to their own developmental experience and learning strategies, and (b) novices' confusion stemming from contradictory advice from fellow practitioners and authoritative print sources.

Metacognitive ignorance on the part of those who disseminate information is a consistent challenge to sensemaking for newcomers to AT long-distance hiking. Because AT experts, "pillars" (i.e., perennial community personalities), and trail-experienced authors do not consciously know what they know that makes them an expert among practitioners, they often fail to consciously address their specialized problem solving approaches, nor their situational awareness, and context adaptive skills when advising novices.

Another challenge to learning was a tendency among novice AT long-distance hikers to develop a false sense of effectiveness embodied in their gear. Compensating for the lack of situated ability, some equip themselves with a collection of expensive and unnecessary gadgets, and develop *Gollumania*. Like the *bandwagon fallacy* (Rohlfs, 2003; Tversky & Kahneman, 1974) of uncritically following the crowd or latest trend, I found that many hikers mistakenly put their trust and dependence in technology instead of knowledge and skills.

Findings Related to Community

As a community of practice, AT long-distance hikers have a symbolic system through which their community ethos is developed and expressed, and through which community and individual identities are defined. Identity among AT long-distance hikers is comprised of many factors. Individuals' engagement level, sub-group affiliation, experiential legitimacy, and the community hierarchy all contribute to identity construction within this community of practice. Though organic in its generation and variable in its membership, hiker identification with the AT long-distance hiking community acts like a "social glue" that provides stability to small, voluntary, informal groups that might otherwise collapse (Van Vugt & Hart, 2004). The combination of

community ethos and sense of identity provide this group of practitioners with a binding structure of support, which contributes greatly to knowledge construction for its individual members.

Discussion

Education through Community

Whereas trail angels, hostel owners, online followers, and hiking peers in one's wave play a supportive role for individual AT long-distance hikers, I found situational education to be distributed across four distinct, yet interacting, components. Exchanges with AT experts and community pillars, peers in AT shelters, the individual's specific hiking pod, and one unique gear outfitter emerged as key in the community-based learning of individual AT long-distance hikers.

Situational teachers assume informal mentoring and instructional roles among their co-participants. As their roles changed, their identities within the community of practice also changed (Lave & Wenger, 1996). Some expert practitioners are conscious of this and welcome their evolving status to AT mentor, backpacking consultant, or hiking coach. Others, while not resistant to the responsibility, are far less aware or intentional in their knowledge sharing behaviors.

The presence of expert AT long-distance hikers in shelters contributes positively, for the most part, to the knowledge construction of novice AT hikers sharing the same shelter. Through the negotiations of various interpretations of practice, comes the opportunity for novice practitioners to learn from AT experts while wrestling with their own cognitive disequilibrium of understanding. Of interest to me is that, through adaptive collaboration (i.e., between expert and shelter group, between shelter group and hiking

pod), a community of practice generates a common, shared understanding of domain-specific events while also providing members with an action-orientation for dealing with situational challenges of practice (Sharp, 1997). This transfer of adaptive knowledge was repeatedly demonstrated to me through the under-examined, informal mentoring processes that I witnessed between experts and novices. I also witnessed the direct instruction and AT-specific consultation provided by one particular outfitter in Georgia, which proved to be a significant learning experience for many of my study participants.

The AT "hiking pod" is the mobile repository of community-based knowledge, and *socio-reflective exchange* is one of the primary mechanisms for social and individual knowledge construction. In many ways, the evening shelter exchanges model the concept of *dynamic assessment* (Karpov & Gindis, 2000), in that group reflection and dialogue serves as a prompt for practice modification and a catalyst for capacity development. According to Schön (1983), practitioners' knowledge construction is facilitated through two main forms of reflection, reflection-in-action and reflection-on-action. Reflection-in-action occurs in response to unexpected consequences during learning activities, while reflection-on-action, through reflective writing or shelter discussions, occurs after an activity has been completed (Schön, 1983). Both types of reflection are regarded as processes in which practitioners reorganize and construct personal and practical knowledge that leads to new understanding of self as a competent or legitimate practitioner within the context of the activity. AT long-distance hikers make sense of their experience and improve future trail performances through both forms of reflection.

The interactions of AT experts with AT learning pods specifically offer such reflective learning opportunities. These reflective learning interactions help to facilitate

the novice-expert transition. Conditions of growth and self-discovery, along with the helping of others to develop understanding and potential as long-distance hikers, are common elements to hiking pods and the shelter learning system. Key to encounters of engagement, and growth with and through others, were the context-specific conversations generated. This final point leads me to discuss what, to me, is the most exciting finding to come out of my research: the concept of *reflective choice adaptation* (RCA). RCA is the composite description of what differentiates experts AT hikers from novices.

Reflective Choice Adaptation

Well beyond 'the blind novices leading the blind,' (e.g., symmetry of ignorance), the reactive on-the-spot learning (e.g. incidental learning) and the labor and time intensive process of trial and error, it is the presence of AT long-distance hiking experts that makes a difference in more efficient knowledge construction among novices. So what do the experts say, do, and believe that makes them unique? This section is a case presentation of the AT expert hiker, and what can be gleaned from her ways.

My interviews of expert AT hikers provided greater details and insight into how some experts develop understanding beyond the acquisition of universal long-distance hiking knowledge and skills. With a quiet confidence, these practitioners develop an advanced level of comfort in their unpredictable and dynamic environment, while having a unique understanding of practice and the ability to use themselves as an instrument (Funches, 1995; Hanson, 2000) to intervene effectively in the social sensemaking of the AT community of practice. Putting a label to the defining constellation of skills consistently found among AT experts, RCA captures the intersections of key expert practices: reflective practice, empowered decision making, and adaptive learning.

Expert long-distance AT hikers represent a model of human functioning that embraces plasticity and modifiability (Jenson, 2000) that reveals itself through the transfer of knowledge and skills in new situations and with new actors. Ignorant to their own tacit knowledge development, this specific examination of AT experts and their stories helped to illuminate the trail processes, tools, and spaces where culture and cognition are co-created (Cole, 1985). Similar to the notion of self-authorship (Baxter-Magolda, 1992; Kegan, 1982, 1994), RCA contributes to a clear sense of practitioner legitimacy, and subsequent social identity within this informal community. Those hikers with a developed sense of RCA have an embodied sense of what the trail community calls "hiking your own hike." It involves the individual capabilities, technical procedures, and interdependent relationships that result in hiker acceptance, effectiveness, and confidence the practice of AT long-distance hiking. RCA is the 'link' between strategy and performance (Saint-Onge & Wallace, 2003).

Expert Dispositions

> I just had that in the back of my mind that I was real good about accepting whatever was thrown at me. So I did it, so I figure at this point I can pretty much do anything I put my mind to. It's literally putting one foot in front of the other and having your mind in the right place. ("Quest"-expert)

Anthropologist Gregory Bateson's famous phrase "the difference that makes the difference" is an appropriate description of RCA and how it is the qualitative difference between expert long-distance hiker performance and novice performance. *Expert dispositions*, or advanced competencies, are the evolutionary behaviors of "generating and securing knowledge, learning, and adaptability" (Amin & Wilkinson, 1999, p. 121)

that allow superior and innovate performance in a specific domain. AT experts only developed this ability through extended and situated practice. “Individuals do not achieve expert performance by gradually refining and extrapolating the performance they exhibited before starting to practice, but instead by restructuring the performance and acquiring new methods and skills.” (Ericcson & Charness, 1994, p. 731). Though book and multimedia sources can be informative, significant restructuring of a hiker’s understanding and skills comes through in-the-field adaptation.

Expert AT hikers also model a high level of environmental competence. This is observable when an experienced hiker demonstrates what to do and how to behave in relation to the physical setting as dictated by his or her understanding of it (Proshansky et al., 1983). “Captain Courageous” (expert) conveyed such an open and easy-going attitude when he shared, “Well, when I am on the trail, I just take it as that's just what it is and don't try to worry about how to change it or be mad about it. I just go with it. If you don't change your mental attitude and how you deal with things, you won't ever have a good time. In the military, we used to have a saying if it isn't raining, we are not really training. If you get rain, that means the creeks are all going to be full and you are going to have water.” Positively reframing inevitable environmental conditions is a consistent characteristic of RCA in AT experts, as well as a realistic dedication to the daily task of hiking. “Kickin’ Chicken” (expert) advised, “View it as your daily job. I think if you have that under your belt, the rest of it just happens and it evolves. You change, but that doesn't change. That's the one aspect of the trail that doesn't change what it's like to really be there on a day-to-day basis.” Such attitudes also help explain the different philosophical approaches behind expert gear decisions.

Expert Perspective on 'Happy Camper' vs. 'Happy Hiker.' There is an inherent struggle in AT long-distance hiking that pits ease of travel against traveler comfort. Referred to by hikers as the "happy camper-happy hiker balance," there is a continuum of practitioner comfort that varies by hiker. Extra clothing, food, and sleep padding certainly provide a higher degree of comfort for the camper in camp, yet the additional provisions weight more and therefore negatively affect hiker travel. "Rasta-B" (expert) explains:

> Happy hiker is having less weight in your pack and having a more comfortable time hiking, you know, so you don't carry as much stuff so that, you know, you can cover more miles with less strain, and, but if you are going to be standing around a lot you are probably going to carry a little bit extra weight so you can be happy when you are in camp and be totally warm and cozy and have maybe more changes of clothes, but pretty much I only have one of everything you know. I don't carry very many changes of anything at all except for socks.

Heavier packs slow travel and wear out major muscles groups more quickly. Lighter packs ease travel, but the lack of appropriate gear can be potentially life-threatening if Spartan simplicity is taken too far. Experts realize this as "Captain Courageous" explained, "What I have come to figure out is the more I carry, the more I like camping. The less I carry, the more I enjoy hiking. So, try to go with the less I carry because I am out hiking." Such a challenge is negotiated over time to a balanced level of pack weight and required tools. Expert "Dancin' Cub" had found a comfortable balance, "At this point, I am experienced and know exactly what I need. I just went out with the equipment I had; didn't really buy much because I know I can get by with what I have and if there comes a time to replace something, I just do."

When presented with a paradox of choice between viable trail technologies and the best-reviewed gear among practitioners, novices often made choices that led to negative evaluations of their decision outcomes (e.g., feelings of regret, depression, and decision difficulty) (Schwartz, 2002). Experts on the other hand, employ a "good enough" strategy for gear selection by waiting until they encounter an option that crosses the threshold of acceptability (Iyengar, Wells, & Schwartz, 2005). Consistent with the profiled choice-making strategies of *maximizers* and *satisficers* (Simon, 1955), experts avoid seeking the elusive "best gear" for long-distance hiking. In addition, by resisting the "sunk cost" effect (Klein, 2003) of hanging on to gear or technologies simply because of the financial investment made, the expert AT hiker works concurrently towards gear simplification and preparation for inevitable adaptation. This is accomplished by strategically selecting gear that serves multiple purposes, and by developing skills of improvisation.

Reflection

> Experience is what we later come to realize were our mistakes. You make these mistakes and hopefully you learn from them and hopefully you either adapt your earlier behavior or you change it, or at least acknowledge what you did wrong and you move on and hopefully don't make the same mistake twice.
>
> ("Maryland Mack"-expert/pillar)

Reflective thinking is defined as "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it leads…it includes a conscious and voluntary efforts to establish belief upon a firm basis of evidence and rationality" (Dewey, 1933, p.9).

John Dewey (1933), who introduced the idea of reflective thinking in education, viewed it as a specialized form of thinking that arises from a state of doubt, uncertainty or difficulty that the learner has experienced. According to Dewey (1933), reflective thinking is a process of solving the "perplexity," triggered by a learning experience.

Expert AT long-distance hikers benefit from both the social and individual reflective practices available within the community of practice. The key metacognitive component of RCA, reflection allows a hiker to critique the effectiveness of their individual choices, while synergizing the ideas and lessons learned by others. Social and individual reflective practices such as discussions, journal writing, and web blogging enhance thinking skills and improve learning performance (Cole, 1995; Dunlap, 2002; Moon, 1999). Journal writing refers to a writing exercise that incorporates reflection on one's own learning (Moon, 1999). Reflective journaling and discussion help individuals to develop practitioner-centered decisions on what would work best for that hiker at that time, even when it runs contrary to others' choices. One expert provided this advice about trial and choice,

> Just go out there and do it because you are going to make sense of it eventually. It's like learning how to play a video game. I you push enough buttons, eventually you are going to know what it does, and out there you are going to do the same thing. If these boots don't work, and your tennis shoes do, then it's tennis shoes for you. ("Swiss Army Watch"-expert/pillar)

Expert AT hikers narrate their lived experiences in rich ways that transform inert information into specified understandings that assist in the transfer of community-based knowledge to novice. To a lesser degree, online AT journals also aid in making the

cognitive processes of long-distance hiking more explicit. Some AT experts recommend using the online journals to find a compatible hiking match (e.g. person of similar age, gender, size, and hiking ability) to serve as a gear and practice advisor. Tall hikers with experience tend to be aware of what backpacks fit tall humans more comfortably. Experienced female hikers serve as better advisors for clothing designed for women, as well as being clearly more knowledgeable about feminine hygiene concerns in the woods. Reading such accounts can help the novice develop greater readiness for experiential and direct instruction. Online journals do aid in making cognitive processes more explicit, and Viking (expert) recommended reviewing both successful and unsuccessful attempts of the AT for a broader awareness, "I think reading someone's encounter and the decision process that they made to get off the trail is really extremely helpful."

To be able to reflect upon others' choices, a hiker needs to be around AT hikers. Reflection during individual and social knowledge construction is considered as an essential activity for making sense of and creating new perspectives from a direct learning experience (Boud, Keogh, & Walker, 1985; Kolb, 1984; Lewis & Williams, 1994). Reflection enables learners to construct understanding from their learning experience in such a way that they are cognitively and affectively changed (Boud, Keogh, & Walker, 1985; Kolb, 1984; Moon, 1999). Though this study found AT shelters to be the most critical sites for knowledge transfer, "Blue Man One" (expert) recommended, "Go to hiker Gatherings. That is how you get your best information." Though novices assume the formal presentations at the Gathering are the events to attend, this study found the hallways and meal spaces of the Gathering to be the best places to hear the stories shared by AT experts. One long-time, long-distance hiker, an expert in his 70s, revealed

what a profound impact community-organized events and the formation of an organization specific to hikers made on him and the activity,

> That actually catapulted my learning ability, what I learned, what it had taken 20 years to learn I learned in three days because I had met with these other people that had been doing things and they were having the same problems I was, and they were giving me their experiences and their ideas on how to do things and it was just, it was the greatest thing I think ever happened to hiking. From 1980 until now I have tripled my capacity for hiking. ("Alaskan Aviator"-expert)

Because shared hiking stories represent socially embedded experiences, they can help to uncover the cognitive processes that hikers use to make sense of their experiences. AT long-distance hikers see themselves as a community because of what they do, and how and why they do long-distance hiking. To make sense of long-distance hiking, and to become a recognized member of the AT community of long-distance hikers, a newcomer must interact and reflect with others who share the practice of AT long-distance hiking. Human cognition includes the capacity to process knowledge, as well as "a capacity to 'narrativize' one's experience" (Boland & Tenkasi, 1995, p. 350). Thus, the manner in which stories embody experience, the human feelings and thoughts, and how they can be applied to future expectations helps novice learners to construct meaningful knowledge.

Expert stories about the AT help individual hikers to make long-distance hiking knowledge their own. Meaningful links between story and learning facilitates the transfer of knowledge in such a manner as to provide a novice learner with a "rich and complex understanding of an event or situation in a human context" (Davenport & Prusak, 1998,

p. 82). The next section details the context-based decision skills included in RCA.

Choice

It is within small group interactions where individuals can learn to create personal constructions of meanings from experience, rather than overly relying upon the beliefs, judgments, and feelings of others. It is through transformative learning that autonomous thinking can develop (Mezirow, 1991). Lave (1998) posits that learning that is of a personally transformative nature often involves membership in a community of practice. Defined by what it does, a community of practice offers a unique synthesis of informal and transformative learning opportunities. The theory of transformative learning seeks to comprehend how learners choose to validate and reformulate the meaning of their experience (Boyd & Myers, 1988; Cranton, 1994). The majority of transformative learning studies are of adult learners, specifically the psychosocial dimensions of informal learning in small groups (Mezirow, 1991). These studies provide additional insight and description of how the interwoven social experiences of a learner may lead toward a more developed sense of knowing, and how they choose to construct themselves as a knower.

Community membership involves a set of relationships that represents a learning process in itself. Many AT hikers gain strengthened agency to guide their own journey, with an enhanced understanding and appreciation for the diversity of fellow hiker characteristics, beliefs, and practices. Self-transformation, leading to greater awareness and choice in one's life, involves "effectively steering a course that you are mapping, not traveling along roads others have designated for you" (Chaffee, 1998, p. 4). The blend of autonomy and respectful connection results in meaningful, interdependent relationships

among members of the community of practice. This agency of choice also supports enhanced problem recognition and improved field-based problem solving.

Effective adjustment to dynamic environmental conditions and changes to one's personal physical state is a defining characteristic of expert AT hikers. Similar to the studies of the unique situational awareness found in some firefighters, pilots, and soldiers (Klein, 2003; Zsambok & Klein, 1997), expert AT hikers demonstrated a specialized form or trail literacy (Rush, 2003), or ability to read the natural and social contexts. Their "recognition-primed decision making" (Klein, 2003) allows for rapid cognition in environmental conditions that would overwhelm a novice practitioner. Interestingly, experts' situated decision making skills are often unconscious to the individual. I found that informed practitioners seemed uniquely tuned in to changing environmental conditions, appeared to respond automatically in certain critical situations, and described their approach to decision-making as being more intuitive than analytical. "Quest" (expert) suggests this skill of attending to discrete contextual cues and tools when she professed, "Everything you need is there, you just have to be open to it."

