

Exploring Intrinsic and Extrinsic Motivational Drivers in Outdoor Recreational Abseiling Participation

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ABSTRACT

Abseiling is an adventurous outdoor activity that requires both physical and mental resilience. Understanding the underlying motivational factors that drive participation in abseiling is essential for promoting engagement and enhancing program effectiveness. This study examines the intrinsic and extrinsic motivational factors that influence individuals who participate in abseiling. A total of 357 participants were surveyed using the Leisure Motivation Scale (LMS-28) to assess their reasons for participation. The findings indicate that experience stimulation ($M = 4.47$, $SD = 1.24$) was the strongest intrinsic motivator, highlighting the importance of excitement and personal enjoyment. Among extrinsic factors, identified regulation motivation ($M = 4.40$, $SD = 1.17$) was the most significant factor, which suggests that individuals who engage in abseiling due to perceived personal growth and recognition. Additionally, Pearson correlation analysis revealed a moderate positive relationship between intrinsic motivation and participation ($r = .512$, $p < .05$), and a weaker but significant correlation for extrinsic motivation ($r = .298$, $p < .05$). These results emphasize that while the thrill of the experience plays a vital role, external factors such as social support and acknowledgment also influence participation. The study suggests that adventure sports organizers should incorporate elements that enhance both personal challenge and social motivation to attract a broader range of participants. By tailoring programs to meet these motivational drivers, participation rates and retention in abseiling can be improved.

Keywords: abseiling, extrinsic motivation, intrinsic motivation, leisure motivation scale, participation

INTRODUCTION

Abseiling, also referred to as rappelling, is an outdoor activity that requires both physical strength and mental focus, involving the descent of vertical terrains using a rope-based system (Smith & Jackson, 2018). While it originated from mountaineering and military practices, abseiling has developed into an internationally recognized adventure sport (Hill & Clark, 2017). Its widespread appeal stems from

the blend of excitement, personal challenge, and engagement with the natural environment, drawing a wide audience of individuals in search of adventurous and meaningful outdoor experiences (Brown & Williams, 2021). This increased popularity reflects a wider cultural trend favoring outdoor activities that deliver both physical exertion and emotional enrichment (Robinson & Hall, 2019).

The decision to participate in abseiling is largely influenced by motivational factors, both internal and external. These include personal development, the pursuit of mastery, overcoming fear, gaining social approval, and seeking new, thrilling experiences (Johnson et al., 2019; Robinson & Hall, 2019). The intense excitement and rewarding feeling of successfully navigating vertical descents often appeal to those in search of empowerment and personal growth (Brown & Williams, 2021). On the other hand, participation can be negatively affected by how individuals perceive risks, such as fear of heights, safety concerns, and misconceptions influenced by media about the dangers and physical demands of the activity (Taylor & Parker, 2020; Jones & Davies, 2018). These concerns can especially discourage those who lack confidence or experience (Smith et al., 2020). Moreover, barriers such as financial cost, physical limitations, and cultural norms may restrict access, particularly for marginalized groups (Petersen & Smith, 2021). Social expectations and media portrayals can also reinforce limiting stereotypes, thereby reducing inclusivity in the sport (Thomas et al., 2020). Gaining a clear understanding of how motivation, perceived risk, and access barriers interact is key to creating effective programs that encourage safe and inclusive participation (Williams & Johnson, 2018).

