

Journal of  
**Tourism & Adventure**

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**Adventure Tourism Education and Graduate  
Competitiveness: A Qualitative Study from Pokhara,  
Nepal**

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**DOI:** <https://doi.org/10.3126/jota.v9i1.98744>

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**Article History**

Received: 7 July 2026

Revised: 19 July 2026

Accepted: 4 August 2026

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**Keywords**

Adventure, competitiveness,  
education, Pokhara, skills

**To cite this article:**

Pahari, D. (2026). Adventure  
Tourism Education and Graduate  
Competitiveness: A Qualitative  
Study from Pokhara, Nepal.  
*Journal of Tourism & Adventure*,  
9(1), 60-82. [https://doi.  
org/10.3126/jota.v9i1.98744](https://doi.org/10.3126/jota.v9i1.98744)

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**Abstract**

*Adventure tourism is among the fastest-growing sectors of the global tourism industry, generating employment, enhancing destination competitiveness, and promoting sustainable economic development. Nepal, particularly Pokhara as the gateway to the Annapurna region and the Tourism Capital of Nepal, possesses exceptional potential for adventure tourism. Despite this potential, tourism higher education in Nepal remains predominantly theory-oriented, with limited integration of practical adventure tourism competencies required by the industry. This study examines the extent to which adventure tourism skills are integrated into tourism and hospitality higher education programs in Pokhara and explores collaboration between academic institutions and the tourism industry. It also assesses the alignment of curricula with industry competency requirements, identifies existing gaps, and proposes strategies to strengthen competency-based tourism education. A qualitative research design was employed using purposive sampling. Data were collected from 105 respondents, including tourism faculty members, academic administrators, adventure tourism entrepreneurs, tourism graduates, and tourists, through semi-structured interviews, curriculum reviews, informal discussions, and*

*document analysis. The data were analyzed using thematic analysis supported by descriptive frequency distributions. The findings reveal that while tourism institutions provide a sound theoretical foundation, they inadequately address practical competencies such as adventure operations, outdoor leadership, risk management, and technical skills, resulting in a significant mismatch between academic preparation and industry expectations. The study concludes that competency-based curricula, experiential learning, industry-oriented internships, professional certification, and stronger academic–industry collaboration are essential to bridge this gap. The findings offer practical implications for universities, policymakers, and tourism stakeholders by providing strategic directions for curriculum reform and strengthening workforce readiness, thereby enhancing the global competitiveness and sustainability of Nepal’s adventure tourism sector.*

## **Introduction**

Tourism is one of the world’s largest and fastest-growing economic sectors, contributing significantly to gross domestic product (GDP), employment generation, foreign exchange earnings, and regional development. According to the United Nations Tourism (UN Tourism, 2024) and the World Travel & Tourism Council (WTTC, 2024), tourism plays a pivotal role in achieving sustainable development by creating economic opportunities, reducing poverty, and promoting cultural exchange. Within the broader tourism industry, adventure tourism has emerged as one of the fastest-growing market segments, driven by travelers seeking active participation, authentic experiences, interaction with nature, and personal challenges (UN Tourism & Adventure Travel Trade Association [ATTA], 2014).

Adventure tourism combines physical activities, natural environments, cultural immersion, and varying levels of perceived risk (Buckley, 2010). Popular activities such as trekking, mountaineering, rafting, mountain biking, rock climbing, paragliding, skiing, wildlife exploration, and canyoning have witnessed substantial global growth over the past decade (ATTA, 2022). The expansion of this sector has generated increasing demand for professionally trained human resources capable of managing adventure activities safely, sustainably, and responsibly while delivering high-quality visitor experiences (UN Tourism & ATTA, 2014).

Nepal possesses a unique comparative advantage in adventure tourism owing to its spectacular Himalayan landscapes, rich biodiversity, and diverse cultural heritage. Home to eight of the world’s fourteen mountains exceeding 8,000 meters, including Mount Everest, Nepal has established itself as one of the world’s premier destinations for trekking and mountaineering (Ministry of Culture, Tourism and Civil Aviation [MoCTCA], 2023). Among Nepal’s tourism destinations, Pokhara has emerged as the country’s leading adventure tourism hub. Serving as the gateway to the Annapurna Conservation Area, the city offers a diverse range of adventure activities, including trekking, paragliding, ultralight flights, zip-lining, bungee jumping, rafting, mountain biking, and boating (Nepal Tourism Board [NTB], 2023). The declaration of Pokhara as the Tourism Capital of Nepal further highlights its strategic importance in the country’s tourism development agenda.

The rapid expansion of adventure tourism has transformed the competency requirements of tourism professionals. Beyond theoretical knowledge, employers increasingly seek graduates equipped with practical skills in outdoor leadership, technical operations, visitor safety, environmental stewardship, communication, intercultural competence, emergency response, and risk management (Buckley, 2010; UN Tourism & ATTA, 2014). Consequently, tourism higher education worldwide has increasingly adopted competency-based education, emphasizing experiential learning, fieldwork, internships, industry collaboration, and professional certification to prepare graduates for dynamic tourism environments (Kolb, 1984; Hsu et al., 2017).