Though "Quest" felt capable in, and seemed aware of, her abilities to improvise with resources (both environmental and social) to deal with novel situations, other AT hikers I interviewed were unaware of some of their own trail-related skills and behaviors unless I called their attention to it through questioning. This lack of awareness was revealed to me during the pilot study for this dissertation. The following is an excerpt from that study:

> Community members often demonstrate tacit knowing, or a non-explicit intuitive form of knowledge of how or when "to do something" in a specific or situated

> context. For example, once while sitting around a picnic bench with a collection of AT long-distance hikers, I noticed three hikers suddenly move to pull out their rain gear. Puzzled, as I saw no foreboding clouds nor heard any signs of an approaching storm, I inquired about their behavior. Two of the hikers smiled and said, "It will be raining soon." Minutes later the drops began to fall, and I pressed them for how they had predicted this. Two of them mentioned, "just knowing," yet could not articulate how or why. Another said that she 'knew' the smell of approaching rain (i.e. the scent of ozone), and that she had somehow learned that "years ago" while hiking. When I asked how I might predict future weather, no one could clearly explain the process. Somehow their knowing appeared to be "situated" in the environment, and how they knew was something acquired through a collection of shared experiences distributed over time.
>
> (Siudzinski, Field Notes, July 2003)

Years later I found confirmation of the culminating effect of repeated experiences in the words of AT experts that I interviewed. When asked about his proper reactions during a surprise storm and how he learned to make such choices, one AT expert explained that his reactions were conditioned over time through experiencing several storms. "It's more the culmination, it's the sum total of all of the things that you put up with on a day-in and day-out basis." ("Kickin' Chicken"-expert) Another expert explained how he prepares for the unexpected, and then makes wise decisions before weather conditions become too extreme,

> I look at what the worst possible weather is, and I try to be prepared for at least that and maybe a little bit extra, but there's just so many techniques like sitting

under a hammock like this you can be comfortable, stay dry, and not have to worry about putting on your rain gear. ("Captain Courageous"-expert)

As Captain Courageous referenced, preparation and "many techniques" are what experts figuratively have at hand to deal with the dynamic environmental and social conditions along the AT. The wisdom of their choices is entwined in the timing of those choices. Expert AT hikers may stay in the shelter an extra day if rain is predicted for the entire day. Novices may push on, testing rain garments and wet boots, while uncomfortably traveling at half speed. The expert waits out the storm, while the novice takes on the storm. The expert is mentally prepared for "the worst possible weather" (e.g., "Captain Courageous"), while the novice may be surprised and overwhelmed when it rains beyond three days. The reflective choices of experts keep them drier, possibly healthier, and ultimately, hiking further. Their collection of behavioral scripts for varying situations allows experts greater adaptation during critical decision-making scenarios. However, Sternberg (1996) argued that, "There are costs as well as benefits to expertise. One such cost is increased rigidity: The expert can become so entrenched in a point of view or way of doing things that it becomes hard to see things differently." (p. 347)

Adaptation

Research suggests that expertise, as a mental set, can often constrain individuals' problem-solving as it reproduces common knowledge (i.e., PMI) and creates a cognitive fixedness in processing novel problems in dynamic conditions (Bransford & Schwartz, 1999; Chase & Simon, 1973). Whereas I observed this phenomenon, here labeled PMI, during information sessions at socially-organized AT events, AT experts interacting within the learning pod dynamics of the AT shelter actually displayed more divergent

thinking and adaptive problem solving. Socio-reflective interactions appeared to break this fixedness and broaden innovative experimentation by serving a role as catalyst to situated adaptability. Through dialectical reciprocal thinking and interaction (Ericsson & Lehmann, 1996) such as the social interactions that occur nightly in AT shelters, newcomers to a practice can effectively frame and use differences of perspective and technique as learnable resources for development (Hatano, 1996).

Adaptive expertise involves the marshalling of resources in situ to adapt to the demands of an individual's context (Alexander, 2003; Bransford & Schwartz, 1999). These skills of adaptation develop through the lessons reflectively gleaned from direct field experience. Immersion is key to situated learning, which is key to adaptive sensemaking. The intense, dense, and extended nature of the AT experience teaches and develops the individual in a manner not easily simulated through a collection of mini-hikes. Situated preparation along the AT was the most consistent recommendation from experts.

> Before you just completely rearrange your whole life to go out and spend six months on the trail, just to find out two weeks later you didn't even like hiking to begin with, go out and do some hikes. Find out if you like hiking because it's hard work, it can be unpleasant, (and) if you don't know how to have the right mental attitude, and if you don't have the right gear, or know how to use your gear properly, you will have a really bad time with it. ("Captain Courageous"-expert)

This sentiment for situated practice in legitimately taxing conditions was shared by "The Papa" (expert), whose developed sense of environmental competence led him to strongly believe that,

> It takes a certain kind of openness to the unexpected. You may not know how your own mindset and your own mentality will interact with the conditions until you are actually our there…You may be able to find patterns and certain commonalities you know, so the solution is to spend a week with someone in a relatively rugged part of the AT and see what it feels like so that way when you start at Springer you are not going to be shocked. ("The Papa"-expert)

Expert adaptation also includes the modification or creation of personalized technologies. Several experts that I met along the trail carried shelters, clothing, or tools that they had made themselves because no product existed or the existing tools failed to satisfy the hikers' needs. Expert AT hikers are proactive in their adaptations.

> I actually prefer sometimes to make my own gear. If I find something I have a need and I can't find it any gear manufacturer makes it, then I will figure out a way to make it myself or improvise. ("Captain Courageous"-expert)

As Bandura (1989) wrote, "human acquisition of specialized cognitive competencies relies increasingly on modeled expertise. In this process, the knowledge and reasoning strategies for sound judgment are gleaned from those who are highly knowledgeable and skilled in the relevant domain of activity." I found that the most effective manner for acquiring situated skills of adaptation, relevant to long-distance AT hiking, is to walk with, observe, and converse with the experienced AT experts who demonstrate qualities of cognitive flexibility and adaptability in context (Spiro, 1988,

1995). So, how might a community newcomer learn such adaptive wisdom? Through the informally shared stories and direct modeling and mentoring of experts, novices can accelerate their development of the expert tools of reflective decision-making and adaptation. Given what I found through this study, how might I approach an AT long-distance hike?

One of the simplest models for first-time long-distance hikers was offered by "Quest" (expert), who suggested, "Take (your) best shot at preparation by beginning with borrowed gear, then evaluate on the trail. Reflect while hiking and work things out on the trail." Her model supports all three of the RCA components: situate yourself on the trail with a minimum investment in gear, reflect upon your skills and gear while hiking, choose what techniques and/or gear you wish to imitate or obtain, then adapt the techniques and tools to your practice as you move along.

The development of RCA appears to be critical to overall AT trip satisfaction, as well as to post-trip learning transfer. It also involves the development of a mentality that focuses more on the individual's circle of influence than the circle of environmental concerns. This mentality, which is often challenging for novices to initially achieve, does develop through prolonged and reflective experience as "The Mamma" pointed out,

> You focus on what you have control over. I can make a schedule, and I can focus on my gear because that is something I have control over. I have no control over whether I can stand living with pain on a daily basis for six months because I don't know. Most people haven't lived with that before. It's too big. So people focus on little things they can control. ("The Mamma"-expert)

Summary

Over time and practice, expert AT long-distant hikers developed the requisite skills of situational adaptation through a tacit mingling of critical reflection and decision-making, a defined sense of personal agency, and context-dependent adaptivity. Balancing social and internal pressures and needs, an experienced hiker learns to develop RCA for a 'mind over mountain' mentality, a personally effective system (i.e., balancing the 'Happy Camper' and 'Happy Hiker' sides of their personality), and an interpersonal strength for social collaboration ("It's not the miles, it's the smiles!"). Again, the concept of RCA is the composite description of what differentiates experts AT hikers from novices.

Conclusion

This dissertation presents interpretive analysis of an informal learning environment in order to illuminate the emergence of valued sensemaking practices in a community of long-distance hikers. Data from interviews, observations, and documents represented a rich corpus for addressing the questions suggested by this study's theoretical framework. The analytical thrust confirms a communities of practice perspective, namely that knowledge negotiation and construction centered on the small groups that travel together, yet it additionally uncovers situated factors such as deprivation, metacognitive ignorance, and socio-reflective exchanges that both help and hinder the learning processes of AT long-distance hikers.

This study also found that small achieved-groups (i.e., organic and self-selected) assisted novices most in making sense of AT schematas and scripts. This discovery helped to clarify the roles that both small learning groups, as well as the overall AT community of practice, collaboratively play in individual hiker knowledge construction.

In both cases, the contributing roles of social sensemaking were ecological and developmental in nature. Studies by ecological psychologists (e.g., Gibson, 1986) examine the relationship between the knower and the known. My study examined not just the knower, but what was deemed worth knowing (i.e., community-based knowledge), by those in the know (i.e., AT experts). From a bottom-up perspective, the AT knowledge and skills considered necessary for legitimate practice were found to be diverse and changing.

It was, and continues to be, a tremendous challenge as educational researcher and ethnographer to capture the continuous processes of change inherent in the development of practitioner understanding and skill. Making sense of the dynamic role of a community in individual knowledge construction hides within "all the delicate, transparent webs from which we have woven ourselves." (Grossman, 1998, p. 69) This study afforded a deep understanding and emic-perspective on how concepts such as knowledge construction, situated and informal learning, and community of practice were contextualized in the specific activities of AT long-distance hiking. This study demonstrates how the abstract terms of the qualitative researcher relate to the concrete and lived experiences of the AT long-distance hiker situated in a community of practice.

Educational Contributions

This study was theoretically framed with a symbolic-interactionist perspective that focused on how individual, social, and contextual factors support or constrain what is learned and recognized by community members as legitimate practice (Blumer, 1986; Lave & Wenger, 1991; Mead, 1934; Stryker & Burke, 2000). Focusing on normalized learning processes, this study worked to understand how a sub-culture transmits

community-based knowledge across its membership. The AT long-distance hiking community of practice provided a unique context in which to study these processes.

There is a small but growing empirical base in the area of informal and community learning (Cook, 2006), and this study of the AT community of practice contributes to that body of work. Scholars have examined communities of practice in the workplace (Boud & Middleton, 2003; Wenger, McDermott, & Snyder, 2002), in academic environments (Barab et al., 2003; Baxter Magolda & King, 2004; Haworth & Conrad, 1997; Shapiro & Levine, 1999), and online (Preece, 2000; Rourke, Anderson, Garrison & Archer, 2001; Rovai, 2002), yet research that examines the processes that constitute situated learning is an area that remains undeveloped (Handley, Fincham, & Clark, 2006).

The social practices and knowing of communities have traditionally been studied by anthropologists and sociologists more than by psychologists (Greeno et al., 1996). Increasing research in this area is found in both the academic and private sectors as more questions are raised about practitioner knowledge and the role of practice (Chaiklin & Lave, 1996; Stuckey, 2001), the social life of information (Barab et al., 2003; Brown & Duguid, 1991), and the support of communities of practice emergent in the business world (Boud & Middleton, 2003; Haworth & Conrad, 1997; Wenger et al., 2002). Sensitive to the gap between theory and practice, researchers are making more conscious and focused examinations of the co-participative and situated nature of knowledge construction in communities of practice (Barton & Tusting, 2005; Wright, 2001). This study represents an effort to contribute to that growing body of literature.

This study of human behavior in context integrated the authentic complexities of AT life into the analytic framework of symbolic interaction and offers more ecological validity than other studies conducted in formal learning environments or laboratories. Though some criticize the knowledge-sharing limitations of a community of practice learning approach (Roberts, 2006), others point out benefits to modeling the richness of any cultural group which can facilitate fluid and heterogeneous knowledge transfer within and beyond itself (Handley, Fincham, & Clark, 2006). More organic than organized, recent studies of communities of practice suggest that they must be cultivated rather than crafted into existence (Wenger et al., 2002).

Traditional research on small group dynamics has been framed around collaboration efforts done in the same place, at the same or predictable time, for the same organization, and it is upon these features and assumptions that theories and research on groups have been shaped (Goodman & Wilson, 2000). An argument can be made that new theories and research strategies must be developed as society moves towards new forms of work and learning groups. With the mobility of world citizens and the availability of connective technologies, traditional socialization concepts and social learning mechanisms may not apply to new forms of groups and bounded communities. With similarities between the AT long-distance hiker and the modern project-based, mobile employee, comparisons across practitioners may provide new concepts of informal learning through community. Transferability of the principle findings of this research is possible through analytic comparisons with ethnographies of other self-selecting communities of practice.

Additional Conceptual Contributions

Beyond addressing the guiding research questions, this study has yielded important insights to the nature of situated social learning exchanges, tacit knowledge, and informal mentoring processes. These findings could contribute to the conceptualization and cultivation of educational strategies suitable to small group learning, and could also be systematically utilized to enhance learning in various informal, social, and dynamic environments.

Situated learning theories offer that cognition and learning are intrinsically and socially based and organized through communal networks and practices (Barton & Tusting, 2005). My work offers an adjacent perspective to current theories of situated approaches to learning and cognition that emerge from human activity. A challenge to cognitivist and individualized theories of mind and learning, the AT long-distance hiking community of practice uniquely taps collective group knowledge through socio-reflective and dialogic shelter exchanges and expert storytelling that acts as a "living curriculum" for the novice learners among them (Wenger, 1998).

The social activities of individuals and their relation to learning activities warrant continued empirical research (Livingston, 2001). What emerged from this study was an elaborate portrait of the interaction of individual and social, the informal and the more formal, the reflective and the reactive. Chawla (1992) offered that informal social places, such as the AT shelters in this study, provide three types of user satisfaction: "security, social affiliation, and creative expression and exploration" (p. 68). Meaningful knowledge construction on the AT occurred developmentally, experientially, and socially. A developmental process of cognitive equilibration unfolded as hikers initially

passed through a state of deprivation-assisted epistemic confusion, then were gradually nudged towards legitimate practice through social scaffolding and dialogic exchanges, to a subsequently advanced level of reflective and adaptive practices in situ.

Engagement with a specific community of practice interacts with an individual's knowledge construction within a broader social and discursive space (Barton & Tusting, 2005). The learner's legitimacy and empowerment comes as much through their individual development as a reflective practitioner, as it does through becoming a member of the community. Sharing of expert tacit knowledge and informal mentoring were shown here to be key factors for individual learning.

Learning through experience is understood through critical reflection with others who share this experience (Buysse, Sparkman, & Wesley, 2003; Dewey, 1938). Individuals interpret and define thoughts, feelings, and actions in terms of symbols and inner conversations, yet these significant symbols and the language used to communicate such understanding are not of the individual's invention, they are socially constructed (Blumer, 1986; Stryker & Burke, 2000). From time to time, though, those constructions should be critically examined for applicability and context appropriateness by individual community members, and in some cases re-constructed for relevance.

Uncritical monitoring of experts' personal learning histories and a lack of individuated pedagogy perpetuates a detrimental delivery cycle of inert information and unsupported personal opinion. Despite their best intentions, the wisdom of these experts is transferred more effectively through their stories and modeling, than through their advice. Questions are raised as to how experts can be more effective in teaching people to be wise, instead of inadvertently perpetuating poor suggestions for practice, devoid of

situated wisdom. The informal and situated dialectic exchanges that promote group reflection and timely adaptation within context better serve the interactional nature of individual and social knowledge construction that evolves within the AT long-distance hiking community.

Inherent reflexive practices and a tradition of assistive interventions are the unique attributes of this culture that help individuals grasp community-based knowledge. This study concluded that, with respect to knowledge construction, a more effective strategy for preparation is to assume an open, flexible, and reflective approach that permits the individual to make sense of AT long-distance hiking through authentic trail experiences that are scaffolded through small group interactions, and aided with the cognitive modeling and coaching of expert practitioners.

Critique

Individuals need responses from others during their construction of meaningful knowledge (Berger & Luckman, 1966; Roxa, 2005; Vygotsky, 1978), therefore the common and context-specific vocabulary developed by the AT community of practice, and the safe space for dialogue in the AT shelter was a social mechanism for shared understanding among community members. Through reciprocal interaction, factors of identity, community, and practice all contribute to the context where meaning is socially negotiated (Lave, 1997, Lemke, 1997; Wenger et al, 2002). Considering this perspective suggests a reformulation of how we view knowledge and learning, and how we study knowing-in-the-making (Barab, 2006). Wenger's social theory of learning through community (1998) offered a framework for understanding effective sensemaking that integrates practice, identity, and community as necessary components of learning and

knowing, yet Wenger's accounts failed to discuss the hierarchies, power relations, and conflicts implicit in the organizations examined. Educational researchers have examined communities as learning environments (Barab & Duffy, 2000; Lave, 1993, 1997; Lave & Wenger, 1991; Wenger et al., 2002), but examinations of organic, local, informal learning environments should continue.

Through extensive communication, members of a community of practice develop a common sense of purpose combined with a desire to share domain-related knowledge and expertise. Erickson and Kellogg (2001) argue that expertise is created, used, and disseminated in ways that are inextricably social. Therefore, any attempts to support the developmental process that transforms a learner's knowledge from a novice to expert level must take informal social factors into account.

Additionally, Barfield (2006) questions why there is limited research on mentoring and peer mentoring, as this seems to be one of the most concrete practices allied to theories of how specific members of an interest group seek to develop newer members into their roles within that group. "It is clear that both adults' informal education and their self-directed informal learning have been relatively little explored to date and warrant much fuller attention from those interested in comprehending the nature and extent of adult learning." (Livingstone, 2006, p.205)

Closing Comments

Based on these criticisms and observations, this study offers recommendations that are applicable to both the specific AT long-distance hiking community of practice and generally to contexts of situated, informal, and social learning. While there is an increasing trend to publish personal journals and hiking recommendations on the web, I

suggest this may only exacerbate the disconnection and frustration of novice hikers. Although more work is needed, there is some evidence to suggest that the more informational resources that are available through the web, and through a-contextual, matter-of-fact workshops, the greater the disconnection will grow. For improved new membership education, future community-organized AT events should re-evaluate these ineffective knowledge-sharing venues and practices.

