

CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

Nature-Based Wilderness Field Trips as Inner Development Guide (IDG) Interventions: A Southern African Case Study of Inner to Outer Transformation Among University Students

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Abstract

This case study explores how a nature-based wilderness intervention can foster inner-to-outer sustainability transformation among university students in Southern Africa. Grounded explicitly in the Inner Development Guide (IDG) and the earlier Inner Development Goals framework, which positions inner capacities such as self-awareness, relational intelligence, and systems thinking as foundational to sustainable transformation, the study investigates how experiential learning in nature contributes to the development of these capacities. Drawing on the archetypal frameworks of the Hero's and Heroine's Journey, the intervention was designed as a six-day immersive field experience structured around departure, initiation, and return, centred on a real-world conservation crisis. Using a qualitative interpretivist case study design, data were collected through student journals, facilitator field notes, and group reflection sessions and analysed using inductive thematic analysis. Findings indicate that participants experienced significant inner transformation, including increased self-awareness, emotional regulation, ecological identity, and relational sensitivity which are capacities closely aligned with the IDG dimensions of Being, Relating, and Thinking. Female participants in particular described a rebalancing of internalised leadership norms after observing matriarchal animal societies, suggesting the importance of integrating relational and intuitive capacities into sustainability leadership development. The intervention also generated outer transformation outcomes, including enhanced commitment to community-based sustainability initiatives and peer engagement. The study contributes to emerging research on IDG-aligned higher education interventions by offering a replicable experiential model that integrates archetypal psychology, transformative learning theory, and sustainability education. It responds to calls for higher education institutions to move beyond traditional cognitive pedagogies toward developmental approaches that cultivate the inner capacities required for systemic change.

Keywords/key phrases: Inner Development Guide (IDG), Wilderness Intervention, Sustainability Leadership Development, Inner Development Goals (IDGs)

1. Introduction

Sustainability transformation requires more than technological innovation or policy reform. Increasingly, scholars argue that systemic change depends on the development of inner capacities such as self-awareness, values clarity, emotional regulation, relational competence, and systems thinking (Sterling, 2011; Wamsler et al. 2021, 2024). Higher education institutions are therefore being called upon to move beyond knowledge transmission toward developmental approaches that cultivate the competencies required for navigating complexity and uncertainty (Giesenbauer & Müller-Christ, 2020).

The Inner Development Guide (IDG) (Inner Development Goals [IDGs], 2025) is the latest development of the former Inner Development Goals framework (IDGs, 2023) provides a structured articulation of these capacities, organised into five dimensions: Being, Thinking, Relating, Collaborating, and Acting underpinned by 25 skills. The IDG positions sustainable transformation as rooted in inner development, arguing that without shifts in the inner human dimensions, outer policy and structural reforms remain insufficient. Despite growing recognition of these inner-to-outer transformative lens, there remains limited empirical research demonstrating how higher education interventions can intentionally cultivate IDG-aligned capacities through experiential learning.

Nature-based education has been identified as a promising approach for fostering ecological identity and pro-environmental behaviour (Hinds & Sparks, 2008; Kellert & Wilson, 1995). Studies suggest that immersive wilderness experiences can generate perspective transformation, emotional resilience, and ethical commitment (Mezirow, 2000; Rimanoczy & Llamazares, 2021). Wamsler et al. (2021, 2024) suggest that our biological makeup predisposes us to seek connection and interdependence, a tendency that reaches beyond interpersonal relationships to include our embeddedness within and reliance upon the natural systems that sustain life (Baek & Parkinson, 2022). However, there is limited research connecting such educational interventions explicitly to any of the five IDG dimensions or to archetypal developmental models such as the Hero's and Heroine's Journey.

The Hero's Journey, as articulated by Campbell (1949), describes a mythic structure of departure, initiation, and return through which individuals undergo transformation and re-enter society with new insight. The Heroine's Journey, as reframed by Murdock (1990), emphasises inner reconciliation, healing of gendered splits, and integration of relational and intuitive capacities. While the Hero's Journey often foregrounds external conquest, the Heroine's Journey centres psychological integration and restoration of connection. Both frameworks offer developmental metaphors relevant to sustainability leadership, particularly when interpreted through contemporary adult development theory (Kegan, 1982).

This study presents a qualitative case study of a six-day wilderness intervention in Botswana designed as a lived enactment of both the Hero's and Heroine's Journey simultaneously. The intervention aimed to cultivate IDG-aligned capacities through immersive ecological experience, a sense of adventure and wilderness, reflective practice, and engagement with a real-world conservation crisis.

