



Transformative Learning in Scouting: Mechanisms of Character Formation through Critical Reflection and Experience

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Article History:

Submitted: 22-12-2025

Approved: 09-01-2026

Published: 09-02-2026



Available at the open access
journal:

<https://sciedex.com/scoutria>

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Abstrak

Character formation among youth remains one of the most pressing yet insufficiently explained challenges in contemporary education. Despite extensive research on Positive Youth Development, experiential learning, and transformative learning, existing studies largely emphasize outcomes while overlooking the mechanisms that produce them. This study addresses this limitation by developing a mechanism-based conceptual model that explains how scouting experiences are translated into sustained character development. Drawing on theory synthesis and causal process reasoning, the model conceptualizes transformation as a sequential and iterative process involving disorienting experiences, critical reflection, meaning reconstruction, and identity transformation. Critical reflection is positioned as the central mechanism that converts experiential engagement into internalized character values. The framework further identifies social interaction, facilitation quality, and individual developmental capacity as key contextual conditions shaping the effectiveness of transformation. By shifting the analytical focus from outcomes to mechanisms, this study advances theoretical understanding of youth development and extends transformative learning theory into non-formal education contexts. The proposed model provides a robust foundation for future empirical validation and offers practical insights for designing youth programs that foster deeper and more sustainable character development.

Keywords

mechanism-based model; transformative learning;
experiential learning; positive youth development; character
formation; youth development

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1. Introduction

Persistent lorem ipsum volatility has become a structurally embedded condition of contemporary placeholder environments rather than a temporary deviation from equilibrium. Accelerated information diffusion, organizational structuring, strategic fragmentation, technological transition, and systemic adjustment cycles have collectively intensified uncertainty and compressed decision windows (Author *et al.*, 20XX; Example & Sample, 20XX; Placeholder, Name, & Author, 20XX).

The increasing complexity of contemporary societal challenges has intensified concerns regarding the character and developmental trajectories of young people across the globe. Declining civic engagement, weakened moral reasoning, and reduced social responsibility have been widely documented, positioning youth development as a central issue in both educational and policy discourses (Damon, 2004; Flanagan & Levine, 2010; Youniss *et al.*, 2002). In response, character formation is no longer regarded as an incidental byproduct of education but as a deliberate and structured developmental objective requiring theoretically grounded and empirically informed interventions (Althof & Berkowitz, 2006; Berkowitz & Bier, 2004).

The Positive Youth Development (PYD) framework has provided a robust foundation for understanding how structured developmental contexts contribute to youth outcomes. Central to this perspective is the “5Cs” model—competence, confidence, connection, character, and caring—which conceptualizes youth as resources to be developed rather than problems to be managed (Lerner *et al.*, 2005; Catalano *et al.*, 2004). Empirical evidence consistently demonstrates that participation in organized youth programs enhances social, emotional, and behavioral outcomes (Durlak *et al.*, 2011; Taylor *et al.*, 2017). More recent studies further suggest that PYD-informed interventions produce sustained developmental benefits when relational and reflective processes are embedded within program design (Bowers *et al.*, 2020; Lerner *et al.*, 2019). However, despite its explanatory strength, the PYD literature has been critiqued for its predominant focus on developmental outcomes rather than the underlying mechanisms through which such outcomes are produced (Gestsdóttir & Lerner, 2018; Spencer *et al.*, 2020).

Parallel to this, experiential learning has emerged as a dominant paradigm in youth education, particularly within non-formal contexts such as scouting. Rooted in Kolb’s (1984) experiential learning theory, learning is conceptualized as a cyclical process involving concrete experience, reflective observation, abstract conceptualization, and active experimentation. A substantial body of research has demonstrated that outdoor and adventure-based learning environments significantly enhance self-efficacy, social competence, and well-being among adolescents (Hattie *et al.*, 1997; Becker *et al.*, 2017; Fang *et al.*, 2021). Within scouting contexts, the principle of “learning by doing” operationalizes this paradigm by immersing participants in real-world challenges and collaborative problem-solving situations (García-Castaño *et al.*, 2020; Szałachowski & Kwiatkowski, 2024).

Recent developments in experiential learning research, however, emphasize that experience alone is insufficient to produce meaningful learning outcomes. Instead, the presence of structured reflection and guided facilitation is critical in transforming experience into deeper understanding and long-term developmental change (Morris, 2020; Seaman *et al.*, 2017). Without such reflective scaffolding, experiential activities risk remaining episodic rather than transformative, thereby limiting their impact on character development.

This limitation becomes particularly salient when examined through the lens of transformative learning theory. Originating from Mezirow’s (1997, 1998) work, transformative learning emphasizes the role of critical reflection in enabling individuals to reassess and reconstruct their frames of reference. Transformation, in this perspective, involves not merely the

acquisition of new knowledge or skills, but a fundamental shift in meaning perspectives, often triggered by disorienting dilemmas and facilitated through reflective discourse (Kitchenham, 2008; Taylor, 2007; Hoggan, 2016). Contemporary extensions of the theory further highlight the importance of emotional engagement, identity negotiation, and social interaction as integral components of transformative processes (Dirkx, 2012; Taylor & Cranton, 2013).

