

An Integrated Competency Framework for Nature Guides: Synthesising Classical, Contemporary, and Sector-Specific Guiding Roles

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ABSTRACT

Nature guiding plays an essential role in shaping visitor experiences, fostering environmental awareness, and supporting community well-being; however, guiding theory remains fragmented, with existing models addressing leadership, interpretation, environmental stewardship, or economic influence in isolation. Drawing on four decades of scholarship, this conceptual article develops an integrated guiding framework that unifies classical foundations, contemporary interpretive and behavioural research, and emerging sustainability-oriented responsibilities. The proposed Four-Sphere, Eight-Role Model comprises Leadership (Instrumental, Social), Mediator (Instructional, Communicative), Resource Management (Motivator of Responsible Behaviour, Environmental Interpreter), and Economy (Promoter, Philanthropy) spheres, offering a holistic understanding of the multidimensional competencies required in modern nature-based tourism. By synthesising these diverse theoretical strands, the framework advances guiding scholarship through conceptual integration, expansion of role theory, and alignment with contemporary sustainability, community development, and experience-design paradigms. The article discusses implications for empirical research, competency-based training, certification standards, and tourism policy, positioning the integrated framework as a timely foundation for strengthening the professionalisation and impact of nature guides in increasingly complex tourism environments.

Keywords: Nature guiding, Guiding competencies, Integrated guiding framework, Interpretive communication, Environmental stewardship

INTRODUCTION

Tour guiding has long been recognised as a critical component of nature-based tourism, shaping visitor experiences, learning outcomes, and interactions with natural and cultural environments. However, despite decades of scholarly attention, the guiding theory remains fragmented, with conceptualisations dispersed across multiple disciplinary traditions, including anthropology, interpretive studies, sustainable tourism, environmental psychology, and community development. Consequently, current frameworks sometimes prioritise one or two aspects of the guide's role, such as leadership, interpretation, or customer service, while inadequately addressing other significant responsibilities, such as environmental stewardship or economic mediation.

Classical frameworks, especially Cohen's (1985) typology, helped us recognise that guiding is a complex job that includes tasks that are instrumental, social, instructional, and communicative. In the early 1990s, Weiler and Davis conducted additional studies that incorporated ecological and behavioural aspects, demonstrating

that guides could serve as environmental interpreters and encourage responsible behaviour in visitors. Pereira and Mykletun (2012) made significant contributions to the subject by establishing guiding responsibilities that embody economic intermediation, such as promoting local products and encouraging philanthropic engagement. These contributions demonstrate that guiding transcends merely operational or interpretive functions; it is a multifaceted practice influenced by sociocultural, environmental, and economic factors.

Although this literature is vibrant, there is still no single framework that encompasses all the different types of guiding responsibilities. It is challenging that there is no single model, as nature-based tourism is becoming increasingly complex, and guides are expected to enhance the visitors' experience, conservation outcomes, and community benefits simultaneously. A comprehensive framework is essential for integrating classical role theory, modern empirical research, and sector-specific advancements into a unified understanding of guiding practice.

This article proposes an integrated conceptual framework consisting of four spheres: Leadership, Mediatory, Resource Management, and Economy, each comprising two roles that together reflect the full professional scope of nature guiding. The framework builds on foundational theory while incorporating contemporary research on guiding behaviour, communication, environmental stewardship, and economic influence. The framework provides a comprehensive and theoretically robust model that encapsulates the complex interactions among different domains, reflecting the multifaceted nature of guidance.

This paper aims to introduce and justify this comprehensive competency framework, emphasising its theoretical implications and prospective uses in nature guide training, industry standards, destination management, and future research attempts. This conceptual study addresses the demand for an updated guiding theory that integrates both conventional foundations and new responsibilities in sustainability-oriented tourism.

Evolution of Tour Guiding Theory

Tour guiding theory has evolved significantly over the past four decades, mainly in response to the increasing complexity of tourism environments and the expanding responsibilities placed on guides. Earlier conceptions positioned guides primarily as service providers and information transmitters, but contemporary research recognises their broader influence as experience leaders, cultural mediators, environmental stewards, and socio-economic intermediaries. This section traces the significant phases in the development of guiding theory and highlights how these conceptual shifts collectively support the need for an integrated competency framework.