Nevertheless, the popularity of abseiling has waned in recent years, mainly due to heightened safety concerns and media reports of accidents that have reshaped public perception (Thompson & Jenkins, 2022). According to the Outdoor Industry Association (2022), there has been a 3.7% drop in core participants over the past ten years, even though overall outdoor recreation numbers have increased—indicating that fear of injury (Smith et al., 2020), lack of skill or experience (Robinson & Hall, 2019), and negative media representation (Jones & Davies, 2018) strongly influence participation rates. High-profile accidents, such as the 2016 incident in Malaysia where a 25-year-old woman was seriously injured after her rope broke at Gunung Anak Gua Tempurung (Malay Mail, 2016), and the fatal fall of an instructor during a school trip in Western Australia (Brennan, 2023), emphasize the importance of proper safety measures and regular equipment checks. A similar case occurred in 2022 at Everton Scout Camp in Inverkip, where a fall seriously injured a leader and led to the suspension of abseiling at the site (McCracken, 2024). These events have heightened public concern, affecting participation across experience levels and presenting difficulties for adventure tourism and outdoor education, both of which depend on abseiling for teaching practical and interpersonal skills (Brown, 2021; Thompson & Jenkins, 2022). This research seeks to investigate the intrinsic and extrinsic motivations for abseiling participation among different genders, aiming to support strategies that expand access and promote equitable involvement in this demanding yet fulfilling outdoor activity.

LITERATURE REVIEW

Abseiling, also known as rappelling, is a physically and mentally demanding outdoor activity that has grown in popularity due to its combination of adventure, skill, and connection with nature. However, participation in this activity has declined in recent years due to safety concerns and negative media coverage. While previous studies have explored factors influencing outdoor recreational activities, few have specifically focused on the intrinsic and extrinsic motivational drivers in abseiling, particularly within the context of changing public perception.

One of the factors that drives abseiling participation is motivation. Robinson and Hall (2019) discussed how individual preferences, risk perception, and the need for personal achievement influence participation in outdoor recreation. They emphasized that individuals are motivated by opportunities to challenge themselves, connect with nature, and seek meaningful leisure experiences. Similarly, Taylor and Parker (2020) explored the impact of psychological barriers, particularly fear and perceived

danger, on participation. Their research highlighted that individuals often avoid outdoor adventure activities due to safety concerns, media influence, and lack of confidence in their physical abilities. Both studies stress the importance of understanding psychological factors to effectively increase engagement in outdoor recreation.

Motivation is widely recognized as a key driver of human behavior. In the context of extreme sports, understanding motivation is essential for sustaining participant engagement and designing effective programs. Recent literature (Ryan & Deci, 2020; Kekäläinen et al., 2022) indicates that intrinsic motivation is the most consistent and powerful predictor of long-term participation. Ryan and Deci (2020) argue that when individuals engage in activities out of genuine interest and inherent satisfaction, they are more likely to remain committed over time. Kekäläinen et al. (2022) further support this by demonstrating that participants in outdoor activities who were intrinsically motivated showed higher persistence, deeper enjoyment, and more meaningful experiences compared to those driven by external factors. These findings suggest that fostering intrinsic motivation is key to not only initiating but also sustaining engagement in adventure sports like abseiling. However, how motivation helps individuals overcome barriers such as perceived risk and access limitations remains underexplored. For instance, Petersen and Smith (2021) highlighted that social norms and fear reduce participation but did not investigate how motivation helps individuals overcome these obstacles.

This study aims to address these gaps by examining how intrinsic and extrinsic motivation influence participation in abseiling amidst a decline in interest. The focus is also placed on connecting motivational theory to real-world challenges, such as fear, inexperience, and misinformation, offering practical guidance for sports educators and program developers. Using the LMS-28 instrument, this study provides a context-specific analysis of motivational factors that influence participation in abseiling.

Motivation

Motivation can generally be divided into two primary types, intrinsic and extrinsic, each influencing behavior in different ways. Intrinsic motivation refers to engaging in an activity purely for the enjoyment, satisfaction, or personal meaning it brings. In the context of abseiling, intrinsic motivation may stem from the thrill of descent, the joy of mastering new techniques, and the rewarding sense of accomplishment and adventure. As noted by Deci and Ryan (1985), intrinsic motivation is closely linked to higher levels of commitment, active participation, and overall psychological well-being. It is also recognized as a fundamental concept within self-determination theory, contributing significantly to areas such as personal development, academic success, and mental health (Liu et al., 2020). In summary, intrinsic motivation may be the key elements that need to be brought out for further studies.

