A New Perspective on Snowboarding: An In-depth Exploration of Beginner Education Experiences

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Abstract

This research explores the educational experiences of snowboarding beginners, focusing on identifying the key challenges they encounter and evaluating the effectiveness of existing instructional resources. Employing a mixed-method approach, this study investigates the learning processes of snowboarding beginners through field observations at two ski resorts in China and Thailand, in-depth interviews with three instructors, two ski resort managers, and 10 snowboarders, and a survey of 450 participants from which 429 responses were deemed valid. The aim is to shed light on the nuanced learning experiences of novice snowboarders. The comprehensive methodology provides a rich dataset for understanding the complexities of beginner experiences in snowboarding education. The findings reveal significant gaps in safety awareness and underscore the necessity for more cost-effective learning strategies. By integrating emerging technologies such as virtual reality, this study proposes innovative solutions to enhance the learning experience, making it more engaging and financially accessible. The research contributes to the academic discourse on physical education and technology's role in sports training, offering valuable insights for educators and policymakers to improve snowboarding instruction, focusing on safety, affordability, and learner engagement. This abstract encapsulates the essence of the paper, providing a clear overview of the study's objectives, methods, key findings, and implications for future research and practical application in the field of snowboarding education.

Keywords: Snowboarding Beginners, Education Experiences, Learning Strategies, Flexible Learning, Affordability

Introduction

Snowboarding, rapidly emerging as a popular sport in winter activities (Stepan et al., 2023), has garnered significant attention and participation from beginners worldwide in recent years (Barjolin-Smith, 2020). This sport is unique in winter activities due to its distinctive blend of thrill and entertainment (Thorpe, 2012). It provides an excellent platform for those seeking excitement and enjoyment in the snow (Brunner et al., 2015). It challenges the athletes' limits and brings an unparalleled sense of exhilaration and satisfaction (Ruedl et al., 2013). With the growing popularity of winter sports and the rise in snow tourism, snowboarding has evolved into a global trend, increasingly attracting enthusiasts and beginners (Happ et al., 2023). Although the sport is fun and exciting, learning to snowboard and mastering its essence is a challenge (Reichenfeld & Bruechert, 1995).

Additionally, the high costs associated with learning, including fees for access to facilities (Okada et al., 2023), equipment rental, and coaching, limit the influx of interested individuals into the sport (Kotro & Pantzar, 2002). Therefore, providing effective learning pathways and appropriate educational support for beginners is paramount (Pothier, 2003). Understanding and meeting the educational needs of these beginners not only enhances their learning efficiency but significantly boosts their overall learning experience.

As global interest in winter sports continues to grow, snowboarding, a key activity within this realm, showcases significant industry trends and characteristics. Recently, snowboarding's popularity has surged not only in traditional winter sport powerhouses but also in warmer regions through indoor facilities, establishing it as a global sport bridging various cultures and geographies. With the approach of the 2022 Beijing Winter Olympics and

China's goal to engage three hundred million people in winter sports (Zhaohong & Hanbing, 2023), enthusiasm for these activities has sparked a golden era of development for the ice and snow industry. Meanwhile, Thailand, known for its tourism industry (Bangkok Post, 2023), inaugurated Asia's largest indoor snow world in 2023, symbolizing the expansion of winter sports into non-traditional areas and reflecting the rising global demand for such activities. This phenomenon provides a valuable perspective for this study, emphasizing the importance of exploring snowboarding educational experiences and their appeal to beginners, especially in non-traditional winter sports countries and regions.

Despite snowboarding's popularity as a favored winter sport rapidly expanding globally, research into the educational experiences of snowboarding beginners remains somewhat limited. Current studies have mainly focused on enhancing athletic techniques, innovating equipment, and preventing sports injuries, with a relative lack of in-depth analysis of the specific challenges and needs faced by beginners during their learning process, as well as their utilization of educational resources. This research gap restricts the understanding of how to effectively improve the learning experience and teaching outcomes for beginners.

This study comprehensively analyzes the learning experiences of snowboarding beginners, identifying the primary challenges and needs they encounter during their learning process. It pays particular attention to the access and utilization of existing educational resources by beginners and the effectiveness of these resources in meeting their needs. Given the diversity and uneven distribution of snowboarding educational resources, this study aims to explore how more personalized and efficient learning pathways can be provided for beginners through the innovation of teaching methods and optimization of educational resources.

Highlighting the significance of learning within specific contexts, this study focuses on major snowfields in China and Thailand. This choice is driven not just by the rapid development of snowboarding in these regions but also by their unique cultural and social environments, which offer a rich and varied educational backdrop. Through these distinct settings, this research aims to provide insights that are both universal and applicable, fostering innovation and development in snowboarding education globally.

This study proposes educational strategies and recommendations for beginners. These strategies are intended not only for educators and ski resort operators but also to guide other snowboarding community members. Implementing these strategies can significantly enhance the learning experience of snowboarding beginners, promoting their skill development and love for the sport. Through an in-depth exploration and comprehensive analysis, this study aims to contribute to the educational practice and theoretical research for snowboarding beginners. By improving the quality and efficiency of education, the study seeks to inspire greater interest in snowboarding and promote the further development and popularization of the sport globally.

