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Increased time in core area classes and traditional physical education approaches may be lacking in providing all high school students with experiences that engage them (Griffin, 2020). Outdoor adventure education (OAE) is a physical education model that exposes students to socially constructive, experiential outdoor activities that carry a certain level of uncertainty and perceived risk (Ewert & Sibthorp, 2014). A movement is drawing more attention toward using outdoor adventure activities and programs to promote the physical and mental health benefits of the outdoors for the next generation (Barfield et al., 2021; Zmudy, 2015). However, a lack of quality OAE programming is common for many public school divisions. This qualitative case study aimed to understand the effects of an OAE after-school program on student perspectives of outdoor adventure activity participation. Observations, informal conversations, exit slip surveys, and a semi-structured focus group discussion were used to collect data from a group of high school students (n=11) from two high schools participating in the after-school OAE program. An open coding method was used to organize data into codes, categories, and themes (Miles et al., 2020). Data analysis revealed three sub-themes and one central theme emerged from the study. The sub-themes consisted of constraints, well-being, and adventure experiences, all centered around the theme of escape. The multiple data sources indicated that students expressed positivity toward the OAE program and outdoor activities, but time and knowledge were significant constraints to their participation. Additionally, students felt outdoor experiences provided mental and physical benefits by offering a means to cope with stress and anxiety. Lastly, students indicated that the novelty and social aspects of the program were motivating factors for participating. Students expressed that the OAE program provided a means to escape

their daily routines through these immersive outdoor adventure experiences. This study supports the need to provide OAE experiences throughout the school year to further increase exposure to these lifetime adventure activities.

THE EFFECT OF AN AFTER-SCHOOL OUTDOOR ADVENTURE EDUCATION PROGRAM
ON HIGH SCHOOL STUDENTS' OUTDOOR RECREATION PERSPECTIVE

by

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DEDICATION

I would first like to thank my wife, Amber, for her unconditional love and support for my personal and professional pursuits. You have shaped me like no other person, and I am so grateful for the life we have built together. To my children, Chance and Mariah, for keeping me grounded, inspiring me to be the best dad I can be, and giving me my true purpose in life. To my parents, Kim and Fayette, for your support and guidance throughout my life. You both have always been there for me, no matter what, and I cannot thank you enough. To my brother, Jeremy, for your academic advice throughout the years and for inspiring me to pursue learning for the sake of learning. Lastly, I would like to thank my aunt, Charlene, for showing me the value of education and inspiring me to pursue this degree. Throughout life and all my crazy pursuits, you believed in me when I did not believe in myself, and for that, I am forever grateful.

APPROVAL PAGE

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TABLE OF CONTENTS

LIST OF TABLES.....	vii
LIST OF FIGURES	viii
CHAPTER I: PROJECT OVERVIEW.....	1
Background Literature.....	1
Rural Community Schools	3
Social Circumstances and Lifestyle Choices.....	5
Outdoor Adventure Education.....	5
Outdoor Adventure Education or Outdoor Adventure.....	6
Designing the Outdoor Adventure Education Experience	9
Experience Types.....	9
Experience Attributes.....	12
OAE Experience	13
Purpose Statement and Research Aims	14
Methodology.....	15
Researcher Positionality	15
Social Constructivism.....	16
Rationale for Research	18
Research Design	19
Setting.....	20
Participants	20
Data Collection.....	21
Observation Journal	21
Unit Exit Slips.....	22
Semi-structured Focus Group	22
Data Analysis.....	23
Critical Friend and Peer Debrief	24
Threats to Trustworthiness	24
Findings and Discussion.....	25
Program Development.....	25

Program Implementation	30
Program Outcomes	37
Sub-Theme: Constraints.....	37
Time	38
Social Support	39
Equipment	39
Knowledge.....	40
Sub-Theme: Well-Being	41
Mental.....	41
Physical	42
Sub-Theme: Exploration Experiences	42
Central Theme: Escape	44
Conclusion and Recommendations	45
CHAPTER II: DISSEMINATION PLAN.....	50
CHAPTER III: ACTION PLAN.....	59
Step 1: Planning.....	59
Step 2: Engaging Community Stakeholders.....	60
Step 3: Student Recruitment.....	61
Step 4: Program Execution	62
REFERENCES	63
APPENDIX A: UNCG IRB APPROVAL LETTER	72
APPENDIX B: NORTON CITY SCHOOL PARENTAL/GUARDIAN INTEREST LETTER .	73
APPENDIX C: NORTON CITY SCHOOLS PARENTAL/GUARDIAN CONSENT FORM..	74
APPENDIX D: WISE COUNTY PARENTAL/GUARDIAN INTEREST LETTER	77
APPENDIX E: WISE COUNTY SCHOOLS PARENTAL/GUARDIAN CONSENT FORM ..	78
APPENDIX F: STUDENT ASSENT FORM.....	81
APPENDIX G: MEANINGFUL EXPERIENCE EXIT SLIP SURVEY.....	83
APPENDIX H: FOCUS GROUP INTERVIEW GUIDE.....	84
APPENDIX I: QUALITATIVE ANALYSIS CODE BOOK	85

APPENDIX J: DISSEMINATION POWER POINT..... 87

LIST OF TABLES

Table 1 OAE Daily Lesson Plans	26
Table 2 OAE Program Student Participant Profiles	32

LIST OF FIGURES

Figure 1 Outdoor Adventure Education Experience Conceptual Framework	14
Figure 3 After-School OAE Concept Map	37

CHAPTER I: PROJECT OVERVIEW

Physical activity levels in youth continue to decline globally, with 84.7% of girls and 77.6% of boys not meeting the recommended levels of moderate-to-vigorous physical activity for maintaining adequate health (Guthold et al., 2020). The health profiles of youth today are worse off in comparison to recent generations (Zheng & Echave, 2021). Studies have shown PA's physical and mental health benefits (Biddle et al., 2019), yet adherence to regular PA is still declining. Most youth's in America attend public schools (Riser-Kositsky, 2023), and school districts and public school educators can be instrumental in developing opportunities to promote physical activity and develop habits for lifelong physical activity adherence (Cooper et al., 2016). However, this is not a simple task, given the impact of educational policies across all levels of government on public school curricula.

Background Literature

Federal, state, and local government educational policies have likely contributed to some of the decline of physical activity in public school settings. After the Elementary and Secondary School Act of 1965, the federal government became a significant influencer in school policy (Siehl, 2008). Then, the No Child Left Behind Act of 2001 (NCLB) emphasized annual progress in core area classes (i.e., English, math, and science), monitored through annual standardized test results. Since physical education is not required under federal law and these courses are deemed nonessential under NCLB, it is up to each state and local school division to decide the amount of instructional time allocated to each subject area. However, considering that these yearly standardized test results are tied to a school division's federal funding, nonessential classes like physical education become obvious targets for reduction or removal from the school curriculum (Kohl, 2013). With more focus on standardized test scores and increased time allocated toward

these core area classes, a potentially significant contributing factor to youth's decline in physical activity might be the amount of sedentary time spent during a typical school day.

Public K-12 schools provide an average of 180 days each school year (National Center for Education Statistics, 2020). The exact number of days and the distribution of instructional hours for a given subject varies among the states (Kohl, 2013). Virginia state law has set the number of instructional school days at 180, or 990 instructional hours, with 1st through 12th-grade students averaging five and one-half hours of instruction and kindergarten students receiving three hours per day (VDOE, 2018). As for physical education and physical activity requirements, students in Virginia are to receive 100 minutes (K-5th) and 150 minutes (6th-12th) of physical activity or education per week (VDOE, 2018). These times' distribution may vary between school districts and even grade levels. In a systematic review of physical activity, Chong et al. (2020) found that the total daily physical activity significantly decreased from primary school to secondary (i.e., high school) school-aged students. This may result from the reduced curricular offerings and physical education requirements in high school. Currently, students entering high school in Virginia take one physical education class during their 9th and 10th-grade years, while no physical education course is required during their 11th and 12th-grade years. In a 2019 study, the Virginia Department of Health found that only 22% of high school-aged adolescents were physically active, the lowest percentage ever recorded by the state (*Virginia Youth Survey, 2022*).

For several decades, physical education classes have also focused on individual and team sport-based models. Though these approaches provide the same benefits as structured physical activity, the competitive nature of many sports may not appeal to the needs of a diverse student population (Zmudy, 2015). Sports education, tactical games, and direct instruction are among the most common pedagogies; however, more attention is now being placed on the health-based

fitness model to motivate youth (Griffin, 2020). The health-based approach promotes lifelong fitness through participation in lifetime activities rather than focusing on skill development or sports outcomes commonly emphasized in other models that may not appeal to many students and can be instrumental in developing behaviors that promote adherence to lifelong physical activity (Haerens et al., 2011). With this trend toward health-based fitness models in the public school curriculum, there is growing interest in incorporating outdoor adventure education-based models into secondary school curriculums (Williams & Wainwright, 2015a). This outdoor adventure-based method provides experiential learning through immersive, hands-on outdoor adventure experiences that can effectively stimulate a student's physical and psychological growth (Araújo et al., 2019; Lee & Zhang, 2019). An outdoor adventure-based approach may also be practical for schools rich in natural spaces in rural localities. These rural localities often contain underrepresented populations that might benefit the most from this novel outdoor adventure education approach.

Rural Community Schools

No universal agreement exists on what constitutes rural when describing a community or area. The U.S. Census Bureau defines rural as any locality not meeting an urban criterion based on population threshold, proximity to urban areas, and land use (Ratcliffe et al., 2016). According to the U.S. Department of Agriculture, rural regions are characterized as predominate countryside with population densities of less than 500 people per square mile and fewer than 2,500 people (Cromartie, 2022). Eight different federal definitions can be used to describe the difference between urban and rural areas, which can present challenges to addressing disparities in education, healthcare, infrastructure, and technology (*Health in Rural America*, 2022). To be clear, the conceptual definition of rurality may vary among agencies. However, this paper

defines rural areas as areas with a low population and higher portions of undeveloped green spaces (i.e., woodland and grassland).

Understanding rurality has important implications for federal funding for various educational, health, and technology grants. In rural areas, common disparities in healthcare exist due to a lack of facilities, technology, and services, which has implications for the population's health. Residents living in rural areas are associated with increased healthcare disparities compared to more urban residents (Joens-Matre et al., 2008; Moore et al., 2008). Regarding adolescent health, one study found that significant health risk behaviors (e.g., drinking, smoking, poor diet) and health-related concerns (e.g., obesity, diabetes) are more prevalent in adolescents residing in rural areas (Curtis et al., 2011). Due to disparities in resources and geographic isolation, rural areas and schools are often underrepresented and underserved compared to more urban regions.

Despite these healthcare disparities, rural areas are rich in natural resources and greenspaces that can offer a wide range of outdoor experiences. Given the increase in undeveloped land, national parks or national forests and community greenspaces (e.g., parks and greenbelts) provide residents in rural communities access to more natural greenspaces than urban residents. Rural residents tend to value consumptive and non-consumptive outdoor activities more than urban residents (O'Farrell et al., 2021). However, the value placed on these spaces for family outings is declining (Outdoor Foundation, 2023). Social relationships and lifestyle choices of individuals may largely influence the decline of outdoor outings and participation in outdoor adventure activities.

Social Circumstances and Lifestyle Choices

An individual's social influences may be a better predictor of lifestyle choices as they relate to participation in outdoor adventure activities (Anderssen & Wold, 1992). In a 1992 study, Anderssen and Wold found that parental and peer influences significantly determined leisure-time physical activity. Nationally, only 23% of students between 6 and 17 reported participating in outdoor recreation activities. Parental and family influence may play a significant role in influencing outdoor recreation participation among these youth. In the 2023 Outdoor Participation Trends Report, the number of family outings with children has declined from 85 outings in 2012 to 66 in 2022 (Outdoor Foundation, 2023). This decreased exposure to the outdoors from influential family figures may also lead to declining role models and experiences with outdoor adventure activities. Therefore, in rural communities with low outdoor recreation participation among youth, community recreational planners and local schools can promote outdoor programming to provide youth opportunities to try these activities in local outdoor spaces (Smith, 2002).

Outdoor Adventure Education

One approach that is not common among public schools is incorporating outdoor adventure education (OAE) into the physical education curriculum or offering it as an after-school option. OAE is a physical education model that exposes students to socially constructive, experiential outdoor activities with a certain level of uncertainty and perceived risk (Ewert & Sibthorp, 2014). OAE is purposefully designed and facilitated by the instructor(s), like other physical education approaches, to aid in developing students' intrapersonal characteristics (e.g., self-confidence, resilience, persistence, and self-discipline) and interpersonal skills (e.g., communication, cooperation, empathy, and conflict resolution). This model differs by using

outdoor adventure activities (e.g., rope courses, backpacking, mountain bike riding, and kayaking) as the vessel to promote the development of student outcomes.

Outdoor adventure education models were commonly used in the physical education curriculum before the 1950s. However, federal and state policies emphasizing standardized test scores in core area classes (Kelly, 2022) and the predominance of individual and team-based sports models in physical education curricula over the past several decades (Corbin, 2021) have reduced outdoor adventure-based models. However, with the recent changes being proposed in the physical education standards, thinking about desired outcomes from physical education has drawn more attention to the novelty of outdoor adventure-based learning models like OAE in public schools (Karppinen, 2012; Zmudy, 2015). These non-traditional learning experiences can potentially motivate students not interested in traditional high school competitive sports to become more physically active through novel, lifetime outdoor adventure activities.

Outdoor Adventure Education or Outdoor Adventure

To better understand the beneficial role that OAE can play on an individual's overall physical, mental, and social development, understanding what constitutes OAE, not just an outdoor adventure (OA), is critical for curriculum and pedagogical progression. On the surface, OAE and OA may seem the same because they use outdoor activities to engage learners. However, looking at the overarching goals of each separately, one can see that they are unique. OA can be extensive in its context and denotes a pursuit in an outdoor setting that involves some level of uncertainty (Ewert & Sibthorp, 2014). As part of teacher training programs, universities may offer a variety of OA courses or experiences (e.g., hiking, biking, kayaking, or climbing), which exposes the student to the activity. With these OA courses, uncertainty exists, which can vary in scale depending on various factors (i.e., the type of activity, location, the weather, and the

participant's skill level). However, offering an OA differs from an OAE experience, and their difference is in the intended learning outcomes.