Tourism higher education in Nepal has expanded considerably over the past two decades through universities and affiliated colleges offering academic programs in tourism, hospitality, and hotel management. Despite this expansion, several studies indicate that tourism education remains predominantly theory-oriented, with limited opportunities for practical training, experiential learning, and industry engagement (Khanal, 2019; Khatri, 2018). This situation is particularly critical in adventure tourism, where professional competence depends not only on conceptual knowledge but also on technical skills, outdoor leadership, safety management, rescue techniques, environmental ethics, and operational decision-making. As a result, a mismatch persists between graduates' competencies and the expectations of the adventure tourism industry, affecting graduate employability, service quality, visitor safety, and the international competitiveness of Nepal's tourism workforce.

Although adventure tourism has received growing scholarly attention, existing research has primarily focused on destination development, tourism planning, marketing, sustainability, and visitor experiences (Buckley, 2010; UN Tourism & ATTA, 2014). Comparatively little empirical research has examined how adventure tourism competencies are integrated into higher education curricula in Nepal. Furthermore, previous studies have seldom investigated whether existing tourism programs adequately prepare graduates to meet the competency requirements of the adventure tourism industry, particularly in Pokhara, Nepal's principal adventure tourism destination. Likewise, limited research has incorporated the perspectives of multiple stakeholders—including faculty members, academic administrators, tourism entrepreneurs, graduates, and tourists—to evaluate the alignment between tourism education and industry expectations. This lack of empirical evidence represents a significant research gap that constrains curriculum reform, evidence-based educational planning, and human resource development in Nepal's adventure tourism sector.

To address this gap, the present study examines the integration of adventure tourism skills into higher education programs in Pokhara. Specifically, it investigates the extent to which tourism curricula incorporate industry-relevant competencies, explores stakeholder perceptions regarding existing educational practices, identifies gaps between academic preparation and industry requirements, and proposes strategies for strengthening competency-based tourism education. By bridging the gap between academia and industry, the study seeks to contribute to curriculum development, academic–industry collaboration, tourism education policy, and the preparation of globally competitive tourism professionals capable of supporting the sustainable growth of Nepal's adventure tourism sector.

This study seeks to examine the extent to which adventure tourism skills are integrated into higher education curricula in Pokhara and to explore the forms of collaboration that exist between academic institutions and tourism enterprises.

The general objective of the study is to investigate the integration of adventure tourism skills into tourism and hospitality higher education programs in Pokhara. Specifically, the study aims to assess the current status of skill integration and its alignment with industry competency requirements. It also seeks to identify the gaps between academic tourism education and practical industry needs and to propose strategies for strengthening competency-based tourism education.

## **Review of literature**

### **Concept of adventure tourism**

Adventure tourism refers to travel involving physical activity, interaction with natural environments, and elements of perceived risk or challenge. According to Buckley (2010), adventure tourism encompasses recreational activities that require specialized skills, equipment, and environmental awareness. The sector has expanded rapidly due to changing traveler preferences toward active and experiential tourism.

The Adventure Travel Trade Association defines adventure tourism as travel including at least two of three elements: physical activity, natural environment, and cultural immersion. This broad definition encompasses a diverse range of tourism experiences.

Adventure tourism contributes significantly to destination development by generating employment opportunities, promoting conservation, and supporting local economies (UNWTO, 2014).

### **Tourism education and human resource development**

Human resources constitute one of the most critical assets within the tourism industry. Baum (2015) argues that tourism competitiveness depends heavily on workforce quality, professional competence, and service excellence.

Tourism education aims to develop knowledge, skills, attitudes, and values required for professional practice. Airey and Tribe (2005) emphasize that tourism education should balance vocational training with broader academic understanding. Modern tourism industries increasingly require graduates possessing both technical competencies and transferable skills, including leadership, communication, teamwork, critical thinking, and problem-solving abilities.

### **Experiential learning theory**

Experiential learning theory developed by David Kolb provides an important framework for tourism education. Kolb (1984) argues that learning occurs through direct experience, reflection, conceptualization, and experimentation.

Field visits, internships, simulations, practical exercises, and industry engagement allow students to connect theoretical knowledge with real-world situations. Experiential learning has been shown to improve student confidence, employability, and professional competence.

### **Competency-based tourism education**

Competency-based education has emerged as an important approach in higher education, particularly in professional fields such as tourism and hospitality, where workplace performance and practical skills are highly valued. Unlike traditional education models that primarily emphasize theoretical knowledge, competency-based education focuses on measurable learning outcomes and the development of skills, attitudes, and abilities required in real-world professional settings. According to Sheldon, Fesenmaier, Woeber, Cooper, and Antonioli (2008), tourism curricula must continuously evolve to respond to the changing demands of the global tourism industry. As tourism becomes increasingly competitive, employers seek graduates who possess not only academic knowledge but also the practical competencies necessary to perform effectively in diverse tourism environments.

In the context of adventure tourism, competency-based education is particularly important because of the specialized nature of tourism activities and the need to ensure visitor safety and satisfaction. Key competencies required in the adventure tourism sector include risk management, outdoor leadership, emergency response, environmental stewardship, customer service, team management, communication skills, cross-cultural competence, and sustainable tourism practices. These competencies enable tourism professionals to manage adventure activities responsibly, respond to unexpected situations, interact effectively with international visitors, and promote sustainable destination development. Recognizing the importance of these skills, educational institutions around the world are increasingly integrating competency-based approaches into tourism curricula through experiential learning, field training, internships, and industry partnerships to better prepare graduates for successful careers in the tourism sector.