Methods and Materials

1. Research Framework

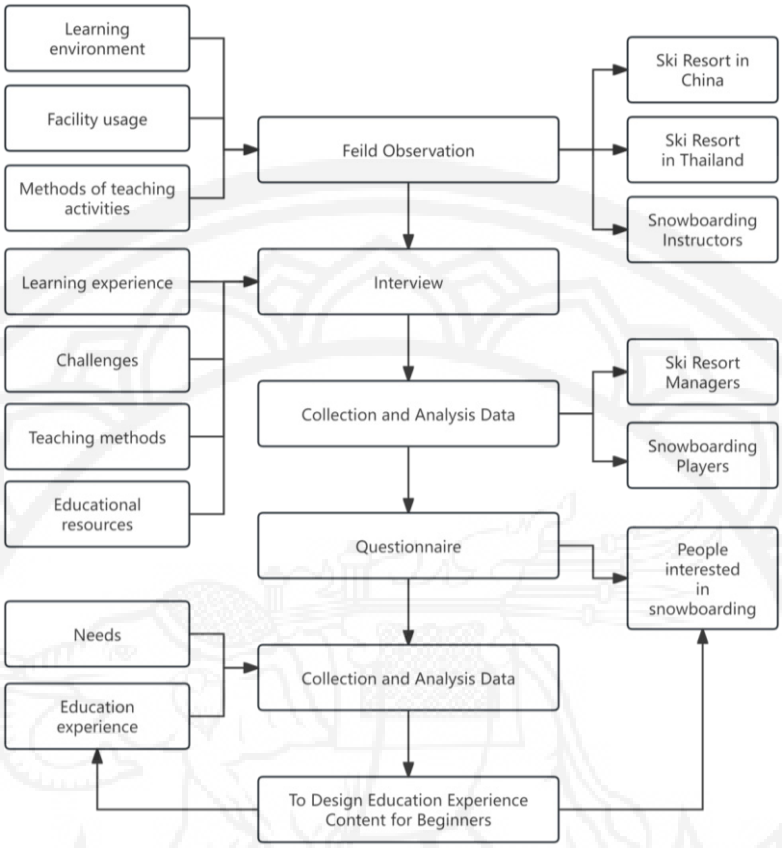

Figure 1 Research Framework. (Source by author)

2. Research Methodology

A mixed-methods approach was employed in this study.

In the first phase, field observations were conducted in the environment of snowfields, facility usage, and the state of players who were non-participants in the study. Non-participant observation allowed the subjects' behavior to be observed in their natural settings without interaction, providing unbiased data on beginners' and instructors' actual behaviors and interactions in snowboarding courses without the potential influence of observer participation.

In the second phase, interviews were conducted to gather experiences, views, and recommendations about snowboarding beginners from ski instructors, resort managers, and players.

The third phase involved a survey method, where questionnaires were developed based on conclusions drawn from the collected data. These questionnaires were distributed to online communities of snowboarding enthusiasts to further investigate their needs and the challenges they face.

3. Population Scope

Group 1: Three snowboarding instructors, two ski resort managers, and 10 snowboarding players were interviewed.

Group 2: 450 ski enthusiasts were asked to complete online questionnaires.

4. Data Collection

Although snowboarding culture may vary significantly worldwide, field observations and interviews at snowfields in China and Thailand (Figures 2 and 3) were conducted to represent the cultural diversity within Asia. China, with its growing snowboarding market, and Thailand, a tropical country with unique indoor snowfields, offer a rich comparative backdrop for the study. Focusing on these two countries allowed the researcher to deeply understand how snowboarding educational experiences and teaching methods are influenced by different cultures and geographical settings, revealing the importance of adaptive and universally applicable teaching strategies.

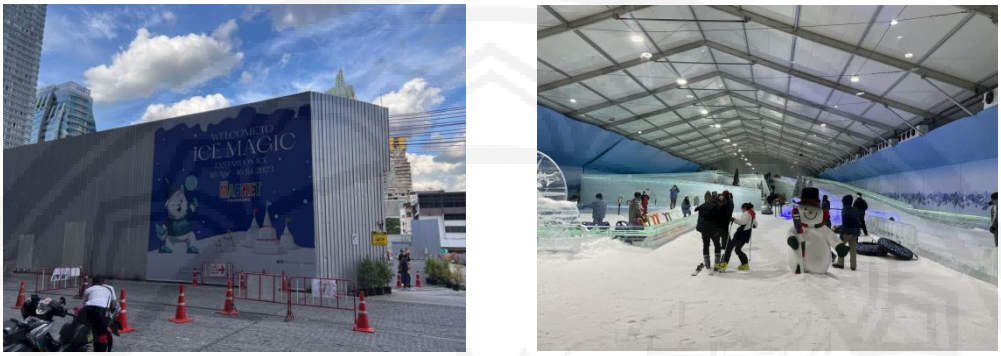

Figure 2 Ski Resort: ICE MAGIC, The Market Bangkok, Rachadamri Road, Lumphini, Pathum Wan, Bangkok. (Source by Author)