Classical Foundations: Cohen's (1985) Typology

Cohen's (1985) typology represents the first comprehensive model of guiding roles and continues to shape guiding scholarship. He identified four core functions:

- Instrumental (managing safety, logistics, and route coordination)
- Social (fostering group cohesion and interpersonal comfort)
- Instructional (communicating factual and cultural knowledge)
- Communicative (facilitating interaction through adaptive communication)

This typology was foundational because it demonstrated that guiding is not merely a service task but a multidimensional social practice requiring cognitive, interpersonal, and operational expertise. Cohen's model provided the conceptual anchor for subsequent theoretical developments in nature-based and heritage guiding contexts.

The Shift Toward Mediation and Interpretation (1990s–2000s)

In the 1990s, guiding research expanded beyond information delivery to emphasise mediation, interpretation,

and meaning-making. Weiler and Davis (1993) reconceptualised guides as intermediaries who help visitors interpret cultural and environmental contexts. During this period, scholars examined how guides structure messages, adapt their communication, and employ narrative strategies to enhance visitor understanding and engagement.

Black and Ham (2005) examined guide–visitor interaction, emotional tone, and communication techniques, demonstrating the importance of interpretive delivery in shaping visitor experience. Weiler and Black (2015) further advanced the field by analysing the communicative and affective dimensions of guiding. Randall and Rollins (2009) offered empirical evidence that interpretive and communicative competence strongly influences visitor satisfaction, behaviour, and learning in protected-area settings. Together, these contributions established the guide as a knowledge broker and cultural translator, extending far beyond the original instructional function of Cohen.

Emergence of Environmental Stewardship and Behaviour-Change Roles

As nature-based tourism expanded, guiding theory increasingly incorporated environmental and behavioural perspectives. Weiler and Davis (1993) introduced two influential roles that later formed the core of the Resource Management Sphere:

- Motivator of Responsible Behaviour
- Environmental Interpreter

These roles emphasise the guide's responsibility to influence visitor attitudes and behaviour, reduce environmental impact, and communicate ecological processes. Empirical studies in ecotourism and wildlife tourism reinforce this perspective, showing that guides foster pro-environmental behaviour through modelling, persuasive messaging, and contextual explanation (Randall & Rollins, 2009; Kapa et al., 2022). This development marked a shift toward viewing guides not only as educators but also as behaviour-change agents with direct implications for conservation outcomes.

Modern Extensions: Economic and Community-Oriented Roles

Recent scholarship highlights the increasingly recognised economic dimension of guiding. Pereira and Mykletun (2012, 2017) introduced the Economy Sphere, positioning guides as intermediaries who influence tourist spending, support local enterprises, and facilitate visitor engagement in community or conservation initiatives. They conceptualised two roles:

- Promoter - recommending local products, services, and businesses
- Philanthropist - encouraging visitors to contribute to community or conservation projects

These roles align with broader discussions on sustainability and community-based tourism, which emphasise equitable benefit distribution, local empowerment, and responsible consumption. Growing empirical evidence suggests that guides significantly influence visitor purchasing decisions, perceptions of authenticity, and engagement with local initiatives (Agyeman & Antwi-Bosiako, 2022; Albrecht et al., 2022). Thus, guides now function not only as cultural interpreters but also as socio-economic catalysts within destination systems.

Limitations of Existing Frameworks

Despite substantial theoretical progress, guiding scholarship remains fragmented, with most models focusing on only one domain of guiding practice. Cohen (1985) emphasised leadership and interpersonal roles; Weiler and Davis (1993) highlighted mediation and interpretation; environmental behaviour studies concentrated on stewardship and behavioural influence; and Pereira and Mykletun (2012, 2017) developed economic-oriented roles. These frameworks evolved largely independently, resulting in:

- conceptual silos,

- inconsistent terminology across studies,
- limited cross-domain integration, and
- a lack of unified competency models.

Because guiding practice requires simultaneous leadership, communication, environmental sensibility, and economic facilitation, the absence of a holistic framework limits both theoretical development and applied practice in areas such as training, certification, and performance evaluation.

Need for an Integrated Conceptual Framework

The historical evolution of guiding responsibilities demonstrates a clear need for a comprehensive model that:

- synthesises classical and contemporary role theories,
- recognises guiding as a multidimensional and relational profession,
- responds to sustainability and community-oriented priorities, and
- provides a structured foundation for competency development.