To clarify, OAE may include elements of OA; however, every OA experience does not necessarily have all aspects of the OAE experience. Using Ewert and Sibthorp's (2014) definition, OAE is an educational model with

“a variety of teaching and learning activities and experiences usually involving a close interaction with an outdoor natural setting and containing elements of real or perceived danger or risk in which the outcome, although uncertain, can be influenced by the actions of the participants and circumstances.” (p. 6)

A certain level of OA exists within OAE experiences since both expose the participant to uncertain outdoor settings (e.g., challenge courses). However, through a specifically designed sequence of group activities, intrapersonal and interpersonal skills are intended to help overcome obstacles and achieve common goals (Priest & Gass, 2005). OA does not place an emphasis on group dynamics and interpersonal skill development, while OAE does.

Dr. Sue Sutherland discusses this distinction during a seminar on physical education pedagogy (Apple Podcasts, 2021). Sutherland mentions that adventure-based learning (ABL), which has many similarities to OAE, can use a variety of activities to get students thinking, talking, and working toward a common goal. She notes that the activity in and of itself is not the most crucial part of the experience, though it can spark interest in the students. Instead, it is the development of an individual's intrapersonal (e.g., self-efficacy) and interpersonal (e.g., cooperation) traits. Still, activity selection, group size, and the instructors' teaching style, behaviors, and attitude can all influence student learning outcomes (McKenize, 2000). The critical distinction between OAE and ABL is the emphasis placed on using outdoor

environments in OAE, whereas ABL may use gymnasiums or other indoor environments. OA is more about traversing through nature and learning skills needed to traverse through the environment, like kayaking or climbing. This is not to say an individual cannot develop interpersonal skills while conducting OA, but this is not the primary intent. For example, if a student takes a kayaking class, they will hope to learn concepts and skills related to kayaking so they can become more proficient in kayaking. OAE, on the other hand, may use kayaking to help teach intrapersonal and interpersonal skills.

In terms of current OAE offerings, more public and private K-12 school systems are beginning to offer these experiences due to a nationwide curriculum shift (Zmudy, 2015). However, only some public schools across America provide OAE, and it likely depends on the region's cultural acceptance and norms. State and community stakeholders, policymakers, and administrators overseeing public school decisions influence OAE curricula offerings. Making curriculum additions and offerings that include activities, like rock climbing or whitewater canoeing, with high perceived risks can be difficult for public school systems to justify. However, some public school divisions use OAE, and studies have shown that OAE can be successfully used in public schools (Braun & Dierks, 2017; Deringer, 2017; Sutherland & Legge, 2016). Processing the meaning of the outdoor adventure learning experience is often overlooked and needs to be considered for its effective learning outcomes (McKenzie, 2000; Williams & Wainwright, 2015a). Through guided reflection, students can make connections between the experiential learning activity provided by OAE and their daily lives (Kolb & Kolb, 2017).

To better meet the needs of more students in underserved, rural public school districts, local officials could consider OAE as an addition to the curricular offerings. The practical rationale for offering OAE is its cross-disciplinary reach. The methods can be used in these

schools by physical education teachers and any teacher who values the benefits of OAE. One study found that combining an outdoor adventure educational opportunity with a science lesson increased participation in physical activity (Mackenzie et al., 2018). Depending on the lesson and how a teacher wanted to structure the experience, OAE could be incorporated into almost any academic discipline using principles from place-based learning to get students outside in their local environment and communities to engage in hands-on, real-world experiences (Ark et al., 2020). This learner-centered approach gives the students more autonomy and voice in the learning process while placing the instructor in a facilitator role to guide the activity and reflection process (Kolb & Kolb, 2017).

Designing the Outdoor Adventure Education Experience

Designing an outdoor adventure education experience requires consideration of the different experience types and the attributes of those experience types across time within a design framework (Rossman & Duerden, 2019). Taking a hike down a trail is an experience in itself, but changing certain elements or how an individual is engaged on the hike can create a different experience. This can further vary when other attributes are added that can further influence the experience type for an individual. Therefore, when creating OAE experiences, the designer must consider their participants and the overall goal of the experience to best organize the types of activities for the micro-experience and the attributes that affect each experience type.

Experience Types

Rossmann and Duerden (2019) identify five experience types that vary in degree of conscious effort: prosaic, mindful, memorable, meaningful, and transformational. Prosaic is an experience that requires no conscious effort to perform because it is likely a very commonplace act to the participant (e.g., walking on flat ground). In contrast, mindful experiences require more

mental engagement (e.g., walking on unstable, rocky terrain). From here, experience types increase in personal engagement, thus evoking different outcomes from the experience. For example, the hike can be a memorable experience if it evokes some emotion from the participant. This can either be positive (i.e., getting to the overlook of a trail) or negative (i.e., stopping the hike due to an injury). Still, either way, the experience is engrained in the participant's mind.

A meaningful experience is the next experience type, which is closely related to a memorable experience but with one main difference. The key distinction for a meaningful experience is in the self-discovery of the participant from the experience. So, if the experience produced either positive or negative memories, it only becomes meaningful if the participant reflects on the experience and gains new insights. For example, suppose a participant is on a guided hike and has to assist someone who gets injured. In that case, the negative experience may induce strong emotions in that moment, creating memories of the experience. Then, upon reflecting, the experience may become more meaningful and prompt the participant to assess what they know and do not know about handling an emergency. This is also true for positive experiences; the programmer aims to create meaningful positive experiences for all participants, which has a drawback in creating a dependency on another individual for the experience (Harmon et al., 2019).

Designing a meaningful experience can be challenging compared to the previous experience types because of the random variables of the experience, the conscious effort needed, and the time required by the participant to reflect on the experience. According to Rossman and Duerden (2019), meaningful experiences often require the participant to be more active in co-creating the experience, orchestrating micro-experiences that engage participants through visceral or sensory stimuli (i.e., sight, smell, sound, taste, and touch). The micro-experiences

surrounding the service being offered help create the opportunity for a meaningful experience. Therefore, providing autonomous opportunities for participants in outdoor adventure programming is essential for making these activities more meaningful for individuals, but creating these on a large scale will present many challenges (Harmon et al., 2019).

Lastly, transformational experiences significantly impact a person because they lead to behavioral or perspective changes (Rossman & Duerden, 2019). Continuing with the example above, if the individual decided to take a wilderness first aid course due to assessing their lack of knowledge in an emergency, then the experience was transformational. To be clear, the experience could also create negative emotions that would deter the individual from participating in the activity again. This largely depends on the person involved, making designing these transformational experiences even more difficult. Also, there is something to be said about the role of negative experiences and “Type-2” fun. Type 2 is described as an experience that is negative while it is occurring but is often accompanied by positive feelings in retrospect (Crampton, 2021). These types of experiences, though difficult and uncomfortable, can evoke strong memorable, meaningful, and transformational experiences.

For an OAE experience design, creating memorable and meaningful experiences is the goal, and one can hope they can be transformational to some. These higher-order experiences require the participant to be personally invested in the experience to get the most from it. This is not to say that all activities or experiences must be on the higher order level. Incorporating lower-order experiences (i.e., prosaic and mindful) can provide participants with a sense of pleasure and coping capabilities due to the low level of thinking required (Stenseng et al., 2023). Therefore, when looking across the experience type framework, a program designer must consider additional attributes that influence the experience.

Experience Attributes

In experience design and outdoor adventure programming, several vital attributes shape the overall experience and its effectiveness. Rossman and Duerden (2019) mention five attributes that play a role in influencing each experience type: frequency and impact, novelty, engagement, energy required, and results. Each attribute varies along the experience spectrum and plays a vital role in designing the experience.

Frequency and impact describe how often participants engage in activities and the profoundness of those experiences, highlighting the importance of both regular immersion and moments of significance in the experience type. Mundane events classified as prosaic experiences are likely to be experienced daily and forgotten with little to no impact. These can still serve a programming purpose because they can build confidence and bodily pleasure in the activity (Rossman & Duerden, 2019). In contrast, higher-order experiences may require more singular events that involve more novelty. The novelty of an experience then underscores the value of introducing new and unique elements into the experience that get or keep participants engaged while also providing opportunities for growth and learning. These experiences may occur more infrequently but offer the chance to gain the participant's attention for high-order experiences if favorable conditions are favorable.

Engagement speaks to the level of involvement and interaction experienced by participants, emphasizing the need for activities that captivate attention and encourage active participation, fostering deeper connections with the activity and those around them (Rossman & Duerden, 2019). Since higher-order experiences require participants to be more active. Thus, as engagement increases, so does the energy needed to participate. This energy required underscores the emotional, mental, and physical cost of fulfilling the experience, which is linked

to the results of the experience where the designer hopes that participants derive satisfaction and fulfillment from the designed experience. These results include the outcomes of the adventure experience, ranging from physical achievements to personal growth and self-discovery, ultimately measuring the program's effectiveness in facilitating positive change and development.

OAE Experience

By carefully considering the experience types and integrating these experience attributes, outdoor adventure programmers can create micro-experiences where smaller services can create memorable experiences that can hopefully lead to meaningful experiences. For this study, the memorable opportunities center around the experience of an OAE program, with the services (i.e., team-building activities and skill development) revolving around each micro-experience (Figure 1). For example, providing opportunities for shorter experiences, such as a mountain bike ride down a trail or paddling around a lake, can offer memorable moments and experiences that can potentially create meaningful opportunities after reflection. The participants are all provided services that include experienced instructors, transportation, equipment, and refreshments (i.e., drinks and snacks) for the experience. Though each micro-experiences of the OAE program may vary, these basic services can greatly enhance the overall experience of the participant.

Figure 1 Outdoor Adventure Education Experience Conceptual Framework



Therefore, depending on the organization of the program, the participants involved, the activities selected, and the locality of the experience, an OAE program offers a variety of experiential learning opportunities packed with lessons and insights in a condensed timeframe. Participants navigate outdoor adventure challenges, both physical and mental, in dynamic outdoor environments, fostering teamwork, resilience, and problem-solving skills. Each activity becomes a micro-experience, amplifying the learning potential through immediate feedback from the activity and, later on, the reflection of the experience. Whether navigating through forest trails on foot or on a mountain bike, or paddling a river or lake, every moment presents an opportunity for personal growth and discovery. As individuals push beyond their comfort zones, they can cultivate a deeper understanding of themselves and their capabilities, laying the groundwork for lifelong learning and self-development.

Purpose Statement and Research Aims

The purpose of this study was to learn about students’ perspectives on outdoor adventure educational activities. The outcome of this study provided insights regarding youth from a rural region of Southwest Virginia that will be used to develop recommendations for the use of outdoor adventure educational activities to increase outdoor recreation participation among youth

in the region. By understanding students' interests and perceived barriers concerning participation in outdoor adventure recreational activities, physical educators and recreational planners can gain insights to assist in meaningful program planning.

Aim 1: Identify if students found the after-school OAE experiences to be personally meaningful.

Aim 2: Identify if the after-school OAE experiences had an impact on the students' future interest to participate in outdoor adventure recreational activities.

Aim 3: Identify the students' perceived barriers to participating in outdoor adventure recreational activities.

Methodology

This study investigated the impact of an after-school outdoor adventure education (OAE) program on students' perspectives. The goal was to determine if these experiences impacted the students and their interest in future outdoor adventure participation. Additionally, barriers perceived by the student participants were of interest to understand what might prevent future involvement in outdoor adventure educational activities.

Researcher Positionality

This researcher's unique position is based on their shared outdoor adventure experiences with the subjects, their relationship with them, and the context in which these experiences were presented. First, it should be considered that this research aligns with my belief that exposing high school students to organized outdoor experiences can instill an appreciation for these activities amid the pressures of standardized testing, increased screen time, and other competing obligations. As an outdoor enthusiast, avid kayaker and mountain biker, I see the mental and physical benefits of outdoor adventure activities in my life and feel this would benefit many of

the youth in my community. Also, as a high school biology teacher and varsity sports coach, I have extensive experience with high school-aged students, and it was impossible to separate myself completely from the participants' experience while observing the outdoor adventure activities. Additionally, I had prior associations with some of the study's participants due to my position as a public school employee, and this context needs to be considered. Of the eleven students who participated, only one was a former student. None of the students who participated in the fall 2023 outdoor adventure education after-school program were being taught by me at the time of the study. Seven of the eleven students were from my school, while the other four were from a different school. This mix of familiar and unfamiliar students allowed for more in-depth and diverse discussions during informal conversations and focus group discussions. Still, it also created the potential for researcher bias. The researcher acknowledged the potential for bias during this research study, prompting the use of a reflection journal and peer-checking to improve trustworthiness during data collection and analysis (Marshall & Rossman, 2015).

Social Constructivism

Social constructivism served as the epistemology basis for this study. Social constructivism uses collaboration between individuals in a group to subjectively construct new knowledge or expand on prior knowledge for everyone through a shared experience (Vygotsky & Cole, 1978). The OAE learning model creates a socially based, student-centered learning environment, allowing the learner to rely on their peers and instructor(s) to help individuals construct knowledge and reality from outdoor adventure experiences (Ewert & Sibthorp, 2014). Through group OAE learning experiences, students can use their prior experiences, current knowledge, and socio-cultural background to process the new information into knowledge while helping others learn (Mann & MacLeod, 2015).

In examining the effects of an after-school OAE program, it is essential to consider the experiences and influences of the group. The OAE process aligns with social constructivism by fostering teamwork and open communication between individuals in the group to construct new knowledge. Lev Vygotsky's (1978) work points out that learning naturally occurs within a group setting and is inseparable from social constructs. His concept of Zones of Proximal Development is particularly relevant in OAE programming. In this context, the instructor acts as a facilitator and expert to guide social interactions with peers. This enables students to collaborate to make sense of the OAE experience. Additionally, scaffolding specific skills and experiences supports students' learning progression (Vygotsky & Cole, 1978). In OAE, the facilitator is pivotal in crafting learning activities that guide the group of students toward mastery or achievement. As more challenging activities are introduced, the facilitator increases the difficulty and sets tasks for the group to overcome, thus requiring members within the group to communicate effectively and achieve understanding to master the task. The learning process in OAE is inherently social, with group and peer influence being critical components of the learning process.

Lastly, guided reflection is essential to constructing knowledge from the OAE experiences. In an OAE-based program, the instructor(s) acts as a facilitator to help guide the students through the learning experience and then assist students in personal reflection assignments intended to engage students in the learning process. This allows the learners to make sense of the experience about the learner, the group, and the conditions that formed the experience (Ryan, 2013). Having students reflect on their experiences helps individuals construct an understanding of the activity so that it can be more effectively applied to daily life (McKenzie, 2000).