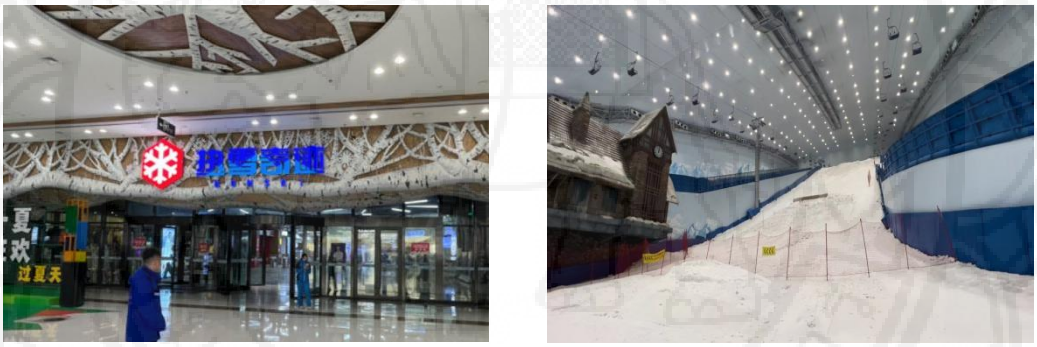

Figure 3 Ski Resort: Rongchuang Mall, Shimao Avenue, Songbei District, Harbin City, Heilongjiang Province, China. (Source by Author)

4.1 Field Observation

This research utilized a non-participant observation approach, allowing investigators to observe subjects in their natural environment without interaction. This method provided unbiased data on the actual behaviors and interactions between beginners and coaches during snowboarding courses unaffected by observer involvement. Data collection encompassed:

Learning Modes: Including the learning paths chosen by beginners, such as hiring instructors, seeking advice from experienced player friends, or self-learning.

Learning Outcomes: Observing the learning effectiveness under different paths, especially the standardization of movements and skill acquisition with professional coaching guidance.

Safety Awareness and Protective Measures: Comparing the differences in safety awareness and protective measures among beginners with and without professional coaching, including protective postures during potential danger moments.

Equipment Usage: Observing the differences in how beginners wear their equipment with or without coaching assistance.

Emotional Responses: Recording the emotional reactions of beginners to setbacks with or without coaching support.

Adaptation to Environment and Facilities: Observing how the ski resort layout, signage meanings, and other facility accessibility impact players' experiences.

Financial Costs: Collecting information on the costs involved in learning to snowboard, including usage fees, equipment rental fees, and coaching fees.

Through observing these aspects, the researcher gained a comprehensive understanding of the learning experience of snowboarding beginners, including their needs, challenges, preferences, and factors affecting their learning outcomes and safety. Such data are crucial for a deeper understanding of beginners' learning processes and for designing more effective educational strategies and improvements to ski resort services.

4.2 In-Depth Interviews

Snowboarding Players: Following the completion of field observations, the researchers employed semi-structured interviews to gain a deep understanding of the experiences and perspectives of players at different levels. Advanced to intermediate players receive diverse feedback on their various experiences as beginners and their progression from the beginner stage, providing mature insights. Interviewing players across various skill levels enhanced the reliability and representativeness of the study, ensuring comprehensive and objective feedback. This multi-layered communication helped the researchers to thoroughly understand the changes and needs of players during their skill advancement in snowboarding.

Ski Resort Managers and Others: The study also involved interviews with ski resort managers and other related personnel to understand their views on beginners' educational experience and potential areas for improvement. These interviews helped the researchers understand the layout of teaching services and potential areas for enhancement from an operational perspective.

Snowboarding Instructors: As key figures in the teaching process, snowboarding instructors provided crucial insights into the instructional process and learning challenges. Through in-depth discussions with these instructors, the researchers gained valuable information about teaching methods, joint issues, and learner feedback.

4.3 Questionnaires

To obtain a broader spectrum of opinions and feedback, the researchers designed and distributed online questionnaires based on the results of field observations and in-depth interviews. The aim was to collect data from a wider user group and obtain more detailed results. These questionnaires covered various aspects, including user backgrounds, learning experiences, and evaluations of existing educational experiences. By analyzing these data, the researchers could identify specific characteristics of the target audience and uncover common issues and user needs, providing essential information for subsequent design work.

In this study, data collection on the educational experience needs of snowboarding beginners was conducted using the online questionnaire platform "Wenjuanxing". The platform was chosen for its wide coverage and user-friendly interface, crucial for efficiently and accurately collecting data. The researchers specifically targeted individuals interested in snowboarding to ensure the data accurately reflected the target group's views. Notably, the respondents were not offered any form of reward or incentive, ensuring the authenticity and reliability of the data. The survey achieved a high response rate of 95.33% from 450 distributed samples, with 429 valid

responses indicating high interest in the topic and the survey's effectiveness. This high response rate is considered to be within reasonable bounds in social science research, providing representative and credible data for the study.