The integrated framework proposed in this article organises guiding competencies into four interrelated spheres: Leadership, Mediatory, Resource Management, and Economy, each containing two theoretically grounded roles. This structure bridges decades of guiding scholarship, offering a holistic model that reflects the complexity of guiding in contemporary tourism environments.

Conceptualisation of the Four Spheres

Building on the evolution of guiding theory, this section introduces the Extended Model of Modern Tour Guide (Table 3.1). The model organises the full range of guiding competencies into four interconnected spheres: Leadership, Mediatory, Resource Management, and Economy, each comprising two distinct roles grounded in classical scholarship and expanded through contemporary research. Together, these spheres capture the multidimensional and holistic nature of guiding practice in modern nature-based tourism.

Table 3.1

The Extended Model of Modern Tour Guide

	Outer-directed (resourced from outside the group)	Inner-directed (resources from inside the group)
Leadership sphere (focus on group) *	Instrumental	Social
Mediatory sphere (focus on individual) *	Instructional	Communicative
Resource management sphere (focus on environment) **	Motivator	Environmental interpreter
Economic sphere***	Promoter	Philanthropy

*Adapted from Cohen (1985); **Extended by Weiler & Davis (1993); **Further developed by Pereira & Mykletun (2012, 2017).

Leadership Sphere

The Leadership Sphere reflects the guide's responsibility for managing group movement, safety, logistics, and interpersonal dynamics. It is strongly aligned with the earliest foundations of guiding scholarship, particularly Cohen's (1985) typology, and continues to be emphasised in modern adventure and nature-based tourism research.

Instrumental Role

The Instrumental Role encompasses the operational and logistical aspects of guiding, including navigation, scheduling, coordination of activities, and responding to unexpected circumstances. Guides serve as safety managers and problem solvers, ensuring that tours proceed smoothly and efficiently. This role remains central in contemporary studies on adventure leadership, risk management, and visitor safety (Rokenes et al., 2015).

Social Role

The Social Role involves fostering group cohesion, managing interpersonal relations, and creating an environment in which visitors feel comfortable and emotionally supported. Articulated initially by Cohen (1985), this role is widely recognised as essential to enhancing visitor satisfaction, building trust, and shaping group dynamics. Recent research highlights the guide's ability to foster positive emotional climates and promote social connection among participants.

Together, the Instrumental and Social roles constitute the foundational leadership competencies necessary for effective guiding across diverse contexts.

Mediatory Sphere

Mediatory Sphere captures the interpretive and communicative dimensions of guiding. It reflects the guide's responsibility to translate cultural, historical, and ecological meanings in ways that are relevant, accessible, and engaging. This sphere integrates theoretical insights from Cohen (1985), Weiler and Davis (1993), and extensive research on interpretive communication.

Instructional Role

The Instructional Role highlights the guide's responsibility to convey accurate and meaningful information about cultural heritage, natural processes, and local histories. This includes simplifying complex subjects, providing contextual explanations, and supporting visitor learning. Research on interpretive practice emphasises message relevance, thematic structure, and cognitive engagement as critical components of instructional quality.

Communicative Role

The Communicative Role concerns how information is delivered. It encompasses verbal clarity, body language, emotional tone, audience adaptation, and the use of stories, metaphors, and other interpretive tools to enhance the meaning-making process. Studies by Black and Ham (2005), and Walter (2013) demonstrate that communicative skills are central to guiding effectiveness, shaping both cognitive understanding and emotional engagement.

Together, the Instructional and Communicative roles position guides as mediators who translate place-based knowledge into meaningful visitor experiences.

Resource Management Sphere

The Resource Management Sphere encompasses guiding roles that promote environmental stewardship and responsible visitor behaviour. Originating from the work of Weiler and Davis (1993) and reinforced through

ecotourism and conservation psychology research, this sphere recognises the guide as both educator and behavioural influencer.

Motivator of Responsible Behaviour

This role emphasises the guide's capacity to encourage low-impact practices by modelling appropriate behaviour, reinforcing social norms, and providing persuasive explanations. Research shows that guides can significantly influence pro-environmental behaviour in nature-based settings through situational leadership and behavioural cues (Randall & Rollins, 2009; Kapa et al., 2022).