### **Academic-industry collaboration**

Academic-industry collaboration plays a crucial role in enhancing the relevance of tourism curricula and improving the employability of graduates. Strong partnerships between universities and tourism enterprises help bridge the gap between theoretical knowledge and practical industry requirements. As Hjalager (2003) notes, such collaboration facilitates continuous knowledge exchange, allowing academic institutions to align their teaching with evolving industry trends while also enabling students to gain exposure to real-world tourism practices.

Effective forms of collaboration include internship placements, guest lectures by industry professionals, joint research projects, curriculum development initiatives, professional certification programs, and structured field training opportunities. These mechanisms ensure that students gain hands-on experience and industry-relevant competencies before entering the workforce. Ultimately, such partnerships create a stronger link between academic learning and professional practice, thereby enhancing both graduate readiness and the overall quality of tourism education.

### **Adventure tourism education**

Tourism education in Nepal has expanded considerably through programs offered by universities and colleges. However, previous studies indicate a persistent gap between academic content and industry needs (Upadhayaya, 2019).

Adventure tourism operators frequently report shortages of qualified personnel possessing practical skills related to guiding, safety management, and outdoor leadership. Although institutions provide tourism theory, structured adventure tourism training remains limited. The tourism capital status of Pokhara creates a unique opportunity for educational innovation. The city's concentration of adventure tourism enterprises offers an ideal environment for experiential learning and academic-industry collaboration.

Adventure tourism is a sign of broader shifts in consumer behavior, particularly the increasing desire to travel in a way that prioritizes physical difficulties, environmental participation, and personal growth. In their research on the "experience economy," Pine and Gilmore (1999) claim that travelers are seeking out travel experiences that provide more than just leisure or enjoyment; they are looking for meaningful interactions with their surroundings and personal enrichment. Adventure tourism is in line with the need for life-changing experiences since it places a strong focus on novelty, danger, and active participation. Adventure tourism makes use of the contemporary trend towards eco-friendly and outdoor-focused travel. Travelers are becoming increasingly conscious of their impact on the environment, and many adventure seekers are choosing eco-friendly trips that prioritize responsible tourism and conservation. According to Buckley (2010), adventure tourism has a unique potential to promote environmental consciousness because many of its activities take place in pristine natural environments. Travelers are aware of the vulnerability of these settings, whether they are diving in the Great Barrier Reef or climbing in the Andes, which adds to the appeal of environmentally conscious travel.

The cultural impact on adventure travel adventure opportunities for tourism present unique cross-cultural engagement, especially in places where local or indigenous cultures play a significant role in providing guides or lodging for tourists. According to Smith and Duffy (2003), there is a growing need in adventure tourism for authentic cultural experiences that allow visitors to interact with and gain knowledge from the local ways of life. Walking across native territory or taking part in customary ceremonies are examples of cultural adventure travels that combine physical discovery with cultural engagement. Including locals promotes sustainable development in rural and sometimes marginalized areas while improving the adventure tourism experience. The fusion of adventure and cultural tourism is best shown in emerging regions such as South America, Southeast Asia, and Sub-Saharan Africa. Close collaboration with local communities is often required for activities like camel trekking in Morocco, mountaineering in Nepal, or forest tours in the Amazon basin. These partnerships often create economic opportunities and support cultural preservation efforts. Concerns about the commodification of culture and the potential demise of traditional lifestyles have been raised by the quick monetization of these activities (Goodwin & Santilli, 2009). Psychological Reward Systems and Adventure Travel Adventure tourism is closely associated with tourists' psychological motivations, particularly regarding ideas of personal fulfilment, escape, and danger. According to Swarbrooke et al. (2003), there are several psychological drivers behind the rise in adventure tourism, including the need to escape the monotony of everyday life, take on new physical and mental challenges, and feel like an accomplishment. Adventure tourism,

with its extreme sports and remote mountain ranges, offers a level of mental and emotional stimulation difficult to replicate in more conventional travel because of its inherent uncertainty and unpredictability. In addition, adventure travel allows people to push their boundaries, which often leads to self-realization and increased self-assurance. According to Kerr and Mackenzie (2012), participating in high-risk sports like scuba diving or rock climbing can offer profound personal insights since these activities require participants to overcome both mental and physical obstacles. Adventure tourism appeals to a broad range of demographics, particularly young adults and professionals seeking respite from urban environments, because it offers the opportunity for self-discovery and a chance to disconnect from the pressures of modern life. Adventure Tourism's Economic Impact Adventure tourism has a significant positive economic impact on local economies that extends beyond the traveler. According to research by the Adventure Travel Trade Association (ATTA), adventure travelers typically spend more than traditional leisure travelers<sup>2</sup> - particularly when it comes to specialized gear, guides, and local services. Small businesses profit instantly from this investment, particularly in rural areas where adventure tourism is often very popular. Through lodging in remote guesthouses and hiring local guides, adventure tourism promotes economic growth in areas that might not otherwise have much infrastructure related to tourism (Adventure Travel Trade Association, 2018). The rapid expansion of adventure tourism has led to challenges in resource management and sustainability. Famous adventure destinations may face difficulties including overtourism, environmental degradation, and strain on local resources in the lack of proper control. These issues emphasize the need for careful planning and regulations that ensure adventure tourism can continue to be profitable while protecting cultural and natural resources.