Though the creation of learning community models in the classroom have been widespread in recent years (Stinson, 2004; Taylor, de Guerre, Gavin, & Kass, 2002), there has been little empirical research on the assessment of cultivation efforts, or of the barriers to such community development (Scott, 2003). Though most of the systematic studies have examined technology-mediated learning community environments (Davies et al., 2005; Stinson, 2004) or classroom interaction (Coulter-Kern, 2000, Hegler, 2004), few researchers are examining the learning processes and continually developing member expertise (Sternberg, 2005) occurring in informal communities of practice, as does this study. There is much to be gained if a 'two-way movement' could succeed in bringing informal learning and formal schooling closer together (Scribner & Cole, 1973; Stern & Sommerlad, 1999) without threatening to alter the nature of informal learning so substantially as to undermine many of its perceived benefits (Bjornavold, 2000).

More educational researchers are utilizing anthropological methods, such as the focused ethnography used here, to examine communities of practice as learning environments (Barab & Plucker, 2002; Lave, 1997; Wenger et al., 2002). As individuals move beyond routine learning processes into more complex challenges, they rely heavily on their community of practice as their primary knowledge resource (Allee, 1997, 2000).

The sharing of community-based knowledge advanced individual understanding beyond what was traditionally offered through book learning, as this study found in cases of small group socio-reflective conversations, and contextualized expert-novice interactions. Herein lies the potential of situated and informal knowledge construction processes mediated through a community of practice.

REFERENCES

Adkins, L. M. (1998). *The Appalachian Trail: A visitor's companion*. Birmingham, AL: Menasha Ridge Press.

Alexander, P., A. (2003). The development of expertise: The journey from acclimation to proficiency. *Educational Researcher, 32*(8), 10-14.

Allee, V. (1997). *The Knowledge Evolution: Expanding Organizational Intelligence* (Vol. 32). Chicago: Butterworth-Heineman.

Anderson, L. M, Blumenfeld, P., Pintrich, P. R, Clark, C. M., Marx, R. W., & Peterson, P. (1995). Educational psychology for teachers: Reforming our courses, rethinking our roles. Educational Psychologist, 30, 143-157.

Anfara, V. A., Brown, K. M., & Mangione, T. L. (2002). Qualitative analysis on stage: Making the research process more public. Educational Researcher, 31(7), 28-38.

AP. (2006, November 27). An Early-Warning Army of Foot Soldiers. *The New York Times,* p. 17.

Appalachian Trail Conservancy. (2006). History of the Appalachian Trail project. Retrieved from: http://www.atconf.org/History on May 04, 2006.

Arnould, E. J., & Price, L. L. (1993). "River Magic": Hedonic consumption and the extended service encounter. Journal of Consumer Research, 20, 24-45.

Astin, A. W. (1985). Achieving educational excellence: A critical assessment of priorities and practices in higher education. San Francisco: Jossey-Bass.

Astin, A. W. (1993). What matters in college? Liberal Education, 79(4), 4-15.

Astleitner, H. (2000). Kritisches denken im unterricht. Padagogisches Handeln, 4, 39-50.

Astleitner, H. (2002). Teaching critical thinking online. Journal of Instructional

Psychology, 29(2), 53-76.

Bacon, S. (1983). The Conscious use of metaphor in outward bound. Denver: Type-Smith of Colorado.

Bailey, C. A. (1996). The big picture: An overview of field research. A Guide to Research. Thousand Oaks, CA: Sage.

Baillargeon, R. (1994). How do infants learn about the physical world? Current Directions, 41, 133-140.

Bandura, A. (1969). Principles of behavior modification. New York: Holt, Rinehart, & Winston.

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Bandura, A. (2001). The changing face of psychology at the dawning of a globalization era. Canadian Psychology, 42, 12-23.

Barab, S. A., Barnett, M., & Squire, K. (2003). Developing an empirical account of a community of practice. The Journal of the Learning Sciences, 11 (4), 489-542.

Barab, S. A, Cherkes-Julkowski, M., Swenson, R., Garrett, S., Shaw, R., E, & Young, M. (1999). Principles of self-organization: Ecologizing the learner-facilitator system. *Journal of Learning Sciences, 8*, 349-390.

Barab, S., A, Hay, K. E., & Yamagata-Lynch, L. C. (2001). Constructing networks of activity: An in-situ research methodology. *Journal of Learning Sciences, 10*, 63-112.

Barab, S., A, & Plucker, J. A. (2002). Smart People or Smart Contexts? Cognition, ability, and talent development in a age of situated approaches to knowing and

learning. *Educational Psychologist, 37*, 165-182.

Barab, S.A, & Roth, W.M. (2006). Curriculum-Based Ecosystems: Supporting knowing from an ecological perspective. *Educational Researcher, 35*(5), 3-13.

Barton, D., & Tusting, K. (2005). *Beyond Communities of Practice: Language, Power and Social Context*. Cambridge: Cambride University Press.

Basso, K. H., & Selby, H. A. (1976). *Meaning in Anthropology*. Albuquerque: University of New Mexico Press.

Baxter Magolda, M. B. (1992). Knowing and reasoning in college: Gender-related patterns in students' intellectual development. San Francisco: Jossey-Bass.

Baxter Magolda, M. B. (2000). Teaching to promote intellectual and personal maturity: Incorporating students' worldviews and identities into the learning process. San Francisco: Jossey-Bass.

Baxter Magolda, M. B. (2001). Making their own way: Narratives for transforming higher education to promote self-development (1st ed.). Sterling, VA: Stylus.

Baxter Magolda, M. B. (2002). Developmental challenges of working with first-year student: Issues and challenges identified at Virginia Tech. Paper presented at the Making Their Own Way conference, Virginia Polytechnic Institute and State University: Blacksburg, VA. (January, 2002).

Baxter Magolda, M. B. (2002). Epistemological reflection: The evolution of epistemological assumptions from age 18 to 30. In B. Hofer, K. & P. Pintrich, (Eds.), Personal epistemology: The psychology of beliefs about knowledge and knowing (pp. 89-102). Mahwah, New Jersey: Lawrence Erlbaum.

Baxter Magolda, M. B. (2002). Helping students make their way to adulthood: Good

company for the journey. About Campus, 6(6), 2-9.

Baxter Magolda, M.B., & King, P. M. (2004). Learning Partnerships: Theory and models of practice to educate for self-authorship. Sterling, VA: Stylus.

Becker, H. S. (1986). Writing for social scientists: How to start and finish your thesis, book, or article. Chicago: The University of Chicago Press.

Becker, H. S. (1998). Tricks of the trade: How to think about your research while you're doing it. Chicago: The University of Chicago Press.

Bentley, M., E, Gittelsohn, J. G., Nag, M., Pelto, P., J, & Russ, J. (1992). Use of qualitative research methodologies for women's reproductive health data in India. In N. Scrimshaw, S & G. Gleason, R (Eds.), Rapid assessment procedures: Qualitative methodologies for planning and evaluation of health related programs (pp. 107-116). Boston: International Nutrition Foundation for Developing Countries.

Berger, K. (2002). *Hiking the triple crown: How to hike America's longest trails: Appalachian Trail, Pacific Crest Trail, Continental Divide Trail*. Seatle, WA: The Mountaineers Books.

Berger, P., & Luckmann, T. (1967). *The social construction of reality*. New York: Anchor.

Beyer, B. K. (1988). Developing a thinking skills program. Boston: Allyn and Bacon.

Beyer, B. K. (1990). What philosophy offers to the teaching of thinking. Educational Leadership, 47, 55-60.

Blumer, H. (1986). Symbolic interactionism: Perspective and method. Berkeley: University of California Press. (Original work published in 1969).

Boland, R. J. & Tenkasi, R. V. (1995). Perspective Making and Perspective Taking in Communities of Knowing. Organization Science, 6(4), 350-372.

Bolduc, V. (1973). *Backpacking: A pilot study of hikers* (Regional Project NEM-35): University of Connecticut.

Boud, D., & Middleton, H. (2003). Learning from others at work: Communities of practice and information learning. Journal of Workplace Learning, 15, (5), 194-202.

Bourdieu, P., & Wacquant, L. J. D. (1992). *An Introduction to Reflexive Sociology*. Chicago: University of Chicago Press.

Boyd, R. D. (1991). Personal transformations in small groups. London: Routledge.

Bransford, J. D., & Schwartz, B. (1999). Rethinking transfer: A simple proposal with multiple implications. *Review of Research in Education, 24*(61-100).

Braun, N. M. (2004). Critical thinking in the business curriculum. Journal of Education for Business, 79(4), 232-236.

Briggs, C. L. (1986). Learning how to ask: A sociolinguistic appraisal of the role of the interview in social science research. Cambridge: Cambridge University Press.

Brill, D. (1990). *As far as the eye can see*. Nashville: Rutledge Hill.

Bronfenbrenner, U. (1994). Ecological models of human development. In International Encyclopedia of Education (2 ed., Vol. 3, pp. 1643-1647). Stockholm, Sweden: Pergamon.

Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. Education Researcher, 18, 32-42.

Brown, J. S., & Duguid, P. (1991). Organizational learning and communities of practice: Toward a unified view of working, learning, and innovation, from http://www2.parc.com/ops/members/brown/papers/orglearning.html

Brown, L. L, & Kurpius, R. S. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and first-year college experiences and persistence. Journal of College Student Development, 38(1), 11.

Browne, M. N. (2000). Distinguishing features of critical thinking classrooms. Teaching in Higher Education, 5, 301-309.

Bruffee, K. (1993). *Collaborative Learning: Higher education, interdependence, and the authority of knowledge*. Baltimore: The Johns Hopkins University Press.

Bryson, B. (1998). A walk in the woods: Rediscovering America on the Appalachian Trail. New York: Broadway.

Buckingham, D. (1993). Reading audiences: Young people and the media. New York: Manchester University Press.

Buysse, V., Sparkman, K., & Wesley, P. (2003). Communities of practice: Connecting what we know with what we do. Council for Exceptional Children. 69 (3), pp. 263-277.

Cahill, S., E. (2001). *Inside social life: Readings in sociological psychology and microsociology* (3 ed.). Los Angeles: Roxbury.

Carter, G. L., Jr., & Kohl, F. E. (1968, February). A critical incident study of the professional adult educator (extension agricultural agent) [Abstract]. Paper presented at the National Seminar on Adult Education Research, Chicago, IL.

Retrieved from: AskERIC Service for Educators (Search ERIC Database, ERIC Document Reproduction Service No. ED017863): http://askeric.org/Eric. (CH No AC002155) on June 24, 2004.

Chaffee, J. (1995). The thinkers guide to college success. Boston: Houghton Mifflin.

Chaffee, J. (1997). Thinking Critically. Boston: Houghton Mifflin.

Chaiklin, S. J., & Lave, S. (1996). Understanding practice: Perspectives on activity and context. New York: Cambridge University Press.

Charmaz, K. (2003). Qualitative interviewing and grounded theory analysis. In J. Holstein & J. Gubrium (Eds.), Inside Interviewing: New lenses, new concerns (pp. 311-330). London: Sage.

Charon, J., M. (1995). *Symbolic Interactionism: An introduction, an interpretation, an integration.* (5 ed.). Englewood Cliffs, NJ: Prentice Hall.

Chase, J. (1989). Backpacker magazine's guide to the Appalachian Trail. Harrisburg, PA: Stackpole Books.

Chase, W. G., & Simon, H. A. (1973). Perception in chess. *Cognitive Psychology, 4*, 55-81.

Chickering, A. W. (1969). Education and identity. San Francisco: Jossey-Bass.

Chickering, A. W. (1974). Commuting versus resident students: Overcoming educational inequities of living off campus. San Francisco: Jossey-Bass.

Clark, J. H, & Biddle, A.W. (1993). Teaching critical thinking. Englewood Cliffs, NJ: Prentice Hall.

Coffey, A. & Atkinson, P. (1996). Making sense of qualitative data: Complementary research strategies. Thousand Oaks, CA: Sage.

Cohen, M. S, & Freeman, J. T. (1997). Improving critical thinking. Paper presented at the 1997 Command and Control Research and Technology Symposium, Washington, DC.

Cohen, M. S, Freeman, J. T, & Wolf, S. (1996). Meta-recognition in time stressed decision making: Recognizing, critiquing, and correcting. Human Factors, 38(2), 206-219.

Cole, M. (1985). The Zone of Proximal Development: Where culture and cognition create each other. In J. Wertsch (Ed.), Culture, communication, and cognition: Vygotskian perspectives. Cambridge: Cambridge University Press.

Colley, H., Hodkinson, P., & Malcom, J. (2002, November). *Non-Formal Learning: Mapping the conceptual terrain.* A Consultation Report presented at the Lifelong Learning Institute.

Cook, J. (2006). New patterns of power and participation? Designing ICT for informal and community learning. *E-Learning, 3*(1), 51-61.

Cook, J., & Smith, M. (2004). Beyond Formal Learning: Informal community eLearning. *Computers and Education, 43*(1-2), 35-47.

Coulter-Kern, M. (2000). *Using grounded theory to discover the differences between learning communities and freestanding classes*. Unpublished manuscript, Notre Dame, IN.

Covey, S., R. (1989). The 7 habits of highly effective people: Powerful lessons in personal change. New York: Simon & Schuster.

Creswell, J. (1998). Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, CA: Sage.

Cross, R., & Parker, A. (2004). *The Hidden Power of Social Networks: Understanding*

how work really gets done in organizations. Boston: Havard Business School Press.

Curran, J. D. (1995). The Appalachian Trail: How to prepare for and hike It. Highland City, FL: Rainbow Books.

Daloz, L. A. (1986). Effective teaching and mentoring: Realizing the transformational power of adult learning experiences. San Francisco: Jossey-Bass.

Daniel, B., McCalla, G., & Schwier, R. A. (2002, December 3-6). A process model for building social capital in virtual learning communities. Paper presented at the International Conference on Computers in Education, Auckland, New Zealand.

Davenport, T., & Prusak, L. (1998). Working Knowledge: How Organizations Manage What They Know. Cambridge, MA: Harvard Business School Press.

Davies, A., Ramsay, J., Lindfield, H., & Couperthwaite, J. (2005). Building learning communities: foundations for good practice. *British Journal of Educational Technology, 36*(4), 615-628.

Davis, G. A. (1992). Creativity is forever. Dubuque: Kendall Hunt.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative Research. In N.K. Denzin and Y.S. Lincoln (Eds.) Handbook of Qualitative Research (pp.1-17). Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (1994) Handbook of qualitative research. Thousand Oaks, CA: Sage.

Dewey, J. (1916). *Democracy and Education*. New York: Free Press.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the education process*. Boston: Heath.

Dewey, J. (1938). *Experience and Education*. New York: Collier.

Dey, I. (1993). Creating categories. In Qualitative data analysis (pp. 94-112). London: Routledge.

Dick, R. D. (1991). An empirical taxonomy of critical thinking. Journal of Instructional Psychology, 18, 79-92.

Doolittle, P. & Hicks, D. (2003). Constructivism as a theoretical foundation for the use of technology in social studies. Theory and Research in Social Education, 31(1), 72-104.

Douglas, J. D., & Waksler, F. C. (1982). *The Sociology of Deviance: An Introduction*. Boston: Little-Brown.

Doyle, W., E. (1981). *An Outdoor-challenge Experience and the Affective Development of College Students.* Unpublished Ph.D., University of Connecticut, Storrs.

Downey, G., Eccles, J., & Chatman, C., M (Eds.). (2005). *Navigating the future: Social identity, coping, and life tasks*. New York: Russell Sage Foundation.

Duguid, P. (2005). The Art of Knowing: Social and tacit dimensions of knowledge and the limits of the community of practice. *The Information Society, 21*(2), 109-118.

Duin, A. H., & Hansen, C. (1994). Reading and writing on computer networks as social construction and social interaction. In C. Selfe & D. Hilligoss (Eds.), Literacy and Computers: The complications of teaching and learning with technology (pp. 89-112). New York: Modern Language Association.

Duneier, M. (1999). Sidewalk. New York: Farrar, Straus, & Giroux.

Eggen, P. D., & Kauchak, D. P. (1997). Educational psychology: Windows on classrooms (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). Writing ethnographic fieldnotes.

Chicago: The University of Chicago Press.

Ennis, R. H. (1962). A concept of critical thinking. Harvard Educational Review, 32, 81-111.

Ennis, R. H. (1996). Critical thinking. Upper Saddle River, NJ: Prentice Hall.

Erikson, E. H. (1950). Childhood and society. New York: Norton.

Erickson, F. (1984). What makes school ethnography 'ethnographic'? Anthropology and Education Quarterly, 15, 51-56.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist, 49*, 725-747.

Erickson, T., & Kellogg, W. A. (2001). Knowledge communities: Online environments for supporting knowledge management and its social context. In M. Ackerman, P. Volkmar, & W. Volker (Eds.), Beyond knowledge management: Sharing expertise (pp. 5-10). Cambridge, MA: MIT Press.

Facione, P. (1998). Critical thinking: What it is and why it counts. Millbrae, CA.: California Academic Press.

Fasolo, B., McClelland, G., & Todd, P. (2006). Escaping the Tyranny of Choice: When fewer attributes makes choice easier. *Marketing Theory (in press).*

Fels, R. (1969). Hard research on a soft subject: Hypothesis-testing in economic education. Southern Economics Journal, 36(July), 1-9.

Ferranti, P., Leyva, C., & Goodkin, J. (1997). Hiking: The ultimate natural prescription for health and wellness. Dubuque, IA: Kendall/Hunt.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-40.

Fetterman, S. (1998). Ethnography (2nd ed.). Thousand Oaks, CA: Sage Publications.

Finster, D. C. (1991). Developmental instruction (Part 2): Application of the Perry model to general chemistry. Journal of Chemical Education, 68(9), 752-756.

Fisher, A. (2001). Critical thinking: An introduction. Cambridge, UK: Cambridge University Press.

Fisher, A., & Scriven, M. (1997). Critical Thinking: Its definition and assessment. University of East Anglia, UK: Edgepress and Center for Research in Critical Thinking.

Fisher, R. M. (1972). The Appalachian Trail. Washington, DC: National Geographic Society.

Fletcher, C. (2002). The complete walker IV (4th ed.). New York: Knopf.