Environmental Interpreter

The Environmental Interpreter role focuses on communicating ecological processes, explaining environmental issues, and fostering environmental awareness. This role aligns with interpretive frameworks that highlight thematic coherence, emotional resonance, and experiential engagement (Black & Ham, 2005; Poponi et al., 2020; Walter, 2013). By contextualising environmental challenges, guides enhance visitor understanding and cultivate stewardship attitudes.

Together, these two roles position guides as key actors in promoting conservation outcomes, particularly in ecologically sensitive environments.

Economy Sphere

The Economy Sphere, introduced by Pereira and Mykletun (2012, 2017), highlights the economic and community-oriented dimensions of guiding. It recognises that guides play an important role in influencing visitor spending patterns, supporting local enterprises, and facilitating community-benefiting interactions.

Promoter Role

The Promoter Role involves drawing attention to local products, artisans, services, and community-based initiatives. Through strategic recommendations and storytelling, guides can help direct visitor spending toward small-scale producers and locally owned businesses, thereby enhancing the economic resilience of host communities.

Philanthropy Role

The Philanthropy Role extends the guide's influence into the realm of community support and conservation funding. Guides encourage voluntary contributions, connect visitors with reputable NGOs, and share narratives that highlight the value and impact of community or conservation-oriented giving (Pereira & Mykletun, 2012).

Together, these roles reflect the socio-economic contributions of guiding and aligning the profession with broader principles of sustainable tourism and community empowerment.

Integrative Rationale for the Four-Sphere Framework

Although each sphere emerges from a distinct theoretical tradition, the roles are deeply interconnected in practice. Leadership behaviours provide the foundation for effective communication, environmental influence, and economic engagement. Mediatory competencies underpin both environmental interpretation and the storytelling strategies that support local economic benefit. Resource Management roles rely on leadership and communication to shape behaviour. Economic roles depend on the trust, credibility, and narrative skill developed through the other spheres.

This interdependence demonstrates that guidance is a multidimensional and relational profession that requires simultaneous engagement across multiple domains. The Four-Sphere Framework provides a cohesive and theoretically grounded structure that encompasses the full scope of guiding activities, supporting applications in guide training, certification, performance evaluation, and tourism policy development.