One of the most important sub-sectors of complex tourism phenomena, tourism education has the potential to directly or indirectly affect the entire tourism industry. In a number of nations, higher education in tourism has received official recognition. So, it's the education that occurs through knowledge (Kunwar, 2018).

Opportunities of Adventure Tourism in Nepal Opportunities identified in the literature relate to the elements of geographic and ecological diversity, cultural heritage and community involvement, and economic contributions (Baral, Hazen and Thapa, 2017, Bandari 2022, Sharma 2023, Sharma and Paudel, 2021). Adventure tourism benefits naturally from Nepal's distinctive topography. Nepal offers varied settings for a range of adventure activities, with elevations ranging from 60 meters in the Terai plains to 8,848 meters at the summit of Mount Everest. The area's distinctive mix of high-altitude terrains, lush valleys, and unspoiled rivers is an attraction to trekkers, mountaineers, and paragliders. (Dongol 2019, Beedie and Hudson 2003). In addition, biological diversity improves wildlife tourism and birding chances, especially in conservation areas like Dhorpatan Hunting Life Reserve, Annapurna Conservation Area, Chitwan National Park, and Sagarmatha National Park (Baral, Hazen and Thapa, 2017). Adventure tourism also benefits from Nepal's cultural heritage. Villages where visitors can engage with locals and experience traditional ways of life are frequently traversed by trails. People from all castes entertain the tourists by performing their traditional dance and song.

Homestay initiatives foster domestic travel and offer authentic cultural experiences, especially in the Annapurna region (Anup, Sharma and Gurung, 2024). Additionally, the responsibility of local communities in managing tourist resources responsibly has been reinforced by efforts such as the Nepal Tourism Board's promotion of eco-friendly tourism (New Business Age, 2024). Adventure tourism also supports auxiliary sectors such as transportation and handicrafts. Research shows that areas like Khumbu and Annapurna that rely significantly on adventure tourism gain from better infrastructure and revenue diversification (Bhandari, 2022; Sharma, 2023). The emergence of new adventure sports, such as winter sports in the Mera Peak and Kalinchowk regions, along with numerous other locations, has diversified Nepal's tourism offerings. (Paudel, Sherpa, Thapa and Thapa, 2022).

Challenges identified in the literature focus on environmental vulnerabilities, safety and risk management aspects, accessibility, and the conditions and or status of infrastructure (Ziegler, Wassen and Pandey, 2023; Dongol, 2019; Rai et al., 2024). Regulatory and policy issues and socioeconomic inequities and seasonal limitations also contribute to the challenges. (Raspaud and Halle, 2014, Dongol 2019). Adventure tourism contributes to the destruction of the Himalayan ecosystem, which is highly susceptible to environmental changes. Deforestation, garbage accumulation, and soil erosion are caused by increased foot traffic in trekking areas. These difficulties are exacerbated by climate change, as glacial retreat and erratic weather patterns endanger hikers and modify established routes (Ziegler, Wassen and Pandey, 2023, Dongol 2019). Additionally, safety and risk management present a major challenge, as these are inherent risks of adventure tourism, especially in high-altitude areas like the Himalayas. Common risks include accidents, altitude sickness, and landslides and avalanches, among other natural calamities. A study by Ghimire et al., (2024) emphasizes how crucial safety regulations and risk-reduction mechanisms are to protecting the health and well-being of adventure tourists. Although Nepal has made progress in emergency services and rescue, there are still gaps in readiness and enforcement of regulations. Another significant challenge to adventure tourism is accessibility caused by the poor infrastructure. Hence, potential tourists are discouraged by high flights, poor transportation systems, and restricted access to isolated locations. For tourists to travel smoothly, rural roads and airports need major improvements. Furthermore, the need for improved infrastructure planning is highlighted by the overpopulation in important hubs like Lukla and Pokhara. Investing in energy-efficient transportation infrastructure and environmentally friendly lodging has been essential for improving travel experiences overall while reducing their negative effects on the environment. Other challenges include regulatory and policy issues, as well as seasonal limitations. The lack of a unified regulatory framework hampers the sustainable growth of adventure tourism. The execution of safety standards, environmental legislation, and community participation projects is impeded by fragmented governance and inadequate coordination among parties (Ghimire et al., 2024). Policies that balance social and environmental sustainability with economic growth are needed to address these problems.