Rationale for Research

Increasing daily physical activity levels and developing habits that promote physical activity are essential for improving the well-being of students from rural, underserved areas. Many studies indicate there are physical and mental health benefits when engaged in challenging physical activities in an outdoor setting (Barton & Pretty, 2010; Coon et al., 2011; Kirwin et al., 2019; Meuwese et al., 2021; Mygind et al., 2019; Triguero-Mas et al., 2015). In a systematic review, Teixeira et al. (2012) found that individuals are more likely to participate in physical activities that create a socially fun and challenging experience that promotes personal satisfaction. Since high school students spend a large portion of their time at school and lifelong behaviors develop during adolescence, curriculum changes or program offerings modeling a meaningful physical education (MPE) approach could directly impact student perspectives on participating in lifetime outdoor adventure activities (Woodward et al., 2022). MPE facilitates opportunities for students to engage in intrinsically rewarding activities that are socially fun, active, and challenging while helping students set and work toward personally meaningful goals.

Therefore, understanding students' perspectives and interests can help develop outdoor programming for youth in these rural, underserved areas. Given their proximity and accessibility of rural schools to greenspaces, OAE can provide multiple benefits to the youth and the local community (Ark et al., 2020; Taylor & Caldarelli, 2004). A local recreational department and county officials from the county where the study is being conducted have expressed interest in promoting regional outdoor spaces and outdoor adventure recreation to increase ecotourism. Understanding the motivations of local youth to participate in outdoor activities would benefit

future growth within the region and foster sustainable recreational opportunities that can draw outside interest in the region.

Research Design

A qualitative, exploratory case study was employed to address the research aims. Qualitative research design is a common approach to understanding the beliefs, feelings, and motivations of participants experiencing the phenomenon (Guba & Lincoln, 1994). Case study research approaches seek to understand a phenomenon or the perspectives of individuals involved with the phenomenon being studied as a single group (Merriam & Tisdell, 2015).

The research study took place over a 4-week period. The after-school program consisted of OAE lessons (Table 1) designed to get students outside and actively working together to overcome challenges. During this period, observational data and informal discussions were collected in the primary investigator's observation field journal. This allowed the primary investigator to focus on student and instructor observations while still being able to act as a secondary activity facilitator. Additionally, students were asked to complete exit slip surveys to gain insights into individual understanding and group processing of the activities. Lastly, students were asked to participate in a focus group discussion at the program's conclusion to discuss outdoor adventure activities and the OAE after-school program.

The program's eleven participants (Table 2) brought their ideas and experiences into the collective group. Working through the OAE experiences, participants relied on each other to socially construct new knowledge and skills. The research can provide valuable information to school officials and local youth recreational programmers on how OAE programming can influence high school-aged students' interests in outdoor adventure activities, impacting the sustainability of a program built around OAE activities.

Setting

The research took place in a public school district with four high schools (grades 9-12) in Southwest Virginia. All schools in the district are labeled as Title 1 schools, meaning most students come from low-income families (*Title I, Part A: Improving Basic Programs Operated by Local Educational Agencies / Virginia Department of Education, n.d.*). The schools are from a small rural county in Southwest Virginia, which is historically known for coal production. Of the four high schools, two chose to participate in the after-school outdoor adventure education (OAE) program established by one of the schools. Student participants from this after-school OAE program served as the participant pool for the research study. Each school is within 30 minutes from the High Knob Recreational Area, developed to promote mountain biking, hiking, fishing, and hunting. The surrounding communities have been promoting outdoor recreation in recent years, and local officials have expressed an interest in getting more local youth involved in the region's outdoor recreational opportunities.

Participants

This study's participants (Appendix B) consisted of high school students (n=11) ranging from 9th to 12th grade from a small, rural Southwest Virginia public school district. Participant selection began in August 2023 upon IRB approval (Appendix C). The participants were selectively sampled from the county's high school student population (N= 2,153) with the assistance of school officials from each participating school. The identified students were interested in participating in the after-school outdoor adventure education program offered at one of the high schools. Norton City School student participants were then indirectly recruited to participate in the research study through letters of interest (Appendix D) and consent forms (Appendix E) sent to students from Norton City Schools. A parental interest letter (Appendix F)

and consent form (Appendix G) were also sent home with student participants from Wise County Public Schools. When returned signed, these forms granted permission for the student to participate in the research study taking place alongside the OAE after-school program. Once permission was granted, the student participants were recruited through a face-to-face informal discussion. They were told of the study and their rights before being asked to sign the student assent form (Appendix H).

Data Collection

Collecting data through different methods and sources helps to increase the trustworthiness (i.e., credibility and confirmability) of the study findings through data triangulation (Maxwell, 2012). The data collected in this study were from observations, exit slip surveys, and a focus group discussion. The researcher acted as a secondary facilitator and the study's main observer and investigator during the outdoor adventure education activities. To ensure confidentiality, identifying personal information was not included in any of the data collected. Data was stored in a secure cloud Box account before being deleted.

Observation Journal

An observation journal was written throughout the study to collect observational data on the students, the instructor(s), and the outdoor adventure activities. The journal helped ensure transparency and served as a tool for critical self-reflection for the researcher (Ortlipp, 2008). The observation journal considered my experiences and perspectives throughout the study as the primary researcher and as a secondary activity facilitator over the after-school outdoor program and research study. Following a systematic framework to guide reflection will help this researcher better identify potential cultural, racial, gender, and unforeseen biases (Milner, 2007).

Unit Exit Slips

Exit slips are short-response activities administered after learning experiences or activities, which present opportunities for educators to elicit students' thoughts. Exit slips offer valuable moments for instructors to gauge students' thoughts, provide personalized feedback, and identify learning needs or modifications to instructional plans or programming (Black & Wiliam, 1998). Exit slips served as a useful tool in understanding the meaning that students potentially made from the OAE experience and outdoor adventure activities. Exit slips were emailed to participants as a Google form at the end of each unit to understand each participant's thoughts regarding the activity (Appendix I). The meaningful physical education model considers social interaction, challenge, fun, motor competence, personally relevant learning, and delight when determining the meaningful impact of an experience on students (Ní Chróinín et al., 2017). Six open-ended questions allowed students to express the impact, or lack of effects, of the OAE activities on these six aspects of meaningful physical education experience.

Semi-structured Focus Group

Participants were asked to participate in a focus group discussion to collect qualitative data after completing the OAE program. The rationale for having a focus group is to gain greater insight into students' outdoor activity experiences and understand the impact of an OAE program on promoting outdoor physical activity and personal well-being in adolescents (Marshall & Rossman, 2015). Only five of the eleven participants in the program agreed to participate in the focus group discussion. The focus group discussion was conducted at the end of the program, and a semi-structured interview guide was used to prompt group discussion and address the research aims (Appendix J). Personal identifying information was not used during interviews nor included in the discussion transcript.

Data Analysis

The researcher served as a secondary facilitator and primary observer, using deductive and inductive reasoning to analyze the data (Patton, 2014). Deductive reasoning was used to organize initial thoughts and create potential codes to help maintain focus on the research aims throughout the study. At the same time, the inductive approach allowed codes and themes to emerge from the data (Bingham & Witkowsky, 2022). The journal entries and exit slip surveys were transcribed into a Word file weekly, while the focus group discussion session was recorded and transcribed by a third-party software, Otter. ti (Otter, 2021).

Data analysis took place in November and December 2023. The transcripts from each of these sources were uploaded to Atlas. ti software to help uncover trends through thematic analysis (ATLAS.ti, 2023). The first step was to read over the transcripts multiple times to become more familiar with the data. This allowed an opportunity to repeatedly open code the data by grouping and categorizing phrases into short, descriptive codes (Appendix). Next, axial coding allowed the investigator to group the open codes into broader categories of meaning based on each code's similarities. Using these broader axial codes, the investigator further condensed these categories through the final stage of thematic analysis, selective coding. Here, overarching themes emerged from linking categories (Miles et al., 2020; Corbin & Strauss, 2015).

All three data sources were compared throughout the coding stages using constant comparative analysis (Glaser & Strauss, 1967). This allowed the researcher to develop new codes, categories, and themes as each data source was reviewed. Each step allowed for continual revisiting of codes, categories, and themes to help develop an overarching theme.

Critical Friend and Peer Debrief

This study used a critical friend and a peer debriefer to help enhance trustworthiness. Neither individual was affiliated with the after-school OAE program or the research study. Given their experience as outdoor adventure education instructors, the critical friend reviewed weekly lesson plans and discussed observations with the primary researcher. This helped the primary researcher gain some perspective on the after-school OAE program study from a neutral individual (Costa & Kallick, 1993).

Additionally, a peer debriefer was consulted during data analysis and thematic coding to help eliminate potential research bias by the primary researcher (Guba & Lincoln, 1994). As a cohort member conducting thematic qualitative research in their study, this individual improved research credibility by helping the primary researcher identify issues and biases in the findings of the data collected and analyzed throughout the study (Guba & Lincoln, 1994).

Threats to Trustworthiness

To ensure rigor and trustworthiness in this qualitative study, methods were taken to account for dependability, credibility, confirmability, and transferability. Researcher bias is a significant threat that can be addressed through triangulation of different data sources, peer debriefing, and accurate data analysis (Finlay & Gough, 2003). Since I took an interpretive approach, several measures were taken to minimize researcher bias in this study.

A critical friend with experience in outdoor adventure education programming was consulted at the beginning of the study to look over methods and lesson plans. This individual offered advice, critiqued the study, and provided a different perspective for the researcher. A peer debriefer was also consulted throughout the research and at the end when examining results. Having both individuals helped to establish dependability in the study findings.

Credibility was accounted for through triangulation of different data collected by different methods. Informal discussions and observations, journaling, compiling exit slip questions, and a focus group discussion provided multiple angles to view the phenomenon. Additionally, I used jotting to take notes after observations of daily outdoor activities, informal conversations, and focus group discussions that were written in my journal to allow me to reflect on the data collected before being transcribed into a more descriptive form (Rubin & Rubin, 2011). This reflexivity helped me examine my own beliefs or assumptions of the events that took place and address potential researcher bias (Jamieson et al., 2023).

Findings and Discussion

This study's objective was to gain insights into factors (i.e., meaningful experiences and barriers) that may potentially influence high school students' interest in outdoor adventure activities and the sustainability of an OAE program for a small community in Southwest Virginia. The findings of the after-school OAE program are separated into three sections to better assist in understanding the findings found in each distinctive phase of the program. First, the findings and insights from the program's initial development will be revealed, followed by its implementation, and finally, its outcomes.

Program Development

The after-school OAE program centered around Williams and Wainwright's (2015b) model-based approach to OAE. They contend that outdoor adventurous educational programs designed for an individual student's personal growth are centered around four non-negotiable features of adventurous activities: being mainly outside, focusing on experiential learning, providing challenging choice activities, and managing risk. With the help of a critical friend with experience with OAE programming, the 8-day after-school OAE program (Table 1) was

developed to include these four non-negotiable components while using local resources and localities. All the activities took place outdoors on local trails and waterways. The team building and outdoor adventure activities provided group experiential learning opportunities. These experiences have been linked to students' perceived group work skills, attitudes, and confidence in working in social settings (Cooley et al., 2014). Also, for the outdoor adventure activities, participants could choose the amount of challenge they were willing to face and manage the risk they were willing to take for themselves, providing an opportunity to develop autonomy (Barfield et al., 2021).

Table 1 OAE Daily Lesson Plans

Day	OAE Activity	Data Collection and Reflection
1	<ul style="list-style-type: none"> • Instructor and Student Introductions • Ice Breaker Game <ul style="list-style-type: none"> ○ two truths, one lie • Team Building Activity • Frame Walk 	<ul style="list-style-type: none"> • Informal Conversations • Observations
2	<ul style="list-style-type: none"> • Team Building Activities <ul style="list-style-type: none"> ○ 3D Minefield • Hiking <ul style="list-style-type: none"> ○ Trail Etiquette and Leave No Trace 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations
3	<ul style="list-style-type: none"> • Team Building Activity <ul style="list-style-type: none"> ○ Fire Building • Hiking <ul style="list-style-type: none"> ○ Trail Etiquette and Map Reading 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations • Email Well-Being Exit Slip Survey

4	<ul style="list-style-type: none"> • Team Building Activity <ul style="list-style-type: none"> ○ All Aboard • Basics of Kayaking – Bark Camp Lake <ul style="list-style-type: none"> ○ Fitting PFD, Lifting Kayaks, Launching and Landing ○ Finding Balance Points on the Water 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations
5	<ul style="list-style-type: none"> • Team Building Activity <ul style="list-style-type: none"> ○ Human Knot • Basics of Kayaking – Wise Reservoir <ul style="list-style-type: none"> ○ Paddle Strokes 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations • Email Well-Being Exit Slip Survey
6	<ul style="list-style-type: none"> • Team Building Activity <ul style="list-style-type: none"> ○ Assemble Bike • Basics of Mountain Biking <ul style="list-style-type: none"> ○ Gear Fitting and Bike Anatomy ○ Test Ride Slow Race 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations
7	<ul style="list-style-type: none"> • Team Building Activity <ul style="list-style-type: none"> ○ Fix a Flat Tire • Basics of Mountain Biking <ul style="list-style-type: none"> ○ Body Position and Cornering 	<ul style="list-style-type: none"> • Guided Reflection • Informal Conversations • Observations • Email Well-Being Exit Slip Survey
8	<ul style="list-style-type: none"> • Culminating Event 	<ul style="list-style-type: none"> • Post-Program Focus Group

The lessons and activities selected allowed me, the primary investigator, to act as a secondary facilitator for each lesson. This gave me a unique opportunity to observe the participants up close while engaged in the outdoor adventure activities led by two primary

facilitators (PF1 and PF2) who volunteered for the OAE after-school program. Effective instructors are instrumental in delivering outdoor experiences, and their personalities and instruction styles are essential to consider in this study (McKenzie, 2000). When speaking to both volunteers before starting the program, they were “happy to help” (PF1) and “excited to be able to help get more young people out outside” (PF2). In an early meeting, PF1 expressed an interest in leading the hiking and kayaking units. As a member of the Virginia Master Naturalists and owner of a local outdoor outfitter, PF1 was a great local resource that provided knowledge and experience on the trails used during this program. Additionally, PF1 provided flatwater kayaks free of charge to the participants from their place of business. PF1 stated, “I would like to see more kids and adults get outside to hike our trails and float the waterways in our area. People just seem so busy all the time that they do not make the time to get outside like they used to.” As an instructor, I appreciated PF1’s straightforward manner and slightly reserved personality. Her instructions were concise and to the point, but she did not hover over the students or critique their every move. This provided them with a level of autonomy to enjoy the outdoors and the learning experience. I also appreciated that she brought about group discussion on the lesson's concepts to help students reflect and make connections during the activities, which is an essential aspect of student learning outcomes (Ryan, 2013).