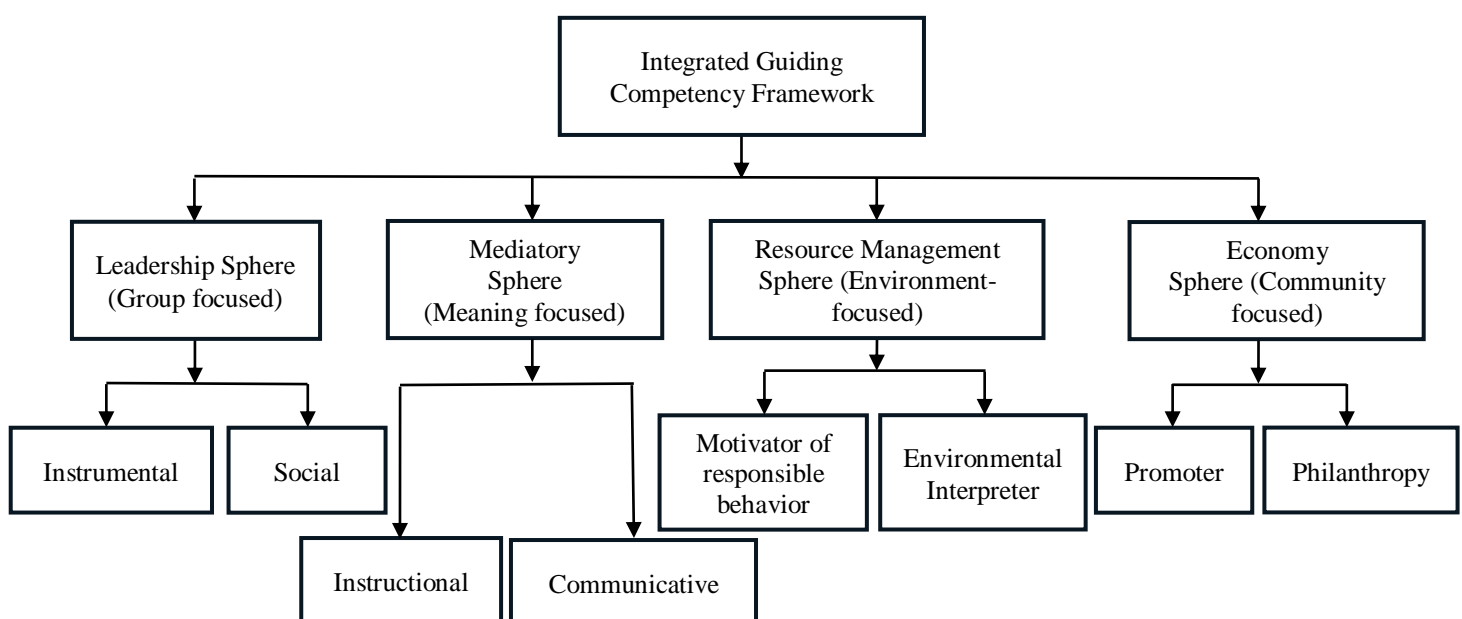
The Eight-Role Integrated Model

The integrated framework proposed in this article synthesises four decades of guiding scholarship into a coherent structure comprising eight roles organised across four interdependent spheres: Leadership, Mediatory, Resource Management, and Economy (Figure 1). This model reflects the multidimensional nature of guiding in contemporary nature-based tourism, positioning guides simultaneously as leaders, communicators, environmental stewards, and socio-economic intermediaries.

Each sphere encompasses two complementary roles that together represent the comprehensive professional scope of guidance. These roles integrate classical theory, contemporary empirical research, and sector-specific developments, offering a holistic conceptualisation with direct application to academic research, training, and destination management.

Figure 4.1

The proposed Integrated Guiding Competency Framework.



Leadership Sphere

The Leadership Sphere encompasses the competencies that support safe, coordinated, and socially cohesive visitor experiences. It includes two foundational roles from Cohen's (1985) typology: the Instrumental and Social roles.

Instrumental Role

The Instrumental Role involves operational leadership functions such as organising logistics, managing time, navigating routes, overseeing safety, and responding effectively to unexpected conditions. These responsibilities require anticipatory and responsive decision-making and remain central in research related to adventure leadership, risk management, and visitor safety (Rokenes et al., 2015).

Social Role

The Social Role involves creating a positive, inclusive, and harmonious group environment. It requires emotional intelligence, interpersonal sensitivity, and group facilitation skills. This role influences visitor comfort, trust, and satisfaction, forming the interpersonal foundation upon which deeper interpretive, environmental, or economic engagement can occur.

Together, these roles provide the structural and emotional conditions necessary for effective guiding across all subsequent spheres.

Mediatory Sphere

The Mediatory Sphere positions the guide as an interpreter and communicator who bridges visitors' prior knowledge with the cultural, historical, and ecological significance of place. It comprises two roles that extend Cohen's original instructional dimension through contemporary interpretive theory.

Instructional Role

The Instructional Role focuses on structuring and conveying knowledge in ways that are accessible, relevant, and contextually grounded. Guides help visitors make sense of natural phenomena, cultural practices, social histories, and local norms. This role aligns with interpretive pedagogy, emphasising message relevance, organisation, and cognitive engagement.

Communicative Role

The Communicative Role concerns the delivery of information. It includes clarity of speech, non-verbal communication, emotional tone, and adaptive messaging tailored to diverse audiences. It also involves the use of stories, metaphors, and narrative framing to support meaning-making (Black & Ham, 2005; Chen et al., 2018; Walter, 2013). Guides operating in this role function as storytellers who translate complex ideas into memorable visitor experiences.

Together, the mediatory roles form the cognitive and communicative foundation through which visitors develop cultural understanding and environmental awareness.

Resource Management Sphere

The Resource Management Sphere reflects the guide's responsibilities as an environmental steward. Rooted in the work of Weiler and Davis (1993) and expanded through ecotourism and conservation psychology, this sphere emphasises behavioural influence and environmental interpretation.

Motivator of Responsible Behaviour

This role positions guides as behaviour-change agents who encourage low-impact practices, manage visitor impacts, and reinforce conservation norms. Guides model responsible actions and use persuasive communication to shape visitor decision-making (Randall & Rollins, 2009; Kapa et al., 2022).