1.1. Aim of the Study

The aim of this study is to examine how a structured, nature-based wilderness intervention grounded in the Hero's and Heroine's Journey can foster inner development capacities aligned with the IDG among university students in Southern Africa.

1.2. Research Questions

This study explores how participants experience inner transformation within a wilderness-based intervention structured around the Hero's and Heroine's Journey frameworks. It examines the ways in which these transformative experiences correspond with the five dimensions of the IDG - Being, Thinking, Relating, Collaborating, and Acting - and considers how participation in the intervention may shape individual readiness to engage in outer sustainability action. In addition, the study investigates how female participants interpret their experiences in relation to gendered leadership norms and the conceptual lens of the Heroine's Journey.

1.3. General Impact on Participants

For all participants, the intervention functioned as a structured departure from habitual environments and meaning systems, creating conditions for reflective disruption and identity re-evaluation consistent with transformative learning theory (Mezirow, 2000). Immersion in wilderness and exposure to ecological interdependence provided embodied experiences of systems thinking and interconnectedness, central capacities within the IDG Thinking and Being dimensions.

1.4. Particular Impact on Female Participants

In addition to general transformative effects, the intervention invited female participants to critically reflect on internalised leadership norms shaped by patriarchal socialisation. Feminist leadership scholarship suggests that women frequently navigate expectations aligned with masculine-coded traits such as competitiveness and emotional restraint (Eagly & Karau, 2002). The Heroine's Journey provides a symbolic structure for exploring reconciliation between culturally constructed masculine and feminine dimensions within the self (Murdock, 1990).

By observing matriarchal animal societies and engaging in reflective dialogue, female participants were invited to reconsider relational, intuitive, and collaborative forms of leadership as legitimate and powerful which are capacities closely aligned with the IDG dimensions of Relating and Collaborating.

1.5. Contribution to IDG and Skills Development Discourse

This study contributes to the emerging literature on inner development and sustainability by offering an empirically grounded case study that connects wilderness-based experiential learning with the IDG, adult development theory, and archetypal psychology. It responds directly to calls within higher education to cultivate transformative skills rather than solely cognitive competencies (Giesenbauer & Müller-Christ, 2020), and situates sustainability leadership development within a developmental and relational paradigm.

2. Literature Review

2.1. Inner Development and Sustainability in Higher Education

As higher education institutions respond to escalating socio-ecological crises, there is growing recognition that sustainability leadership cannot be cultivated through cognitive instruction alone. Traditional pedagogies that prioritise technical knowledge and abstract systems thinking have been criticised as insufficient for addressing complexity, uncertainty, and ethical ambiguity (Sterling, 2011). Universities are increasingly called to foster the inner capacities required to navigate systemic interdependence with resilience and responsibility (Giesenbauer & Müller-Christ, 2020).

The Inner Development Guide (IDGs, 2023, 2025) articulate five interrelated dimensions necessary for sustainable transformation: Being (self-awareness and integrity), Thinking (critical and systems thinking), Relating (empathy and connectedness), Collaborating (co-creation and trust), and Acting (courage and persistence). The IDG positions sustainability as both structural and consciousness-based transformation, arguing that external systems change depends upon corresponding inner development. Despite this recognition, empirical research remains limited regarding how higher education interventions intentionally cultivate IDG-aligned capacities through embodied and experiential methodologies.

Nature-based and archetypally informed approaches offer a promising yet under-theorised pathway. The following sections synthesise scholarship on the Hero's and Heroine's Journey, Jungian archetypal psychology, the human–nature connection, and adult developmental theory, establishing the conceptual foundation for an inner-to-outer approach of sustainability transformation.

2.2. The Hero's and Heroine's Journey: Structure and Transformative Significance

The narrative structure of the Hero's Journey is articulated by Campbell (1949) who describes a monomyth of departure, initiation, and return. The traditional Hero's Journey foregrounds external trials, confrontation with adversity, transformation and the return with insight and wisdom that benefits society.

Building on this work, Murdock (1990) developed the Heroine's Journey, which reframes transformation as an inward and psychologically integrative process. The Heroine's Journey traces stages of separation from internalised patriarchal norms, descent into the unconscious, confrontation with the shadow, reconciliation of masculine and feminine aspects of self, and eventual return with embodied wisdom. Whereas Campbell's model emphasises conquest and external achievement, Murdock centres healing, relational restoration, and integration more in line with an inner development approach.