A final note on the challenges discussed here is that adventure travel in Nepal remains very seasonal, with the pre-monsoon and post-monsoon seasons experiencing the highest

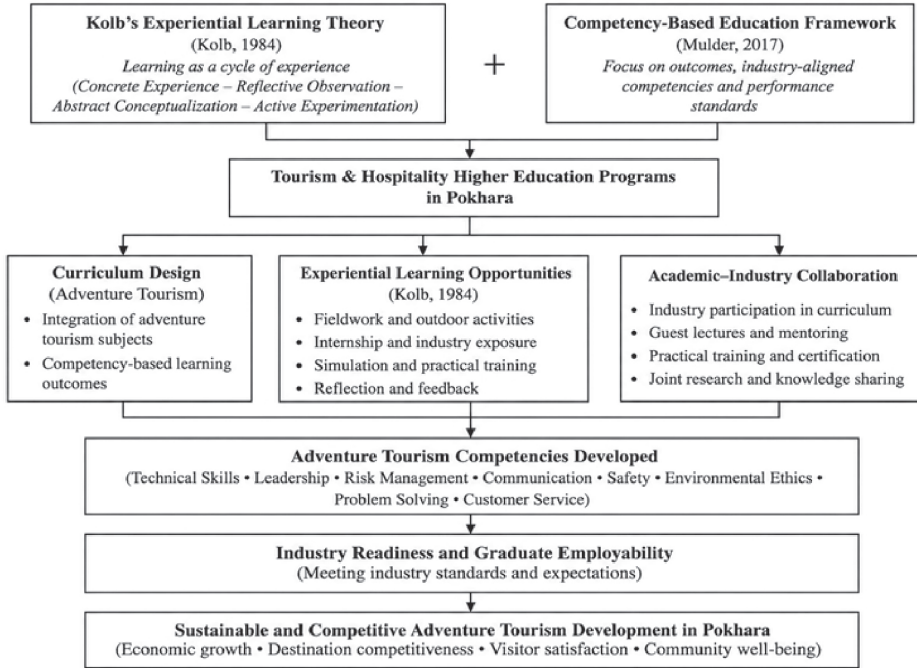
levels of visitor activity. Because of this seasonality, businesses and employees who depend on the industry face financial insecurity. They are unable to generate money throughout the year (Dongol, 2019). Expanding the range of tourism offers to include summer and winter pursuits remains crucial for stakeholders to accrue the potential benefits of adventure tourism to the economy.

Adventure tourism education contributes significantly to developing a competent workforce capable of addressing the dynamic needs of the global tourism industry. In Pokhara, integrating adventure tourism into academic curricula enhances students' technical knowledge, leadership skills, environmental ethics, and decision-making abilities while fostering innovation and entrepreneurship. Experiential learning through field visits, internships, and outdoor training strengthens graduates' professional competence and employability. Buckley (2010) emphasizes that adventure tourism requires specialized knowledge of safety, risk management, and sustainable resource use, making education a critical foundation for industry development. Similarly, Beames and Brown (2016) argue that outdoor and adventure education cultivates leadership, resilience, teamwork, and environmental responsibility among learners.

Moreover, collaboration between universities, tourism entrepreneurs, government agencies, and local communities enables the development of industry-responsive curricula that align with international standards. Such partnerships encourage research, innovation, and practical training while promoting sustainable destination management. According to Hall and Page (2014), tourism education plays a crucial role in improving destination competitiveness through knowledge creation, human resource development, and innovation. Likewise, UNESCO (2017) highlights that quality education and lifelong learning are essential for achieving sustainable development, including sustainable tourism, by equipping learners with the competencies needed to balance economic growth, environmental conservation, and social well-being. Consequently, strengthening adventure tourism education in Pokhara can contribute to producing globally competitive professionals while supporting the sustainable growth of Nepal's adventure tourism sector.

## Conceptual Framework

Figure 1: Conceptual framework of the study



Source: Developed by the researcher based on Kolb (1984) and Mulder (2017).

This conceptual framework clearly illustrates the logical flow of the study:

- **Theories (independent foundation):** Kolb's Experiential Learning Theory and Competency-Based Education.
- **Educational processes (independent variables):** Curriculum design, experiential learning, and academic–industry collaboration.
- **Mediating outcome:** Development of adventure tourism competencies.
- **Final outcomes (dependent variables):** Graduate employability, industry readiness, and sustainable adventure tourism competitiveness.

## Research methodology

This study is guided by the interpretivist research philosophy, which assumes that reality is socially constructed and can best be understood through the experiences and perspectives of individuals (Creswell & Poth, 2018). Since the study seeks to explore stakeholders' perceptions regarding the integration of adventure tourism skills into higher education, an interpretivist approach is appropriate because it facilitates an in-depth understanding of participants' views, experiences, and interpretations rather than measuring objective reality.

Research design

The study adopted a qualitative research design, supported by descriptive quantitative summaries. The qualitative approach enabled an in-depth exploration of stakeholders’ experiences, perceptions, and recommendations regarding adventure tourism education and industry competency requirements. Descriptive statistics, including frequencies and percentages, were used only to summarize respondents’ demographic characteristics and recurring responses, thereby enhancing the presentation of qualitative findings rather than testing statistical relationships (Creswell & Poth, 2018).

Study area

The research was conducted in Pokhara Metropolitan City, Nepal’s Tourism Capital and one of South Asia’s leading adventure tourism destinations. Pokhara serves as the gateway to the Annapurna region and hosts numerous tourism and hospitality institutions, trekking agencies, rafting companies, paragliding operators, adventure tourism enterprises, and higher education institutions. These characteristics make Pokhara an appropriate setting for examining the relationship between tourism education and industry competency requirements. Data collection was conducted during the first three months of 2026.