Environmental Interpreter

The Environmental Interpreter role involves translating ecological processes, environmental challenges, and conservation issues into meaningful narratives (Black & Ham, 2005; Poconi et al., 2020; Walter, 2013). Practical environmental interpretation fosters emotional engagement, contextual awareness, and ecological literacy, enabling visitors to understand the significance and fragility of natural environments.

Together, these two roles highlight the guide's contribution to environmental protection and the conservation-oriented learning of visitors.

Economy Sphere

The Economy Sphere reflects the expanded role of guides as economic intermediaries within tourism destinations, particularly in community-based, rural, and sustainability-focused contexts. This sphere is grounded in the work of Pereira and Mykletun (2012, 2017).

Promoter Role

The Promoter Role involves drawing attention to local products, artisans, and community-based services. Through informed recommendations and storytelling, guides help direct visitor spending toward locally owned enterprises, thereby strengthening economic resilience and community livelihoods.

Philanthropy Role

The Philanthropy Role positions guides as facilitators of visitor engagement in community or conservation initiatives. This includes framing community needs, explaining the significance of support, and connecting visitors with credible organisations without engaging in direct solicitation. Through this role, guides can foster more equitable and sustainable tourism outcomes.

Together, these roles demonstrate how guides contribute to local economic vitality and community well-being beyond traditional interpretive or service-oriented functions.

The Interconnected Nature of the Eight Roles

Although each of the eight roles is conceptually distinct, guiding practice is inherently integrative. The spheres reinforce one another in several ways:

- Leadership provides the structure, safety, and trust necessary for effective mediation, environmental influence, and economic facilitation.
- Mediator skills enhance both environmental interpretation and the storytelling that supports local economic engagement.
- Resource Management roles depend on leadership authority and communicative credibility to shape visitor behaviour.
- Economic roles require trust, authenticity, and meaningful communication, all of which are underpinned by strong leadership and mediation competencies.

In practice, these roles combine dynamically during a single tour. A guide may simultaneously coordinate logistics (Instrumental), foster group cohesion (Social), deliver interpretive messages (Communicative), encourage low-impact behaviour (Motivator), and recommend local products (Promoter).

The Integrated Eight-Role Model thus represents a holistic and relational conceptualisation of guiding, capturing the complex expectations placed on guides in contemporary nature-based tourism.

Theoretical Contribution and Implications

The integrated four-sphere, eight-role guiding framework proposed in this article makes a substantial contribution to tourism scholarship by offering a comprehensive and multidimensional conceptualisation of nature guiding. Although existing guiding theories provide valuable insights into specific aspects of guiding practice, no single model has previously unified leadership, mediation, environmental stewardship, and economic facilitation within a coherent structure. This framework advances theoretical understanding in three key ways: by integrating previously fragmented domains, expanding role theory, and aligning guiding scholarship with contemporary tourism paradigms.

Integrating Fragmented Guiding Theory

One of the primary contributions of this framework is its synthesis of guiding research that has traditionally evolved along separate disciplinary lines. Earlier studies focused on operational and interpersonal leadership (Cohen, 1985), while subsequent work emphasised interpretive communication and meaning-making (Black & Ham, 2005; Weiler & Black, 2015). Parallel streams in conservation psychology and ecotourism have

highlighted guides as environmental stewards and behaviour-change agents (Randall & Rollins, 2009). More recent scholarship in sustainable and community-based tourism has identified their influence as economic facilitators and community intermediaries (Pereira & Mykletun, 2012, 2017).

The integrated model unifies these previously isolated domains, demonstrating that guiding is not a collection of independent tasks but a relational and interconnected practice involving leadership, communication, environmental influence, and economic engagement. This consolidation provides a comprehensive conceptual framework that reflects the multidimensional reality of guiding and strengthens theoretical coherence across the field.

Expanding Role Theory in Guiding

By articulating eight interdependent roles, the framework also expands guiding role theory beyond earlier typologies. Cohen's (1985) four-role model remains foundational. However, the addition of the Resource Management and Economy spheres reflects contemporary expectations for guides to contribute to conservation outcomes and support community well-being.

The framework advances role theory by:

- incorporating behavioural influence and environmental learning as central guiding responsibilities,
- recognising economic facilitation and philanthropic mediation as legitimate and measurable components of guiding,
- distinguishing instructional from communicative dimensions of interpretation, and
- situating leadership competencies within a broader and more integrated competency system.