Data Analysis

This study employed a mixed-methods approach to analyze the educational experiences of snowboarding beginners, integrating field observations, in-depth interviews, and questionnaire surveys. This multifaceted strategy allowed for a nuanced exploration of beginners' learning conditions, needs, preferences, and challenges.

1. Data Preparation and Preliminary Analysis

Initially, the collected observational and interview data were meticulously organized into thematic categories such as learning modes, outcomes, safety awareness, equipment usage, emotional responses, adaptation to environment and facilities, and financial costs. This classification facilitated a systematic review and ensured comprehensive coverage of the relevant aspects.

2. Qualitative Content Analysis

Detailed content analysis was conducted on each category to identify key terms, phrases, and narratives. This process revealed patterns and insights directly related to the research questions, highlighting the intricacies of beginners' learning experiences and the factors influencing their progression and safety in snowboarding.

3. Thematic Analysis

In-depth reading and interpretation of the data led to the identification of recurring themes and concepts, particularly those shared across multiple participants' experiences. This analysis illuminated significant patterns, such as the impact of different learning pathways (e.g., hiring instructors, seeking advice, self-learning) on outcomes and safety awareness, providing a richer understanding of the educational landscape in snowboarding.

4. Case Study Analysis

A selection of individual cases, either representative or unique, were analyzed in-depth. This approach showcased the varied experiences, challenges, and strategies of learners in the snowboarding process, offering concrete insights into the personal dimensions of snowboarding education.

5. Synthesis and Interpretation

The findings from qualitative analyses were synthesized to construct a comprehensive picture of the beginner snowboarding learning experience. This synthesis highlighted the main challenges faced, key success factors, and potential strategies for improving the learning process.

Survey Analysis

Descriptive Statistical Analysis

Descriptive statistics, including mean scores and percentage distributions for survey responses, provided a quantitative overview of participants' perspectives on several aspects, including learning preferences, effectiveness, safety awareness, equipment use, and economic considerations.

Data Visualization

Graphs and charts were utilized to visually represent these statistical findings, aiding in the rapid identification of trends and preferences among participants.

Comparative Analysis

The study compared averages across different dimensions of the questionnaire to uncover variances or consistencies in responses, shedding light on how demographic factors such as gender, age, and education level might influence participants' views and experiences.

Interpretation of Findings

The survey results were interpreted in the context of the study's objectives, identifying key trends such as preferred learning modes, frequently mentioned safety measures, and the role of economic factors in learning decisions. These insights were crucial for designing more effective snowboarding educational experiences and services.

Results

Three research methods were employed in this study: field observation, in-depth interviews, and questionnaire surveys to comprehensively assess the skill levels, real needs, and difficulties of individuals interested in snowboarding. Data were not only collected independently, but each method also complementary one another, ensuring a thorough understanding of the research topic. Qualitative research gathered insights from key informants through field observations and interviews, providing a rich background and details for the synthesized analysis of each topic. Field observations revealed participants' behavior patterns and interactions in natural settings, while in-depth interviews delved into participants' personal experiences, perspectives, and needs. The questionnaire survey, as a quantitative research method, supplemented the qualitative findings by providing an overview of the distribution of beginners' skill levels through statistical analysis. The following sections detail the analytical and synthetic results of these three methods, demonstrating how best to understand and assess the learning experiences of snowboarding beginners from different perspectives.

1. To Conduct Field Observations at Snowfields and Collect Data Through Interviews to Comprehensively Understand Snowboarding Beginners' Learning Conditions and Needs

During the field observation phase (Figures 2 and 3), the researchers identified that beginners primarily fell into serious learners and experiential players. The researchers further categorized serious learners into long-term and short-term.

Regarding learning modes, a small portion of beginners, including both long-term and short-term as well as experiential players, opted to hire instructors. An even smaller group sought advice from high-level player friends, while most chose self-learning.

Regarding learning effectiveness, beginners assisted by professional coaches demonstrated more standardized movements. Despite the varying foundational skill levels among students, those with professional coaching outperformed self-taught beginners in skill acquisition.

Regarding safety, beginners with professional coaching paid particular attention to protection, rarely falling or colliding with other players on the slopes. In moments of potential danger, coaches would promptly instruct them to adopt the correct protective postures. In contrast, beginners without professional coaching, especially self-taught ones, often needed to gain knowledge of proper protection, leading to frequent falls, injuries, and collisions with other players.

Regarding equipment usage, beginners with coaching assistance wore their gear more correctly and comprehensively. Those without coaching assistance often failed to wear equipment properly, if at all.

Emotionally, learners with coaching support received immediate encouragement and technical correction in the face of setbacks, boosting their confidence for subsequent training. Conversely, when confronted with failure, self-taught players faced significant discouragement and abandonment.

Adapting to the environment and facilities, the layout of the ski resort, the meanings of signage, and the accessibility of other amenities all impacted players' experiences.