Foley, G. (1995). Coming to grips with complexity in the formation of reflective practitioners. Canadian Journal of Studies in Adult Education, 9(2), 55-70.

Fontana, A. & Frey, J. (2003). Interviewing: The Art of Science. In N. Denzin (Ed.), Handbook of Qualitative Research (pp. 361-376). Thousand Oaks: Sage.

Fosnot, C., T. (1996). *Constructivism: Theory, perspectives, and practice*. New York: Teachers College Press.

Fuhrer, U. (1996). Behavior setting analysis of situated learning: The case of newcomers. In S. Chaiklin & J. Lave (Eds.), Understanding practice: Perspectives on activity and context (pp. 21-37). Cambridge, UK: Cambridge University Press.

Gabelnick, F., MacGregor, J., Matthews, R. S., & Smith, B. L. (1990). Learning communities: Creating connections among students, faculty, and disciplines. In R. Young (Ed.), New directions for teaching and learning (pp. 5-18). San Francisco:

Jossey-Bass.

Garrison, J. W. (1995). Deweyan pragmatism and the epistemology of contemporary social constructivism. American Educational Research Journal, 32, 716-741.

Garrison, J. W. (1997). Dewey and eros: Wisdom and desire in the art of teaching. New York: Teachers College Press.

Garvey, E., B. (1971). *Appalachian Hiker: Adventure of a lifetime*. Oakton, VA: Appalachian Books.

Gass, M. A. (1995). Book of metaphors (Vol. 2). Dubuque: Kendall/Hunt.

Geertz, C. (1973). The interpretation of cultures. New York: Basic Books.

Gelb, M. J. (1998). How to think like Leonardo da Vinci. New York: Dell.

Genzuk, M. (2003). A Synthesis of Ethnographic Research. Center for Multilingual, Multicultural Research Digital Papers Series. Los Angeles: Center for Multilingual, Multicultural Research, University of Southern California. Retrieved from: http://www.rcf.usc.edu/~genzuk/EthnographicResearch.pdf on April 04, 2004.

Gerberich, S. S. (2000). Care of homeless men in the community. Holistic Nursing Practice, 14(2), 21-28.

Gibson, J. J. (1986). *The ecological approach to visual perception*. Hillsdale, NJ: Lawrence Erlbaum.

Gildea, P., & Glucksberg, S. (1983). On understanding metaphor: The role of context. Journal of Verbal Learning & Verbal Behavior, 22, 577-590.

Glaser, E. (1941). An experiment in the development of critical thinking. New York: School of Education, Teachers' College, Columbia University.

Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. New York: Aldine De Gruyter.

Glaser, B. G., & Strauss, A. L. (1974), The Discovery of Grounded Theory: Strategies for Qualitative Research. Aldine. New York.

Glaser, R. (1984). Education and thinking: The role of knowledge. American Psychologist, 39, 93-104.

Goodman, P., S, & Wilson, J., M. (2000). Substitutes for Socialization and Exocentric Teams. *Research on Managing Groups and Teams, 3*, 53-77.

Gray, C. (1997). Design and assessment of chemistry projects for sixth year studies. Unpublished master's thesis, University of Glasgow, Glasgow, Scotland.

Green, J. (1983). Research on teaching as a linguistic process: A state of the art. In E. Gordon (Ed.), Review of research in education (pp.151-252). Washington, D.C.: American Educational Research Association.

Greenberg, K.H. (2000). Inside professional practice: A collaborative, systems orientation to linking dynamic assessment and intervention. In C.S. Lidz & J.G. Elliott (Eds.). Dynamic assessment: Prevailing models and applications (pp. 489-519). Amsterdam: JAI/Elsevier Science.

Greenlawn, S. A, & DeLoach, S. B. (2003). Teaching critical thinking with electronic discussion. Journal of Economic Education, 34(1), 36-52.

Greeno, J. G. (1998). The situativity of knowing, learning, and research. American Psychologist, 53(1), 5-26.

Greeno, J. G., Collins, A., & Resnick, L. B. (1996). Cognition and learning. In D. C. Berliner & R. C. Calfee (Eds.), Handbook of educational psychology (pp. 15-46).

New York: Macmillan.

Grinder, R. E. (1989). Educational psychology: The master science. In M. Wittrock, & F. Farley (Eds.), The future of educational psychology (pp. 3-18). Hillsdale, NJ: Lawrence Erlbaum.

Groves, R., & Belk, R.W. (2001), Bridge Climb: On postmodern rites of passage, Australian and New Zealand Marketing Academy Conference, Auckland, New Zealand, December, 2001.

Guba, E.G. (Ed.). (1990). The alternative paradigm dialogue. Newbury Park, CA: Sage.

Guba, E.G., & Lincoln, Y.S. (1989). Fourth generation evaluation. Newbury Park, CA: Sage.

Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N. K. Denzin, & Y.S. Lincoln, (Eds.), Handbook of qualitative research (pp. 105-117). Thousand Oaks, CA: Sage.

Hall, A. (2000). A journey north: One woman's story of hiking the Appalachian Trail. Boston: Appalachian Mountain Club Books.

Halpern, D. F. (1998). Teaching critical thinking for transfer across domains. American Psychologist, 53(4), 449-455.

Ham, S. H. (1992). Environmental interpretation: A practical guide for people with big ideas and small budgets. Golden, CO: Fulcrum.

Hammersley, M. (1980). Classroom ethnography. Educational analysis, (2), 46-75.

Hammersley, M., & Atkinson, P. (1995). Ethnography: Principles in practice (2nd ed.). London: Routledge.

Hanks, W. F. (1991). Foreword. In Situated learning: Legitimate peripheral participation

(pp. 13-24). New York: Cambridge University Press.

Harris, M. & Johnson, O. (2000). Cultural Anthropology (5th ed.). Needham Heights, MA: Allyn and Bacon.

Harvey, J.M. (1994). An investigation into the ways of encouraging the development of higher levels of cognitive skills in undergraduate biology students with reference to the Perry scheme of intellectual development. Unpublished master's thesis, Napier University, Edinburgh, Scotland.

Hatch, J. A. (2002). Doing qualitative research in education settings. Albany, NY: State University of New York Press.

Haworth, J.G., & Conrad, C.F. (1997). Emblems of quality in higher education: Developing and sustaining high-quality programs. Boston, MA: Allyn and Bacon.

Hegler, K., L. (2004). Assessing Learning Communities. *Assessment Update, 16*(6), 1-18.

Heimlich, J. E. (1999). Nonformal environmental education: Toward a working definition. CSMEE Bulletin, 93(3).

Hildreth, P., Kimble, C., & Wright, P. (2000). Communities of practice in the distributed international environment. Journal of Knowledge Management, 4(1), 27-37.

Hills, S. (2005). *Trail Magic*. Maggie Valley, NC: Thirsty Turtle Press.

Hirsch, E. D. (1996). Reality's revenge: Research and ideology. American Educator, 20(3), 31-46.

Hiss, T. (1990). *The Experience of Place*. New York: Knopf.

Hofer, B. K., & Pintrich, P. R. (1997). The Development of Epistemological Theories: Beliefs about knowing and their relation to learning. *Review of Educational Research, 67*(1), 88-140.

Hogle, J., & Sweat, M. (1996). Qualitative methods of evaluation research in HIV/AIDS prevention programming. Arlington, VA: Family Health International.

Hovland, I. (2003). Knowledge management and organizational learning: An international development perspective, from http://www.odi.org.uk/RAPID/Publications/Documents/WP224.pdf

Hutchins, E. (1993). Learning to navigate. In S. Chaiklin & J. Lave (Eds.), Understanding practice: Perspectives on activity and context (pp. 35-63). Cambridge: Cambridge University Press.

Ignelzi, M. (2000). Meaning-making in the learning and teaching process. In M. Baxter Magolda (Ed.), Teaching to promote intellectual and personal maturity: Incorporating students' worldviews and identities into the learning process. New Directions for Teaching and Learning (pp. 5-14). San Francisco: Jossey-Bass.

Imel, S. (2002). Metacognitive Skills for Adult Learning. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, College of Education, the Ohio State University.

Institute for Research on Learning. (2001). A new learning agenda: Putting people first. from (http://www.irl.org).

Iyengar, S., S, Lepper, M., R, & Ross, L. (1999). Independence from whom? Interdependence with whom? Cultural perspectives on ingroups versus outgroups. *Journal of personality and Social Psychology, 76*, 349-366.

Iyengar, S., S, Wells, R., E, & Schwartz, B. (2005). Doing Better but Feeling Worse: Looking for the best job undermines satisfaction. *Psychological Science, 17*(2), 143-150.

Jacoby, Jacob, Speller, Donald E., and Kohn, Carol A. (1974), "Brand Choice Behavior as a Function of Information Overload," *Journal of Marketing Research*, 11, 63-9.

John-Steiner, V. (1997). Notebooks of the mind: Explorations of thinking (Rev. ed.). New York: Oxford University Press.

Johnston, J., Anderman, E. M., Klenk, L., & Harris, D. (1994). Improving civic discourse in the classroom. Ann Arbor: Institute for Social Research, University of Michigan.

Jonassen, D. H. (1996). Computers in the classroom: Mindtools for critical thinking. Englewood Cliffs, NJ: Prentice Hall.

Karp, D. (1993). *Speaking of Sadness: Depression, Disconnection, and the Meaning of Illness*. New York: Oxford University Press.

Kegan, R. (1982). *The evolving self:Problems and process in human development*. Cambridge, MA: Harvard University Press.

Kegan, R. (2000). What "form" transforms?: A constructive-developmental approach to transformative learning. In J. Mezirow (Ed.), *Learning As Transformation* (pp. 35-70). San Francisco: Jossey-Bass.

Kim, B. (2001). Social Constructivism. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*: http://www.coe.uga.edu/epltt/SocialConstructivism.html.

King, P. M., & Kitchener, K. S. (1994). Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults. San Francisco: Jossey-Bass.

Kitayama, S., & Markus, H. R. (1996). Construal of self as cultural frame: Implications for internationalizing psychology. In N. R. Goldberger & J. B. Veroff (eds.), The

culture and psychology reader (pp. 366-383). New York: University Press.

Klein, G., A. (1993). A recognition-primed decision (RPD) model of rapid decision making. In G. Klein, A. J. Orasanu, R. Calderwood & C. Zsambok (Eds.), Decision making in action: Models and methods (pp. 138-147). Norwood, NJ: Ablex.

Klein, G. (2003). *The Power of Intuition: How to use your gut feelings to make better decisions at work*. New York: Currency.

Klein, G. (2003). *Intuition at Work: Why developing your gut instincts will make you better at what you do*. New York: Currency.

Knox, S., Peterson, D. A., Hess, S. A., & Hill, C. A. (1997). A qualitative analysis of client perceptions of the effects of helpful therapist self-disclosure in long-term therapy. Journal of Counseling Psychology, 44, 274-283.

Kohn, A. (1998). What to look for in a classroom…and other essays. San Francisco: Jossey-Bass.

Koper, R., & Tattersall, C. (2004). New directions for lifelong learning using network technologies. *British Journal of Educational Technology, 35*(6), 689-700.

Kraft, R. J., & Sakofs, M. (1985). The theory of experiential education. Boulder, CO: Association for Experiential Education.

Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. Journal of Personality and Social Psychology, 77(6), 1121-1134.

Kvale, S. (1996). Interviews: An introduction to qualitative research interviewing. Thousand Oaks, CA: Sage.

Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2004). Predictors of behavioral loyalty

among hikers along the Appalachian Trail. Leisure Sciences, 26, 99-118.

Lakoff, G., & Johnson, M. (1980). Metaphors we live by. Chicago: University of Chicago Press.

Langer, E. J. (1989). Mindfulness. Cambridge, MA: Perseus.

Latour, B., & Woolgar, S. (1986). Laboratory life: The construction of scientific facts (2nd ed.). Princeton, NJ: Princeton University Press.

Lave, J. (1988). Cognition in practice: Mind, mathematics and culture in everyday life. Cambridge University Press.

Lave, J. (1993) The practice of learning, in S. Chaiklen & J. Lave (Eds) Understanding Practice. Cambridge: Cambridge University Press.

Lave, J. (1996). Teaching as learning in practice. Mind Culture and Society, 3(3) 9-71.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York: Cambridge University Press.

LeCompte, M. & Preissle, J. (1993). Personal Computers in Qualitative Research. In Ethnography and Qualitative Design in Educational Research (pp. 279-314). New York: Academic Press.

LeCompte, M. D., & Schensul, J. J. (1999). Designing and conducting ethnographic research. Oxford: AltaMira.

Leedy, P. D. & Ormrod, J. E. (2001). Practical research: Planning and design (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Leming, J. S. (1998). Some critical thoughts about the teaching of critical thinking. Social Studies, 89(2), 61.

Lenning, O. T., & Ebbers, L. H. (1999). The powerful potential of learning communities:

Improving education for the future (ASHE-ERIC Higher Education Report Volume 26, No. 6). Washington, DC: The George Washington University.

Leonard, L. S. (1991). Storytelling tips for experiential educators. In J. Kielsmeier & R. J. Kraft (Eds.), Experiential Education in Schools and Higher Education (pp. 277-279). Boulder, CO: Association for Experiential Education.

Lesser, E. L., Fontaine, M. A., & Slusher, J. A. (2000). *Knowledge and Communities*. Boston: Butterworth-Heinemann.

Lett, J. (1990). A field guide to critical thinking. Skeptical Inquirer, 14(winter), 6.

Levin, J. R, & O'Donnell, A. M. (1999). What to do about educational research's credibility gaps? Issues in Education, 5, 177-229.

Levine, J. M., & Moreland, R. L. (2002). Group reactions to loyalty and disloyalty. In E. Lawler & S. Thye (Eds.), *Advances in group processes* (Vol. 19, pp. 203-228). Amsterdam: Elsevier Science.

Likona, T. (1976). Moral development and behavior. New York: Holt, Rinehart.

Lin, S., & Lin, F. (2006). *Towards an Ecological Perspective on the Evolution of Online Communities of Practice.* Paper presented at the International Conference on Systems Sciences, Hawaii.

Lincoln, Y., & Guba, E. (1985). Naturalistic inquiry. New York: Sage.

Littlefield, J. (2006). An Ethnographic Investigation of the Hunting Subculture. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.

Livingstone, D. W. (2006). Informal Learning: Conceptual distinctions and preliminary findings. In Z. Bekerman, N. Burbules, C & D. Silberman-Keller (Eds.), *Learning*

in places: The informal education reader. New York: Peter Lang.

Livingstone, D. W. (2001). *Adults' informal learning*. NALL Working paper #21-2001.

Livingstone, D. W. (2000). *Exploring the icebergs of adult learning: Findings of the first Canadian survey of informal learning practices*. Ontario Institute for Studies in Education. Retrieved September 22, 2005, from the World Wide Web: http://www.oise.utoronto.ca/depts/sese/csew/nall/res/10exploring.htm:

Lowrey, G. B. (1981). Benton MacKaye's Appalachian Trail as a cultural symbol. Unpublished doctoral dissertation, Emory University, Atlanta, GA.

Lundquist, R. (1999). Critical thinking and the art of making good mistakes, Teaching in Higher Education, 4, p.523-530.

Lustie, S. J. D. (1998). Metaphorical thinking: Constructing cognitive classrooms. Unpublished doctoral dissertation, University of Colorado at Denver, Denver.

MacKaye, B. (1927, January). Outdoor culture: The Philosophy of through trails. Paper presented at the New England Trail Conference, Boston, MA.

MacLennan, J. (2005). *Solitude and Sociability: The Social World of Long Distance Hikers on the Appalachian Trail.* Unpublished Dissertation, Rutgers University.

Madden, S. J. (Ed.). (2000). Service learning across the curriculum. New York: University Press of America.

Marchese, T. J. (1994). Foreward. In C. Schroeder, C, P. Mable & Associates (Eds.), Realizing the educational potential of residence halls (p. 5). San Francisco: Jossey-Bass.

Marcia, J. E. (1966). Development and validation of ego-identity status. Journal of Personality and Social Psychology, 3(5), 551-558.

Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology (pp. 159-187). New York: John Wiley.

Marcus, G. E. (1998). A report on two initiatives in experiments with ethnography a decade after the 'Writing Culture' critique. Anthropological Journal on European Cultures, 7(1), 9-24.

Marion, J., L. (2003). Camping impact mangement on the Appalachian National Scenic Trail. Harpers Ferry, WV: Appalachian Trail Conference.

Markus, H. R., & Kitayama, S. (1991). Culture and self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

Marschark, M., & Reed Hunt, R. (1985). On memory for metaphor. Memory & Cognition, 13(5), 413-424.

Marshall, I. (1998). Story line: Exploring the literature of the Appalachian Trail. Charlottesville, VA: University Press of Virginia.

Martinez, M. A., Sauleda, N., & Huber, G. (2001). Metaphors as blueprints of thinking about teaching and learning. Teaching and Teacher Education, 17, 965-977.

Maryland Department of Natural Resources. (2004). http://www.dnr.state.md.us/publiclands/at.html.

Maslow, A. (1943). A theory of human motivation. Psychological Review, 50, 370-396.

Maslow, A. (1954). Motivation and personality. New York: Harper.

Maslow, A. (1962). Toward a psychology of being. Princeton, NJ: Van Nostrand.

Maslow, A. (1971). The farther reaches of human nature. New York: The Viking Press.

Maslow, A., & Lowery, R. (Ed.)(1998). Toward a psychology of being (3rd ed.). New York: Wiley & Sons.

Matthews, R. (1994). Enriching Teaching and Learning through Learning Communities. In Teaching and Learning in the Community College. T. O'Banion (Ed). Washington, DC: American Association of Community Colleges.

Matthews, R. (1986). "Learning Communities in the Community College." Community College Technical, and Junior College Journal. 57 (2), 44-47.

Maxwell, J. A. (1996). *Qualitative Research Design: An interactive approach*. Thousand Oaks, CA: Sage.

Mayer, R. E. (2001). What good is educational psychology? The case of cognition and instruction. Educational Psychologist, 36(2), 83-88.