Population, sample size, and sampling technique

The study population comprised stakeholders directly involved in tourism education and adventure tourism in Pokhara, including tourism faculty members, academic administrators, adventure tourism entrepreneurs, tourism graduates employed in the industry, and tourists participating in adventure activities.

A purposive sampling technique was employed because the study required participants with specialized knowledge and practical experience related to adventure tourism education and industry practices (Patton, 2015). A total of 105 respondents participated in the study. In qualitative research, sample adequacy is determined by information richness and data saturation rather than statistical representativeness (Guest et al., 2020). The sample size of 105 was considered sufficient because recurring themes emerged across stakeholder groups, indicating that additional interviews were unlikely to generate substantially new insights.

Table 1. Distribution of respondents

| Respondent Category             | Frequency | Percentage (%) |
|---------------------------------|-----------|----------------|
| Faculty Members                 | 25        | 23.8           |
| Program Coordinators            | 3         | 2.9            |
| Adventure Tourism Entrepreneurs | 40        | 38.1           |
| Tourism Graduates               | 22        | 21.0           |
| Tourists                        | 15        | 14.3           |
| Total                           | 105       | 100.0          |

Source: Field Survey (2026).

### **Data collection methods and interview protocol**

Multiple qualitative data collection techniques were employed to ensure methodological triangulation. Semi-structured interviews were conducted with faculty members, academic administrators, adventure tourism entrepreneurs, and tourism graduates using a pre-developed interview guide. The interview protocol consisted of open-ended questions covering curriculum relevance, adventure tourism competencies, practical training, experiential learning, industry expectations, and recommendations for curriculum improvement. Each interview lasted approximately 30–60 minutes and was conducted in a setting convenient to the participants. Interviews were recorded with participants' consent, and detailed field notes were maintained throughout the data collection process.

Informal discussions were also held with tourists and other tourism stakeholders to understand their expectations regarding service quality and professional competencies. In addition, curriculum documents from selected tourism and hospitality programs were reviewed to assess the integration of adventure tourism subjects, practical training, internships, and competency-based learning components. Relevant policy documents, tourism reports, institutional records, and academic literature were further analyzed to provide contextual support and triangulate the primary data.

### **Data analysis**

The collected qualitative data were analyzed using thematic analysis following the six-step procedure proposed by Braun and Clarke (2006). Initially, interview recordings were transcribed and reviewed repeatedly to achieve familiarity with the data. Meaningful statements were then coded systematically, after which similar codes were grouped into broader categories. These categories were further synthesized into major themes representing stakeholders' perceptions regarding adventure tourism education, practical competencies, curriculum relevance, industry expectations, and educational challenges. The identified themes were interpreted in relation to the research objectives and supported with descriptive frequency distributions where appropriate to enhance the clarity of the findings.

### **Ethical considerations**

The study adhered to established ethical principles throughout the research process. Prior to data collection, informed consent was obtained from all participants after explaining the purpose of the study, their voluntary participation, and their right to withdraw at any stage without consequence. Participants' identities were kept confidential by anonymizing interview transcripts and reporting findings in aggregate form. Audio recordings and research documents were securely stored and used exclusively for academic purposes. The researcher ensured that no participant experienced harm, coercion, or undue influence during the research process.

### **Results, discussion and analysis**

#### **Current status of adventure tourism skill integration**

Respondents were asked whether tourism education programs adequately integrate adventure tourism skills.

Table 2: Perception of adventure tourism skill integration

| Response              | Frequency | Percentage |
|-----------------------|-----------|------------|
| Highly Integrated     | 8         | 7.6        |
| Moderately Integrated | 24        | 22.9       |
| Limited Integration   | 58        | 55.2       |
| Not Integrated        | 15        | 14.3       |
| Total                 | 105       | 100        |

Source: Field Survey, 2026

The majority of respondents (55.2%) believed that adventure tourism skills are only minimally integrated into tourism curricula. Only 7.6% perceived strong integration.

Faculty members acknowledged that current programs emphasize tourism theories, destination management, marketing, and hospitality operations but devote limited attention to practical adventure tourism competencies. Entrepreneurs emphasized that graduates often lack field experience, safety management skills, and operational knowledge.

This finding is consistent with Khanal (2019), who reported that tourism education in Nepal remains largely theory-oriented. It also supports Kolb's (1984) view that practical experience is essential for competency development.

4.2 Importance of practical adventure tourism skills

Respondents identified key adventure tourism competencies required by the industry.

Table 3: Most important skills required by industry

| Skill Area                    | Frequency | Percentage |
|-------------------------------|-----------|------------|
| Safety and Risk Management    | 89        | 84.8       |
| Outdoor Leadership            | 82        | 78.1       |
| Trekking Operations           | 80        | 76.2       |
| Communication Skills          | 78        | 74.3       |
| Emergency Response            | 76        | 72.4       |
| Sustainable Tourism Practices | 71        | 67.6       |
| Digital Tourism Skills        | 68        | 64.8       |
| Customer Service              | 65        | 61.9       |

Source: Field Survey, 2026

Safety management emerged as the most important competency (84.8%). Adventure tourism inherently involves risk, making safety training essential for professional performance. Entrepreneurs repeatedly emphasized that technical knowledge alone is insufficient without practical safety and leadership competencies.