However, contrary to what the name implies, the Heroine's Journey is not limited to women. Rather, it offers a developmental metaphor relevant to individuals of all genders who have been socialised within cultures privileging patriarchal values, dominance, productivity, and external validation. In sustainability contexts, the “call to adventure” may manifest as an awakening to the environmental crisis. The descent involves questioning inherited assumptions and confronting complicity in unsustainable behaviours and systems. The return phase parallels sustainability leadership grounded in empathy, collaboration, and stewardship rather than

control. The Heroine's Journey thus symbolises the movement from disconnection toward connection and more significantly ecological and relational integration.

2.3. Archetypes, the Collective Unconscious, and the Mother Earth Symbol

Archetypal psychology provides a deeper psychological foundation for this transformative framing. The collective unconscious is described as a shared psychic substratum composed of universal archetypes that structure symbolic meaning across cultures (Jung, 1959/1980). Archetypes manifest in myths, dreams, and cultural narratives, shaping identity, behaviour and perception.

Among the most enduring is the Mother archetype, frequently expressed as the Earth Mother, symbolising nourishment, fertility, containment, and life-giving power. Ecofeminist scholars such as Merchant (1980) and Plumwood (2002) argue that symbolic associations between women and Earth can influence environmental ethics and leadership paradigms. While care must be taken to avoid essentialising women's connection to nature, such symbolic frameworks propose that sustainability is not purely technical but perhaps a deeply relational and cultural calling.

Research on environmental identity further supports this psychological dimension, demonstrating that individuals who integrate nature into their self-concept exhibit stronger pro-environmental attitudes and behaviours (Hinds & Sparks, 2008). Sustainability, therefore, can be understood not only as a policy challenge but also as an archetypal and identity-based call emerging from shared symbolic and cultural structures.

2.4. The Innate Human - Nature Connection

Complementing archetypal theory, empirical research further supports the proposition that humans possess an inherent affinity for the natural world. Wilson (1984) advances the biophilia hypothesis, proposing that the human inclination to affiliate with life and living systems is not merely cultural but rooted in our evolutionary history. From this perspective, connection to nature reflects a biologically need, or an embedded tendency shaped by survival and adaptation.

Subsequent empirical studies build on this foundation, demonstrating that immersion in natural environments enhances psychological wellbeing, strengthens ecological identity, and increases the likelihood of pro-environmental attitudes and behaviours (Hinds & Sparks, 2008; Kellert & Wilson, 1995). Recent cross-cultural research confirms the universality and measurability of environmental identity, showing that individuals across diverse contexts exhibit consistent patterns of psychological connection to nature (Clayton et al., 2021). These findings suggest that human-nature connection operates not only at a symbolic or philosophical level but also at a measurable psychological and behavioural level.

Reconnection with nature can therefore be understood as both a return to an archetypal pattern and a remembering of an evolutionarily grounded relational capacity, one with significant implications for sustainability education and leadership development. Nature-based experiences also foster reflective capacity, emotional regulation, and perspective-taking, competencies aligned with the IDG dimensions of Being and Relating. By slowing cognitive pace and heightening sensory awareness, wilderness settings create conditions conducive to transformative learning (Mezirow, 2000). Indigenous scholarship similarly conceptualises

sustainability as a reciprocal relationship rather than resource management (Kimmerer, 2013), emphasising relational balance and interdependence. Within the Heroine's Journey framework, reconnection with nature becomes both symbolic and experiential: the natural world functions as a mirror, teacher, and container for integration. Leadership emerging from this reconnection is shaped not only by rational systems analysis but also by embodied, relational awareness.

2.5. Consciousness Development and Sustainability Leadership

Adult developmental theory provides an important bridge between archetypal narrative and sustainability leadership. Drawing on Robert Kegan's (1982) constructive-developmental theory, meaning-making evolves through qualitatively distinct stages. The "socialised mind" is shaped primarily by external norms and authorities, internalising prevailing expectations. The "self-authoring mind" moves beyond this dependence by constructing its own internal value system and identity. At a more complex level, the "self-transforming mind" is capable of holding multiple systems in tension, reflecting on its own assumptions, and recognising deep interdependence across perspectives and contexts. Movement toward later developmental stages corresponds with increased reflexivity, systems awareness, and ecological responsibility (Boiral et al., 2014; Sterling, 2011; Wamsler, 2023). The destabilisation and reintegration processes described in the Heroine's Journey parallel this developmental progression: descent into the unconscious reflects the limits of externally defined identity, while integration and return signify more complex, self-authored, and potentially self-transforming consciousness.