Maykut, P. & Morehouse, R. (1994). Beginning qualitative research: A philosophic and practical guide. London: The Falmer Press.

McCaleb, S. P. (1994). Building communities of learners: A collaboration among teachers, students, families, and community. New York: St. Martin's Press.

McCracken, G. (1988). The Long Interview (Vol. 13). London: Sage.

McDermott, R. (1976). Kids make sense: An ethnographic account of the interactional managment of success and failure in one first grade classroom. Unpublished doctoral dissertation, Stanford University, Stanford, CA.

McDermott, R., & O'Dell, C. (1999). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management, 5*(1), 76-85.

McGivney, V. (1999). *Informal Learning in the Community: A trigger for change and development*. Leicester: National Institute of Adult and Continuing Education.

McGrath, G. (2000). Trail diversity? Appalachian Trailway News, 61, 4.

McMillan, J. H. (1987). Enhancing college students' critical thinking: A review of

studies. Research in Higher Education, 29, 3-29.

Mead, G. H. (1934). Mind, self, and Society from the standpoint of a social behaviorist. Chicago: University of Chicago Press.

Meiklejohn, A. (1932). The Experimental College. New York: Harper & Row.

Mercer, N. (2000). *Words and Minds: How we use language to think together*. London: Routledge.

Merriam, S. (2002). *Qualitative research in practice: Examples for discussion and analysis.* San Francisco, CA: Jossey Bass.

McGivney, V. (1999). *Informal Learning in the Community: A trigger for change and development*. Leicester: National Institute of Adult and Continuing Education.

Merriam, S. (2002). Qualitative research in practice: Examples for discussion and analysis. San Francisco, CA: Jossey Bass.

Merriam, S., B, Courtney, B., & Baumgartner. (2003). On Becoming A Witch: Learning in a marginalized community of practice. *Adult Education Quarterly, 53*(3), 170-188.

Mezirow, J. (1991). Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning. San Francisco: Jossey-Bass.

Mezirow, J. (1991). Transformative dimensions of adult learning. San Francisco: Jossey-Bass.

Miles, H. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oaks: Sage.

Moran, C. D. (2003). Nourishing and thwarting effects of contextual influences upon mulitple dimensions of identity: Does gender matter? NASPA Journal, 40(3), 113-

131.

Morse, J. (1991). On the evaluation of qualitative proposals. Qualitative Health Research, 1(2), 147-151.

Morse, J., & Richards, L. (2002). Read me first for a user's guide to qualitative methods. Thousand Oaks, CA: Sage.

Moscardo, G. (1999). Making visitors mindful: Principles for creating quality sustainable visitor experiences through effective communication. Champaign, IL: Sagamore Publishing.

Moss, B. J. (1992). Ethnography and composition: Methods and methodology in composition research. In G. Kirsch & P. A. Sullivan (Eds.), Methods and methodology in composition research (pp.153-171). Carbondale, IL: Southern Illinois.

Mueser, R. (1998). Long-distance hiking: Lessons from the Appalachian Trail. Camden, ME: Ragged Mountain Press.

Nespor, J. (2002). Ontology. Retrieved from: www.tandl.vt.edu/nespor/ontology.htm on April 11, 2004.

Neuman, L. (1994). Social research methods: Qualitative and quantitative approaches (2nd ed.). Needham, MA: Allyn and Bacon.

Newmann, F. M. (1991). Promoting higher-order thinking [Special Issue]. Theory and Research in Social Education, 19(4), 324-340.

Newman, P., Manning, R., Bacon, J., Graefe, A., & Kyle, G. (2003). An evaluation of Appalachian Trail hikers' knowledge of minimum impact skills and practices. *International Journal of Wilderness, 9*(2), 34-38.

Norris, S., & Ennis, R. H. (1989). Evaluating critical thinking. Pacific Grove, CA: Critical Thinking Press and Software.

O'Donnell, A. M, & Levin, J. R. (2001). Educational psychology's healthy growing pains. Educational Psychologist, 36(2), 73-82.

Ohanian, S. (1999). One size fits few: The folly of educational standards. Portsmouth, NH: Heinemann.

Oldenburg, R. (1999). *The Great Good Place: Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. New York: Marlowe & Company.

Oliver, D., & Shaver, J. (1966). Teaching public issues in the high school. Boston: Houghton Mifflin.

Ormond, J. E. (1995). Educational psychology: Principles and applications. Englewood Cliffs, NJ: Merrill.

Orr, J. E. (1996). Talking about machines: An ethnography of a modern job. Ithaca, NY: Cornell University Press.

Ortony, A. (1993). Metaphor and thought (2nd ed.). New York: The Press Syndicate of the University of Cambridge.

Owen, J. (1998). The thruhiking papers [web page and electronic journal]. Retrieved from: http://trailwise.circumtech.com on December 10, 2004.

Paris, S. G, & Paris, A. H. (2001). Classroom applications of research on self-regulated learning. Educational Psychologist, 36(2), 89-101.

Pascarella, E. T, & Terenzini, P. T. (1991). How college affects students: Findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Pascarella, E. T, & Terenzini, P. T. (1998). Studying college students in the 21st century: Meeting new challenges. Review of Higher Education, 21, 162.

Pascarella, E. T., Terenzini, P. T, & Blimling, G. S. (1994). The impact of residential life on students. In C. Schroeder, C. P. Mable, & Associates (Eds.), Realizing the educational potential of residence halls. San Francisco: Jossey-Bass.

Pascarella, P. (1997). The secret of turning thinking into action. Management Review, 86(5), 38-39.

Patton, M. Q. (1990). Qualitative evaluation and research methods (2nd ed.). Newbury Park, CA: Sage.

Paul, R., & Elder, L. (2003). The thinker's guide to how to read a paragraph and beyond: The art of close reading. Dillon Beach, CA: Foundation for Critical Thinking.

Pelz, W. (2003). Student-led discussions enhance critical thinking. Online Classroom, August, 4-6.

Perret-Clermont, A. N. (1993). What is it that develops? Cognition and Instruction, 11, 197-205.

Perry, W., G. (1970). *Forms of intellectual and ethical development in the college years*. New York: Holt, Rinehardt, and Winston.

Peters, M. (2000). Does constructivist epistemology have a place in nurse education? Journal of Nursing Education, 39(4), 166-170.

Piaget, J. (1959). The language and thought of the child (M. Gabain, Trans. 3rd ed.). New York: W.W. Norton.

Piaget, J. (1971). Psychology and epistemology: Towards a theory of knowledge (A. Rosin, Trans.). New York: Viking.

Piaget, J. (1980). Adaptation and intelligence: Organic selection and phenocopy (S. Eames, Trans.). Chicago: University of Chicago Press.

Piaget, J. (1985). *The equilibrium of cognitive structures: The central problem of intellectual development* (T. Brown & K. Thampy, Trans.). Chicago: University of Chicago Press.

Pierce, W. (1998). Understanding students' difficulties in reasoning: Perspectives from several fields. Largo, MD: Prince George's Community College.

Pierce, W. (2000). Understanding students' difficulties in reasoning: The perspectives from research in learning style and cognitive styles. Largo, MD: Prince George's Community College.

Pithers, R. T, & Soden, R. (2000). Critical thinking in education: A review. Educational Research, 42, 237-249.

Preece, J. (2000). Online communities: Designing usability, supporting sociability. New York: Wiley and Sons.

Preece, J. (in press). Etiquette and trust drive online communities of practice. Journal of Universal Computer Science.

Powerful partnerships: A shared responsibility for learning. (1998). Washington, DC: American Association of Higher Education, American College Personnel Association, & National Association of Student Personnel Administrators.

Prus, R. (1996). Symbolic interaction and ethnographic research: Intersubjectivity and the study of human lived experience. Albany, NY: State University of New York Press.

Pugh, J. (2003). *Motivation and the Appalachian Trail Thru-Hiker.* Rutgers, Camden, NJ.

Resnick, L. B, & Resnick, D. P. (1991). Assessing the thinking curriculum: New tools for

education reform. In B. Gifford, R. O'Connor, & M. O'Conner (Eds.), Changing assessment: Alternative views of aptitude, achievement, and instruction (pp. 37-75). Boston: Kluwer.

Rivers, W. (2001). Autonomy at all costs: An ethnography of metacognitive self-assessment and self-management among experienced language learners. Modern Language Journal, 85(2), 279-290.

Rogers, C. (1942). *Counseling and psychotherapy*. Boston: Houghton Mifflin Company.

Rogers, C. (1951). *Client-centered therapy*. Boston: Houghton Mifflin Company.

Rogers, C. (1961). *On becoming a person.* Boston: Houghton Mifflin Company.

Rogers, C.R. (1969). *Freedom to learn*. Columbus, OH: Merrill.

Rogers, C.R., & Freiberg, H. J. (1994). *Freedom to learn* (3rd ed.). Columbus, OH: Merrill/Macmillan.

Rogoff, B. (1990). Apprenticeships in thinking: Cognitive development in the social context. New York: Oxford University Press.

Rogoff, B., Goodman-Turkanis, C., & Bartlett, L. (2001). Learning together: Children and adults in a school community. New York: Oxford University Press.

Rohlfs, J. H. (2001). *Bandwagon Effects in High-Technology Industries*. Cambridge, MA: MIT Press.

Ross, L., & Nisbett, R. E. (1991). *The person and the situation: perspectives of social psychology*. Philadelphia: McGraw-Hill.

Rossman, G., B, & Rallis, S., F. (2003). *Learning in the Field: An introduction to qualitative research*. Thousand Oaks: Sage Publications.

Rourke, L., Anderson, T., Garrison, D. R., & Archer, W. (2001). Assessing social

presence in asynchronous, text-based computer conferencing. Journal of Distance Education, 14(3), 51-70.

Rovai, A. (2002). Building sense of community at a distance. International Review of Research in Open and Distance Learning, 3(1), 7-29.

Rubinstein, R. & Parmelee, P. (1992). Attachment to place and the representation of the life course by the elderly. In I. Altman & S. Low (Eds.), *Place attachment.* New York: Plenum Press.

Ruggiero, V. R. (1998). *The art of thinking: A guide to critical and creative thought*. New York: Addison-Wesley.

Rush, L. S. (2000). Multiliteracies and design: Multimodality in the Appalachian Trail thru-hiking community. Unpublished doctoral dissertation, University of Georgia, Athens, GA.

Rush, L., S. (2003). Taking a broad view of literacy: Lessons from the Appalachian Trail thru-hiking community. Reading Online, 6(7), 1-20.

Russo, J. E. (1974), "More Information is Better: A Reevaluation of Jacoby, Speller and Kohn," *Journal of Consumer Research*, 1, 1-20.

Ryan, D. (2002). *Long Distance Hiking on the Appalachian Trail for the Older Adventurer*. Albuquerque, NM: New Mountain Books.

Santrock, J. W. (2004). *Educational psychology* (2nd ed.). Boston: McGraw-Hill.

Scheffler, I. (1973). *Reason and teaching*. New York: Bobbs-Merrill.

Scheideberg, D. & Hunter, L. (1999). Education exchange. Service learning within a midwifery curriculum. Journal of Nurse Midwifery, 44(2), 151-153.

Schouten, J. W., & McAlexander, J.H. (1995). Subcultures of consumption: An

ethnography of the new bikers. *The Journal of Consumer Research*, 22(1), 43-61.

Schram,T. H. (2003). *Conceptualizing qualitative inquiry*. Upper Saddle River, NJ: Pearson.

Schratz, M. & Walker, R. (1995). *Research as social change*. New York: Routledge.

Schraw, G. (1998). Promoting general metacognitive awareness. Instructional Science, 26(1-2), 113-125.

Schroeder, C. C, & Hurst, J. C. (1996). Designing learning communities that integrate curricular and cocurricular experiences. Journal of College Student Development, 37(2), 174-181.

Schroeder, C. C., Mable, P., & Associates. (1994). *Realizing the educational potential of residence halls*. San Francisco: Jossey-Bass.

Schwartz, B. (2004). *The paradox of choice: Why more is less*. New York: Ecco.

Schwartz, B. (2004). The tyranny of choice. *Scientific American, 290,* 70-76.

Scott, W. R. (2003). 'Institutional carriers: reviewing modes of transporting ideas over time and space and considering their consequences'. *Industrial and Corporate Change*, 12, 879–94.

Scribner, S., & Cole, M. (1973). Cognitive Consequences of Formal and Informal Education. *Science, 182*, 553-559.

Scriven, M., & Paul, R. (1992). Critical thinking defined. Handout given at Critical Thinking Conference. Atlanta, GA.

Sedlak, C. A, Doheny, M. O, Panthofer, N., & Anaya, E. (2003). Critical thinking in students' service learning. College Teaching, 51(3), 99-103.

Setzer, L. (2001). *A season on the Appalachian Trail* (2nd ed.). Birmingham, AL:

Menasha Ridge Press.

Shakotko, D., & Walker, K. (1999). The values of educational administration. In P. Begley & P. Leonard (Eds.), Poetic Leadership (pp. 201-222). London: Falmer Press.

Sharp, J. (1997). Key hypotheses in supporting communities of practice, from http://www.tfriend.com/hypothesis.htm

Sharples, M., Chan, T., Rudman, P., and Bull, S. (2004) Evaluation of a Mobile Learning Organizer and Concept Mapping Tools. In J. Attewell & C. Savill-Smith (eds.) *Learning with Mobile Devices: Research and Development*. London: Learning and Skills Development Agency, pp. 139-144.

Sharples, M., Taylor, J., & Vavoula, G. (2005) Towards a Theory of Mobile Learning. In H. van der Merwe & T. Brown, *Mobile Technology: The Future of Learning in Your Hands*, mLearn 2005 Book of Abstracts, 4th World Conference on mLearning, Cape Town, 25-28 October 2005. Cape Town: p. 58.

Shapiro, N. S. & Levine, J. H. (1999). *Creating learning communities: A practical guide to winning support, organizing for change, and implementing programs.* San Francisco: Jossey-Bass.

Siehl, C., Bowen, D., E, & Pearson, C. M. (1993). Service encounters as rites of integration: An information processing model. *Organizational Science, 3*(November), 537-555.

Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics, 69*, 99-118.

Smith, F. (1988). *Joining the literacy club*. Portsmouth, NH: Heinemann.

Solnit, R. (2000). *Wanderlust: A history of walking*. New York: Viking.

Spradley, J. (1980). *Participant observation*. New York: Holt, Rinehart and Winston.

Spradley, J. (1979). *The ethnographic interview*. New York: Holt, Rinehart and Winston.

Spyker, S. (2002). *Spirituality and technology on the Appalachian Trail: A study in frontiers.* Unpublished doctoral dissertation, Ball State University, Muncie, IN.

Stinson, J. (2004). A continuing learning community for graduates of an MBA program: The experiment at Ohio University. In T. M. Duffy & J. R. Kirkley (Eds.), Learner-centered theory and practice in distance education: Cases from higher education (pp. 167-182). Mahwah, NJ: Lawrence Erlbaum Associates.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded Theory procedures and techniques*. London: Sage.

Stryker, S., & Burke, P., J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly, 63*, 284-297.

Spiro, R. J., Coulson, R. L, Feltovich, P. J, & Anderson, D. K. (1988). Cognitive flexibility: Advanced knowledge acquisition in ill-structured domains. Paper presented at the Tenth Annual Conference of the Cognitive Science Society (pp.375-383). Hillsdale, NJ: Erlbaum.

Spiro, R. J., Feltovich, P. J, Jacobson, M. L, & Coulson, R. L. (1995). Cognitive flexibility, constructivism, and hypertext: Random access instruction for the advanced knowledge acquisition in ill-structured domains. Retreived from: http://www.ilt.columbia.edu/ilt/papers/Spiro.html on April 11, 2004.

Spyker, S. (2002). Spirituality and technology on the Appalachian Trail: A study in frontiers. Unpublished doctoral dissertation, Ball State University, Muncie, IN.

Stark, J. S, & Lattuca, L. R. (1997). *Shaping the college curriculum: Academic plans in action*. Needham Heights, MA: Allyn & Bacon.

Stewart, T. A. (1997). *Intellectual Capital: The New Wealth of Organizations*: Doubleday.

Strathern, M., (2000). *Audit Cultures: Anthropological Studies in Accountability, Ethics and the Academy*. London: Routledge.

Strauss, A., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage.

Stryker, S. (1980). *Symbolic Interactionism: A social structural view*. Reading, MA: Benjamin-Cummings.

Stryker, S., & Statham, A. (1985). Symbolic interaction and role theory. In G. Lindzey & E. Aronson (Eds.), *Handbook of Social Psychology* (3 ed., Vol. 1, pp. 311-378). New York: Random House.

Stryker, S., & Burke, P., J. (2000). The past, present, and future of an identity theory. Social Psychology Quarterly, 63, 284-297.

Swanson, H. L., & Lussier, C. (2001). A selective synthesis of the experimental literature on dynamic assessment. *Review of Educational Research, 71*, 321-363.

Taylor, M., de Guerre, D., Gavin, J., & Kass, R. (2002). Graduate Leadership Education for Dynamic Human Systems. *Management Learning, 33*(03), 349-369.

Tharp, R., & Gallimore, R. (1988). R*ousing minds to life: Teaching, learning, and schooling in social context*. Cambridge, England: Cambridge University Press.

Thompson, H. (1997). Ignorance and Ideological Hegemony: A Critique of Neoclassical Economics. Journal of Interdisciplinary Economics, 8(4), 291-305.

Thoreau, H. D. (1854). *Walden*. Boston: Houghton Mifflin.

Thorne, S. (1997). The art (and science) of critiquing qualitative research. In J. Morse (Ed.), Completing a qualitative project: Details and dialogue (pp. 117-132). Thousand Oaks, CA: Sage.

Tomasello, M. (1999). *The cultural origins of human cognition.* Cambridge, MA: Harvard University Press.

Tosey, P. (2002). The learning community: A design for teaching and learning. In P. Jarvis (Ed.), The theory and practice of teaching (pp. 143-158). London: Kogan Page.

Traweek, S. (1988). *Beamtimes and lifetimes: The world of high energy physics*. Cambridge, MA: Harvard University Press.