Conversely, extrinsic motivation involves performing an activity to gain external rewards or avoid negative consequences. In abseiling, this might include participating to impress others, achieve social recognition, or meet peer expectations in a competitive environment. While extrinsic motivation can effectively prompt initial involvement, it often lacks the sustaining power needed for long-term engagement if not complemented by internal satisfaction. Ryan and Deci (2020) highlight that extrinsic motivation, often contrasted with intrinsic motivation, is a diverse and multifaceted category encompassing behaviors driven by outcomes rather than the activity's inherent enjoyment. Therefore, there is an opportunity to carry out the study of factors influencing abseiling participation, with motivation as a variable in this study.

METHODOLOGY

Research Design

To achieve the research objective, for this study was employed quantitative and non-experimental, focusing on collecting and analyzing numerical data. A descriptive cross-sectional approach was adopted, and data were gathered using Google Forms as a tool for data collection purposes. This design enables the identification of patterns and relationships between motivational factors and outdoor participation in abseiling. Furthermore, this study aims to examine the intrinsic and extrinsic motivations influencing individuals' participation in outdoor recreational abseiling. The study has obtained ethical approval from the relevant ethical committee to ensure compliance with research ethics and the protection of participants' rights.

Population and Sampling

Data was gathered from a target group of people who had abseiled during the previous year and were between the ages of 18 and 50 using a straightforward random sample technique. The 5,000-person population estimate was derived from AsiaCamp's 2020 registration data. AsiaCamp's email list and social media accounts on Facebook and Instagram were used to send out invitations. Over the course of a month, 357 people answered and finished the online survey administered by Google Forms. According to the sampling table developed by Krejcie and Morgan (1970), this sample size satisfied the necessary number.

Research Instrument

The main instrument utilized in this study was an adopted structured questionnaire designed to evaluate the motivational factors influencing individuals' participation in outdoor recreational abseiling. The questionnaire consisted of two sections. Section A focused on gathering five items of demographic information. These five close-ended items helped establish the participants' background and ensured the relevance of their experience to the research objectives.

Section B employed the Leisure Motivation Scale (LMS-28), developed by Pelletier et al. (1991), which assesses various types of motivation associated with leisure activities. The LMS-28 comprises 28 items categorized under intrinsic motivation (to know, to accomplish, to experience stimulation), extrinsic motivation (identified, introjected, external regulation), and amotivation. Participants responded to each item using a 7-point Likert scale ranging from 1 (does not correspond at all) to 7 (corresponds exactly). This comprehensive tool enabled the study to quantify both intrinsic and extrinsic motivational dimensions relevant to abseiling participation, providing reliable and structured data for analysis.

RESULTS AND DISCUSSION

Table 1 summarises the intrinsic motivational factors. The mean scores indicate that the most prominent intrinsic factor was experience stimulation ($M = 4.47$, $SD = 1.24$), followed by accomplishment ($M = 4.37$, $SD = 1.15$) and knowledge ($M = 4.37$, $SD = 1.02$). These findings suggest that participants were primarily driven by the excitement and thrill of the activity.

Table 1: Intrinsic Motivational Factor

	N	Mean	Std. Deviation
Experience Stimulation	357	4.47	1.24
Accomplish	357	4.37	1.14
Knowledge	357	4.37	1.01

Table 2 presents the extrinsic motivational factors. Identified motivation had the highest mean score ($M = 4.40$, $SD = 1.17$), followed by introjected ($M = 4.26$, $SD = 1.02$) and external regulation ($M = 3.93$, $SD = 1.02$). These results indicate that personal growth and skill development were stronger motivators than external rewards.