This expanded role structure equips scholars with a more nuanced vocabulary and analytical lens for examining guiding behaviour across diverse contexts.

Aligning Guiding Theory with Contemporary Tourism Paradigms

The integrated framework also aligns guiding scholarship with several significant trends in contemporary tourism research and practice.

Sustainability and Conservation

The Resource Management Sphere reflects global priorities for sustainable tourism and protected-area management, positioning guides as frontline actors capable of shaping visitor behaviour and fostering conservation outcomes.

Community-Based Tourism and Local Empowerment

The Economy Sphere supports agendas that emphasise local benefits, equitable distribution of tourism revenue, and responsible consumption, recognising guides as intermediaries who connect visitors with community enterprises and philanthropic opportunities.

Experience Design and Transformative Tourism

The Mediatory Sphere aligns with research on experiential and transformative tourism by emphasising how guides shape cognitive, emotional, and cultural dimensions of visitor experience.

Professionalisation and Competency Standards

The Leadership Sphere informs efforts to standardise guiding practice by articulating the operational and

interpersonal competencies foundational to professional guiding.

Together, these alignments position the integrated framework as a theoretically robust model that reflects contemporary realities in tourism and scholarly directions.

Implications for Research, Training, and Policy

The integrated guiding framework has wide-ranging implications for research, training, and tourism policy. From a research perspective, the eight-role model offers a robust conceptual foundation for empirical investigations that aim to examine the structure of guiding competencies using quantitative, qualitative, or mixed-methods approaches. It also supports the development of validated assessment instruments and enables comparative studies across cultural, geographic, and sectoral contexts. Moreover, the integrative nature of the model encourages research into cross-role interactions, opening opportunities to explore how leadership, mediation, environmental stewardship, and economic facilitation jointly influence visitor experiences and destination outcomes.

In terms of training and professional development, the framework can be translated into competency clusters that guide the design of training curricula. Programmes may focus on skill areas such as operational leadership, interpretive communication, conservation messaging, and economic facilitation, ensuring that guides are equipped for the diverse demands of contemporary tourism. The framework also provides a basis for structured assessment and certification systems, enabling training institutions and accrediting bodies to evaluate guides' performance using clear, multidimensional standards.

For tourism policy and destination management, the framework offers a strategic tool for aligning guiding standards with sustainability objectives. Destination authorities can incorporate the roles into guiding guidelines and policy documents to ensure visitor safety, high-quality experiences, and responsible behaviour. Protected area managers may draw on the Resource Management Sphere to strengthen conservation-oriented guiding strategies. At the same time, community tourism initiatives can use the Economy Sphere to enhance local empowerment and economic resilience. Overall, the integrated framework provides a theoretically grounded and flexible instrument that supports both academic advancement and practical implementation.

FUTURE RESEARCH DIRECTIONS

The integrated four-sphere guiding framework presented in this article provides a solid foundation for advancing scholarly inquiry into nature-guiding. As a conceptual model that synthesises classical, mediatory, environmental, and economic dimensions of guiding, it highlights multiple directions for empirical testing, refinement, and application across diverse tourism settings. Several areas of future research are proposed below.

Empirical Validation of the Framework

Although conceptually robust, the framework requires empirical validation to examine how the proposed spheres and roles operate in practice. Future studies could employ:

- Exploratory and confirmatory factor analyses to test the structural validity of the four spheres and eight roles.
- Survey-based measurement instruments to assess how guides perceive and operationalise each role.
- Cross-contextual replication to determine whether the eight-role structure is consistent across different cultural, geographic, and organisational settings.

Such empirical testing would assess the reliability, dimensionality, and practical coherence of the conceptual distinctions proposed in this model.

Role Interaction and Hierarchical Relationships

Although the eight roles are presented as distinct conceptual units, guiding practice often involves overlapping behaviours. Future research could explore:

- how leadership competencies enable or constrain mediatory, environmental, or economic roles;
- whether mediatory skills such as communication clarity, narrative competence, and emotional engagement mediate the effectiveness of environmental interpretation or promotional activities;
- whether certain roles become dominant in specific contexts, such as adventure tourism, wildlife tourism, heritage settings, or community-based tourism.

Understanding these inter-role dynamics would deepen theoretical insight into the relational and integrative nature of guiding.