Tudge, J. (2000). Theory, method, and analysis in research on the relations between peer collaboration and cognitive development. Journal of Experimental Education, 69, 98-112.

Turner, V., W. (1973). The Centre out There: Pilgrim's Goal. *History of Religions, 12*, 191-230.

Turner, V., W. (1974). *Dramas, Fields, and Metaphors: Symbolic Action in Human Society*. Cornell, NY: Cornell University Press.

Turrentine, C. (2001). What we have learned about Learning Communities at Virginia Tech. Office of Planning and Assessment, Blacksburg, VA: Virginia Tech.

Tversky, A., & Kahneman, D. (1979). Judgment under Uncertainty: Heuristics and Biases. *Science, 185*(4157), 1124-1131.

Upcraft, M. L. (1993). Translating theory in practice. In M. Barr (Ed.), The handbook of

student affairs administrators (pp. 438-443). San Francisco: Jossey-Bass.

Uphoff, N. (2000). Understanding Social Capital: Learning from the Analysis of Experience of Participation. In I. Serageldin & P. Dasgupta (Eds.), *Social Capital: A Multifaceted Perspective* (pp. 215-249). Washington, DC: World Bank.

Van Gelder, T. (2000). The efficacy of undergraduate critical thinking courses. Retreived from: http://www.philosophy.unimelb.edu.au/reason/ on April 17, 2004.

van Gennep, A. (1960). *The rites of passage* (M. Vizedom, B & G. Caffee, L, Trans.). Chicago: University of Chicago Press.

Vaughn, J. (2005). Community development research: Merging (or submerging) communities of practice? *Community Development Journal, 41*, 50-64.

von Krough, G., Ichijo, K., & Nonaka, I. (2000). *Enabling Knowledge Creation: How to unlock the mystery and tacit knowledge and release the power of innovation*. Oxford: Oxford University Press.

Vygotsky, L.S. (1978). Mind and society: The development of higher mental processes. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). Thought and language. Cambridge, MA: MIT Press.

Walters, K. S. (1994). Re-thinking reason: New perspectives in critical thinking. Albany, NY: State University of New York Press.

Warren, K., Sakofs, M., Jasper, S., & Hunt, J. (Eds.). (1995). The theory of experiential education (3rd ed.). Dubuque: Kendall/Hunt.

Waterman, L., & Waterman, G. (1989). Forest and Crag: A history of hiking, trailblazing, and adventure in the northeast mountains. Boston: Appalachian Mountain Club.

Watson, G. B., & Glaser, E. M. (1980). WGCTA Watson-Glaser critical thinking

appraisal manual: Forms a and b. San Antonio: The Psychological Corporation.

Weick, K. (1995). Sensemaking in organizations. Thousand Oaks, CA: Sage.

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge, MA: Cambridge University Press.

Wenger, E., McDermott, R., and Snyder, W. (2002). Cultivating communities of practice: A guide to managing knowledge. Cambridge, MA: Harvard Business School Press.

Wheatley, M. (2002). Supporting pioneering leaders as communities of practice: How to rapidly develop new leaders in great numbers, from http://www.berkana.org/resources.html

White, L., A. (1949). *The science of culture, a study of man and civilization*. New York: Farrar-Straus.

Winters, K. (2001). *Walking Home: A woman's pilgrimage on the Appalachian Trail*. Los Angeles: Alyson Publications.

Witherell, C.,& Noddings, N. (1991). Stories lives tell: Narrative and dialogue in education. New York: Teachers College Press.

Wolcott, H., F. (2001). Writing up qualitative research. Thousand Oaks, CA: Sage.

Wolf-Wendel, L. E. (1998). Models of excellence: The baccalaureate origins of successful European-American women, African-American women, and latinas. Journal of Higher Education, 69, 178.

Woolfolk, A.E. (2001). Educational Psychology (8th ed.). Boston: Allyn & Bacon.

Wright, R. (2001). Shaping a professional identity. Journal of Educational Thought, 35(2), 205-208.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M.

Boekarts, P. Pintrich, R. Zeinder, & M. Zeidner (Eds.), Self-regulation: Theory, research, and applications (pp. 13-39). Orlando, FL: Academic.

Zsambok, C., E, & Klein, G. (Eds.). (1997). *Naturalistic Decision Making*. Mahwah, NJ: Lawrence Erlbaum Associates.

APPENDIX A

Research Participant Pseudonyms and Demographics

Participant[R]	Age Bracket	Sex	Exper. Level[4]	Role Status[5]
Alaskan Aviator	70's	Male	Expert	Affiliated
Aristotle	60's	Male	Novice	User
Beckham	30's	Male	Novice	User
Blue Man One[R]	20's	Male	Expert	Leader
Blue Moon	40's	Male	Expert	Affiliated
Captain Courageous	40's	Male	Expert	Leader
Cherokee	60's	Male	Expert	Maintainer
Chewbacca	20's	Male	Novice	User
Dancin' Cub	20's	Male	Expert	Affiliated
Flip Flopper[R]	50's	Male	Expert	Leader
Flower	20's	Female	Novice	User
Ford F-150	60's	Male	Expert	Leader
Gigabyte[R]	30's	Male	Expert	Leader
Giggles	20's	Female	Novice	User
Hollanderin	50's	Female	Novice	User
Hyper-Drive	40's	Male	Novice	User
Kind King	30's	Male	Expert	Affiliated
Maryland Mack	50's	Male	Expert	Leader
Movie Girl	30's	Female	Novice	Maintainer
Othello	30's	Male	Expert	Affiliated
Pathfinder	40's	Female	Novice	User
Presta-Digit	30's	Male	Novice	User
Pub Grub	20's	Male	Novice	User
Quest	50's	Female	Expert	Affiliated
Rasta-B	20's	Female	Expert	Affiliated
Star Light	50's	Female	Expert	Leader
Starving Musician	20's	Male	Expert	Affiliated
Steward Little	20's	Male	Expert	Affiliated
Swiss Army Watch	60's	Male	Expert	Maintainer
The Mama	40's	Female	Expert	Leader
The Pappa	60's	Male	Expert	Leader
Time Out	50's	Male	Expert	Leader
Viking[R]	30's	Male	Expert	Leader
Water Buffalo[R]	20's	Male	Novice	User

[4] Novices have hiked over 200 miles, but less than 2,000; experts have completed over 2,000 AT miles
[5] Commitment Continuum ascends from a low level user, to affiliate, to maintainer, to the high level leader.
[R] Indicates that a participant was interviewed over more than one season (follow-up discussions).

APPENDIX B

Glossary of Community-Specific Terms[6]

AT is the abbreviation for Appalachian Trail

AYCE is the abbreviation for “all you can eat.”

AYH is the abbreviation for American Youth Hostels.

Barebacking is a term suggested as a replacement for the term "slackpacking", to refer simply to thru-hiking for a while without a backpack.

Blazes are painted, 2-inch by 6-inch, vertical white rectangles that are placed at eye height on trees and other objects, in both directions, to mark the official route of the Trail. Side trails are marked with blue blazes.

Blowdown is a tree or shrub that has fallen across the Trail.

Blue-blazer is a long-distance hiker who substitutes a section of blue-blazed trail for a white-blazed section between two points on the Trail.

Cache is a supply of food and/or supplies hidden for later retrieval.

Cairn is a heap of stones, set up to look artificial, that serves to mark the Trail route in dense vegetation or above treeline.

Dodgeways are V-shaped stiles through fences, used where the Trail passes through livestock enclosures.

Double blaze refers to two blazes, one placed two inches above the other, at places requiring hiker alertness and usually just before a turn in the Trail. In some areas, the top blaze is offset in the direction of the turn.

End-to-ender is an alternative term for 2,000-Miler.

Flip-flopper is a thru-hiker who begins at one terminus of the Trail, hikes toward the other terminus, then jumps ahead to the other terminus, and hikes back toward the initial terminus to complete his or her thru-hike at the jumping point.

Freedom hiking is a term suggested by a shuttle provider as a replacement for the term "slackpacking", mainly as a way of encouraging people to use the shuttle services.

Gear head is a thru-hiker who has hiked over a thousand miles or so and still talks about nothing but gear.

Lean-to is another word for shelter, used primarily in New England.

Long-distance hiker is a somewhat indeterminate term applied to anyone who is hiking more than a few weeks, and who usually has to resupply at least once during his or her hike; often used interchangeably with the term thru-hiker.

Maintainer is a volunteer who participates in the organized Trail-maintenance programs of the ATC and its member clubs.

NPS is the abbreviation for National Park Service.

National scenic trail is the official designation for one type of trail protected by the National Scenic Trails System Act of 1968.

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[6] Compiled by Dan "Wingfoot" Bruce (2001)

Power hiker is a hiker who habitually chooses to cover very long distances each day, often hiking into the night.

PUDS is thru-hiker shorthand for "pointless ups and downs", referring to the less interesting sections of mountains thru-hikers encounter from time to time; several PUDS in a row are MUDS, which is shorthand for "mindless ups and downs".

Purist is a thru-hiker or section hiker who makes it a point to hike every mile of the white-blazed (official) Trail; an "extreme purist" makes it a point to hike past every white blaze.

Puncheon (also called a bog bridge) is a wooden walkway built to provide a stable, hardened treadway across bogs, mud flats, and marshy areas.

Section hiker is a person who is attempting to become a 2,000-Miler by doing a series of section hikes over a period of time.

Slabbing is a hiking term that refers to going around a mountain on a moderately graded footpath, as opposed to going straight up and over the mountain.

Slackpacking is a hiking term coined in 1980 to describe an unhurried and non-goal-oriented manner of long-distance hiking (i.e., slack: "not taut or tense, loose"), but in recent years has been used to refer simply to thru-hiking without a backpack.

Springer fever is the almost uncontrollable urge to be back on the Trail that hits thru-hikers of past years each spring.

Stile is a construction, usually wooden steps or a ladder, that allows easy passage over a fence or other obstacle.

Thru-hiker is traditionally a person who is attempting to become a 2,000-Miler in a single, continuous journey by putting on a backpack, leaving from one terminus of the Trail, and hiking essentially unassisted to the other terminus.

Thru-hiking is the act of attempting to become a 2,000-Miler in a single, continuous journey.

Tour-hiker is a person who pretends to be hiking the entire A.T. as a thru-hiker, but instead skips sections and always looks for the easy way, and generally looks forward to spending time in town more than spending time on the A.T.; usually fails to understand the traditions of thru-hiking and cares little about the Trail.

Trail magic is the term used to describe all the wonderful, unexpected things that happen to thru-hikers during their hike.

2,000-Miler is a person who has hiked the entire distance between termini of the official (white-blazed) A.T., either by thru-hiking or section hiking.

USFS is the abbreviation for United States Forest Service.

Volunteer is a person who works for the ATC, one of the local A.T. clubs, or other organizations without pay, usually a maintainer, but not necessarily so.

Waterbar is a log or rock barrier that diverts water off the Trail to prevent erosion.

Yogi-ing is the good-natured art of "letting" food be offered cheerfully by strangers without actually asking them directly (If you ask, it's begging!).

Yo-yo-ing is the act of completing one A.T. thru-hike, then immediately turning around to begin another in the opposite direction.

Zero day is a day in which no miles are hiked, usually because the hiker is stopping in a town to re-supply and/or rest.

Appendix C
Pilot Study

This study's original research questions were prompted by a backpacking experience I had in 2002 along a local Virginia section of America's most famous hiking trail – the AT. During that experience, I enjoyed a friendly lunch conversation with two "thru-hikers" (individuals attempting an end to end walk, Georgia to Maine, of the AT in one season) who made two brief, yet provocative, comments that packed themselves deep inside my mind that sunny day. Those seasoned hikers mentioned:

> Yeah, I'd been hikin' before. Several times. I had bought and read all the books. And there's tons on the web too! I even talked to several folks who had done it before, but I never really got it…I never really learned how to hike the trail until I got to the trail. (Thru-hiker "A", 2002)

> It's not the miles, it's the smiles. I figured that out on my last trip. By Neal's Gap most have figured out the whole gear thing. By the first month to month and a half, you're pretty much in shape. After that, it's the people. It's the people that keep you walking…we're a north-bound community all wantin' to reach Katahdin. (Thru-hiker "B", 2002)

These hikers represent two members out of approximately two thousand "thru hikers" that annually attempt to complete the trail in one season (ATC, 2006). Referring to their "AT community" and "trail family," these long-distance hikers reported feeling a sense of membership in a unique group that travels and lives along the trail for four to eight months of the year. Their comments, made between handfuls of raisins and peanuts, intrigued me and prompted some inner questions on my part: How is this community of AT hikers similar or different from other communities? How do new hikers integrate into such a community? How, reflecting on Hiker B's comment, does the community influence the individual? And why, as reported by Hiker A, is there such a knowledge discrepancy between what was studied and prepared for before a long hike, and what was actually experienced on the trail?

As a student of educational psychology, I was quite intrigued. What happens once a hiker gets to the trail? What was missing from the hiking books, recommendations, and prior experiences? Growing curiosities about trailside learning processes inspired my quest for more informative AT hiker stories.

My first hiking experience along the AT was in 1983. Since then I have enjoyed over twenty years of short-term and extended trips along this scenic and historic trail. In the last three years though, my passion for the trail has pleasantly intersected with my quest to better understanding knowledge construction and communal learning processes as a researcher. This section provides an overview of the pilot work leading to this study.

Stages Leading to the Study

This study's research goals were carefully clarified following two earlier stages of AT investigation. This next section will provide a brief overview of the pilot investigations that helped to initiate this dissertation.

Intrigued by a couple of hiker comments, I approached the trail population to observe and learn more about long-distance hikers in their natural setting. Phase I of my inquiry began on May 10th, 2003 with a visit to the Trail Days celebration in Damascus, Virginia. Approximately 18,000 AT hikers (former and current) attended information sessions, gear displays, slide shows, musical concerts, and a parade that is organized annually by the Town of Damascus. Referred to as "the friendliest town on the AT," Damascus residents put on this four-day festival for hikers passing through the town heading north. I intermingled throughout the event and used a "big net approach" (Fetterman, 1989) to sample available hikers to get an overall sense of the cultural context of this event. I also sought out "key informants" (Patton, 1990) who provided rich

insights and information for my inquiry. “Snowball” referrals (Leedy & Ormrod, 1985) provided by hikers facilitated my contact and informal conversations with twenty individuals. I recorded impressions and recollections from the informal conversations in my field notes.

Phase II of my investigation of the AT hikers lead me to participate with long-distance hikers for 21 days during the summer of 2003, and for 9 days during the Spring of 2004. Over those time periods, I achieved my ethnographic goal of spending extended time with long-distance hikers during three hundred miles of hiking. This permitted me to participate and observe some of the cultural characteristics of this community as an actual long-distance AT hiker. Extensive notes and reflections were recorded daily in my personal hiking journal during those trips.

In late October of 2003, I traveled to Hanover, New Hampshire to attend the annual American Long Distance Hiking Association (ALDHA) “Gathering” event. Returning to reconnect with old friends from the trail and to meet new hikers preparing for it, approximately one thousand hikers attend the Gathering each year, Hikers who successfully completed the entire AT in 2003 made an hour-long presentation to individuals interested in hiking the trail in 2004. Anecdotes, stories, lessons, and informed suggestions were shared with AT “dreamers” and “wannabe’s” (i.e., those wanting to be a long-distance hiker). I recorded these data in my field notes. Also at that time, I recorded four, semi-structured interviews, which were later transcribed for this study’s database.

Modifications to my interviewing approach were made after the Phase II stage. After reviewing those initial transcripts, returning to the literature on interviewing

methodology, and after receiving helpful feedback from fellow graduate students conducting interpretive research, I greatly revised my pilot interview protocol. One prominent change involved my awareness of what McCracken (1988) refers to as the law of non-direction (p. 21). An interviewer violates this law whenever he or she suggests the terms in which the respondent ought to describe an experience, as opposed to allowing the respondent to propose his or her own account. A critical review of my transcripts indicated a heavy-handed approach to offering the term "community." This term has been removed from all but one of the closing questions in my current interview protocol.

I entered Phase III with the helpful knowledge gleaned from my pilot work, and I worked to remain reflective and open to new information as it was encountered during the project. The emergent process of this research required some collection adaptations to be made based on needs determined through the comparison of data during the analysis. As suggested by Rossman & Rallis (2003), ongoing reading and analysis were continued throughout the study, yet were consciously stopped to permit closure and documentation.

Field Notes

Dependability of qualitative research is demonstrated through the annotation of a logical, traceable, and documented research process. It is the practice of attentive journaling on the part of the researcher that helps to ensure study dependability. My research journal served as an audit trail (Creswell, 1998) of my research process and it traced my actions, interpretations and decisions, and helped to make public my path to the research findings. Following the advice of Spradley (1980) and Hammersley and Atkinson (1995), I developed an ethnographic record that reflected the language of my participants in their own words -- full of concrete, specific details.

In both my pilot and dissertation work I documented actions, conversations, and evidence that connected the lessons of long-distance hikers to the practices of the AT culture as those elements became apparent to me. Notes of my participation included first-hand accounts of long-distance hikes, attendance at trail-related events, and visits to hiker-supportive entities such as outfitter shops and hostels. Archival data on long-distance hiking from public domain sources (e.g. www.trailjournals.com and www.whiteblaze.net) and instructional brochures from the American Long Distance Hiking Association (ALDHA) and the Appalachian Trail Conference (ATC) were also collected.

My "trail life" journal accounts and interpretations were descriptions embedded in the context of fluid social interactions as observed at trail shelters and group meeting sites. As George Marcus (1998) suggested, researchers seeking to offer quality fieldwork need to be able to communicate such "defamiliarized processes," and culture-specific behaviors, by connecting them to familiar ways. "The ethnographer should be able to figure out, describe, and explain very complex realities in fairly plain terms" (Marcus, 1998, p. 17) before applying distinct theoretical framings and critiques. My field notebook was used consistently as a tool to collect notes and ideas for analysis, and over time, led to a description of how long-distance hikers generate and sustain meaning systems.