The mountain bike portion of the program was led by PF2, which is the individual responsible for planning, developing, and maintaining all the mountain bike trails found in the High Knob Recreational Area. A former teacher and an avid mountain biker, PF2 has many years of experience with students and bicycles to help facilitate the activities conducted in this program. “It would be great to get some young people interested in the trails.” He then said with a smile and a slight laugh, “I can always use some help working on these things.” On the

mountain biking days, PF2 brought mountain bikes and helmets for all participants. This ensured that each participant had the appropriately sized equipment for the experience. PF2 was also straightforward, especially regarding the safety concerns of biking. This conversation was concise, and he made the dangers of the activity apparent. However, he made easy connections with the participants, which I attribute to how he approached the lessons. PF2 had an easygoing personality and a sense of humor that made the participants smile and laugh. Going into the mountain bike portion of the program, I knew students were excited because I would overhear them talking about it periodically. Still, I feel the way the instructor approached the activity further impacted the students' enjoyment. PF2 also provided straightforward and concise instructions on different mountain biking skills. He had a way of breaking down the skill and giving personal feedback to each participant without overly complicating it. The relationship between the instructor and students substantially influences how the learning experience is perceived by participants (Williams & Wainwright, 2015b) and should be a consideration for programming development. Had he not been as amenable to each student's needs and experience levels, it might have been more challenging for some of them to develop an affinity for the activity.

Organizing the initial couple of meetings was initially challenging. In developing the program, I wanted to begin right after school at approximately 3:45 pm EST. However, this was not always the best time for the facilitators or many students who showed an interest in the program. Instead, I began coordinating each day's activities with each respective PF via phone conversation and text message. I would first look at the weekly weather forecast and discuss with each PF what days would be best for them, then coordinate the meeting with the student

participants. Since this was an introductory program, providing the participants with the best conditions possible was important to create a positive experience.

After the initial introductory meeting, there were six total days of OAE activities. Originally, I had planned nine days to allow three days for each activity (i.e., hiking, kayaking, and mountain biking). However, the start date was later than planned due to initial recruitment issues. This prompted me to remove one day from each unit to ensure that three unique experiences could be offered before the weather and temperatures became an issue. Shortening the course may impact the student learning outcomes OAE courses are intended to make (Rushford et al., 2020). Obstacles and setbacks were inevitable, given the nature of creating an outdoor adventure education experience. Given the variability of people, weather conditions, and other unforeseen circumstances, flexibility was required to make the best of each day's lesson.

Program Implementation

The program took place in the fall of the 2023 school year for eleven high school students (Table 2). These students came from two local high schools in Wise County, Virginia. To familiarize participants with one another, the primary researcher, and the program, an introductory session and “ice-breaking” activity were conducted on day one. Providing participants with time to get to know each other, the facilitators, and the researcher helps to create a relaxed environment where students might feel more comfortable participating in all the activities, sharing ideas, and taking ownership of the experiential learning experiences (Kilanowski, 2012). The icebreaker game was two truths and one lie. This prompted each participant to take turns and provide two truthful facts about themselves and one made-up statement. It was then left up to the group to ask questions and discuss with one another to discern which statement was the lie. Despite having students from different schools, this got

them to interact more freely with one another and get to know each other simultaneously. Later, in my observation journal, I noted, “The students did much better than I expected with this activity. I was initially afraid they would stand around and barely interact, but they laughed and joked with each other. It was a great way to get things started”.

In planning the program, I initially thought of providing only one introduction session. However, providing additional introductory opportunities was beneficial because new participants showed up for the first three sessions. This did not take up too much time and was a good way for me to give an overview of that day's activities. I elected not to add additional icebreaker games since team-building games (i.e., cooperative activities) were organized for the remainder of the days and would serve a similar function (Hunt, 2017).

An advantage to the small number of participants (n=11) and the small daily group sizes was my ability to go around and talk with everyone for a few minutes each day to gather some ideas about their outdoor experiences. This was facilitated by two days of hiking and two days of flatwater kayaking. I compiled a participant profile (Table 2) to give the reader a better understanding of the program's dynamics. The most apparent takeaways include that all participants were male and generally had some experience in outdoor activities. They all either owned or had access to a bike, and many owned a flatwater kayak. Each of the males participating in the study shared an appreciation for outdoor activities, whether that was adventure-based (e.g., hiking or kayaking) or sport-based (e.g., baseball, tennis, or golf).

Females were recruited for the after-school OAE program but elected not to participate. I was able to talk to a few females informally about this to find out why they chose not to participate. One girl mentioned, “If my friends would do it, I would too.” Another girl said, “I don’t think I could ride a bike on trails very well, and I don’t want to look stupid.” Though this

was a small sample, this evidence further shows the disparity of females in outdoor adventure pursuits due to assumed gender roles (Rogers & Rose, 2019), lack of exposure and skill development at an early age (Evans et al., 2020), and gendered geographic fears (Wesely & Gaarder, 2004). Even with a female instructor, no female students opted to participate.

Table 2 OAE Program Student Participant Profiles

Participant	Age	Gender	Outdoor Adventure Experience
1	17	Male	<p>He enjoys spending time outside and being in the woods.</p> <p>He owns a fishing kayak and fishes regularly.</p> <p>He and his father will take dogs to High Knob to walk.</p> <p>He owns a bike, has ridden the Creeper Trail, and has been on the local trails once before.</p> <p>He enjoys hiking and camping.</p> <p>He would like to try rock climbing, skiing, and whitewater rafting.</p>
2	17	Male	<p>He enjoys spending time outside and being in the woods.</p> <p>He was a Boy Scout but is no longer a member.</p> <p>He lives on a farm, and his family values spending time outside.</p> <p>He enjoys hiking and camping.</p> <p>He would like to try rock climbing and whitewater rafting in the future.</p>
3	17	Male	<p>He enjoys spending time outside, but not in the woods.</p> <p>He owns a bike and has ridden the Creeper Trail.</p> <p>His favorite things to do outside are play golf and tennis.</p> <p>He does not enjoy hiking or camping.</p> <p>He would like to try mountain biking.</p>

4	15	Male	<p>He enjoys spending time outside.</p> <p>He loves to fish local reservoirs.</p> <p>He does not own a bike or kayak.</p> <p>He does not hike or camp much but would be interested in trying it more.</p> <p>He would like to try mountain biking and flatwater kayaking.</p>
5	17	Male	<p>He enjoys spending time outside.</p> <p>His passion is working on cars.</p> <p>He owns a bike but has not ridden the Creeper Trail or the local trails.</p> <p>He enjoys camping out and cooking for friends.</p> <p>He would like to try mountain biking, rock climbing, and whitewater rafting.</p>
6	15	Male	<p>He enjoys spending time outside and being in the woods.</p> <p>He was a Boy Scout but is no longer a member.</p> <p>He lives on a farm, and his family values spending time outside.</p> <p>His passion is running machinery and farm equipment.</p> <p>He works for a local mowing and excavating business.</p> <p>He would like to try mountain biking.</p>
7	17	Male	<p>He enjoys spending time outside and being in the woods.</p> <p>His passions are playing baseball, taking pictures, and hiking.</p> <p>He owns a bike but does not ride it very often.</p> <p>He would like to try rock climbing.</p>
8	17	Male	<p>He enjoys spending time outside but does not like being in the woods.</p> <p>Mostly spends time outside playing sports or games.</p>

			<p>He owns a bike but does not ride it anymore.</p> <p>He would like to try whitewater rafting.</p>
9	16	Male	<p>He enjoys being outside but does not go outside often.</p> <p>He works a lot after school, which prevents him from outdoor recreation.</p> <p>He does not own a bike or kayak.</p> <p>His family does not participate in outdoor activities very often.</p> <p>He would like to try mountain biking and flatwater kayaking.</p>
10	15	Male	<p>He enjoys being outside but does not go outside often.</p> <p>His passion is for playing video games.</p> <p>He has access to a bike and kayak but never rides it.</p> <p>His family goes outside to participate in activities together.</p>
11	16	Male	<p>He enjoys being outside and spending time in the woods.</p> <p>He works on his family's farm and feed store.</p> <p>He runs cross-country, so he gets to see the trails regularly.</p> <p>He has access to a bike and kayak.</p> <p>His family commonly spends time outside together.</p>

After the first two days, the program got into a good routine and flow. After an overview discussion about the day's lesson, we would take part in a different team-building activity to get everyone moving, thinking, and working together. These activities provided a fun and challenging way to foster a sense of belonging and cohesion (Hunt, 2017). Some of these activities were as simple as the human knot game, where participants held hands in a tangled circle and had to step over and under one another to unravel the circle without breaking hands. Other activities were more challenging. The frame walk was a physically and mentally

challenging activity that the participants really enjoyed. This activity had one student hold onto a wooden “A” framed-shaped structure with ropes attached to the top. The objective was to have this individual balance and walk the wooden frame while the other participants helped hold the frame upright with the ropes. This wasn't easy and really required the participants to communicate to accomplish the task. I specifically mention this activity because it was so impactful to the students. Whenever a team-building activity was introduced, many participants would bring up the frame walk. I feel what resonated most with them was the activity's novelty and challenge. None of the participants had ever done this before, so it was a completely new experience that really required them to communicate to get it to work. In many ways, it required them to communicate both verbally and non-verbally, as each member of the group would have to anticipate how the movement of one person would influence the frame. Looking back, I realize just how influential these team-building activities were to the early group dynamics and their important role in developing interpersonal relationships (Hunt, 2017).

The bulk of the time was spent on progressive outdoor adventure activities (i.e., hiking, kayaking, and mountain biking) to expose the students to various opportunities in their community. Hiking was the most obvious activity to begin with because it would help ease the participants into the program and provide a chance to see the trails that would later be used for the mountain bike riding unit. While on these hikes, PF1 would begin with a discussion on trail etiquette and Leave No Trace principles to promote environmental stewardship. While walking, PF1 pointed out common flora and fauna along the trail to prompt discussion, but the hikes were mainly quiet. Two hallmark activities took place in both hike lessons. On the first day, the students were shown the basics of using a compass and map while traversing the trails. This was the first time most of the students were exposed to an actual compass and map to use, so

watching them develop an introductory understanding of the skills was intriguing. One student commented, “There is more to this than I realized, but it is really cool.” The fire-building activity on the next hiking day was another memorable event. On this day, the participants were asked to pair up to race to see who could get a small, sustainable fire started the fastest using raw materials from the woods and a magnesium fire striker. This required them to collect dry leaves and twigs while the facilitator provided a small amount of dry wood. This was one way the program provided the students with autonomy in making their own decisions and experientially learn from the process of making their fire using their own resources (Daniel et al., 2014)

On the fourth and fifth days (Table 1), the main outdoor activity was flatwater kayaking. PF1 met up with everyone at the designated reservoir and allowed everyone to choose their kayak and equipment. Following team building activities, a safety discussion was made about personal floatation devices and water safety. The participants were then allowed to navigate around the reservoir while the facilitators paddled close behind them. There was no set agenda for the trip besides ensuring each participant could properly balance and paddle the kayak. The rest of the time was spent allowing the students to explore the area.

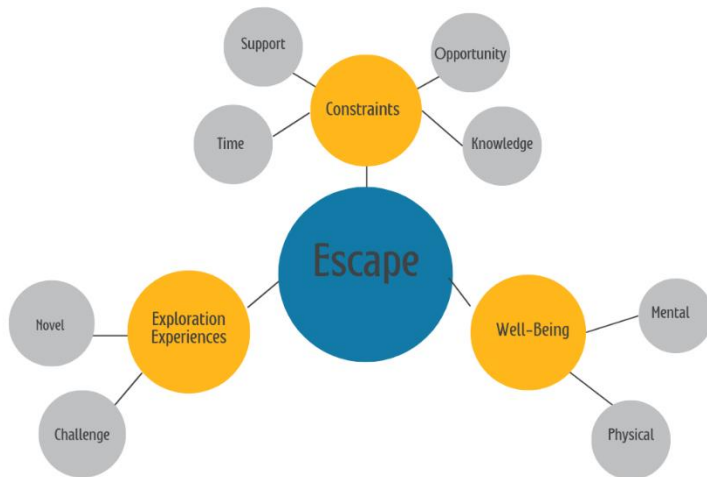
The last two outdoor adventure lessons were spent learning about mountain biking. These two days saw the highest amount of participation, and I observed the most outward enthusiasm. One participant stated, “I have been looking forward to this since we started,” while the other replied, “I know this is going to be really fun.” PF2 took the lead on the sixth and seventh day. and did an excellent job explaining some of the basics of riding a mountain bike but provided a good progression of trails to get the students used to changing gears while riding. PF2 led the way along the trails, followed by the participants. I remained at the end of the group as a safety precaution. This made direct observations impossible, but I was able to talk to everyone at

trailheads about the experience. This is often when PF2 would debrief students on trail features or riding techniques to make the participants more aware of the next portion of the trail.

Program Outcomes

Through constant comparison of data, codes, concepts, categories, and themes, a theme emerged from the data collected during the after-school OAE program. Escape emerged as the central theme, centered around three sub-themes: constraints, exploration experiences, and well-being (Figure 1). To create a sustainable outdoor adventure program, students' needs identified within the sub-themes of the after-school OAE program need to be considered for effective programming.

Figure 2 After-School OAE Concept Map



Sub-Theme: Constraints

Participating in outdoor adventure activities holds many benefits and opportunities for individual and social development. However, real and perceived barriers that exist can constrain individuals from experiencing these activities, which can contribute to stress and anxiety. Codes

and phrases identified revolving around constraints were time, support, opportunity, and knowledge. In the context of escapism, these constraints act as barriers preventing the self-expansive benefits of participating in an activity (Stenseng et al., 2023).

Time

Time constraints emerge as a significant constraint hindering outdoor adventure participation among participants. Students mentioned that busy schedules and conflicting commitments limit the amount of time they can devote to leisure activities, like those in outdoor adventure education programs. Ghimire et al. (2014) found that time was a major perceived constraint in adolescents' reasoning for not participating in outdoor recreation. One participant stated, "You know, trying to make time to do these things can be difficult when you are busy with other things like sports or work after school." This sentiment resonated with all the other participants who find themselves juggling various responsibilities or obligations, leaving limited room for leisure outdoor pursuits. Another student, a baseball team member, expressed the effects of having other priorities, noting, "I play baseball and have less time to do all the activities this fall." Balancing extracurricular activities can indeed limit the availability of free time to engage. Another student remarked, "Time constraints and not having enough free time to participate make it difficult for me after school." Recreational leisure activities like those in an OAE program (i.e., hiking, biking, kayaking) can improve participants' subjective well-being by providing an adaptive escape (Stenseng et al., 2023). Using OAE, students can participate in an outdoor activity that can temporarily relieve their daily obligations and stresses inside the walls of a school, workplace, or home. In essence, providing time to be outside to participate in these novel OAE activities can act as a positive coping mechanism for the academic, sports, and social pressures many students face in this technologically advanced era.