Financial cost, an essential aspect of learning expenses, influenced learners' decisions. Expenses at ski resorts included but were not limited to usage fees, basic equipment rental (snowboards, bindings, boots, snow apparel), protective gear rental (helmets, knee pads, hip protectors, elbow pads), warm gear rental (thermal sock covers, gloves, windproof masks, goggles), professional coaching fees, and locker rental. The researchers observed that these costs were typically calculated based on time, amounting to a significant expense when fully rented. High-level players often owned their equipment, varying in brand and quality, only needing to pay the usage fee at ski resorts. In contrast, when faced with the price board, most beginners expressed surprise and difficulty, often renting only a few essential items and basic equipment while neglecting protective and warm gear, crucial for an extreme sport like snowboarding in harsh conditions. The researchers also found that most beginners, including experiential players, initially considered hiring professional coaches. However, many were deterred by the high costs and the realization that more than one session might be needed for complete learning.

Snowboarding Players' Interviews

Figure 4 One of the Researchers Talking to the Players. (Source by Author)

Scene Location: ICE MAGIC, Bangkok.

Motivation: When inquiring about why players choose to snowboard, nearly all participants expressed that snowboarding was excellent, offering a sense of freedom for both body and soul through high-speed gliding on the slopes. Additionally, it provided an opportunity for physical exercise and meeting like-minded friends.

Learning Costs: In-depth interviews with snowboarding enthusiasts revealed that experienced advanced players generally had substantial incomes to support their snowboarding expenses. They also enjoyed more flexible time to learn and master snowboarding skills. These players highlighted that, besides a passion for snowboarding, financial and time support were crucial for skill proficiency. The researchers also confirmed this viewpoint in discussions with professional coaches and ski resort operators.

The research revealed that long-term learners mainly utilize their extended holidays for learning and are not burdened by the high costs since their parents typically cover these expenses until they have learned the skill. Short-term learners are usually working professionals with limited time and financial resources to dedicate to snowboarding, making it challenging to acquire the complete skills quickly. Additionally, the researchers interviewed experiential players, a significant part of the ski resort clientele. They expressed that snowboarding's

high entry barrier in terms of skill and financial commitment often led to a disappointing experience for casual visitors.

Needs and Expectations: When asked about the needs of beginners, advanced players noted that newbies tended to prioritize quick progress in getting on the board, neglecting the practice of techniques and learning protective measures. Skill learning aids in advancing snowboarding techniques, and poor fundamentals can lead to difficulties later. Moreover, learning protective measures is about ensuring personal and others' safety. Falling is common in skiing, but without proper protective skills, it can lead to injuries or even fatalities. Beginners must also learn to avoid others on the slopes, causing inconvenience or harm.

Regarding expectations for the educational experience in snowboarding, the ideal scenario would be to learn without spending extensive time at ski resorts. This is particularly true for experiential players, who do not aim to master many skills but just enough to slide. They prefer a learning option that is economical, time-flexible, and location-independent.

Views on Technology-assisted Learning: Players generally expressed interest in cost-effective learning methods. They see technology-assisted learning as a relatively economical option, especially outside the snow season or holidays. With many players having limited learning time, they favor technologies that can rapidly provide basic skill training. Therefore, simple, easy-to-use tools that do not require extensive time commitment are preferred.

Moreover, when discussing existing technological means, players generally favored Virtual Reality (VR) technology over familiar motion-sensing sports games linked to large screens, believing VR offered a more immersive learning experience, with its interactivity and entertainment value being more appealing.

Interviews with Ski Resort Managers and Others

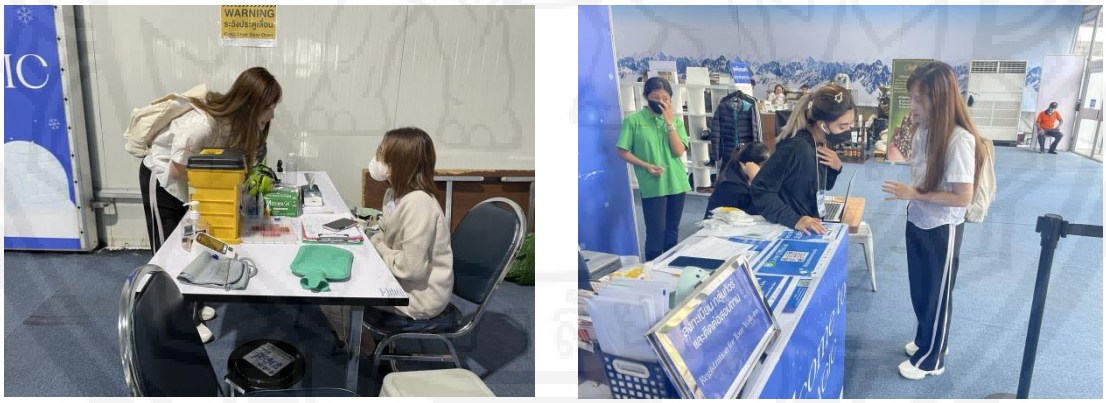

Figure 5 One of the Researchers Talking to Ski Resort Managers. (Source by Author)

Scene Location: ICE MAGIC, Bangkok.