The finding agrees with Buckley (2010), who identified safety and risk management as core adventure tourism competencies. UN Tourism and ATTA (2014) also emphasize practical skills for quality service delivery.

### Gap between education and industry requirements

Respondents were asked whether a gap exists between academic preparation and industry expectations.

**Table 4: Perceived education–industry gap**

| Response       | Frequency | Percentage |
|----------------|-----------|------------|
| Very Large Gap | 49        | 46.7       |
| Moderate Gap   | 38        | 36.2       |
| Small Gap      | 14        | 13.3       |
| No Gap         | 4         | 3.8        |

*Source: Field Survey, 2026*

More than 82% of respondents identified either a moderate or very large gap between academic education and practical industry requirements. Graduates frequently reported difficulties adapting to workplace realities immediately after graduation. Industry stakeholders argued that academic institutions often focus on examination-oriented teaching rather than competency development.

The result supports Hsu et al. (2017), who found a mismatch between tourism education and industry expectations. It highlights the need for competency-based curricula (Mulder, 2017).

### Role of experiential learning

Participants evaluated the effectiveness of experiential learning approaches.

**Table 5: Importance of experiential learning**

| Response             | Frequency | Percentage |
|----------------------|-----------|------------|
| Extremely Important  | 73        | 69.5       |
| Important            | 25        | 23.8       |
| Moderately Important | 5         | 4.8        |
| Less Important       | 2         | 1.9        |

*Source: Field Survey, 2026*

An overwhelming majority (93.3%) viewed experiential learning as important or extremely important. Participants highlighted: Field visits, Trek leadership practice, Industry immersion, Simulation exercises, Internships and Practical workshops as effective learning methods.

The finding is consistent with Kolb's (1984) experiential learning theory, which emphasizes learning through experience. Hsu et al. (2017) similarly identified internships and fieldwork as essential for tourism education.

Evaluation of existing internship opportunities

Table 6; Adequacy of internship opportunities

| Response          | Frequency | Percentage |
|-------------------|-----------|------------|
| Highly Adequate   | 7         | 6.7        |
| Adequate          | 21        | 20.0       |
| Inadequate        | 58        | 55.2       |
| Highly Inadequate | 19        | 18.1       |

Source: Field Survey, 2026

More than 73% of respondents viewed existing internship opportunities as inadequate. Several graduates reported that internships often involve observation rather than meaningful participation. Entrepreneurs recommended structured internship frameworks with clear learning outcomes.

The finding supports UN Tourism and ATTA (2014), which recommend structured internships to improve graduate competencies. Practical industry exposure enhances employability and professional readiness.

Academic–industry collaboration

Table 7: Strength of academic–industry partnership

| Response  | Frequency | Percentage |
|-----------|-----------|------------|
| Strong    | 11        | 10.5       |
| Moderate  | 27        | 25.7       |
| Weak      | 49        | 46.7       |
| Very Weak | 18        | 17.1       |

Source: Field Survey, 2026

The findings suggest that collaboration between academic institutions and tourism enterprises remains weak. Common challenges include: Lack of formal partnerships, Limited industry involvement in curriculum design, Insufficient guest lectures and Few collaborative projects

This finding agrees with Khatri (2018), who reported weak collaboration between academia and the tourism industry in Nepal. Strong partnerships are essential for curriculum relevance and skill development (Mulder, 2017).

**Curriculum areas requiring improvement****Table 8: Curriculum improvement priorities**

| Area                   | Frequency | Percentage |
|------------------------|-----------|------------|
| Adventure Operations   | 87        | 82.9       |
| Safety Management      | 84        | 80.0       |
| Field Training         | 82        | 78.1       |
| Outdoor Leadership     | 78        | 74.3       |
| First Aid Training     | 75        | 71.4       |
| Digital Tourism Skills | 72        | 68.6       |
| Sustainable Tourism    | 70        | 66.7       |

Source: Field Survey, 2026

Respondents strongly recommended expanding practical components within tourism curricula. Adventure operations and safety management emerged as the highest priorities.

The results support competency-based education, which emphasizes practical and industry-oriented learning (Mulder, 2017). Buckley (2010) also highlighted safety and technical skills as priorities in adventure tourism education.

**Global competitiveness of tourism graduates****Table 9: Preparedness for global tourism employment**

| Response            | Frequency | Percentage |
|---------------------|-----------|------------|
| Highly Prepared     | 12        | 11.4       |
| Moderately Prepared | 36        | 34.3       |
| Slightly Prepared   | 42        | 40.0       |
| Not Prepared        | 15        | 14.3       |

Source: Field Survey, 2026

The findings suggest that while graduates possess theoretical knowledge, many lack practical competencies required in international tourism markets. Respondents emphasized the need for: Professional certifications, Technical training, International exposure, Language skills and Leadership development.

The results support competency-based education, which emphasizes practical and industry-oriented learning (Mulder, 2017). Buckley (2010) also highlighted safety and technical skills as priorities in adventure tourism education.