Social Support

Participation in outdoor adventure activities is fueled by a strong social motivation, as highlighted by individuals who have found meaningful connections and support within their adventure communities. One participant expressed gratitude for the assistance received from group members during activities, citing valuable suggestions and encouragement that significantly enhanced the overall experience by saying, "I received help from the members of this group during the activities. When riding along the bike trails, my friends offered me suggestions and encouragement that I could do it. It really made the trip better for me." For another participant, the appeal of these activities was found in the bonds formed with friends, providing an enjoyable escape from the pressures of school and everyday responsibilities. They stated, "I just had a lot of fun getting out after school, hanging out with my buddies, and not having to worry about going home and doing our homework and stuff like that. It was just very fun, and I got to do some things that I had not done before, too." Down et al. (2023) found that a connection to others was an important outcome in OAE programming. Being in a group and relying on each other can greatly impact the overall adventure experience. Collectively, these perspectives point to the social bonds, shared experiences, and the sense of community that drives individuals to participate in outdoor adventures, creating memorable and meaningful experiences that can potentially continue beyond the program.

Equipment

Participating in outdoor adventures often requires the need for specialized equipment, which can provide a significant barrier to many individuals. One student stated, "I think the lack of equipment and resources to actually do these things prevents many people I know from trying them (i.e., outdoor adventure activities)." This underscores the importance of addressing the

equipment gap as a fundamental barrier to participation. Another student emphasized this sentiment by stating, "I don't have the equipment... so I have not tried rock climbing." These shared perspectives emphasize the need for accessible solutions for localities that are trying to develop outdoor programming. Overcoming these equipment barriers requires a proactive approach, including community support, possible fundraising and grant writing efforts, or partnerships with local government, clubs, and businesses, to ensure that the financial aspect of outdoor gear does not hinder individuals from engaging in these outdoor adventure activities. By alleviating these equipment-related challenges, outdoor programming can become more inclusive and accessible to a wider range of participants, especially those found in low socioeconomic regions.

Knowledge

Participating in outdoor programming can be hindered by the participant's experience level, knowledge, and awareness. One student emphasized, "I think people our age don't know or have connections to people with the resources to do these things." This speaks to the lack of access and awareness, highlighting the need for initiatives that bridge the gap between students and the resources required for outdoor activities. Effective outdoor programming is not just about offering exciting activities but also about encouraging and facilitating participation. As one student pointed out, "I'm sure you can get other students to join if you just encourage it and put advertisements out there." Creating awareness and generating interest through targeted promotions can help make potential participants aware of these outdoor adventure opportunities.

Additionally, making participants aware that opportunities will include other participants and skilled instructors might increase participation in certain activities. One student stated he has been reluctant to try rock climbing, saying, "Finding a teacher and having a friend group

interested in doing it too has prevented me from rock climbing.” A solution to this, provided by one student, is to allow participants to “sign up for certain days or activities that interest them.” Ultimately, making individuals aware of these structured and supervised outdoor adventure opportunities can increase participation.

Sub-Theme: Well-Being

Well-being related to participation emerged as another sub-theme in this study. The reasons that motivated each participant to engage in outdoor adventure activities varied to some degree but centered around mental and physical well-being.

Mental

Participating in outdoor adventure activities serves as a powerful means to encourage individuals to break free from their comfort zones, embrace challenges, and engage in physical activity in a natural setting. The dynamic nature of outdoor activities enhances mental resilience and cultivates a deep-seated motivation to overcome obstacles, leading to increased self-confidence and a heightened sense of accomplishment (Priest & Gass, 2005).

Outdoor adventure activities have been shown to significantly reduce stress and anxiety by providing a natural escape from the pressures of daily life (Berto, 2014). Whether it was to get “outside to relax” or to “get my mind off of things,” the mental benefits of being outdoors and involved with adventure activities were made evident by the participant's responses. Several students expressed the calming power of being outdoors. One student stated, “I like the mental part because outside just taking all my anxiety and stress away.” When some mentioned the physical benefits, another student said, “For me, I enjoy being outside because of the mental side. I just like lose track of time and just have fun”.

Another student remarked, "I think a big part of people our age not wanting to participate is the mental jump you have to make to start something new, especially something outside your comfort zone." Overcoming mental barriers that are associated with a lack of experience is crucial, as many individuals may be hesitant to step outside their routine and embrace new experiences. The fear of the unknown was further addressed by a student who stated, "I think some people are just afraid to start doing stuff like this because it seems hard or dangerous."

Physical

Participating in outdoor adventure activities offers many physical benefits, as expressed by the student participants. Activities such as hiking, mountain biking, and kayaking engage various muscle groups, providing a full-body workout that enhances cardiovascular health and muscular development. Students said they enjoyed going outside to "try new physical activities." One student stated, "When I am outside and getting to do physical things to break a sweat, it just makes me feel good about myself at the end of the day." Barfield et al. (2021) also found that outdoor after-school programs positively impacted students' self-reported health-related competencies, including physical activity level. Even though physical activity and exercise were not the primary motivation for participation in the after-school OAE program, it was an indirect benefit.

Sub-Theme: Exploration Experiences

The exploratory nature of participant's outdoor experiences emerged as the sub-theme. The participants commonly held and expressed that their experiences with the outdoors, the outdoor adventure activities, and the after-school program were primarily positive. They enjoyed the chance to get outside to experience new activities, see new places, and meet different people. Examples include: "I enjoy being outdoors a lot. I just like to walk around, taking pictures" or "I

like exploring the outdoors and just doing things to have fun.” These positive feelings were generally linked to feeling relaxed in these outdoor spaces and the freedom the outdoors provides. Several students expressed that being outdoors was “calming and relaxing.” One student stated, “Getting to be outside, away from normal daily stuff, helps me relax and take my mind off stuff.” Additionally, all the students mentioned that being outside was “fun.” These positive feelings (i.e., enjoyment, fun, and excitement) were found throughout the program regardless of the activities. Granted, the expression of these positive feelings varied from one activity to another. For example, observation showed that the participants enjoyed kayaking more than hiking, while mountain biking received the most obvious response of positive emotions (i.e., laughing and smiling).

Being outside also created positive feelings by altering the participants’ normal daily environment. One student commented that participating in the outdoor adventure activities was a “good change of pace” and “was a nice break from the structure of a typical school day.” When individuals are actively engaged in an activity, they can reach a state of “flow,” which is characterized by heightened focus and a lack of self-awareness (Csikszentmihalyi, 1990). This state creates a natural escape because the participant becomes more present in the moment. During another informal conversation, another student echoed this sentiment, stating that being outside provides them with a “feeling of freedom.” Another student commented, “Being on the water is very calm and relaxing. I lost track of time while I was out there, which felt nice after school”. Another student mentioned, “I like hiking because I can do it anytime that I want. It brings me a sense of joy and positive feelings because I can get away from school, walk around, and take pictures”. These findings point toward the central theme that these high school students appreciate these outdoor opportunities to find a positive escape.

Central Theme: Escape

The participants commonly held and expressed that their experiences with the outdoors, the outdoor adventure activities, and the after-school program were primarily positive. Examples include: “I enjoy being outdoors a lot. I just like to go walk around, taking pictures” or “I like exploring the outdoors and just doing things to have fun.” These positive feelings were generally linked to feeling relaxed in these outdoor spaces. Several students expressed that being outdoors was “calming and relaxing.” One student stated, “Getting to be outside, away from normal daily stuff, helps me relax and take my mind off stuff.” Additionally, all the students mentioned that being outside was “fun.” These positive, joyful feelings were found throughout the program regardless of the activities. Granted, the expression of these positive feelings varied from one activity to another. For example, it was evident that the participants enjoyed kayaking more than hiking, but mountain biking received the most apparent response of positive emotions (i.e., laughing and smiling).

What needs to be considered is that these positive feelings (i.e., relaxing and fun) were created by altering the participants’ normal daily environment. One student commented that participating in the outdoor adventure activities was a “good change of pace” and “was a nice break from the structure of a typical school day.” During another informal conversation, another student echoed this sentiment, stating that being outside provides them with a “feeling of freedom.” Another student commented, “Being on the water is very calm and relaxing. I lost track of time while I was out there, which felt nice after school”. Another student mentioned, “I like hiking because I can do it anytime that I want. It brings me a sense of joy and positive feelings because I can get away from school, walk around, and take pictures”. All of the data from the interactions with the participants points toward the feeling that the students were all

seeking an escape experience through the OAE program, and for this reason, it is recommended that further efforts be made to offer this program again.

Whether through self-expansion or self-suppression, these experiences assisted them in reducing their self-awareness by narrowing their attention to the present moment, allowing them to escape the daily stresses and pressures of school (Stenseng et al., 2023). The hikes and kayaking experiences were noted as “enjoyable” and “relaxing” to participants, helping them turn their minds off for a moment. Meanwhile, the mountain biking activity provided a more “exciting” and “exhilarating” experience that got participants' “hearts pumping.” These phrases indicate Baumeister's (1990) suggestion that these actions help induce “cognitive narrowing”. This allowed the participants to experience a momentary reduction in self-awareness, which in return helped them escape their daily stresses (Hutchinson et al., 2006). Finding a good mixture of activities can appeal to more students and help them find their own OAE escape experience. These experiences also provided a way to create new and strengthen old social bonds through their shared experiences. Increasing social relatedness is a potential major outcome of after-school OAE programming (Barfield et al., 2021), and I feel this was a significant influencer in motivating participation in the program. That said, I think that there are other high school students craving unique outdoor experiences, but they do not have the knowledge, awareness, time, equipment, and social support to make them occur.

Conclusion and Recommendations

The participants universally expressed positive experiences with the outdoor adventure activities and the after-school program, citing feelings of relaxation, joy, and escape from daily routines. They found being outdoors calming and fun, with activities like kayaking and mountain biking eliciting powerful positive emotions. These experiences facilitated a temporary reduction

in self-awareness, allowing them to escape school pressures. Moreover, the outdoor activities fostered social bonds among participants, highlighting the potential for after-school outdoor education programs to engage and benefit students seeking unique experiences.

The data indicates that the high school students in the study desired outdoor adventure activities to escape routine and connect with nature. These experiences provide enjoyment and opportunities for cognitive narrowing, temporarily relieving students of self-awareness and academic stress. Though not a heterogeneous representation of the region, I feel that as a public school educator, this holds true for many of the other students I see on a daily basis. Effective OAE programs should offer activities tailored to local resources, fostering social bonds while providing avenues for escapism and personal growth. However, there remains a need to address barriers, such as lack of knowledge, equipment, and social support, to ensure broader participation and access to these beneficial experiences.

Developing a sustainable outdoor adventure education (OAE) program for a public high school presents challenges to programmers. Understanding OAE programming (William & Wainwright, 2015b) and sequencing activities (Bisson, 1998) are important considerations for creating effective programs. Additionally, teacher experience, knowledge, and comfort in instructing OAE activities will undoubtedly factor into the learning experience (Williams & Wainwright, 2015b). Creating meaningful OAE experiences requires the instructor to know what to do and how to effectively support the participants' experience. This includes offering outdoor adventure experiences and creating opportunities for students to experientially learn and reflect on those experiences (Ryan, 2013). In essence, the instructor is designing an experience for the participants; in this case, it is an experiential outdoor adventure learning opportunity to escape (Rossman et al., 2019).

Using my experience from this study, I make the following recommendations for designing an OAE program that can be used within a school that does not currently offer one. First, I recommend establishing an OAE committee using key community partnerships to help develop the OAE program. I believe sustainability of a program will need to take advantage of local outdoor spaces (e.g., High Knob trail system, Bark Camp Lake, and the Clinch River), outfitter businesses (e.g., Stone Mountain Adventures and Clinch River Adventures), and local clubs/groups (e.g., Southwest Va Hiking Club, Bear Creek Bowman Archery Club, and Central Appalachia Climbers Coalition) when designing the OAE experience (Rossman et al., 2019). Knowing that some Norton City officials and economic advisory groups (i.e., Friends of Southwest Virginia) are interested in promoting outdoor adventure recreation, I strongly advocate for increased collaboration between these groups and the local schools. The local recreational departments could organize resources and knowledgeable volunteers to assist schools and teachers in providing these outdoor adventure experiences as a part of a school field trip or even an instructional unit for any of the school's departments (e.g., physical education, science, or history).

Secondly, I recommend targeting seniors within the school for an OAE program for two reasons: 1) they are in a transition period of life (pre-graduates), and 2) many have not likely participated in an organized physical education course since their sophomore year. This population is likely under stress related to transitioning into the next stage of their life, whether that be getting ready for college, a career, or the military. Many are taking advanced placement courses, applying to and visiting colleges, filling out a FAFSA form, playing sports, or working a part-time job, and the list can go on. McMahan and Estes (2015) suggested that during this time of transitioning between high school and college or a career, nature and outdoor activities can

play a role in coping with this change and help individuals gain perspective of their situation.

Seeing students juggle these responsibilities and talking with them daily, I can sense they would appreciate an escape that incorporates the stress-reducing effects that the outdoors can bring to their lives.

The third recommendation is to collaborate with these invested stakeholders in developing a locally relevant outdoor-based curriculum that can be instrumental in creating a school culture centered around the community (Hardré et al., 2013). The key to this curriculum is that it is consistently offered and promoted throughout the school year to foster an outdoor adventure culture through OAE learning opportunities within the community (Smith, 2002). This could be accomplished by offering a fall and spring OAE program, each lasting three months. The “Back-to-School” portion would begin in August and run through October, while the “End-of-School” portion would start in March and run through May. I suggest having at least one OAE opportunity each week to build consistency and incorporate one Saturday OAE trip for added flexibility. In organizing these meetings, I would advise a sign-up sheet to provide all those involved with the day, time, and number of participants interested in each activity for proper planning. This way, students and programmers can plan accordingly. Given the impact I saw in this study; I would advocate beginning each lesson with a team-building activity followed by a progression-built outdoor adventure activity led by a qualified instructor. It is essential to understand that there is no one-size-fits-all approach to implementing OAE lessons. To help assist a programmer or outdoor club sponsor in developing activities or a program, I recommend researching the material provided by the non-profit *Transforming Youth Outdoors* (TYO) (MyTYO, 2021). TYO is a resource-based community providing guides and sample lessons for

various outdoor experiences that can assist programmers and educators in engaging youth outdoors in experiential OAE activities.