In conversations with ski resort operators and managers, the researchers learned that the high cost of snowboarding did indeed limit many people from engaging in the sport long-term. However, due to the high maintenance cost of the facilities, among other expenses, it was challenging for them to lower their prices. Also, the limited number of qualified, high-level professional instructors contributed to the high cost of coaching. When asked about daily injuries at the resorts, managers expressed concern, noting that despite numerous warning signs, about one-tenth of visitors were injured daily. Many did not need help understanding the importance of protection or using the facilities correctly. Despite personal safety insurance being purchased for every individual entering the resort and included in the entry fee, the resort managers still hoped visitors would be more cautious about safety.

Regarding expectations for designing educational experiences for snowboarding beginners, they expressed that inexperienced enthusiasts, mainly experiential players, would benefit from some essential theoretical and protective learning before coming to the resorts. This could effectively mitigate risks and, with some prior knowledge of snowboarding, shorten the learning duration and improve the snowboarding experience upon hiring a coach.

Views on Technology-assisted Learning

1. Increased Attractiveness and Competitive Advantage: Adopting new technologies like VR can enhance the appeal of ski resorts to beginners and experiential players, giving them a unique competitive edge in the market. Advanced learning tools can attract more customers interested in high-tech learning methods.

2. Improved Learning Efficiency and Safety: Technology-assisted learning tools can help beginners master basic skills more quickly while enhancing safety during learning. Through simulated training, novices can acquire the necessary skills and safety knowledge before actual downhill skiing.

3. Extended Learning Period and Customer Loyalty: Students and working professional players can continue learning and practicing off-season with technology-assisted learning, maintaining their interest in the resorts and potentially increasing return visits.

4. Resource Optimization and Operational Efficiency: Applying new technology can help resorts use their resources more effectively. For instance, VR learning systems can reduce dependence on actual slopes and instructors, lowering operational costs while offering more diverse services.

5. Market Feedback and Continuous Innovation: The introduction of technology allows resorts to receive market feedback more rapidly, facilitating continuous improvement and innovation in services. For example, based on customer feedback concerning VR learning experiences, resorts can adjust the teaching content and degree of difficulty to better meet the needs of different customer levels.

6. Platform for Education and Promotion: By using new technology, ski resorts can become platforms for snowboarding education and cultural promotion. This extends beyond practical training to convey skiing culture and safety awareness through technology.

Interviews with Snowboarding Instructors

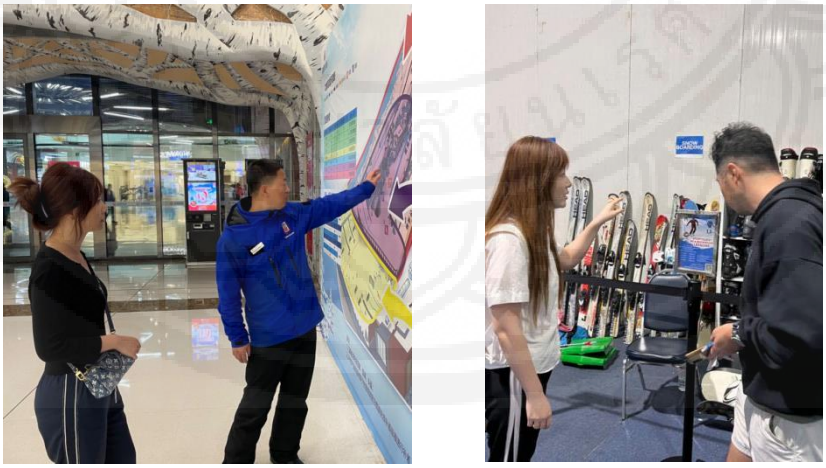

Figure 6 One of the Researchers Talking to a Snowboarding Instructor. (Source by Author)

Scene Location: Rongchuang Mall, China (Left); ICE MAGIC, Bangkok (Right).

Professional instructors noted during the interviews that beginners often needed more understanding of the principles of snowboarding before starting to learn. Although they were drawn to the sport because it appeared to

be calming, in the early stages of learning, many beginners became impatient and eager to see quick results, leading to the lack of a long-term, stable learning period. This resulted in ineffective teaching outcomes. The instructors emphasized that learning to fall correctly is more important than learning to slide. Incorrect falling often leads to severe injuries, either to the individual or others, affecting the skiing experience and wasting time, particularly with experiential players, who often take photos on the slopes or fail to promptly clear the center of the trail after a fall, causing collisions, which can be very dangerous.

Regarding expectations for the design of educational experiences for snowboarding beginners, professional coaches expressed that it would be beneficial if learners could study the principles of skiing in advance or have experience in related sports. Additionally, understanding the correct use of equipment, the importance of protective gear, and how to protect oneself can save more time when hiring a coach, allowing the coach to focus more on helping them improve their skills rather than other issues.