Initial pilot data were gathered within the latest Federal guidelines for the protection of human subjects (see Appendix I), and with approval from my university's Institutional Review Board (IRB). All participants involved in semi-structured pilot interviews had read and signed a consent form. Each participant received a copy of the

consent form that also included researcher contact information (see Appendix K). For the protection of my study participants, signed consent forms from my pilot work were kept in a secured locker in my locked office.

I learned during this field study that "trail names" are inherent and commonly used within this informal community of practice. Most AT long-distance hikers take trail names, which are nicknames that they either choose for themselves, or that are given to them by another hiker based on a personality characteristic or an event (Mueser, 1998). Concern that such closely-knit community units could potentially identity study participants necessitated that any identifying label or name recorded during the interviews were replaced with pseudonyms during the transcription process.

It has been my experience and observation that several informative discussions related to the practice of long-distance hiking have been initiated between trail-savy outfitters and hikers shopping for hiking supplies. In the fall of 2003, once such interaction between an AT-experienced gear shop manager and a novice hiker lead to a conversation about how the AT hiking community has its own labels for the variety of hiker types. White Blazers are hikers committed to hiking every foot of the originally designated trail, while Blue Blazers may take alternate routes leading to sites of interest or around challenging sections of the trail, only to join the trail further along. Yellow-blazers are hikers that utilize hitchhiking or vehicular transportation to skip undesirable sections of the trail or to catch up with friends hiking a few days walk ahead of them.

Another variation among hikers, which may permit classification along a slow to fast continuum, are those who choose to travel at a comfortable and flexible pace (e.g., waiting out poor weather, enjoying scenic overviews, or joining social events along the

trail corridor), versus fast packers who are focused on completing the entire trail or a section of it in the shortest amount of time. These faster hikers have been known to hike over twenty miles a day and sometimes hike through the night. Increased awareness of this type of hiker was gained through a field experience I had during the 2003 season.

One long weekend, I encounter two slightly different types of fast-packers. Seeking Spartan simplicity, a new category of minimalist or *ultralite* hiker has appeared on the scene to push the edge of deprivation and, in some cases, personal safety. Taking only one change of clothes, choosing food based on weight, drilling holes in their toothbrush, or using a pair of socks as a pillow are not unheard of with this extremist category of hiker. A tamer version of the ultralite is the lightweight hiker who for reasons of comfort, injury, or a simple fascination with highly technical gear, seeks out lighter equipment to extend travel distances and/or minimize load-bearing stresses upon their bodies. Encountering both types in person lead me to further questions about the different members of this community. These different types of hiking may yield idiosyncratic meanings to participants, or may represent different social or individual identities within the larger hiking community. Further investigation was needed.

In closing, construction of an accurate descriptive context is facilitated when a researcher is already part of the culture, knows the language, and has an established network of contacts to assist in sampling and culture description (Hogle & Sweat, 1996). Combining this pilot study, with twenty years of prior hiking experience, and my ongoing access to this informal community, made me uniquely suited to conduct this focused ethnographic study of individual and social sensemaking within the informal AT CoP.

Pilot Study Summary

This study initiated with a life experience that prompted some driving questions. Those questions led to informal exploration of the field and casual inquiry of the AT long-distance hiker population. This progressed to a more guided approach with annotated field notes and recorded interviews. Through those interviews, I gathered data concerning their learning, decision-making, and social interactive practices. By "lurking" about listserv conversations and electronic journals of trail-related experiences, and by observing these long-distance hikers in the field and taking detailed notes of their comments, stories, and concerns, the essence of the culture became more apparent to me.

To test and develop my skills as a researcher, initial field notes of observations, interactions, comments, and behaviors of long-distance hikers and other members of the AT hiking community (e.g. hostel owners, event organizers, outfitters, park rangers) were recorded during several hiking days between March of 2003 and October of 2004. Some of these field notes were taken in the evenings as hikers arrived to shelters or camping areas, cooked dinner, set up camp, and interacted by the campfire. Additional field notes from my participant observations were annotated before departing from camp on several mornings, and during lunch and scenic overlook breaks.

My initial inquiry focused heavily on pre-trip learning, preparation, and practice, yet my questions failed to acknowledge the impact of the sporadic, and fairly consistent social interactions between hikers of diverse experiential levels. I needed to gain insights from practitioners that could help me explain the relationship between individual and communal factors that influence sensemaking, and in many cases, identity development.

Appendix D

Community of Practice Variations

Though this dissertation examined an informal and mobile community of practice, the last decade has seen the foci of researchers turn consistently to variations of community of practice, particularly those found in workplace and online environments.

Workplace Communities. Informal networks in working organizations are formed by people based on proximity, personal attraction, and common backgrounds, and these informal connections cut across departments (Sharp, 1997). Consisting of small groups of people who have worked together over a period of time, they form with a desire to work more effectively or understand their domain more thoroughly. Due in part to corporate business guru Peter Senge's (1994) promotion of the concept of a "learning organization," the term community of practice was initially associated with formal, work-oriented groups affiliated with a professional organization, a company, or government agencies (Preece, 2004). The concept now includes a broader application though, and the study and support of formal communities of practice represents a major transformation in how universities, agencies, and corporations view knowledge transfer and alternative approaches to teaching and learning. John Sharp (1997) points out,

> As informal groupings, communities of practice show many of the same qualities as informal communities. The group itself sets its own goals (understanding their specialty and its applications), membership boundaries (the group itself decides who is in, who is out, who are the respected leaders and who are the more casual followers), personal relationships (from casual acquaintances to friendships to deep emotional bonds), generalized reciprocity (a sense of mutual commitment to the community: one member may help another simply because they belong to the same community, not because of a personal relationship) and production of collective goods (the shared and enhanced understandings and expansions of professional knowledge in the organizational context). (p. 4)

Through extensive communication, members of a community of practice develop a common sense of purpose combined with a desire to share work-related knowledge and

expertise. Erickson and Kellogg (2001) argue that expertise is created, used, and disseminated in ways that are inextricably social. Therefore any attempts to support the developmental process that transforms a worker's knowledge from a novice to expert level, must take informal social factors into account. Such forces are critical when job requirements are not supported by the formal organization's employee-training program.

The natural emergence of work site communities of practice, ranging from 3 to 50 members, bring informal groups together to collaborate with each other on work-related issues and tasks. The AT community-based knowledge of long-distance hiking, is much like the knowledge of a business firm, as it "is a social construct built out of the collective experiences of its workforce, the talents it rewards, and the shared stories of the firm's triumphs and mistakes" (Davenport & Prusak, 1998, p. 64). The trail community socially situates and constructs its knowledge of successes and failures, and heavily defines itself, through its shared practice. Through modern technologies, the knowledge and stories from both types of organizations, the informal and formal communities of practice, can now find its way to members and potential members through cyberspace.

On-line Communities. The sharing of knowledge through a virtual community, one created in an online world, is known as a discourse community (Nystrand, 1982). A discourse community allows people of similar interests to come together with little cost to exchange ideas and coordinate activities, while also providing participants with a feeling of membership. Considered by some to be a "weaker" sense of community (Weinreich, 1997), successful on-line groups can contribute effectively to the development of communally constructed knowledge. Interestingly, online interactions in virtual spaces share many characteristics with real communities as "people discuss,

argue, fight, reconcile, amuse, and offend just as much and perhaps more in a virtual community" (Weinreich, 1997, p. 9). Yet, some argue that virtual exchanges support communication, but cannot build community because trust, cooperation, friendship, and community are based on contacts in the sensual world.

Being knowledgeable and being free with your knowledge contributes greatly to a community member gaining status, friends, and visibility. Visible reciprocity (Smith, 1993) is a major means of increasing status in an on-line community or in any social group sharing common interests. Trust in communities of practice is generally based on demonstrated competence, and such trust takes contact, communication, time, and certification from respected others (legitimate members of the community of practice). Regular readers of an on-line community's listserv will come to judge the competence of frequent on-line contributors. A judgment of trustworthiness may be determined by the perceived reasonableness of the contributor's answers as they are certified or attacked by on-line replies (Sharp, 1997).

Collaboration, whether on-line or in person, allows a community of practitioners to reconstruct a shared experience in order to produce greater understanding and potential for successful action by members in the future. The use of technology is one such way to support the broad development of communal ways of seeing, acting, and sharing. Technology, such as the web becomes an instrument for mutual knowledge construction by a group of people; a collaborative tool that enables individuals to jointly engage in active production of shared knowledge. Over the last two decades, the desire to cultivate mutual knowledge construction by designing collaborative environments has engaged various academic and administrative minds in the planning of learning communities.

Appendix E

Learning Communities

Evolving out of the cooperative and collaborative learning movements, learning communities are a strictly curricular approach that emphasizes social interaction and active learning in an attempt to foster more explicit intellectual connections between students, students and faculty, and across disciplines (Shapiro & Levine, 1999). These represent formally structured and supported learning situations where a group of people come together, sharing resources and skills, to meet specific and unique learning needs. Intentional in their design, faculty carefully plan the membership, format, linkages, and programming for the learning community by intentional restructuring of students' time, credit and learning experiences both in and out of the classroom (Lenning & Ebbers, 1999; Matthews, 1994). Academics who incorporate such social learning approaches in their classroom or web-based courses may incorrectly label such groups as a community of practice, when the more accurate label would be that of a learning community (Tosey, 2002). Though the concept of a learning community and its variations and implications were emphasized by 19th century theorists such as John Dewey and Alexander Meiklejohn, the mid to late 1980's clearly marked an increased emphasis on community development in higher education settings (Lenning & Ebbers, 1997).

Engaging students in innovative ways to foster inquiry and communication have consistently been a challenge to institutions of higher learning. Modern attempts to foster such participation in social learning have been increasingly realized through the creation of learning communities. Prior to the early 1990's only a few college institutions, primarily LaGuardia Community College, Temple University, Evergreen State College, and the University of Washington focused on special community design and development

(Smith, 1993). In the case of community colleges, this movement was intended to facilitate academic adjustment and success through collaborative learning between primarily commuter and part-time students.

Found in various contemporary educational environments, learning communities represent an approach well grounded in earlier educational traditions. Gabelnick et al. (1990) identify structural and pedagogical roots to today's learning communities found in the earlier work of Alexander Meiklejohn and John Dewey in the early 1920's. Concerned about the increasing specialization and fragmentation in American colleges and universities in the 1920's, Meiklejohn saw the general education curriculum as critical to the task of preparing students to be responsible citizens. Considered a father to the learning community movement, Meiklejohn reorganized the structure of the curriculum of a full-time, two-year program at the Experimental College at the University of Wisconsin (1927) into one that holistically studied the civilizations of fifth-century Athens and nineteenth-and twentieth century America through a discussion-centered pedagogy involving the "great books" (Gabelnick et al., 1990). This first integrated learning community required students to develop a personal point of view while connecting the ideas in the classroom to the "real world" through discussions and a research project. This short-lived (1927-1932) yet seminal program did inspire a former Meiklejohn student, Joseph Tussman, to create a similar program thirty years later.

Described in Experiment at Berkley (1969), University of California Professor Joseph Tussman piloted a learning community effort for four years that established a program rather than a collection of courses. Tussman believes that the self-contained courses were generally unrelated and competitive, and fragmented to the point of seldom

allowing students to "experience the delight of sustained conversations" (Tussman, 1969). Though Meiklejohn and Tussman's approaches did not sustain broad institutional or faculty support during those earlier efforts, modern adaptations are now seen where year-long learning communities called "coordinated studies" programs are being team taught and organized around interdisciplinary themes (Jones, 1981; Turrentine, 2001).

Another father to the learning community movement was John Dewey, whose views on student-centered, active, and reflective learning placed more emphasis on the processes of teaching and learning than Meiklejohn's concerns over curricular structure. Contrary to traditional education approaches, John Dewey (1938) felt that progressive education should be "development from within," and should foster the development of student individuality while building a common educational culture. Concerned with traditional education's symbolic distance between teacher and learner, Dewey believed that learning is inherently a social process and one where prior experiences should be acknowledged, and diverse aspirations valued, within a collaborative learning environment.

Recent movement towards learning through community recognizes that for some learners group participation and interaction is a desired involvement, while for others it involves more social skill development (Greeno et al., 1996). The strengthening of student thinking and communication skills can be enhanced when students are cognitively and socially engaged in a supportive learning environment.

Social constructivist theory (Duffy & Cunningham, 1996, Vygotsky, 1978) argues that learning is a social process of acculturation into established communities. Thus the interactive and reciprocal nature of meaning-making and identity construction is socially

and culturally constructed (Barab & Duffy, 2000). By fostering greater student-faculty interaction, student involvement in co-curricular activities, and peer influences and interaction, a greater academic and social support network is established in and out of the classroom (Sharpiro & Levine, 1999). Learning communities can provide a context for meaningful faculty interaction and development within a supportive teaching environment. They can also serve to better integrate the curriculum by using models of "cross curricular learning communities" to promote learning and collaboration between individuals and groups.

Appendix F

Ethnography: A Design and a Product

Ethnography, a method developed by cultural anthropologists, has been rather popular in educational circles in recent years (Bailey, 1996; Schram, 2003). Literally meaning 'a portrait of a people,' and based on information collected through fieldwork or participant observation, an ethnography is a written description of a particular culture – its customs, beliefs, and behaviors (Harris & Johnson, 2000). As a research design, ethnography is used to investigate the everyday lives of individuals within the groups or communities to which they belong. Conducted by a single investigator who 'lives with and lives like' those who are studied, ethnographic work is both an art and a science of describing a group or culture (Fetterman, 1998; Van Maanen, 1996).

Ethnographers become participants in the daily lives of the groups they study. They observe what goes on around them, and describe the culture-sharing group (Emmerson, 1988; Wolcott, 1994). While involved in this process of participant-observation, ethnographers turn their observations into data collection: they write down their observations, listen to stories (Simpson, 2000), ask questions of participants (Briggs, 1986) and learn from and write about the synthesized collection of participant responses. Thus, through participant-observation and data collection, ethnographers create a systematic, cumulative written record of their experiences and observations (Emerson, Fretz, & Shaw, 1995; Hammersley & Atkinson, 1995).

Ethnographic research differs from other research traditions in its assumptions about the nature of reality (i.e., ontology), and the nature and ways of understanding knowledge (i.e., epistemology). These assumptions frame the data collection and interpretation processes, and when intentionally noted and addressed by the researcher

throughout the qualitative process, can help to situate what is studied in time and space. Unlike a quantitative "snap shot" of data provided through an experimental laboratory moment or a mail-in survey event, the dynamic and non-linear nature of qualitative studies requires the researcher to take note of the overt and subtle interactions of participant perspectives, situational characteristics, and temporal dynamics mediated through the very researcher's presence and involvement with those studied (Nespor, 2002). The reflective researcher, acting as research instrument (Creswell, 1998; McCracken, 1988), uses his or her experiences and cumulative written records to create a research product -- the ethnography.

An ethnography is also a narrative product or interpretation about a group of people created by a researcher who has spent an extended amount of time in face-to-face interactions with people in the community being studied (Morse & Richards, 2002). Historically, ethnographers have attempted to provide complete pictures of the culture being studied, including beliefs, values, traditions, social networks, language, commerce, and technology (Becker, 1986). It was my intension to combine my personal experiences as hiking participant along the AT with my observations and interviews of those who considered themselves members of the long-distance AT hiking community. In particular I focused upon the "symbolic interaction" (Mead, 1934) or human interchange (Blumer, 1986) that occurred among individuals within AT group life, and how such interactions and associations influenced learning, community, and identity. This study of the individual hikers shared unique interactions, negotiations, tools and communications (i.e. systems of significant symbols), and provided a clearer representation of the structures, ethos, and rituals of the community that traverse the ridgelines of Appalachia every year.