Also, depending on the interest level and the school's approval, I suggest offering as many of these OAE opportunities during school hours as possible to avoid competing with out-of-school obligations. The most challenging aspect of my study was getting participants to attend the lessons after school regularly. This could be facilitated by starting or enhancing an outdoor adventure club at the school led by an in-school sponsor or incorporating OAE units into the school physical education program. Then, organized field trips to the outdoor localities where school-approved local experts can meet them to instruct the activities or have opportunities where the experts could meet on the school's campus to offer the experience (e.g., set up an introductory mountain bike training course). The approach would help expose more students to these activities, potentially facilitating lifelong participation. A long-term recommendation would be to see if incorporating an OAE curriculum into the curriculum increased outdoor recreation participation adherence post-graduation and if it positively influenced their subjective well-being as a self-expansion form of escape.

CHAPTER II: DISSEMINATION PLAN

The findings of this exploratory case study were designed to impact local school divisions and the youth they serve. Therefore, the findings of this study will be presented to local school division directors, administrators, and personnel involved in reviewing new program proposals. The presentation is a guide for determining if adding Outdoor Adventure Education programming to the school's curricular offerings is rational and feasible. The dissemination format will be a PowerPoint presentation with speaker notes (Appendix J). The goals of the presentation are to inform stakeholders of the state of Outdoor Adventure Education in public education today and to present a rational procedure for determining demand and feasibility for implementing an Outdoor Adventure Education program for the local school systems.

Slide 1: Introduction

Hello everyone! Thank you for being here today to discuss what I feel is an exciting initiative I am advocating for in our local community – Engaging Youth Through Outdoor Adventure Education. As physical activity (PA) levels in youth and adults decrease, sedentary activities and screen time are rising (Guthold et al., 2020). Most youths in America attend public schools (Riser-Kositsky, 2023); these school districts and educators can be instrumental in developing programs to promote physical activity and develop habits for lifelong adherence (Cooper et al., 2016). Some of the issues could be due to the increased time adolescents spend indoors. Despite the many physical and mental benefits of time outdoors, students spend a large portion of their day inside, especially during a typical school day. There is also a lack of outdoor adventure education opportunities for adolescents. Providing these opportunities could facilitate behaviors for increased physical activity and outdoor time. My purpose for this outdoor

adventure education initiative is to address the current decline in physical activity and foster a culture of well-being among our youth through outdoor adventure activities.

Slide 2: Introduction to Outdoor Adventure Education

First I want to give a brief background on outdoor adventure education and the study. Physical activity levels among youth are at an all-time low. Greater than 75% percent of girls and boys do not meet the daily recommended physical activity level. In fact, only 22% of Virginia high school students meet the physical activity recommendations. Some of this could be due to increased time adolescents spend indoors. Despite the many physical and mental benefits of time outdoors, students spend a large portion of their day inside, especially during a typical school day. There is also a lack of outdoor adventure education opportunities for adolescents. Providing these opportunities could facilitate behaviors for increased physical activity and outdoor time.

Slide 3: Study Location

The setting for this study was a rural county in Southwest Virginia, that is historically known for its coal production. Wise County is home to three county high schools and one city high school, with a total population just over 2,000 students. For this study, students from Norton City School and Central High School elected to take part in the after-school outdoor adventure education program.

Slide 4: Study Location cont.

I also want to point out the outdoor space where most of the program took place. High Knob is located at the peak of Stone Mountain, which borders Wise County and Scott County in Southwest Virginia. It is also the location of the Flag Rock Recreation Area shown here. Recent and continual efforts have been made to promote outdoor recreation in the region and a

lot of effort has been made into developing this area to facilitate hiking, mountain biking, and flatwater kayaking. The City of Norton and others in the SWVA region are committed to creating sustainable and environmentally responsible outdoor recreation to draw more people to the region.

Slide 5: Study Purpose and Aims

This leads us to the purpose of this study. In my dissertation, I wanted to look at local high school students' perspectives on OAE activities. Understanding local youths' experiences and perspectives can be instrumental in creating actionable recommendations to increase outdoor recreation participation in the youth of the region. Therefore, this study aimed to first identify if students found the after-school OAE experiences to be personally meaningful. Next, identify the students' perceived barriers to participating in outdoor adventure recreational activities. Lastly, in this study, I wanted to identify if the after-school OAE experiences had an impact on the students' future interest to participate in outdoor adventure recreational activities.

Slide 6: Methods

This study can be viewed in three phases: program development, implementation, and outcomes. In developing the OAE program, students expressing an interest in the after-school OAE were selectively recruited from JI Burton High School and Central High School. In all, 11 students took part in the program. The OAE program took place over 8 total days, with 6 of those days incorporating OAE activities. These activities included team-building games and outdoor adventure activities.

In regards to the programs demographics, 11 students took part in the OAE program and all identified as white males. The majority of the students expressed enjoying weekly outdoor activities, like golf, fishing, or going on hikes.

For data collection, qualitative data was gathered throughout this exploratory study. Observations and informal conversations with participants, as well as instructors were recorded in an observation journal. Exit slip surveys were also administered after each OAE unit to see if the activities performed provided a meaningful impact on the students. Lastly, a focus group discussion took place at the end of the program, where semi-structured questions were used to understand the students' experiences with the OAE program and how it might influence their future participation.

Slide 7: Analysis and Findings

Prior to analysis, the three data sources were transcribed and coded to look for common themes. After familiarizing myself with the data I looked for common terms or concepts during open coding, which are represented by the grey circles. As you can see these codes included novelty, challenge, time, support, opportunity, knowledge, mental and physical. These codes were then grouped into three common categorical sub-themes during axial coding which are represented by the yellow circles: exploration experiences, well-being, and constraints. Upon reflection, these categories centered around a common theme that is represented by the blue circle: escape.

Escape was the overall arching theme I saw emerge from the data for a variety of reasons stemming from the novelty and challenge of these exploration experiences or the physical and mental well-being benefits these escape experiences offered. Students indirectly expressed a need for escape, but in doing so also presented constraints that prevented them from escaping. These points will be discussed further as it relates to each research aim.

Slide 8: Findings: Meaningful Experiences

To address my first research aim, concerning meaningful experiences of the OAE program, I am going to focus on two sub-themes that emerged from the data. The first one is on the exploration experience students mentioned. The novelty and challenge of the team-building and outdoor adventure activities provided students with a unique and engaging way to escape their typical day. Common codes or phrases for novelty included things unique, new experience, different, excitement and fun, while students noted that the activities provided engagement and personal growth through the challenge of activities. Students said these activities were a good change of pace and they enjoyed being able to try new physical activities. In observing the activities, especially the mountain biking, it was very apparent from the tone of their voice and the look on their faces that these experiences have the potential to create meaningful experiences for students through their uniqueness and the amount of challenge that they presented.

Slide 9: Findings: Meaningful Experiences

The second and arguably the most salient sub-theme as it relates to meaningful experience is well-being. In beginning this study, I was more focused on the physical benefits of outdoor recreation, but after reflection I realize the significant role the outdoors and outdoor adventure activities can have on the mental well-being of participants. Codes and phrases that related to the mental aspects of the OAE experiences centered around the stress relieving nature of the activities. Whether it was for their relaxing or refreshing nature, being outdoors engaged in these activities helped to take their minds off of normal daily stresses.

Also, though not as prevalent, students mentioned how the physical aspects of these activities provided meaningful experiences. Whether it was to break a sweat or just to do things

that physically challenged them, some students emphasized how doing these types of outdoor activities were physically beneficial.

Slide 10: Findings: Barriers to Participation

To answer Aim #2, which was to identifying potential barriers to participation in OAE activities, I am going to focus on the emerging sub-theme, constraints. The codes found under constraints could be grouped under four headings. The first two I will address are equipment and knowledge constraints. Though all of the participants mentioned having access to a bike and many had access to a flatwater kayak, proper equipment was noted as a potential perceived barrier that could constrain participation, especially for certain activities. Rock climbing and whitewater rafting were two activities students mentioned being interested in trying, but they lacked the equipment. Additionally, students mentioned lacking the appropriate knowledge and skills to perform those activities. Having the appropriate understanding and skills to perform these activity was noted by the students. In fact, some mentioned the importance of knowing individuals that would be able to assist in learning these skills. This points towards the importance of creating structured opportunities for participants with knowledgeable guides and making them aware of their availability.

Slide 11: Findings: Barriers to Participation

The other two codes found under the constraints sub-theme were time and support. Time was the most mentioned constraint by the participants and the instructors. Having a lack of time due to other obligations creates scheduling issues for after-school programming. After school programs are competing with other programs, extracurricular activities, work, and family obligations. One instructor mentioned “I would like to see more kids and adults get

outside...people just seem so busy all of the time”. A student mentioned that trying to make time to do things can be difficult because of sports and work after school.

The last constraint that emerged from the data was having a support system to encourage or motivation participation. Going into this study, I undervalued the impact of social influence and bonds on participation. However, having a good social support system to facilitate participation in outdoor adventure activities can be very important. Most of the students mentioned that being able to go hang out with their friends was a motivating factor, so not having individuals present to share these experiences with would likely hinder continual participation. Additionally, having an experienced or knowledgeable instructor or peer was mentioned for activities like rock climbing and whitewater rafting. Instructors can be highly influential in promoting outdoor adventure activities. I also feel that having an adult to model the activity and behavior can be a powerful motivator too.

Slide 12: Future Programming and Actionable Recommendations

To address aim #3, which is concerned with the student's future interest in participation in OAE activities, I want to note that students found the program to be a positive experience and voiced an interest in participating in future outdoor activities. Taking what I learned from this study, I feel the following recommendations would benefit the sustainability and growth of the program.

First, I recommend establishing an OAE committee using key community partnerships to help develop a locally relevant OAE program. These partnerships and curricula can provide schools with the resources to assist in providing outdoor adventure experiences within the community.

Second, I would recommend targeting high school seniors. I feel that this population would benefit from the experiences in order to help them cope with this transitory period in their life and help them gain perspective on their life's direction. Additionally, this group has not been required to participate in organized physical education since their sophomore year.

Third, I recommend offering more in-school experiences lead by experienced instructors/facilitators. This approach would help avoid after school conflicts and make it easier on teachers that may not feel comfortable leading these activities while promoting these activities to the students.

Lastly, I highly recommend offering these OAE opportunities consistently. If students are provided weekly opportunities throughout the school year, more individuals will become aware of these activities and build competence. Providing sign-up sheets for weekday and weekend trips would be beneficial for planning purposes. Offering female-only opportunities might also be considered to help promote these activities to girls who may be reluctant to participate in co-ed.

Slide 13: Closing

Effective outdoor programming extends beyond exciting activities to actively encouraging and facilitating participation. Students emphasize the importance of promotion and awareness, suggesting encouragement and advertisements can attract more participants. Making individuals aware that activities involve other participants and skilled instructors could boost engagement. Addressing barriers like finding teachers and forming friend groups, one student suggests allowing participants to sign up for specific days or activities that interest them. Increasing awareness of structured and supervised outdoor opportunities can enhance participation.

Regarding activity options, student feedback indicates a positive reception of current offerings, with expressions like "I enjoyed the program" laying a solid foundation for further development. Students expressed interest in program expansion, emphasizing the need for diverse activities to sustain and broaden participant interest. The belief that new activities could make the program more enjoyable and attract a broader audience highlights the dual benefits of expansion: enhancing the experience for existing participants and attracting new enthusiasts. Adapting and expanding outdoor adventure programming to include various novel activities can contribute to its uniqueness, inclusivity, and appeal to a broader audience.

Thank you so much for your time. If anyone has any questions I would be happy to answer them.

Slide 14: References

CHAPTER III: ACTION PLAN

After disseminating my research findings to the local school divisions where the study took place, I intend to follow the four-step action plan described below to develop an outdoor adventure education program as an internal or external offering for interested schools in the region I currently serve. These steps include planning, engaging community stakeholders, student recruitment, and program execution. Each step will be discussed in further detail below.

Step 1: Planning

The planning phase of an outdoor adventure education program involves several key steps. First, the program's objectives will need to be clearly defined, emphasizing the development of interpersonal and leadership skills, mental and physical well-being, personal growth, and environmental stewardship. Having clear objectives will help organize and drive the decisions to make the program successful.

Next, a locally relevant curriculum will need to be designed that integrates outdoor activities common to the region, like hiking, camping, mountain biking, kayaking, and rock climbing, with academic subjects such as biology, environmental science, and history. This will require buy-in and collaboration with local outdoor organizations, interest groups, and businesses that can facilitate access to resources and support, including equipment loans, discounted services, and guest speakers or instructors. Additionally, these interest groups may play a critical role in additional resources (i.e., equipment, materials, transportation, and facilities) that may be required for the program. This will warrant a needs assessment to consider budgetary constraints and explore potential funding sources (i.e., grants) that can offset deficiencies.

Lastly, a detailed activity schedule and logistical plan for each experience will need to be organized to outline the timing and arrangements for each activity, including the date, time,

equipment requirements, transportation, and other accommodations needed for the trip. The logistical plan will also take into account safety protocols and risk management procedures that must be considered for each activity to ensure participant well-being during the outing.

Step 2: Engaging Community Stakeholders

Once a program plan is written, the next step will be to engage stakeholders in the outdoor adventure education program to gain buy-in, which will involve several key strategies. During this step, a proposal presentation (Appendix K) will be presented to local stakeholders (school board members and administrators, building administrators and staff, local board of supervisors, businesses, and other interest groups), highlighting the educational and developmental benefits for students while addressing concerns about liability, safety, and curriculum integration. Multiple separate presentations will likely be required to allow each respective stakeholder to hear the study findings and program proposal. However, this is a very critical step because these individuals represent those in the county who have a curriculum and budgetary influence for new proposals and programs.

If the program is approved by the school division and the partnering school, the next step will be to engage teachers and staff members who will provide support for the program and potentially act as facilitators, advisors, or chaperones for the activities. Having invested teachers within the school is crucial to aid in motivating students to participate. Though this will likely be a new experience for them, these outdoor adventure experiences will provide teachers with opportunities for professional development in outdoor leadership and risk management. Specifically, I intend to talk with physical educators in the participating schools about potentially incorporating outdoor adventure-based activities and team-building activities in their classes curriculum throughout the school year. I feel that developing this partnership will go a long way

in building awareness and competency in these types of outdoor experiences, given the role physical education plays in the lives of students.

The last stakeholders that will play a major role in the success of the outdoor adventure program are the parents and guardians of the potential student participants. Communication with parents and guardians is vital, and an emphasis on the program's goals, safety measures, and benefits for their children will hopefully encourage their buy-in.