Views on Technology-assisted Learning: Professional coaches expressed a mixed attitude of anticipation and caution toward the introduction of new technologies into snowboarding learning. They viewed new technology as a valuable auxiliary tool but were also aware of the importance of maintaining the essence of traditional skiing instruction and its challenges. Coaches hoped to use new technology to enhance teaching effectiveness and learning experiences while preserving the essence of traditional teaching. They considered new technology, like VR, to be an auxiliary tool for helping beginners learn basic skills in a safe environment, reducing the risks on actual slopes. New technology can provide more personalized teaching methods. For instance, data analysis and feedback mechanisms can help coaches better understand students' progress and areas needing improvement. Some coaches may worry that integrating technology might diminish the value of traditional teaching methods or lead students to become overly reliant on technology, neglecting the experience and sensations of skiing. For coaches, the introduction of new technology also means they need to continually update their skills and knowledge to use these teaching tools effectively. New technology might increase students' motivation to learn, especially among the younger generation, who are more interested in high-tech products. This could make the learning process more engaging and attractive. Some coaches worried that excessive reliance on technology could lead students to overlook basic principles and safety practices in skiing. Additionally, some coaches may need to adapt to the market demand for technology-assisted learning, potentially shifting their role from traditional instructors to integrated technology and sports skills instructors.

2. Validating and Deepening the Understanding of Beginners' Needs Through Survey Research Based on the Data

Table 1 Basic Information about Groups Interested (Beginners) in Snowboarding

Definition		Frequency	(%)
Gender	Male	224	52.21
	Female	202	47.09
	Other	3	0.70
Age	18-25	103	24.01
	26-30	150	34.97
	31-40	113	26.34
	40-50	39	9.09
	Above 50	24	5.59

Table 1 (Cont.)

Definition		Frequency	(%)
Education Level	High School Below	79	18.18
	Junior College	117	27.27
	Bachelor Degree	163	38.00
	Master Degree	60	14.22
	Doctoral Degree or Above	10	2.33
Income ($USD/Year)	0-9999	151	35.20
	10000-29999	158	36.83
	30000-49999	81	18.88
	50000+	39	9.09
Total		**429**	**100**

Table 2 Skill Level of Groups Interested (Beginners) in Snowboarding

	Score	Frequency	(%)	AVG
Snowboarding Experience	1	231	53.85	1.71
	2	102	23.78	
	3	88	20.51	
	4	6	1.40	
	5	2	0.47	
Sports Background	1	96	22.38	3.03
	2	70	16.32	
	3	79	18.41	
	4	94	21.91	
	5	90	20.98	
Safety Awareness	1	119	27.74	2.58
	2	112	26.11	
	3	79	18.41	
	4	69	16.08	
	5	50	11.66	
Equipment Knowledge	1	136	31.70	2.46
	2	111	25.87	
	3	79	18.41	
	4	53	12.35	
	5	50	11.66	
Total		**429**	**100**	

The researchers used the Richter Five Scale to collect data for this part of the investigation. Score 1 represents a complete lack of understanding. Score 2 represents a basic level of understanding or familiarity, where the respondent has some recognition of the topic but limited knowledge, possibly only knowing a few basic concepts or pieces of information. Score 3 represents a moderate level of understanding or familiarity, where the respondent has a fair depth of comprehension, can grasp core concepts, and possesses some insight and the ability to apply knowledge to the topic. Score 4 signifies a high level of understanding or familiarity, where the respondent has an in-depth understanding and a more comprehensive knowledge of the subject, as well as being capable of conducting advanced analysis, discussion, and application within the field. Score 5 represents being very familiar or very knowledgeable.

The results in Table 2 show the skill level survey of individuals interested in snowboarding. The survey covered four aspects: snowboarding experience, sports background, safety awareness, and equipment knowledge.

Snowboarding Experience: The majority of participants (53.85%) rated their experience as 1 point, with an overall average score of 1.71, indicating the presence of a significant number of complete beginners among the participants.

Sports Background: Participants scored an average of 3.03 in terms of sports background, demonstrating a certain diversity. A portion of the participants (approximately 42.89%) gave higher ratings of 4 or 5 points, suggesting they might have a good background in other sports activities.

Safety Awareness: The average score for safety awareness among participants was 2.58, indicating a certain level of safety consciousness, yet there remains considerable room for improvement. About 27.74% of participants gave the lowest rating of 1 point.

Equipment Knowledge: In terms of equipment knowledge, the average score was 2.46, with 31.70% of participants rating it 1 point, indicating a generally low level of equipment knowledge.

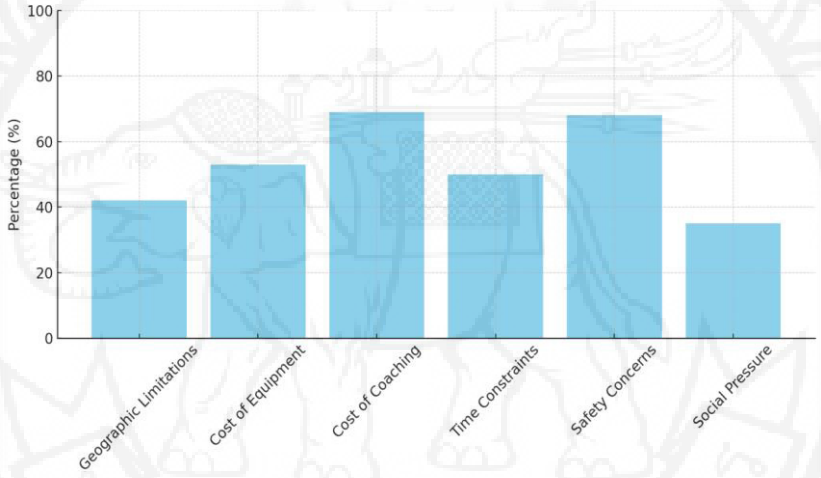

Figure 7 Difficulties Faced by Snowboarding Beginners. (Source by Author)