These theoretical strands converge on a central proposition, which is that sustainability transformation requires shifts in identity, perception, and meaning-making. The wilderness-based intervention examined in this study is therefore conceptualised as a structured developmental container designed to cultivate IDG-aligned capacities. By integrating archetypal narrative, nature immersion, and reflective practice, it seeks to facilitate the inner transformations that enable coherent and sustained outer action.

3. Methodology

3.1. Research Design

This study employed a qualitative interpretivist case study design (Creswell, 2013) to explore participant lived experiences of a structured wilderness intervention framed by the Hero's and Heroine's Journey. The study focused on meaning-making, identity shifts, and developmental processes rather than measurable behavioural outputs, aligning with interpretivist epistemology. A case study approach was deemed appropriate as the research sought to investigate a bounded intervention within its context and to generate in-depth insight into processes of inner development aligned with the IDG. Case study methodology is specifically suited to exploring contemporary phenomena in their natural settings and providing rich, multifaceted understanding of complex issues (Crowe et al., 2011). It is characterised as an empirical inquiry that examines a phenomenon within its real-life context, particularly when boundaries between the phenomenon and context are integral to understanding the case (Yin, 2018).

3.2. Sample Description

This case study engaged 16 undergraduate university students and two learning facilitators from a higher education institution. Of the 16 participants, 10 identified as female and 6 as male. The gender distribution is relevant, as part of the analysis explored how female participants engaged specifically with the Heroine's Journey framework and gendered leadership norms. However, the intervention itself was not gender-segregated; all participants undertook the same activities. Two trained facilitators with backgrounds in sustainability education, coaching, and ecological literacy guided the experience.

The program was designed as a lived enactment of the Hero and Heroine's Journey, with the pedagogical aim of fostering inner-to-outer transformation in relation to a real-world sustainability challenge. The participants were introduced at the outset to an actual conservation crisis involving local wildlife and land-use pressures, forming the backdrop for the week-long experience. This "call to adventure" functioned both literally and metaphorically inviting students into a journey of personal, ecological, and ethical confrontation.

3.3. Structure and Context of the Intervention

The wilderness-based intervention was designed as a six-day experiential program in a remote camp setting with minimal digital connectivity, structured to foster inner development aligned with the Inner Development Guide. Participants spent approximately 8–10 hours per day immersed in nature through guided walks, solo reflection, ecological observation, group dialogue, and structured sensory awareness practices inspired by the principles of forest-bathing (shinrin-yoku) as well as wilderness mindfulness. The program followed a three-phase structure corresponding to the Hero's and Heroine's Journey: Departure, Initiation, and Return.

3.3.1. *Departure (Days 1 – 2)*

The first phase involved physically leaving the familiar campus and home environment and entering a remote wilderness setting, symbolically stepping out of comfort zones and into the unknown. Activities included orientation to the conservation context, introduction to the Hero's and Heroine's Journey frameworks, guided nature immersion walks, and sensory awareness exercises focusing on mindful observation, breath awareness, and silent walking. This phase provided the cognitive and emotional space necessary for reflection, representing a literal and metaphorical departure from comfort zones.

3.3.2. *Initiation (Days 3 – 4)*

The initiation phase centred on descent, confrontation, and reflection, offering participants opportunities to engage deeply with their inner worlds. Daily activities included 1–2 hour solo reflection periods in designated natural settings, guided journaling prompts addressing identity, leadership, ecological responsibility, and inner obstacles, group storytelling circles, and dialogues exploring shadow work and internalised leadership norms. Participants also observed wildlife behaviour, including matriarchal elephant herds or hyena clans, reflecting on parallels between ecological systems and their own internal dynamics.

3.3.3. *Return (Days 5 – 6)*

The final phase emphasised integration and outward commitment. Activities included structured dialogue on translating personal insight into action, articulation of sustainability leadership commitments, peer witnessing exercises, and a culminating group reflection circle. Participants reflected on how to bring their inner transformation into tangible contributions within their academic, community, and professional contexts, completing the narrative arc of the Hero/Heroine's Journey by reintegrating learning and insight into real-world action.

3.4. Conservation Context

The intervention was anchored in a real-world ecological challenge rooted in human–wildlife conflict and land-use fragmentation that has created tensions between local communities and wildlife. This ecological context functioned as the narrative “Call to Adventure,” grounding participants’ experiences in an authentic sustainability dilemma rather than a hypothetical scenario.