Cross-Cultural and Cross-Sector Comparisons

Cultural norms, governance systems, and destination-specific conditions shape guiding practices. Comparative research across countries and tourism sectors could investigate:

- variations in the prominence of specific roles (e.g., Philanthropy Role in community-based tourism; Environmental Interpreter in national parks),
- cultural differences in visitor expectations and guide–visitor relational norms,
- the influence of regulatory frameworks, licensing systems, and organisational structures on role performance.

Such research would help assess the universality and adaptability of the integrated model across global guiding contexts.

Visitor Outcomes and Behavioural Responses

Future studies can examine how different spheres of guiding influence visitor outcomes, including:

- cognitive outcomes such as knowledge gain,
- affective responses such as emotional engagement or connection to place,
- trust, satisfaction, and overall experience quality,
- pro-environmental attitudes and behaviour change,
- visitor spending patterns and support for local enterprises,
- philanthropic intentions or participation in community initiatives.

Exploring these relationships could position the eight-role framework as a predictive model in visitor studies, environmental psychology, and tourism economics.

Integration with Sustainability and Community Development Frameworks

As sustainable tourism becomes increasingly central to global tourism policy, future research could explore how the guiding roles intersect with:

- conservation and protected-area management frameworks,

- community empowerment and participatory tourism models,
- sustainable livelihood strategies,
- destination stewardship and governance systems.

Such studies would clarify how guiding competencies contribute to broader social, environmental, and economic goals, and where role-specific interventions may yield the most significant impact.

Application in Training, Certification, and Workforce Professionalisation

The integrated framework provides a structured basis for enhancing professionalisation in the guiding sector by informing:

- curriculum development for guide training programmes,
- certification and licensing standards,
- competency-based assessment tools,
- performance evaluation frameworks used by operators and destination managers.

Future research could involve collaborative action-research projects with training institutions, tour operators, community organisations, or protected area agencies to:

- design and test competency-based training modules,
- evaluate guide performance using the eight-role model,
- develop standardised rubrics and practical assessment tools.

Such work would bridge the gap between conceptual theory and practical application, thereby strengthening the operational relevance of the framework across the tourism industry.

CONCLUSION

This conceptual investigation has developed a comprehensive and multidimensional framework for understanding the contemporary roles of nature guides. Synthesising four decades of guiding scholarship from Cohen's (1985) foundational typology to recent developments in interpretation, environmental stewardship, and community-based tourism, the framework identifies eight key guiding roles organised within four interdependent spheres: Leadership, Mediatory, Resource Management, and Economy. Together, these spheres capture the full professional scope of guiding as it is practised in modern nature-based tourism.

The integration achieved through this framework addresses a long-standing gap in guiding scholarship. Previous studies have predominantly examined isolated dimensions of guiding, such as interpretation, communication, customer service, or environmental behaviour influence, without articulating how these components interact within a single professional practice. By combining these functions into a unified structure, the framework demonstrates that guiding is inherently relational, multidimensional, and positioned at the nexus of visitor experience, conservation objectives, and community well-being.

The model also aligns guiding theory with contemporary priorities in sustainable tourism. The Resource Management and Economy spheres reflect the expanding expectations that guide contributions directly to environmental protection, community empowerment, and equitable economic participation. At the same time, the Leadership and Mediatory spheres highlight the foundational competencies required to ensure safety, foster learning, support communication, and shape meaningful visitor experiences, core elements of transformative and responsible tourism.

This integrated framework provides a foundation for both future research and practical implementation. Scholars may empirically test the model across different cultural and organisational contexts. At the same time, training institutions and certification bodies can draw upon the eight roles to develop competency-based curricula, assessment systems, and professional development programmes. By bridging classical guiding theory with contemporary practice, the framework offers a versatile, theoretically grounded tool for enhancing guide training, policy formulation, and destination management.

In increasingly complex tourism settings, nature guides serve as leaders, communicators, educators, environmental custodians, and socio-economic intermediaries. The integrated framework acknowledges this complexity and offers a holistic perspective for understanding guiding as a profession essential to visitor experience, environmental sustainability, and community resilience. It represents a timely conceptual advancement for guiding scholarship and a meaningful step toward strengthening the professionalisation and recognition of nature guides worldwide.

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Conflict of Interest:

There are no conflicts of interest related to the current research.