Step 3: Student Recruitment

Next, strategies to effectively recruit students for the outdoor adventure education program will need to be developed. First, a marketing effort to gain participant attention and provide information that emphasizes the program's novel outdoor activities and opportunities for personal growth through lifetime outdoor activities. Secondly, in-person informational sessions and recruitment events will need to be hosted to introduce the program to potential students firsthand. Providing an opportunity for students to engage in outdoor adventure activities may be the most impactful way to garner interest in participating. These events may be conducted during school hours (i.e., lunch periods or physical education classes), as organized after-school workshops, during community outdoor festivals, adventure challenges, or similar events. This event will provide potential students with a glimpse into the program's offerings. Lastly, a selection process will need to be established where potential student participants can be selected for the program. Program facilitators will interview potential student participants, aiming to evaluate the student's needs, commitment, experience, and the diverse backgrounds from which each student comes in order to select suitable participants.

Step 4: Program Execution

The successful execution of the outdoor adventure education program hinges on several key components. Firstly, orientation sessions are conducted to familiarize participants and their families with program expectations, safety protocols, and outdoor skills training, ensuring they are well-prepared for upcoming adventures. Secondly, the curriculum is implemented through a blend of classroom instruction, experiential learning, and outdoor expeditions, fostering hands-on activities and reflective discussions to reinforce academic concepts and life skills. Thirdly, qualified staff members and adult volunteers provide supervision and support during outdoor activities, prioritizing participant safety and personal growth. Lastly, continuous evaluation and feedback mechanisms are established, incorporating input from stakeholders such as students, parents, teachers, and community partners to identify strengths, areas for improvement, and growth opportunities, ultimately refining program components and measuring outcomes over time.

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APPENDIX A: UNCG IRB APPROVAL LETTER

November 15, 2023

Justin Boggs
Graduate Student, Kinesiology

Re: Modification Approval - IRB-FY23-585 The Effect of an After-School Outdoor Adventure Education Program on High School Students' Outdoor Physical Activity Perspectives.

Dear Dr. Justin Boggs:

UNCG Institutional Review Board has rendered the decision below for The Effect of an After-School Outdoor Adventure Education Program on High School Students' Outdoor Physical Activity Perspectives. This modification is now approved.

Decision: Approved

Modification:

I am adding an additional study site to recruit more high school students for my study.

I have modified my recruitment procedures, recruitment letter, and parental/guardian consent letter to include the new study site.

Additionally, I have altered my study procedure to use only one 30-minute focus group at the end of the program. The focus group questions will be slightly changed to reflect this alteration in the procedure.

The end date of this study has also been extended to provide additional time to collect the needed data at the end of the outdoor program.

Injury language was added to the parental permission forms.

If this modification involved changes to the consent form/IRB Information Sheet, please utilize the consent form/information sheet with the most recent version date when enrolling participants.

Sincerely,

UNCG Institutional Review Board

APPENDIX B: NORTON CITY SCHOOL PARENTAL/GUARDIAN INTEREST LETTER

Dear Parent/Guardian:

Hello, my name is Justin Boggs. I am a graduate student working toward my doctoral degree at the University of North Carolina-Greensboro. J.I. Burton High School is offering an 11-day after-school outdoor adventure program at the High Knob Recreational Area in Norton, Va, for the fall 2023 school semester. I am reaching out to you because your child has expressed an interest in participating in this program, which was advertised at their school. I am asking if you would consider allowing your child to participate in my research study, which is interested in learning about the impact of after-school outdoor adventure education programs. This will be separate from the after-school program, but I hope to gain an understanding of high school students' perspectives of outdoor adventure recreational activities and their well-being.

If you allow your child to be included in my study, they will be asked to participate one 30-minute focus group discussion and complete three 10-minute email surveys over the course of the after-school outdoor adventure education program. There is no cost for your child to participate in the research study, and they will not receive compensation for their participation.

I have also included a consent form with additional information to help you make a more informed decision. If you are interested and would like more information, I would be happy to discuss things further. Please just contact me using the phone number or email provided below.

Thank you very much for your time and consideration.

Justin Boggs
276-393-0170

APPENDIX C: NORTON CITY SCHOOLS PARENTAL/GUARDIAN CONSENT FORM

Project Title: The Effects of an After-School Outdoor Adventure Education Program on High School Students' Perspectives
Principal Investigator and Faculty Advisor: Justin Kent Boggs and Dr. Michael Hemphill
Participants Name:

What are some general things you should know about research studies?

Your child is being asked to take part in a research study. Your child's participation in this research study is voluntary. You may choose for your child not to join, or you may withdraw your consent for them to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or for your child to leave the study before it is done, it will not affect your or your child's relationship with the researcher, the University of North Carolina at Greensboro, or Norton City Public Schools.

Details about this study are discussed in this consent form. It is important that you understand this information to make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research study. Your child's participation in this project is voluntary. The purpose of this study has three aims. The first aim is to understand your child's perspectives regarding their interest in participating in outdoor adventure activities. The second aim is to understand the perceived barriers that prevent them from participating in outdoor adventure activities. The third aim is to learn about the meaningful impact of an after-school outdoor adventure education program on your child's perspectives of the outdoors. The objective is to see if being exposed to some common outdoor activities impacts your child's perspectives on future participation in outdoor activities.

Why are you asking my child?

Your child is being asked to participate in this research study because they expressed an interest in participating in the after-school outdoor adventure education program being offered by Norton City Schools. In my study, I am interested in understanding your child's experiences with the outdoor program.

What will you ask my child to do if I agree to let him or her be in the study?

If you allow your child to be in this research study, they will be asked to participate in one 30 minute focus group discussion at the end of the program and answer three separate email questionnaires that will take 10 minutes to complete. You and your child will be given the questions so that you are aware of what is being asked. The questionnaires will be sent out at the conclusion of the hiking unit, the biking unit, and the kayaking unit. Measures will be taken to ensure confidentiality is maintained.

Is there any audio/video recording of my child?

This study will collect audio recordings of your child. Because your child's voice will be potentially identifiable by anyone who hears the tape, confidentiality for things said on the tape cannot be guaranteed. However, the researcher will be the only one with access to the tape. The audio recording will be transcribed using software on the primary researcher's laptop, and your child's name will be given an anonymous identifier. Once transcription of the audio recording has occurred the audio file will be deleted and the transcription will be stored in a UNCG approved data storage location.

What are the dangers to my child?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk of losing confidentiality through a breach in personally identifiable data (i.e.,

audio recordings and Google forms) being taken during this study. The researcher will follow UNCG data storage policies to mitigate a loss of confidentiality.

If you have questions, want more information, or have suggestions, please contact the primary investigator Justin Boggs at (276) 393-0170 or at jboggs2@uncg.edu or Dr. Michael Hemphill mahemphi@uncg.edu

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

If your child was harmed while participating in the study, who would pay for the necessary medical care?

In the event that your child suffers a research-related injury, your child's medical expenses will be your responsibility or that of your third-party payer, although you are not precluded from seeking to collect compensation for injury related to malpractice, fault, or blame on the part of those involved in the research.

Are there any benefits to society or to my child as a result of my child taking part in this research?

The benefits of this study may help local recreational officials organize meaningful activities to get local youth more involved in outdoor adventure-based activities.

Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?

Your child will not be paid to participate in this research study. Participation in this research study is free for your child.

How will my child's information be kept confidential?

Be aware that nothing said in a focus group discussion is confidential. Therefore, your child should not share anything they do not want to be public. The primary researcher will do everything possible to make sure that their data and or records are kept confidential. All information obtained by the primary researcher in this research study is strictly confidential unless disclosure is required by law.

All recorded audio data will be deleted immediately following the transcription of the audio file to help mitigate a loss of participant confidentiality. The transcriptions will be labeled with pseudonyms before being uploaded to a UNCG approved data storage location. All meaningful experience exit slip surveys will be submitted through Norton City Schools email system and deleted by the primary researcher upon transcription.

All transcriptions (i.e., audio and exit slips), notes or observations made by the primary researcher will use pseudonyms instead of personally identifiable names and be kept in a UNCG-approved data storage location as outlined in the UNCG Data classification policy. Data will be retained for five years after the study and then destroyed.

Will my child's de-identified data be used in future studies?

Your child's de-identified data will be kept indefinitely and may be used for future research without your additional consent or your child's additional consent.

What if my child wants to leave the study or I want him/her to leave the study?

You have the right to refuse to allow your child to participate or to withdraw them from the research study at any time without penalty. If your child does withdraw, it will not affect you or your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child's participation at any time. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available, which may relate to your willingness to allow your child to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study described to you by Justin Boggs.

Participant's Parent/Legal Guardian's Signature: _____

Date: _____

APPENDIX D: WISE COUNTY PARENTAL/GUARDIAN INTEREST LETTER

Dear Parent/Guardian:

Hello, my name is Justin Boggs. I am a graduate student working toward my doctoral degree at the University of North Carolina-Greensboro. J.I. Burton High School is offering an 11-day after-school outdoor adventure program at the High Knob Recreational Area in Norton, Va, for the fall 2023 school semester. I am reaching out to you because your child has expressed an interest in participating in this program, which was discussed at the science club meeting at their school. I am asking if you would consider allowing your child to participate in my research study, which is interested in learning about the impact of after-school outdoor adventure education programs. This will be separate from the after-school program, but I hope to gain an understanding of high school students' perspectives of outdoor adventure recreational activities and their well-being.

If you allow your child to be included in my study, they will be asked to participate one 30-minute focus group discussion and complete three 10-minute email surveys over the course of the after-school outdoor adventure education program. There is no cost for your child to participate in the research study, and they will not receive compensation for their participation.

I have also included a consent form with additional information to help you make a more informed decision. If you are interested and would like more information, I would be happy to discuss things further. Please just contact me using the phone number or email provided below.

Thank you very much for your time and consideration.

Justin Boggs
276-393-0170

APPENDIX E: WISE COUNTY SCHOOLS PARENTAL/GUARDIAN CONSENT FORM

Project Title: The Effects of an After-School Outdoor Adventure Education Program on High School Students' Perspectives
Principal Investigator and Faculty Advisor: Justin Kent Boggs and Dr. Michael Hemphill
Participants Name:

What are some general things you should know about research studies?

Your child is being asked to take part in a research study. Your child's participation in this research study is voluntary. You may choose for your child not to join, or you may withdraw your consent for them to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or for your child to leave the study before it is done, it will not affect your or your child's relationship with the researcher, the University of North Carolina at Greensboro, or Wise County Public Schools.

Details about this study are discussed in this consent form. It is important that you understand this information to make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research study. Your child's participation in this project is voluntary. The purpose of this study has three aims. The first aim is to understand your child's perspectives regarding their interest in participating in outdoor adventure activities. The second aim is to understand the perceived barriers that prevent them from participating in outdoor adventure activities. The third aim is to learn about the meaningful impact of an after-school outdoor adventure education program on your child's perspectives of the outdoors. The objective is to see if being exposed to some common outdoor activities impacts your child's perspectives on future participation in outdoor activities.

Why are you asking my child?

Your child is being asked to participate in this research study because during their science club meeting they expressed an interest in participating in the after-school outdoor adventure education program being offered by Norton City Schools. In my study, I am interested in understanding your child's experiences with the outdoor program.

What will you ask my child to do if I agree to let him or her be in the study?

If you allow your child to be in this research study, they will be asked to participate in one 30 minute focus group discussion at the end of the program and answer three separate email questionnaires that will take 10 minutes to complete. You and your child will be given the questions so that you are aware of what is being asked. The questionnaires will be sent out at the conclusion of the hiking unit, the biking unit, and the kayaking unit. Measures will be taken to ensure confidentiality is maintained.

Is there any audio/video recording of my child?

This study will collect audio recordings of your child. Because your child's voice will be potentially identifiable by anyone who hears the tape, confidentiality for things said on the tape cannot be guaranteed. However, the researcher will be the only one with access to the tape. The audio recording will be transcribed using software on the primary researcher's laptop, and your child's name will be given an anonymous identifier. Once transcription of the audio recording has occurred the audio file will be deleted and the transcription will be stored in a UNCG approved data storage location.

What are the dangers to my child?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk of losing confidentiality through a breach in personally identifiable data (i.e.,

audio recordings and Google forms) being taken during this study. The researcher will follow UNCG data storage policies to mitigate a loss of confidentiality.

If you have questions, want more information, or have suggestions, please contact the primary investigator Justin Boggs at (276) 393-0170 or at jboggs2@uncg.edu or Dr. Michael Hemphill mahemphi@uncg.edu

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If your child was harmed while participating in the study, who would pay for the necessary medical care?

In the event that your child suffers a research-related injury, your child's medical expenses will be your responsibility or that of your third-party payer, although you are not precluded from seeking to collect compensation for injury related to malpractice, fault, or blame on the part of those involved in the research.

Are there any benefits to society or to my child as a result of my child taking part in this research?

The benefits of this study may help local recreational officials organize meaningful activities to get local youth more involved in outdoor adventure-based activities.

Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?

Your child will not be paid to participate in this research study. Participation in this research study is free for your child.

How will my child's information be kept confidential?

Be aware that nothing said in a focus group discussion is confidential. Therefore, your child should not share anything they do not want to be public. The primary researcher will do everything possible to make sure that their data and or records are kept confidential. All information obtained by the primary researcher in this research study is strictly confidential unless disclosure is required by law.

All recorded audio data will be deleted immediately following the transcription of the audio file to help mitigate a loss of participant confidentiality. The transcriptions will be labeled with pseudonyms before being uploaded to a UNCG approved data storage location. All meaningful experience exit slip surveys will be submitted through Wise County Public Schools email system and deleted by the primary researcher upon transcription.

All transcriptions (i.e., audio and exit slips), notes or observations made by the primary researcher will use pseudonyms instead of personally identifiable names and be kept in a UNCG-approved data storage location as outlined in the UNCG Data classification policy. Data will be retained for five years after the study and then destroyed.

Will my child's de-identified data be used in future studies?

Your child's de-identified data will be kept indefinitely and may be used for future research without your additional consent or your child's additional consent.

What if my child wants to leave the study or I want him/her to leave the study?

You have the right to refuse to allow your child to participate or to withdraw them from the research study at any time without penalty. If your child does withdraw, it will not affect you or your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child's participation at anytime. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available, which may relate to your willingness to allow your child to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study described to you by Justin Boggs.

Participant's Parent/Legal Guardian's Signature: _____
Date: _____

APPENDIX F: STUDENT ASSENT FORM

Project Title: The Effect of an After-School Outdoor Adventure Education Program on High School Students' Perspectives.

Principal Investigator: Justin Kent Boggs

Why am I here?