Interview Protocol and Frame **Appendix G**

Broad Domain	General Questions	Probe Questions	Purpose	Theorists
Rapport Development				
	What trail name do you go by? How long have you been hiking the AT? Tell me about yourself?	How did you acquire your trail name? Tell me about your previous backpacking experience?	A short set of easy warm-up questions to relax participant and gather some background info	Creswell (1998) Fontana & Frey (2003) Spradley (1979)
LEARNING				
Preparation	Tell me how you prepared and didn't prepare for this experience?	Tell me a time when you met with something expected/unexpected? When you were prepared or surprise?	Gather indicators of epistemic developmental level and cognitive skills Identify behaviors of newcomer /experienced	Baxter-Magolda (2002) Berliner (1988) Fuhrer (1996) Spiro (1995)
	What is your best and worst gear?	How do you decide on a new piece of gear?	Identify evaluative skills	Fisher (2001)
Trail Encounters	Who have you met on the trail that was most memorable? Describe an ordinary trail day vs. an extraordinary day.	Who would you like to forget? Other figures that stick out in your mind?	More questions to generate stories	Witherell & Nodding (1991)
Memorable Events	What is your worst/best experience so far? What is good advice and what is bad advice? Would you ever do this again, and if so, how would you do it similarly and differently?	How do you know the difference? Are there lessons to be brought back? If a friend or family member wanted to make the hike next year, how might you help them prepare for such a trip?	To illuminate critical incidents, meaning-making, decision-making strategies Individual knowledge vs. collective knowledge Prompt reflection	Brown, Collins, & Duguid, (1989) Flanagan (1954) Chaffee (1998) Davenport & Prusak (2000) Fisher (2001)

COMMUNITY				
Sub-groups	Compare and contrast those who stay primarily in shelters and those who primarily tent/tarp out. Compare and contrast those who prepare extensively and those who prepare minimally for the trip? Tell me about "section hikers" vs. "thru hikers?" Those hiking for a solo vs. those hiking for a social experience?	What can you tell me about Blue, Yellow, and White blazers? Those who are into the gear and those who are into the process. What are the similarities or differences between "north-bounders" and "south-bounders?" What about those who are into nature and those who are into high mileage?	Reveal issues of group dynamics Identify in-group, out-group conflicts and boundary relationships Identify sub-group ethos, norms, and practices Uncover categories to dimensionalize the data Understand models of belonging	Johnson & Johnson (2003) Lave & Wenger (1991) Lewin (1951) Wenger, McDermott, & Snyder (2002) Witherell & Nodding (1991)
Structure	Who is a welcome vs. an unwelcome hiker on the trail? Compare a "newcomer" to an "advanced" hiker? When did you feel that you became a legitimate member of the long-distance hiking community? Are there rituals among long-distance hikers?	How do people know that you are a member of the long-distance hiking community? Are there people who are pretenders? People play many roles on the trail-teacher, learner, guide, maintainer, ridge runner, trail angel. What role do you play?	To determine boundaries, hierarchy, symbols, ethos, and rituals Understand individual identity vs. social identity Illuminate legitimate participatory practices, Seek to identify alignment and engagement practices	Bandura (1997) Bronfenbrenner (1979) Davenport & Prusak (2000) Fetterman (1998) Lave & Wenger (1991) Stryker (1996) Wenger (1998)
Language	How would you explain the trail phrase, "hike your own hike?"	Tell me about humor on the AT.	Identify culture-specific vernacular.	Baxter-Magolda (2002)

(Community*: Language)*	What does it mean when people say that, "the trail is a great equalizer?" What about the saying, "It's not the miles, it's the smiles?"		Take terminology and feed it back to participant for clarification. Decode metaphoric tools	Lakoff & Johnson (1980) Lave & Wenger (1991) Vygotsky (1986)
Artifacts *In the field*	How are trail registers used? What can you tell me about on-line journals and web discussion groups? What will you do with your gear after the trip? *Would you be comfortable showing me your pack and some of your gear?*	What are some of the things written in shelter registers? What information resources are there on hiking the trail? Do you have a favorite piece of gear? *Tell me about each item.*	Explore negotiation of meaning, shared repertoire, knowledge construction and transfer Investigate people-object relationships	Chaiklin & Lave (1996) Lave & Wenger (1991) Wenger (1998)
Dep./Re-entry				
	What might be some reasons you would leave the trail? After this trail, what will be next in your life?	How do people "off trail" stay in touch with the trail community? What was the best and worst part of leaving the trail?	Explore integration processes Identity and Negotiability Practice as connection	Baxter-Magolda (2002) Erikson (1968) Stryker (1996)
IDENTITY				
	Compare and contrast yourself at the beginning of the trail to where you are now? If you were to sum up your AT experience in a book, who would be the characters, what would be the plot, and what for a title?	Have friends or family members mentioned anything about you since you've started the trail? How similar or different are you on the trail compared with off trail?	Investigate variations in sense of self Explore intrapersonal development Social ecologies of identity	Erikson (1968) Wenger (1998) O'Sullivan (1999) Stryker (1996)

Appendix H

Researcher Presuppositions (2003)

A researcher's philosophical assumptions often stem from a paradigm, or basic set of beliefs or worldview, that may unconsciously guide one's actions and influence one's interpretation of the environment. The question of what we know cannot be separated from that of how we know, and this epistemological issue relates directly to the practice of research itself (Buckingham, 1993). The following section will help clarify five presuppositions that may influence the design and subsequent interpretation efforts of this study. I share these with the reader to make transparent my initial beliefs and biases that will consciously and unconsciously influence all study-related decisions and findings. Included with each belief are related and supportive principles gleaned from scholars during my review of the literature.

Presupposition 1: The collection of long-distance hikers along the AT can be considered a "community of practice." These hikers share information, experience, insight, and tools related to long-distance hiking. Legitimate knowledge is therefore integrated in the hiking, social relations, and expertise of this community. Knowledge is integrated in the life of communities that share values, beliefs, languages, and ways of doing things (John-Steiner, 1997; Shapiro & Levine, 1999; Wenger, 1998).

Presupposition 2: Who a hiker is, both how the individual and the group regards the hiker, is reflected in the community's social interactions. As hikers' constructions of meaning change, their identity -- and their relationship to the group -- change. Empowerment, or the ability to contribute to a community, creates the potential for both learning and teaching within that community. Circumstances in which hikers engage in

legitimate actions that have serious consequences for the individual and the community create the most powerful learning environments. The AT is one such rich learning environment. The processes of learning and membership in a community of practice are inseparable (Lenning & Ebbers, 1999; Turrentine, 2001; Wenger, McDermott, & Snyder, 2002).

Presupposition 3: Meaningful learning comes through direct experience combined with academic preparation. It is not possible to fully understand long-distance hiking without doing long-distance hiking. Through experience, AT hikers learn. Knowledge is inseparable from practice (Dewey, 1938; Kolb, 1984; Kraft, 1995).

Presupposition 4: Learning long-distance hiking is enhanced, and a hiker's conceptual understanding of legitimate and effective practice is developed, through the use of story, metaphor, and analogy. In other words, it is through stories and "tales from the trail" that knowledge will be transferred. I anticipate experienced hikers using "well it's like…" phrases to help novice hikers comprehend some new knowledge in terms of something familiar or previously known. I believe that many of the stories and analogies shared socially by hikers on the trail and in shelters, will hold a key to the powerful informal learning that takes place on the AT. A subtle, yet powerful element of learning is the implicit use of metaphoric references that serve to connect one's new experiences with one's prior knowledge (Gass, 1995; Lakoff & Johnson, 1980; Martinez, 2001).

Presupposition 5: Learning long-distance hiking is fundamentally a social phenomenon. Though many hikers report extensive pre-trip reading and preparation, I believe that the social construction of knowledge will play a more profound part during the hikers' journey. I anticipate the enculturation process of becoming a long-distance AT hiker will

powerfully influence both meaning-making for the individual hikers and will equally affect the hikers' changing sense of identity within the community. I believe the social learning exchanges will inevitably play a more profound part in the learning process than the hikers realize. Learners organize their understanding of knowledge and practice through the communities to which they belong (Dewey, 1938; Rogoff, 1990; Vygotsky, 1986).

Believing these five general principles of human learning to be consistent in social learning and communal practice, I wish to explore individual knowledge and identity construction within the informal AT long-distance hiking community.

Appendix I
IRB Documentation

Title of Project: A Focused-Ethnographic Study of Individual Construction of Community-Based Knowledge and Identity within an Informal Community of Practice
Principle Investigator: Robert A. Siudzinski

Purpose of this Research/Project

This study examines learning within the Appalachian Trail hiking community. This doctoral dissertation seeks to extend the Lave & Wenger (1991) investigation of informal communities of practice by examining the role of the AT community of long-distance hikers and its influence on individual knowledge and identity construction.

Procedures

I would like to conduct a semi-structured interview with you before, during, and possibly after your travel upon the Appalachian Trail (AT). I anticipate that the interview will last from 60 to 90 minutes, though it could be longer or shorter depending on the extent of your total experience with the AT culture. Although I will have a set of written questions to guide our discussion, you will also be an opportunity to address components of the long-distance travel or the hiking community not covered in the questions. You may stop the interview at any point, or you may choose not to respond to any questions during our conversation. The interview will be audio-recorded, and a typed transcription will be created.

Risks

My questions will deal with experiencing and learning how to successfully hike the Appalachian Trail. Additional questions will deal with preparations, observations, motivations, and social interactions with the backpacking community. I can think of no reason the topics should present any risk of harm or emotional distress. As you will control the extent of your participation, the "risks" from participating in this project are minimal.

Benefits

No guarantee of benefits has been made to encourage your participation, though I hope that your involvement will increase awareness and knowledge of the AT culture, social learning processes, and situated learning components found within an informal community of practice.

Extent of Anonymity and Confidentiality

Because this interview may deal in some detail with your hiking behaviors and involvement with a community of travelers, it will be difficult to maintain your

anonymity during the study. Interview recordings will be kept in a secured compartment of my backpack during field studies, and later kept in a secured locker in my office when not being used for note transcription. Though your "trail name" may be used (with your permission), or an assigned hiker code number, you should be aware that despite every effort to preserve it, anonymity maybe compromised.

Compensation

There will be no compensation provided for participation in this study.

Freedom to Withdraw

You are free to withdraw from this study at any time, and you are free to not respond to any questions or situations presented during the interview. You may also request that I turn off the tape recorder at any time during our interaction.

Approval of Research

This research project has been approved, as required, by the Institutional Review Board for Research Involving Human Subjects, and the Department of Teaching & Learning at Virginia Polytechnic Institute and State University.

_____ _____

IRB Approval Date Approval Expiration Date

Participant's Responsibilities

I voluntarily agree to participate in this study. I have the following responsibility:

-Participation in an interview.

Participant's Permission

I have read and understand this Informed Consent Form and the conditions of this study. I have had all of my questions answered by the researcher prior to involvement. I understand that I will be given a code number, or my trail name will be used for anonymity purposes. I hereby acknowledge the above and give my consent:

_____Date: _____

Participant's signature

_____

Name (please print)

Should you have any questions regarding this research or its conduct, please contact:

Robert Siudzinski, Investigator:	(540) 239-6073	rsiudzin@vt.edu
Dr. Jan Nespor, Dept. Reviewer	231-8327	nespor@vt.edu
David M. Moore, Chair, IRB	231-4991	moored@vt.edu

Participants must be given a complete copy
(or duplicate original) of the signed Informed Consent.

Form 4 - EXPEDITED IRB Proposal Review #:04-276

REQUEST FOR EXPEDITED APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

Investigator: Robert A. Siudzinski Faculty Advisor: Dr. Peter Doolittle .

Department: Teaching and Learning Mail Code: O313 E-mail: rsiudzin@vt.edu Phone: (540) 239-6073

Project Title: A Focused-Ethnographic Study of Individual Construction of Community-Based Knowledge and Identity within an Informal Community of Practice

# of Human Subjects 30 .

Source of Funding Support: ____ Departmental Research ____ Sponsored Research (OSP No.:_____)

[X] All investigators of this project are qualified through completion of the formal training program or web-based training programs provided by the Virginia Tech Office of Research Compliance.

Note: To qualify for Expedited Approval, the research activities must: (a) present not more than minimal risk to the subjects, (b) not involve any of the special classes of subjects, except children as noted, and (c) involve only procedures listed in one or more of the following categories. The full description may be found in the Expedited Review section of the Virginia Tech "*IRB Protocol Submission Instructions Document"* or 45 CFR 46.110 (http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm#46.110)

Please mark/check the appropriate category below *which qualifies the project for expedited review:*

[ ] 1. Clinical studies of drugs and medical devices when proscribed conditions are met [see item (1), page 8 of the "Instructions" document].

[ ] 2. Collection of blood samples by finger, heel or ear stick, or venipuncture subject to proscribed limitations [see item (2), page 9 of the "Instructions" document].

[ ] 3. Prospective collection of biological specimens for research purposes by noninvasive means. Examples: hair and nail clippings, deciduous teeth, permanent teeth, excreta and external secretions, uncannulated saliva, placenta, amniotic fluid, dental plaque, muscosal and skin cells and sputum [see item (3), page 9 of the "Instructions" document].

[ ] 4. Collection of data through noninvasive procedures routinely employed in clinical practice, excluding procedures involving x-rays or microwaves [see item (4), page 9 of the "Instructions"].

[ ] 5. Research involving materials (data, documents, records or specimens) that have been collected or will be collected solely for non-research purposes (such as medical treatment or diagnosis [see item (5), page 10 of the "Instructions" document].

[X] 6. Collection of data from voice, video, digital, or image recordings made for research purposes [see item (6), page 10 of the "Instructions" document].

[X] 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language communication, cultural beliefs or practices, social behavior), or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies [see item (7), page 10 of the "Instructions" document].

	Robert A. Siudzinski	
Investigator	Print Name	Date
	Jan Nespor	
Departmental Reviewer	Print Name	Date
	David Moore	
Chair, Institutional Review Board		Date

This project is approved for 12 months from the approval date of the IRB Chair.

Appendix J

Data Planning Matrix[7]

Study Phases	What Do I Need to Know? (Topical Sub-questions)	Why Do I Need to Know This?	What Kind of Data Will Answer the Question?	Who Do I Contact For Access?
Phase One Initial Exploration (2002-2003)	Why do hikers report a disconnect between preparation expectations and their long-distance hiking experience? How do hikers learn to hike the AT? What social learning processes occur on the AT?	Initial exploration of language, practice, etiquette, and norms of those who long-distance hike the AT To explore AT knowledge construction and transfer	Autobiographic and instructional AT-media (literature, video, the web) Participant Observation of daily AT activities and interactions Informal discussions with AT hikers	AT users/visitors AT hikers participating in long-distance hiking Organizations: ATC ALDHA Self
Phase Two Participant Observation and Interviews (2003-2004)	Are there implicit goals that hikers bring to the experience? If so, what are they? What is the process of relationship building that unfolds between long-distance hikers? What informs AT hiker decisions? What meaning do long-distance hikers ascribe to hiking the AT? What is the social nature of hiking over one hundred miles on the AT?	To clarify values, assumptions, and personal factors that may be impacting the experience. To understand how the process unfolds and determine the respective roles played by hikers in shaping the relationships. To clarify hiker perceptions and how they compare/contrast with other hikers perceptions. To uncover community structure, ethos, rituals, practices, and norms. To develop op priori categories of questions within the domains of critical thinking, identity development, and communities of practice.	Participant Observation Auto-ethnography of AT hiking experience Informal and formal interviews with long-distance hikers	AT- related Events: Trail Days '03 The Gathering '03 Trail Fest '04 Trail Days '04 4 Long-distance AT hikers: Anonymous Hiker 1 Anonymous Hiker 2
Phase Three In-depth Investigation (2004-2006)	How do AT hikers make sense of their learning experience? How is individual hiker knowledge constructed within a dynamic and informal community of practice? What is the relationship between self, other hikers, and knowledge along the AT?	To extend inquiry with an in-depth investigation of theoretically driven issues	Participant Observation Informal and formal interviews with long-distance hikers Participant participation Structured follow-up telephone interviews	Trail Days (May, '06) Section-hike of Bear Mtns., NY (October, "05) Southbound, long-distance hikers completing the AT (Nov. '04-Dec. "04) Northbound, Flip-flop, and Section hikers at The Gathering and Ruck (Oct. '04-March. '05)

[7] Source: Adapted from LeCompte, M. D., & Schensul, J. J. (1999). *Designing and conducting ethnographic research*. Walnut Creek, CA: Alta Mira Press.

Appendix K
CONSENT FORM (2004 TRAIL VERSION)

Participant Consent Form

I invite you to join me in a study that is designed to explore the culture and educational practices of long-distance hikers. You will have the opportunity to tell me about your learning and social experiences as a section or thru-hiker in an interview that may be tape recorded. If you do not wish to use your "trail name" as a pseudonym, a hiker code number will be assigned so no one will be able to connect your real name with either the audiotapes or with any published work that may appear as a result of this study. The audiotapes and notes from the interview will be stored, when not in use, in a locked compartment of my backpack and later in a secured, limited access location. Any information that I obtain about you as a participant in this study will be held confidential, though you should be aware that despite every effort to preserve it, anonymity may be comprised. No discomforts, stresses, or risks are foreseen as a result of your involvement in the study. There will be no compensation provided for participation in this study.

Remember you do not have to be a part of this study, and you have the right to remove yourself at any time without an explanation and without penalty or negative consequence. If you have any questions, please ask me on the trail or contact me, Robert Siudzinski at (540) 239-6073 or JigginFitz@vt.edu.

I agree to participate in this study, and I understand that The results of the study may be published in a professional journal or educational publication.

-_____ -_____

Participant Date Researcher Date

Please sign both copies of this form,
return one to me and keep one copy for your records.

Research at Virginia Tech University that involves human participants is overseen by the Institutional Review Board. Questions or problems regarding your rights as a participant should be addressed to Dr. David Moore, I.R.B. Chair, Research Compliance Office, Virginia Tech University, Blacksburg,VA. 24061 Tel.(540)231-4991. E-mail: moored@vt.edu

APPENDIX L

EARLY CODING EXAMPLE FROM FIELD NOTES

(Hiker Provided Journal Entry)

Flat Foot Phil's 2003 Appalachian Trail Journal

Sunday, April 13, 2003

Destination: Gatlinburg, TN **Today's Miles:** 0
Starting Location: Gooch gap **Trip Miles:** 197.2

My first zero day. I haven't written in awhile because literally everything but one t-shirt, one pair of underwear and one pair of socks has been wet. That includes my journal. I've never hiked through such miserable weather. Much worse that the guide describes. Since my last entry I've had one day of rain, on day of snow, one day of rain and snow and one day of everything melting. My down bag got wet again and I spend one very cold night in it despite the fact that there were 20 people in a 12 person shelter. I hit my head on a blown down tree and damn near knocked myself out. I got hit in the head with a piece of ice about the size of a softball. It's been tough going but it's really made me see what I can handle. I'm still hiking with Granite and Llama quite a bit. I've met quite a few people in the Smokies because you have to stay in the shelters. Cuss and Snackattack from MD and Apple Chillun from Chapel Hill, NC have been great too. This is Cuss's third thru hike. He's got this thing down. I'm thinking that these last four days will probably be the worst weather I'll see until Northern New England, at least that's what I hope.

1. Zero day = CoP term for rest day (no miles hiked), extended social
2. Everything wet = threatening conditions; lack of skills/experience?
3. Journal = reflective tool, concerned for state of distributed record
4. Never hiked through such = surprise, limited prior experience?
5. Guidebook = seen as authority? Only covers avg. weather patterns
6. Down bag = advanced gear, requires special KSAs for extended use
7. 20 in shelter = crowd, social adjustment norm, deprivation of space
8. Tough-Can Handle = challenge, reflection on self-efficacy, growth
9. Granite, Llama, Cuss, Snackattack, Apple Chillun = hiking pod, ID
10. Met people-have to stay in shelter = forced interaction, social space
11. Cuss's 3rd AT hike = presence of expert model, stories, and advice
12. Probably the worst until = seasonal milestone, prediction based on?

All that is gold does not glitter,
not all those who wander are lost;
the old that is strong does not wither,
deep roots are not reached by the frost.
From the ashes a fire shall be woken,
a light from the shadows shall spring;
renewed shall be blade that was broken,
the crownless again shall be king.

-J.R.R. Tolkien, *The Fellowship of the Ring*