Table 2: Extrinsic Motivational Factors

	N	Mean	Std. Deviation
Identified	357	4.40	1.17
Introjected	357	4.26	1.01
External Regulation	357	3.93	1.02

The Pearson Correlation analysis was conducted to assess the relationship between participants' motivation and their participation in abseiling activities. The results in Table 3 show a moderate positive correlation between intrinsic motivation and participation ($r = 0.512$, $p < 0.05$), indicating a statistically significant relationship. This suggests that individuals with higher levels of intrinsic motivation, such as those who seek personal challenge, thrill, or self-accomplishment, are more likely to engage in abseiling.

Meanwhile, extrinsic motivation also demonstrated a weak but significant positive correlation with participation ($r = 0.298$, $p < 0.05$). This implies that external influences such as recognition, peer encouragement, or social approval may contribute to participation but are less influential compared to intrinsic drivers. Overall, these findings support the premise that intrinsic motivation is a stronger predictor of participation in abseiling than extrinsic motivation. The results align with Self-Determination Theory (Deci & Ryan, 1985), which highlights the importance of autonomy and internal satisfaction in sustaining long-term engagement in recreational activities.

Table 3: Pearson Correlation Between Motivation and Participation in Abseiling

Participation in Abseiling	
Intrinsic	$R = 0.512$, $p < 0.05$
Extrinsic	$R = 0.298$, $p < 0.05$

The findings of this study reinforce the primacy of intrinsic motivation, particularly experience stimulation, as a central factor driving participation in abseiling. This supports existing literature (Ryan & Deci, 2020; Kekäläinen et al., 2022), which emphasizes that autonomy and enjoyment play critical roles in outdoor recreation. In contrast, extrinsic motivators like social recognition and personal achievement (identified regulation) showed a weaker, albeit significant, relationship with participation. Eccles and Wigfield (2019) noted that externally regulated behaviors may sustain engagement only when aligned with personal values.

Comparing this study's findings with other research in similar adventure activities, such as rock climbing or whitewater rafting, reveals both similarities and distinctions. For instance, Brown &

Williams (2021) found that climbers were similarly motivated by thrill and accomplishment but were more influenced by peer competition, something not strongly reflected in abseiling participants here. This could indicate that abseiling, being more solitary and safety-focused, attracts individuals seeking internal growth rather than external validation.

CONCLUSION

The findings underscore the importance of both intrinsic and extrinsic motivational factors in shaping participation in abseiling. Intrinsic motivators, especially experience stimulation and personal accomplishment, are key drivers that enhance engagement and satisfaction in adventure sports. Extrinsic motivators, while less influential, still contribute by providing external validation and reinforcing participation through social and developmental rewards.

These insights are essential for adventure tourism operators and outdoor education programs aiming to revitalize interest in abseiling. By tailoring experiences to enhance personal challenge and internal satisfaction while also acknowledging the value of social recognition, organizers can address declining participation rates. Future research should explore additional variables such as gender differences, long-term engagement patterns, and comparisons across different adventure sports to develop more holistic participation models.

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AUTHORS' CONTRIBUTION

The authors confirm contributions to the paper as follows: Nur Nassrullah bin A Halim conceived and designed the research framework, conducted the literature review, and took the lead in writing the manuscript. Mohd Farid Hilmi bin Aidit, Adam Afif bin Mohamad Azmi and Muhammad Faizal bin Kutip supervised the research process, provided guidance on methodological design, and contributed to the interpretation of the findings. All authors contributed to the development of the questionnaire, reviewed the final manuscript critically, and approved the final version for submission.

CONFLICT OF INTEREST DECLARATION

We certify that the article is the original work of the Authors and co-authors. The article has not received prior publication and is not under consideration for publication elsewhere. This manuscript has not been submitted for publication, nor has it been published in whole or in part elsewhere. We affirm that all authors have contributed significantly to the research, the validity and legitimacy of the

data, and its interpretation. We declare that there is no conflict of interest in the subject matter or materials discussed in this manuscript.

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