I want to tell you about the research study I am doing. Research studies are done to find better ways of helping and understanding people or to get information about how things work. In this study, I want to find out more about high school students' thoughts and experiences as it relates to participating in outdoor adventure activities. You are being asked to be in the study because you have expressed an interest in participating in the after-school outdoor adventure program. In a research study, only people who want to take part are allowed to do so.

What will happen to me in this research study?

If it is okay with you and you agree to join this research study, you will be asked to participate in one focus group interview with other students (~30 minutes) at the end of the study. In these interviews, you will be asked questions about your prior experiences with the outdoor activities. In addition, you will be asked to complete three quick online surveys (~10 minutes each) after each activity unit to give feedback on how you felt about each outdoor adventure experience.

How long will I be in the research study?

You will be in the outdoor adventure education program for 11 total days. The outdoor adventure education program is set to begin in late August and finish in October. The research study is separate from the after-school outdoor adventure education program. For the research study you will be asked to meet one evening for a 30 minute focus group discussion after the after-school program has ended. This meeting will take place at J.I. Burton High School. Additionally, you will be asked to complete three separate 10 minute surveys about the outdoor adventure experiences. In all, the research study will take one hour of your time.

Can anything bad happen to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this research study poses minimal risk to participants. However, there is a risk of losing confidentiality through a breach in personally identifiable data (i.e., audio recordings and Google forms) being taken during this study. The researcher will follow UNCG data storage policies to mitigate a loss of confidentiality. If you choose not to participate in the study you will not be punished in any way.

Can anything good happen to me in this research study?

We do not know if you will be helped directly by being in this research study. However, we may learn something that will help develop meaningful outdoor adventure programs for other students in the county.

Are there risks if I get pregnant? (For girls who are having menstrual periods)

We do not know how the activities in this research study will affect an unborn baby. There may be risks that we do not know about and cannot predict. If you are pregnant, or become pregnant while taking part in the after-school outdoor adventure education program or the research study, you should tell your school guidance counselor so that they can contact the primary researcher. A doctor's note will be required to continue to participate to ensure the safety of the mother and unborn baby.

Do I have other choices?

As the outdoor adventure activities are being presented you do not have to participate in any activity that you do not feel safe performing. These activities allow you to choose the challenge you are willing to take on. In many instances you will be given individual challenges to help you develop these skills at your own pace.

For the research study, you have the right not to participate in the focus group discussions or the exit slip surveys at any time during the study. You will not be punished for not participating.

What if I do not want to be in this research study?

You do not have to be part of this project. It is up to you. You can even say okay now, but change your mind later. All you have to do is tell us. No one will be mad at you if you change your mind.

What about my confidentiality?

Be aware that nothing said in a focus group discussion is confidential. Therefore, you should not share anything you do not want to be public. The primary researcher will do everything possible to make sure that your data and or records are kept confidential. All information obtained by the primary researcher in this research study is strictly confidential unless disclosure is required by law.

All recorded audio data will be deleted immediately following the transcription of the audio file to help mitigate a loss of participant confidentiality. The transcriptions will be labeled with pseudonyms before being uploaded to a UNCG approved data storage location. All meaningful experience exit slip surveys will be submitted through Norton City Schools email system and deleted by the primary researcher upon transcription.

All transcriptions (i.e., audio and exit slips), notes or observations made by the primary researcher will use pseudonyms instead of personally identifiable names and be kept in a UNCG-approved data storage location as outlined in the UNCG Data classification policy. Data will be retained for five years after the study and then destroyed.

Will I be paid for being in this research study?

You will not be paid for participating in this research study.

Do my parents know about this research study?

This study has been explained to your parent/parents/guardian and they have given permission for you to be in it.

What if I have questions?

If you have questions, please contact the primary investigator Justin Boggs at (276) 393-0170 or at jkboggs2@uncg.edu or Dr. Michael Hemphill mahemphi@uncg.edu

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Assent

This study has been explained to me and I am willing to be in it.

Child’s Name (printed) _____

Signature _____ Date: _____

Check which applies below *[to be completed by the person obtaining the assent]*

___ The child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.

___ The child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

Signature of Person Obtaining Assent: _____ Date: _____

APPENDIX G: MEANINGFUL EXPERIENCE EXIT SLIP SURVEY

- 1 - Did this activity bring you joy or create positive feelings? Explain the feelings it brought.
- 2 - Did you feel absorbed and engaged (lost track of time) when participating in this activity?
- 3 - Did you feel like you received help and support from others in your group or the instructors when you needed it during this activity?
- 4 - Do you feel this activity added value to your personal life for the future?
- 5 - Do you feel like you were able to overcome any personal challenges or accomplished something for yourself through taking part in this activity?
- 6 - Did you find this activity to be too challenging, too easy, or just the right amount of challenge?
- 7 - What were your overall feelings about participating in this activity and would you be interested in participating in this type of activity in future?

APPENDIX H: FOCUS GROUP INTERVIEW GUIDE

Understanding students' interest in participating in outdoor adventure activities (Aim 2) and their perceived barriers to participating (Aim 3).

Thank you for agreeing to participate in this focus group with me today. I appreciate your willingness to help me with my research. Today's focus group aims to understand your experiences with the after-school outdoor adventure education program regarding physical activity and outdoor adventure recreational activities. The information that you provide me will be used to help complete my dissertation. All questions have been approved through the University of North Carolina Greensboro Institute Review Board. I will be recording the session, having it transcribed, and sending it back to each of you so that you can clarify any of your responses and for approval. Once this interview is completed, I will remove all personally identifying information from the data I collect and code the transcription for thematic data. Direct quotes may be used in my final dissertation or future research. Please know that there are no right or wrong answers; your responses will help local recreational planners develop future outdoor adventure educational opportunities for area youth. This focus group discussion is about gaining your perspective. Please be honest in your response. The interview should take no longer than half an hour. You are not required to participate and can opt-out at any time.

Does anyone have any questions or concerns about this process? Are we set to begin?

Post OAE Program Focus Group Interview:

1. In general, how would you describe your experience with being outdoors and outdoor adventure activities?
2. Does anyone in your family or your group of friends participate in outdoor physical activities?
3. How does being outdoors make you feel?
4. What is your favorite part about being outside?
5. What types of things do you like to do when you are outdoors?
6. Are there outdoor activities that you would like to try but have not yet?
7. What are some reasons that you do not participate in outdoor adventure activities?
8. Do you plan to continue to participate in outdoor adventure activities in the future?
9. What are some of the reasons that you may not continue to participate in further outdoor adventure activities?
10. Would you be interested in participating in future programs like this one?
11. What types of activities would you be interested in trying in the future?
12. What was your favorite part of this experience?
13. What was your least favorite part of this experience?
14. Do you have anything you would like to say about the outdoor program and the experiences you had?


APPENDIX I: QUALITATIVE ANALYSIS CODE BOOK

Code	Description	Examples	Sub-Theme
Time	The direct or indirect reference of units of measure used to define an individual's day.	<p>"Like they mentioned time. I play baseball and have less time to do all the activities in this fall."</p> <p>"I was completely absorbed in the activity, and time seemed to fly by."</p>	Constraints
Support	Assistance provided by another individual to help others engage in an activity.	<p>"You probably need an instructor and special equipment. So finding a teacher and having a friend group interested in doing it has prevented me from rock climbing."</p> <p>"I received help and support from my friends during the activity. When I faced a challenges section on the trail, they offered tips and encouragement, creating a supportive atmosphere that enhanced the overall experience."</p>	
Equipment	Having the necessary resources to be able to engage in an activity.	"Yeah, the lack of equipment and resources to actually do these things can prevent people from trying these activities."	
Knowledge	Having the understanding or awareness to be able to engage in an activity.	<p>"People our age don't really understand how much fun they can have being outside. They also don't want to try new things. And some people just get caught up in other things and don't really see what they're missing."</p> <p>"I think people our age don't know or have connections to people with the resources to do these things".</p>	

Novel	The uniqueness of an activity that sets it apart from a participants prior experiences.	“I think it is an escape from the world. Just getting out in the woods and just escape from everything that's going on. It is a great change of pace from my typical day.”	Exploration Experience
Challenge	Embodies personal growth, requiring an individual to confront and see obstacles as opportunities for resilience, learning, and self-discovery.	This activity added significant value to my personal life. The skills I gained in mountain biking, the camaraderie with others, and the sheer joy of outdoor exploration are things I believe will enrich my life for years to come. “I just like to try new physical activities”.	
Mental	Pertains to the interplay of emotional resilience, cognitive clarity, and personal fulfillment, which can foster a sense of inner peace and purpose.	“I like the mental part because being outside just takes all my anxiety and stress away.” “It's much more refreshing outside and it's just helps me just feel good I guess.”.	Well-Being
Physical	The vitality of the body, characterized by strength, stamina, balance, and vitality.	“When I am outside and getting to do physical things to break a sweat it just makes me feel good about myself at the end of the day”.	

APPENDIX J: DISSEMINATION POWER POINT

Slide 1



The Effect of an After-School Outdoor Adventure Education Intervention on High School Students' Outdoor Recreation Perspectives


A Dissertation by **Justin Boggs**

Advised by **Dr. Michael Hemphill, Dr. Ben Dyson, and Dr. Justin Harmon**

Slide 2

Introduction

- Physical Activity
 - 84.7% of girls and 77.6% of boys not meeting PA recommendation levels.
 - Only 22% of high school students in Virginia met PA recommendations.
- Outdoor Time
 - Despite the multitude of physical and mental benefits, adolescents today on average spend less time outdoors.
- Problem
 - There is a lack of outdoor adventure education (OAE) opportunities for adolescents.



Slide 3

Norton City and Wise County Public Schools

- Wise County, VA
- Total high school student population: 2,153
- Public Schools
 - Norton City School
 - Wise County Public Schools




Image by USNews.com




Image by Norton City Schools







Image by Wise County Public Schools




Slide 4

Flag Rock Recreation Area



Hiking




Mountain Biking



Go Paddle



Flag Rock



Images: nortonva.gov

Purpose and Research Aims

- The purpose of this study was to learn about students’ perspectives toward OAE activities. The outcome of this study provided insights to develop actionable recommendations to increase outdoor recreation participation among youth in the region.
 - *Aim 1: Identify if students found the after-school OAE experiences to be personally meaningful.*
 - *Aim 2: Identify the students’ perceived barriers to participating in outdoor adventure recreational activities.*
 - *Aim 3: Identify if the after-school OAE experiences had an impact on the students’ future interest to participate in outdoor adventure recreational activities.*



Methods

OAE Program	Demographics	Data Collection
<ul style="list-style-type: none"> • Students selectively recruited from Outdoor Adventure Education Program <ul style="list-style-type: none"> • JI Burton HS (city) and Central HS (county) • $n=11$ • Units <ul style="list-style-type: none"> • Introduction • 2 days hiking • 2 days kayaking • 2 days mountain biking • Final meeting 	<p>$n = 11$</p> <ul style="list-style-type: none"> • Majority (100%) identified as white • Majority (100%) identified as male • Class <ul style="list-style-type: none"> • 2- Sophomores • 8 – Juniors • 1 – Senior • Majority (91%) enjoyed weekly outdoor activities 	<ul style="list-style-type: none"> • Observation and informal conversation jottings collected in observation journal • “Exit Slip” survey following each OAE unit <ul style="list-style-type: none"> • Seven questions based on meaningful physical education • $n= 16$ • A focus group discussion was completed at the end of the program <ul style="list-style-type: none"> • Follow-up focus group <ul style="list-style-type: none"> • $n = 1$ • Semi-structured questions



Analysis and Findings

Analysis

- **Thematic analysis using Atlas.ti software**
 - **Open code**
 - **Axial codes**
 - **Selective code**
- **Constant comparison was used for all three data sources to create codes that condensed into categories to create a central theme.**

UNC GREENSBORO

Aim #1

Findings: Meaningful Experience

Sub-Theme: Exploration Experience

- Students found the novelty and challenge of the experiences meaningful

Novel	Challenge
Unique	Engagement
New Experience	Personal Growth
Different	Comfort Zone
Excitement	Embrace
Fun	
Change of Pace	

“These activities are a good change of pace”.

“I just like to try new physical activities”.

UNC GREENSBORO

Aim #1

Findings: Meaningful Experience

Sub-Theme: Well-Being


- Students seemed to greatly value the mental benefits of the OAE experience more than the physical benefits

Mental	Physical
Relaxing	Break a Sweat
Refreshing	Enjoy to Get Outside to Walk
Reduce Stress	Appropriate Challenge
Reduce Anxiety	
Break from Norm	
Freedom	

“Being outside just takes my stress and anxiety away”.

“It’s much more refreshing outside and it’s just helps me just feel good I guess.”.

“When I am outside and getting to do physical things to break a sweat it just makes me feel good about myself at the end of the day”.



Aim #2

Findings: Barriers to Participation

Sub-Theme: Constraints


- Lack of specialized equipment and knowledge may prevent certain activities

Equipment	Knowledge
Lack of Equipment	Opportunities
Special Equipment	Skill Development
Expensive	Perceived Difficulty
	Perceived Danger

“I don’t have the equipment...so I have not tried rock climbing”.

“I think people our age don’t know or have connections to people with the resources to do these things”.

“I’m sure you can get other students to join if you just encourage it and put advertisements out there”.



Aim #2

Findings: Barriers to Participation

Sub-Theme: Constraints


- Time was the most reported constraint to participation
- Support and a strong social connections could be a strong motivator

Time	Support
Lack of Time	Encouragement
Obligations	Friends
Prior Commitments	Family
Extracurricular Activities	Experienced Instructor

“I would like to see more kids and adults get outside...people just seem so busy all of the time”.

“You know, trying to make time to do these things can be difficult when you are busy with other things like sports or work after school”.


“I just had a lot of fun getting out after school hanging out with my buddies”.



Aim #3

Future Programming and Actionable Recommendations

1. Establish an **OAE Committee**
 - Create **community partnerships** with local experts, groups, and outfitters
 - Create a **locally relevant curriculum** plan(s) that schools can easily implement
 - Resources that can help schools make opportunities easier to incorporate
2. Initially target **high school seniors**
 - Transition period of life (pre-graduates)
 - Many have not likely participated in an organized physical education course since their sophomore year.
3. Offer **in-school OAE experiences** led by experienced individuals that provide **structured learning opportunities** for students and teachers to build competence in the OAE.
 - Help avoid after-school conflicts
 - Individual in school to help promote and encourage participation
4. Offer **consistent OAE opportunities** throughout the school year
 - Sign-up sheet for weekday and weekend opportunities
 - Consider female-only opportunities



Closing

Thank you for your time and attention!

Any questions?

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