Strategies for strengthening tourism education

Table 10: Recommended strategies

| Strategy                    | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Curriculum Reform           | 92        | 87.6       |
| Industry Partnerships       | 89        | 84.8       |
| Expanded Internships        | 86        | 81.9       |
| Professional Certifications | 83        | 79.0       |
| Field-Based Learning        | 80        | 76.2       |
| Faculty Industry Exposure   | 72        | 68.6       |
| International Collaboration | 69        | 65.7       |

Source: Field Survey, 2026

The recommended strategies align with the recommendations of UN Tourism and ATTA (2014). Curriculum reform and stronger academic–industry collaboration are critical for producing industry-ready graduates.

Summary and conclusion

This study explored the integration of adventure tourism skills into higher education programs in Pokhara and examined their role in preparing globally competitive tourism professionals. Conducted within the context of Nepal’s growing adventure tourism sector, the research sought to understand the current status of adventure tourism skill integration, identify gaps between academic learning and industry expectations, and propose strategies for strengthening tourism education. Data collected from tourism faculty members, academic administrators, adventure tourism entrepreneurs, tourism graduates, and tourists revealed important insights into the effectiveness and relevance of existing tourism education programs.

The thematic analysis identified five major emerging themes. First, a significant theory–practice imbalance exists within tourism education, as institutions continue to emphasize theoretical knowledge while providing limited opportunities for practical skill development. Second, respondents consistently highlighted the demand for experiential learning through internships, field visits, simulations, outdoor training, and direct industry engagement. Third, the study revealed a growing need for adventure tourism competencies, particularly in areas such as safety management, risk assessment, outdoor leadership, emergency response, and operational expertise. Fourth, participants emphasized the importance of stronger academic–industry collaboration to ensure curriculum relevance, improve practical learning opportunities, and enhance graduate employability. Finally, the findings underscored the importance of global competitiveness, indicating that tourism education must align with international standards and industry requirements to prepare graduates for increasingly competitive national and global tourism markets.

The findings demonstrate that tourism and hospitality institutions in Pokhara have been successful in providing students with a solid theoretical foundation in tourism management

and hospitality studies. However, a substantial gap remains between academic instruction and the practical competency requirements of the adventure tourism industry. This gap limits graduates' preparedness for professional roles and reduces their competitiveness in the evolving tourism labor market.

The findings strongly support Kolb's Experiential Learning Theory (1984), which emphasizes that meaningful learning occurs through experience, reflection, conceptualization, and application. The strong demand for practical training, internships, and field-based learning confirms that students develop deeper understanding and professional competence when they engage directly with real-world tourism environments. Similarly, the results reinforce the principles of Competency-Based Education, which emphasize the development of practical skills, workplace readiness, and measurable learning outcomes. The identified need for adventure tourism competencies highlights the importance of aligning educational programs with industry expectations.

The study concludes that integrating adventure tourism skills into higher education is no longer optional but essential for producing globally competitive tourism professionals. Tourism education institutions in Pokhara must move beyond traditional classroom-centered approaches and adopt competency-based, experiential, and industry-oriented educational models. Strengthening academic-industry partnerships, expanding practical learning opportunities, and aligning curricula with international standards will enhance graduate employability, support sustainable tourism development, and contribute to the long-term competitiveness of Nepal's tourism industry.

### **Policy implications**

The findings of this study have important implications for policymakers, educational planners, and tourism development agencies. At the government level, the Government of Nepal should recognize tourism education as a strategic component of national tourism development policy. National tourism strategies need to explicitly address human resource development and skill enhancement to ensure a competent and competitive tourism workforce capable of supporting sustainable tourism growth.

At the university level, institutions should adopt competency-based curriculum frameworks that emphasize practical learning outcomes in addition to academic knowledge. Such an approach will help bridge the gap between theory and practice and produce graduates who are better prepared for the demands of the tourism and hospitality industry.

At the industry level, tourism enterprises should play a more active role in curriculum development, student training, and internship supervision. Their involvement is essential to ensure workforce readiness and to align educational outcomes with real industry needs and expectations.

At the destination level, Pokhara—as Nepal's Tourism Capital—can serve as a model destination for integrating tourism education, workforce development, and tourism industry innovation. By fostering strong linkages between academic institutions and the tourism

industry, Pokhara can demonstrate an effective model for sustainable tourism development and human resource advancement.

### Theoretical implications

This study contributes to tourism education literature in several ways.

First, it extends the application of Experiential Learning Theory (Kolb, 1984) within the context of adventure tourism education in developing countries. Second, it supports competency-based educational models emphasizing practical skills and workplace readiness.

Third, it contributes to emerging scholarship on tourism workforce development by highlighting the importance of aligning educational outcomes with industry requirements. Finally, the study provides empirical evidence from Nepal, a context that remains underrepresented within international tourism education research.

### Future research directions

Future research should extend this study by examining adventure tourism education across different regions of Nepal to identify regional variations in curriculum design, industry collaboration, and competency development. Quantitative and longitudinal studies may also investigate graduate employability, career progression, and employer satisfaction to generate broader empirical evidence on the effectiveness of tourism education.

Further studies could evaluate the effectiveness of internship, field-based learning, and professional certification programs in developing adventure tourism competencies. Comparative research between Nepal and other leading adventure tourism destinations, as well as investigations into digital competencies and emerging technologies in tourism education, would provide valuable insights for curriculum innovation and enhancing the global competitiveness of tourism graduates.

### Author introduction

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