The research findings indicate that the target user group predominantly consists of young to middle-aged individuals with a certain education level and average income. They exhibit a strong interest in snowboarding but need more relevant experience and knowledge, particularly regarding safety and equipment. Therefore, in snowboarding education and training tailored for this group, significant emphasis should be placed on safety education, basic skill training, and disseminating knowledge about equipment usage. Moreover, considering their income level, providing cost-effective learning solutions is also crucial for integrating the collected data to formulate educational strategies for beginners to optimize their learning experience.

Discussion

The study's exploration into the educational experiences of snowboarding beginners illuminates several crucial insights, notably the significant gap in safety awareness and the need for economical learning options. Comparisons with existing literature reveal that while some aspects align, unique challenges specific to the snowboarding context emerge, particularly regarding accessibility and technological integration in learning (Wu et al., 2023). The findings contribute to the theoretical perspectives in sports education and practical approaches to snowboarding

training. Acknowledging the study's limitations, primarily in geographical and demographic scope, it becomes clear that future research could expand to diverse settings, exploring broader socio-economic impacts and varied learning modalities.

The goal of this study was to gain a deep understanding of the educational experience of beginners in snowboarding, focusing on how cognitive content, growth paths, and teaching formats influence their learning process and outcomes. The researchers propose the following perspectives:

1. Cognitive Content

Equipment Knowledge: Understand and recognize the equipment required for snowboarding, including types, functions, and correct usage.

Essential Skill Awareness: Comprehending the fundamental techniques of snowboarding, emphasizing essential skills for beginners.

Safety Awareness: Acknowledging the importance of safety measures, including awareness of potential risks and adopting appropriate precautions.

Facility Familiarization: Gaining knowledge about various facilities at snowboarding venues, their purposes, and how to utilize them effectively.

2. Growth Path for Beginners

Simplified Techniques: Focusing on teaching primary and easy-to-learn snowboarding skills suitable for beginners or temporary learners.

Encouragement: Providing motivational support and positive reinforcement to snowboarding learners.

Social Interaction: Playing a vital role in the educational experience of snowboarding, not only facilitating friendships among enthusiasts but also providing opportunities for mutual practice. Learners can enhance their skills in a supportive environment through encouragement and collaboration. Additionally, social activities can extend beyond the slopes, such as participating in social events or leisure activities after practice sessions.

3. Teaching Formats

Innovative Forms: Employing innovative and non-traditional methods in designing and delivering snowboarding teaching and experiences.

New Technologies: Utilizing advanced technological solutions, with VR technology identified as the most desired form to enhance learning and experience in snowboarding.

Flexibility in Timing: Offering flexible scheduling options in snowboarding activities, allowing participants to engage at their convenience.

Location Independence: Enabling the ability to learn and practice snowboarding in various environments, not limited to traditional snowboarding settings.

Conclusion and Suggestions

In the in-depth analysis of both quantitative and qualitative results, this study found that although existing literature has started to focus on the potential for snowboarding beginners to learn in non-traditional snow environments and the continuous upgrade and improvement of related equipment, this aligns with the researchers' findings. However, a significant difference is that the current literature does not adequately address the issue of high equipment costs. This challenge is a significant barrier for beginners, affecting their ability and willingness to participate in snowboarding. This study highlights the importance of developing more economical learning

schemes and equipment acquisition pathways, not only to reduce the financial burden on beginners but also to help broaden the base of participants in snowboarding, making the sport more popular and inclusive.

One significant contribution of this study, compared to existing research, is the proposal of specific strategies and recommendations aimed at addressing this issue through technological innovation and improvements in educational strategies. In particular, the application of emerging technologies such as VR to snowboarding education not only offers a more flexible and engaging learning experience but may also serve as an effective means to reduce learning costs.

This research embarks on a journey to understand snowboarding beginners' educational needs and preferences, a previously underexplored topic. The study highlights the learners' strong inclination toward flexible, technology-enhanced learning environments and their struggle with affordability and safety. These findings not only carve a niche in the academic discourse of snowboarding education but also offer tangible directions for enhancing practical training methods. The implications of this study extend beyond theoretical enrichment, suggesting real-world changes in instructional approaches and safety protocols, thereby enriching the snowboarding learning experience.

Drawing from the insights gained, it becomes imperative to recommend strategies that address the identified educational gaps. Integrating VR and other technological aids into snowboarding training can revolutionize learning experiences, making them more accessible and engaging (Ko et al., 2020). Moreover, developing comprehensive safety programs and affordable learning packages would significantly lower the entry barriers for beginners. If adopted by snowboarding schools and resorts, these recommendations can transform the landscape of snowboarding education and make the sport more inclusive and safer, fostering a broader and more passionate snowboarding community.

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