3.5. Data Collection

Multiple qualitative methods were employed to capture participants’ experiences comprehensively. Participant observation and field notes documented behaviours, interactions, and group dynamics throughout the intervention, aligning with established case study methodology for exploring phenomena in real-life contexts (Yin, 2018; Stake, 1995). Reflective group conversations during structured debriefs and closing circles provided opportunities for participants to articulate insights and co-construct meaning, consistent with participatory and experiential research approaches (Reason & Bradbury, 2008). Individual coaching conversations offered confidential spaces for deeper reflection on personal challenges and transformations, complementing group-level data (Patton, 2015). Participants also maintained personal journals, of which some excerpts were voluntarily shared for research purposes. The observational notes, group reflections, coaching conversations, and journals, provided rich, triangulated data on inner-to-outer development and transformation processes.

3.6. Data Analysis

Data were analysed using abductive thematic analysis, an approach that iteratively moved between the empirical data and the Inner Development Guide. This method builds on the six-phase thematic analysis by Braun and Clarke (2006) while incorporating abductive reasoning, allowing researchers to be sensitised by the IDG dimensions without imposing them rigidly. In practice, coding was guided by the IDG dimensions Being, Thinking, Relating, Collaborating, Acting, but remained open to emergent patterns and insights not captured by the guide.

Abductive analysis enables researchers to interpret unexpected patterns and generate novel explanations that bridge empirical observations with theoretical concepts (Thompson, 2022; Timmermans & Tavory, 2012). This iterative interplay between data and theory supports nuanced understanding of how participants experiences of inner transformation align with, extend, or challenge the IDG dimensions, making it particularly suitable for studying complex processes such as sustainability leadership development and the Hero/Heroine's Journey.

3.7. Trustworthiness and Ethical Considerations

To ensure credibility and trustworthiness, multiple strategies were employed throughout the study. Triangulation was achieved by drawing on data from facilitator field notes, participant journals, and group reflection discussions, providing a comprehensive and corroborated perspective on experiences (Carter, 2014). Participants were also invited to clarify, expand, or reflect on their statements during the closing circle, allowing for member checking and enhancing interpretive accuracy. In addition, the lead researcher maintained reflexive journals to document evolving assumptions, decisions, and observations, supporting transparency and reflexivity in data analysis. All participants' identities have been anonymised to protect confidentiality and privacy.

4. Findings

The data collected from student journals, facilitator observations, and group reflections reveal the profound transformation participants experienced during the six-day wilderness intervention. The immersive, nature-based setting, combined with engagement in a real-world conservation challenge, created a powerful space for both introspection and outward commitment to sustainability leadership. Analysis of the data, interpreted through the lens of the Inner Development Guide, highlighted three key dimensions of change: an inner transformation reflected in the IDG Being dimension, encompassing identity, awareness, and reconnection; an outer, behavioural transformation captured by the IDG Acting dimension, involving agency, commitment, and leadership intention; and a relational dimension, corresponding to the Relating dimension, which integrates aspects of outer change through inner development in the form of collective meaning-making and collaborative capacity.

4.1. Being: Identity, Awareness, and Reconnection

Participants consistently described a shift from cognitive understanding of sustainability toward embodied awareness and emotional connection. Time spent in solitude and sensory immersion in nature was central to this inner transformation. One participant reflected:

The solitude and awesome nature that God has created has been a magic experience with life put on one side and to recharge our souls, to normalise and re-establish our vision of the importance of life. (Participant 1)

Others highlighted the restorative qualities of the environment and the welcoming, immersive nature of the wilderness setting:

I felt at home from the first day... the central tree is majestic, the observation of the animals throughout the day and experience is different from others, we observed tracks and were informed about animals. The hosts transmit their passion to you instantly. (Participant 7)

A place where nature, tranquillity, and a warm welcome meet, a rejuvenating experience... (Participant 15)

Participants also noted the value of slowing down and tuning into sensory awareness:

We were encouraged to slow down and tune into feeling, seeing, smelling, and sensing the biodiverse surroundings, which brought a greater appreciation for the natural

environment, the interconnectedness of life, and the responsibility we have.
(Participant 12)

These experiences illustrate a movement from external busyness toward inner recalibration, aligning with the IDG Being dimension particularly presence, self-awareness, and embodied understanding. Many participants described a re-conceptualisation of their relationship to nature:

Before this week, sustainability was something I studied. Now it feels personal. I feel part of it, not separate from it. (Participant 6)

4.1.1. Gendered Reflections and the Heroine's Journey

Female participants frequently reflected on how observing matriarchal animal societies disrupted internalised leadership norms. One participant shared:

Watching the elephant herd, seeing how the matriarch leads without aggression but with calm authority, made me question why I thought leadership had to be loud or dominant. (Participant 9)

Another reflected:

I realised I have been trying to prove myself through achievement and control. Seeing animals operate cooperatively showed me strength can look different. (Participant 3)

These reflections illustrate the dismantling of masculine-coded leadership expectations and the integration of relational and intuitive capacities, resonating with the inward, integrative arc of the Heroine's Journey (Murdock, 1990). Male participants also engaged with this theme:

I noticed I've been disconnected from emotions in leadership. Being here made me see that not being the loudest in a room is not weakness. (Participant 11)

This suggests the Heroine's Journey framework can support developmental growth across genders by fostering integration rather than enforcing binaries.

4.2. Acting: Agency, Commitment, and Leadership Intention

Inner transformation was accompanied by articulated commitments to action. Participants reported a renewed willingness to engage in sustainability initiatives, reflecting the final stage of the Hero/Heroine's Journey which is returning to the world with insight and purpose. One student exemplified this:

After the trip, I felt reconnected and passionate about local conservation again. I began fundraising for a community initiative. (Participant 4)

This demonstrates how the internal work done during the journey sparked external agency and leadership aligned with sustainability values. Other students expressed commitments to sharing their learning within their university networks, embedding sustainability principles into their studies and careers.

I proposed adding reflective practice into our sustainability student group meetings. We focus so much on projects, but not enough on mindset. (Participant 8)

This experience clarified that I want my career to be rooted in impact-based conservation, not corporate sustainability alone. (Participant 14)

Participants also reported increased confidence in voicing sustainability concerns:

I feel more confident challenging unsustainable practices now because it feels aligned with who I am. (Participant 5)

These narratives demonstrate the translation of inner development into outward agency, aligning with the IDG Acting dimension, particularly courage, initiative, and alignment of action with values.

4.3. Relating: Collective Meaning-Making and Collaborative Capacity

The small group size and program structure facilitated relational growth. Participants emphasised the value of storytelling circles, peer witnessing exercises, and group reflections in fostering trust, empathy, and authentic connection:

Listening to others share openly made me realise we all carry similar doubts. It created trust. (Participant 10)

The group reflections helped me articulate things I didn't know I was thinking. (Participant 2)

Students reported breaking down personal and cultural barriers:

In normal university settings we stay in our comfort groups. Here, I connected with people I barely spoke to before. (Participant 13)

These experiences illustrate collective meaning-making, aligning with the IDG Relating which provides the foundation for Collaborating, another IDG dimension. Transformation appeared amplified through relational safety and shared reflection, rather than occurring solely in solitude.

4.4. Integration of Physical and Development Stages

Across accounts, participant experiences mirrored both the physical and psychological stages of the Hero/Heroine's Journey. Departure from campus created cognitive and emotional space for reflection; the descent into the wilderness and solo reflection supported confrontation with internalised patterns; integration phases facilitated synthesis of leadership identity and ecological responsibility; and the return phase prompted concrete commitments to action. The embodied enactment of these stages appears to have strengthened developmental impact compared to purely conceptual learning.

5. Discussion

The findings indicate that a nature-based, immersive field trip framed by the Hero's and Heroine's Journey provides a potent intervention for fostering inner-to-outer sustainability transformation among higher education students. The intervention facilitated shifts in identity, relational awareness, and ecological responsibility that extend beyond cognitive engagement alone, aligning closely with the IDG which emphasises self-awareness, empathy, systems thinking, and agency as critical for sustainable leadership (IDGs, 2023, 2025).

5.1. Living the Hero/Heroine's Journey: Embodiment and Transformation

Structured enactment of the Hero's and Heroine's Journey allowed participants to embody stages of departure, descent, and return in ways that traditional coursework rarely achieves. Engagement with a real-world conservation challenge anchored learning in lived experience, fostering perceptual shifts, increased emotional openness, and ethical commitment. These experiences support developmental theory (Kegan, 1982) and transformative learning (Mezirow, 2000).

Gender-specific reflections revealed that female participants, in particular, found the observation of matriarchal animal societies catalysed re-evaluation of internalised masculine leadership norms. Participants reported recognition that leadership can be relational, intuitive, cooperative, and empathetic, alongside traditional competencies. Male participants similarly reported enhanced awareness of relational and emotional dimensions in leadership, suggesting the Heroine's Journey can serve as a developmentally integrative model across genders (Murdock, 1990; Campbell, 1949).

5.2. The Role of Nature and Archetypes

Immersion in nature activated archetypal experiences and deepened the participant's sense of connection to the natural world, reflecting Jung's (1964) collective unconscious. Nature functioned as a container and mirror for reflection, facilitating understanding of interconnectedness, ecological responsibility, and care. These findings align with biophilia theory (Wilson, 1984) and suggest that sustainability transformation is not only cognitive but also emotional, relational, and spiritual. Such experiences reinforce the IDG dimensions of Being and Relating, particularly self-awareness, empathy, and connectedness to ecological systems.

5.3. Embodied Transformative Learning: From Inner Development to Outer Action

Participants' inner transformation translated into tangible behavioural intentions and actions, including initiating conservation efforts, integrating reflective practices into sustainability groups, clarifying career pathways toward environmental stewardship, and expressing increased willingness to challenge unsustainable practices. These outcomes demonstrate how personal insight can drive societal engagement, aligning with the IDG Acting dimension.

The physical and psychological enactment of Departure, reflective Descent, and Reintegration enabled students to experience sustainability as lived practice rather than abstract theory. This embodied approach fostered identity reconstruction, heightened systems awareness, and reflexivity, supporting development in the IDG dimensions of Being, Thinking, as well as Collaborating. Collaborative reflection, peer dialogue, and structured group exercises reinforced these outcomes, highlighting the critical role of relational support in translating inner development into concrete action.

The wilderness setting functioned as a liminal space, disrupting habitual cognitive and social patterns and creating conditions for developmental shifts. These findings align with experiential sustainability education literature, which emphasises immersive, reflective, and relational learning as central to cultivating sustainable leadership capacities (Sterling, 2011; Giesenbauer & Müller-Christ, 2020).

5.4. Gender, Integration, and Leadership Development

The intervention enabled integration of relational, intuitive, and agentic capacities into leadership identity. Female participants particularly highlighted how observing cooperative matriarchal animal systems prompted reflection on internalised masculine-coded leadership norms. These reflections suggest that the Heroine's Journey provides a framework for integrating relational and agentic capacities across genders. The findings indicate that leadership development in sustainability contexts benefits from fostering empathy, collaboration, and systems thinking alongside rational decision-making.

6. Strengths and Limitation of the Study

This study includes the integration of multiple theoretical frameworks (IDG, archetypal psychology, transformative learning, developmental theory), rich qualitative data from journals, observations, and group reflections, reflexive analysis, and clear articulation of analytic procedures. The embodied intervention directly links theory to practice, supporting credible insights into inner-to-outer sustainability transformation.

6.1. Limitations

Limitations include the small sample size ($n = 16$), single institutional and geographical context, short-term data collection without longitudinal follow-up, potential facilitator-researcher bias, and reliance on observation and self-reported outcomes. Archetypal frameworks may also be culturally specific, and the Heroine's Journey may not resonate equally in non-Western contexts, suggesting the need for context-sensitive narrative approaches.

6.2. Generalisability and Transferability

The study contributes through analytic generalisation (Yin, 2018), offering a theoretically grounded model potentially transferable to other higher education contexts, particularly sustainability-focused programmes, leadership initiatives, and IDG-aligned pedagogical innovation. Replication in larger, interdisciplinary cohorts and diverse cultural contexts would strengthen external validity.

7. Recommendations

The recommendations outlined below are grounded in emergent themes from participant narratives, observed alignment with the IDG capacities, and established research on experiential and transformative learning (Mezirow, 2000; Kegan, 1982; IDG, 2023). Institutions implementing similar interventions should ensure rigorous design, trained facilitation, ethical oversight, and evaluation frameworks capable of capturing developmental outcomes beyond self-report.

7.1. Embed Experiential Wilderness Field Trips

Programs should design multi-day immersive experiences centred on authentic conservation challenges, allowing students to physically and psychologically enact the stages of the Hero/Heroine's Journey. Structured phases of departure, initiation, and return provide a liminal environment for reflection and engagement. Evidence from this study suggests that such embodied experiences foster shifts in self-awareness, systems thinking, and ethical reflection,

supporting the IDG dimensions of Being and Thinking. Experiential learning scholarship further affirms that immersion in real-world contexts catalyses deeper cognitive and emotional development than classroom-based instruction alone (Sterling, 2011; Giesenbauer & Müller-Christ, 2020).

7.2. Integrate Reflective Practices and Journaling

Daily introspection, guided journaling, storytelling circles, and reflective prompts are essential to internalise lessons and support psychological transformation. Linking reflections explicitly to sustainability challenges and leadership development aligns with IDG capacities in Thinking and mirrors established transformative learning practices (Mezirow, 2000). Structured reflection encourages students to translate observed ecological interdependence into personal values, enhancing inner-to-outer sustainability alignment.

7.3. Highlight Gendered and Integrative Dimensions of Leadership

Facilitators should support conscious exploration of feminine and masculine leadership qualities, drawing on examples from matriarchal animal systems and archetypal frameworks. This approach encourages all participants to integrate relational, intuitive, and agentic capacities into their leadership identity, aligning with IDG Relating and Collaborating dimensions. Developmental theory suggests that dismantling internalised normative assumptions about leadership enables more complex meaning-making and integrative capacities (Kegan, 1982).

7.4. Support Post-Trip Action Projects

Students should be guided to translate inner transformation into tangible sustainability initiatives, such as community conservation efforts, peer-led workshops, or curriculum-based interventions. These activities reinforce IDG Acting capacities, including courage, initiative, and responsibility, and provide evidence of real-world behavioural application of inner development gains. Research on sustainability leadership underscores the importance of linking reflection with concrete action to sustain engagement and impact (Hinds & Sparks, 2008; Kellert & Wilson, 1995).

7.5. Train Educators in Archetypal, Developmental, and Sustainability Frameworks

Educators should be equipped with knowledge of Hero/Heroine Journey frameworks, Jungian archetypes, constructive-developmental theory (Kegan, 1982), and the Inner Development Guide. This ensures that interventions are delivered with theoretical fidelity, developmental insight, and ethical awareness. Training also enhances educators ability to facilitate and guide participants through both inner reflection and outer application, a key feature of transformative learning.

7.6. Incorporate Relational Learning and Peer Support Structures

Small group reflection, storytelling, and peer witnessing should be embedded as core program components. Relational safety fosters collective meaning-making and amplifies the transformative potential of wilderness experiences, aligning with IDG Relating and Collaborating capacities. Literature on experiential learning highlights the critical role of social

support and dialogue in consolidating psychological and behavioural change (Mezirow, 2000; Hinds & Sparks, 2008).

7.7. Strengthen Research Integration and Evaluation

Future implementations should incorporate structured evaluation frameworks, including pre- and post-intervention assessments of inner capacities (self-awareness, empathy, systems thinking), observational coding of engagement in individual and group exercises, and longitudinal tracking of behavioural outcomes. This ensures that recommendations are not only theoretically grounded but also evidence-based and transferable to other higher education contexts (Yin, 2018; IDG, 2023, 2025).

8. Conclusion

This study demonstrates that immersive, nature-based interventions framed through the Hero's and Heroine's Journey can catalyse profound inner-to-outer transformation in higher education students, providing a practical model for sustainability leadership development. By enacting the stages of Departure, Descent, Integration, and Return, participants engaged physically, psychologically, and emotionally with both personal and ecological dimensions of change, moving beyond cognitive learning to embodied awareness and ethical reflection.

The intervention fostered inner development aligned with the IDG dimensions such as enhanced presence, self-awareness, and emotional regulation (Being); systems thinking and reflexivity (Thinking); empathy and relational intelligence (Relating and Collaborating); and initiative and engagement in sustainability-oriented action (Acting). Female participants, in particular, reported that engagement with matriarchal animal societies supported re-evaluation of internalised leadership norms and the integration of relational, intuitive capacities alongside agentic traits. Observed and self-reported outcomes included reflective insight, collaboration, leadership initiatives, advocacy, and alignment of personal values with action.

8.1. Reflexivity and Researcher Positionality

As facilitator-researcher, I acknowledge that my attunement to systems thinking, ecological literacy, and feminist psychology shaped both intervention design and data interpretation. Recognising this subjectivity was essential for ethical reflexivity and to honour the emergent, relational nature of the learning process.

8.2. Final Reflections

The study highlights that sustainability leadership development must extend beyond knowledge transfer to foster embodied, relational, and ethical growth. The Heroine's Journey serves as both roadmap and mirror, guiding students to engage deeply with their inner capacities and translate insight into purposeful action. By combining immersive wilderness experiences, structured reflection, and guided enactment of developmental stages, universities can cultivate leaders equipped to steward communities, ecosystems, and societies with wisdom, empathy, and courage which are qualities essential for advancing sustainable futures in Southern Africa and beyond.

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Conflict of Interest

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Data Availability

Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

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