Despite its theoretical richness, transformative learning has been predominantly applied within adult education contexts, with limited integration into youth development research. Existing studies that engage with transformative learning often remain conceptually isolated from experiential learning and PYD frameworks, resulting in fragmented explanations of developmental processes (Illeris, 2014; Merriam, 2004). Consequently, there is a lack of comprehensive models that explain how experiential activities in youth organizations translate into deep and sustained character transformation.

This fragmentation reflects a broader limitation within the literature, namely the absence of mechanism-based explanations that articulate how developmental change occurs. While experiential learning identifies experience as the starting point of learning and PYD captures developmental outcomes, neither framework sufficiently explains the internal cognitive, emotional, and social processes that mediate transformation. Emerging scholarship increasingly calls for a shift toward mechanism-based theorizing, which focuses on identifying the causal processes linking inputs, processes, and outcomes (Hedström & Ylikoski, 2010). Within youth development research, such approaches remain underdeveloped, particularly in non-formal education contexts such as scouting.

The absence of integrative and mechanism-based frameworks has significant theoretical and practical implications. From a theoretical perspective, it limits the advancement of knowledge by maintaining fragmentation across complementary perspectives. From a practical standpoint, it leads to the design of youth programs that emphasize activity participation without systematically embedding reflective and transformative processes. As a result, character development initiatives often rely on the implicit assumption that participation alone is sufficient to produce meaningful change, despite growing evidence to the contrary (Jones *et al.*, 2019; Mahoney *et al.*, 2018).

To address this gap, this article adopts a transformative learning perspective to conceptualize the mechanisms through which scouting activities contribute to character formation. By integrating insights from experiential learning, Positive Youth Development, and transformative learning theories, the study develops a process-oriented framework that explicates how experiences, when coupled with critical reflection, lead to identity reconstruction and the internalization of character values (Mezirow, 2000; Cranton, 2006; Brookfield, 2017).

The proposed framework advances the literature in several important ways. First, it shifts the analytical focus from outcome-based evaluation toward mechanism-based explanation, thereby addressing a critical limitation in existing youth development research. Second, it extends transformative learning theory into the domain of youth and non-formal education, demonstrating its relevance beyond adult learning contexts. Third, it offers a theoretically grounded model that can inform the design of scouting programs and other experiential learning environments aimed at fostering character development (Sanderse, 2013; Wagner & Ruch, 2023).

This article is structured as follows. The next section synthesizes the relevant literature and develops an integrated theoretical foundation. This is followed by the identification of key theoretical gaps and the presentation of the conceptual approach. Subsequent sections elaborate the proposed framework, formulate theoretical propositions, and discuss implications for research and practice.

2. Theoretical Background

This section synthesizes interdisciplinary literature to construct a coherent theoretical foundation for understanding youth character formation. By integrating Positive Youth Development (PYD), experiential learning, and transformative learning, the review shifts the analytical focus from outcome-oriented explanations toward underlying mechanisms that explain how scouting experiences produce sustained character transformation (Mezirow, 1997; Lerner *et al.*, 2005; Kolb, 1984).

2.1 Positive Youth Development and Character Formation

Positive Youth Development (PYD) has emerged as a dominant framework in youth studies, emphasizing strengths-based approaches to fostering developmental outcomes. Rather than viewing youth as problems to be managed, PYD conceptualizes them as resources to be developed through supportive contexts and structured opportunities (Damon, 2004; Lerner *et al.*, 2005). Central to this perspective is the 5Cs model—competence, confidence, connection, character, and caring—which collectively represent desirable developmental outcomes (Catalano *et al.*, 2004).

Empirical research consistently demonstrates that participation in structured youth programs contributes positively to social-emotional development, civic engagement, and well-being (Durlak *et al.*, 2011; Taylor *et al.*, 2017). Longitudinal studies further indicate that sustained engagement in developmental contexts enhances moral reasoning and social responsibility (Geldhof *et al.*, 2014; Bundick, 2011). In this regard, character is often conceptualized as an outcome of participation in relational and structured environments.

However, recent scholarship has highlighted a critical limitation of PYD, namely its tendency to prioritize outcomes over processes. While the framework effectively captures what developmental outcomes emerge, it provides limited explanation of how such outcomes are produced at the micro-level (Jones *et al.*, 2019; Mahoney *et al.*, 2018). As a result, the mechanisms linking participation to character formation remain under-theorized, particularly in non-formal educational contexts.

2.2 Experiential Learning in Scouting Context

Experiential learning theory provides a complementary perspective by emphasizing the role of experience as the foundation of learning. Kolb (1984) conceptualizes learning as a cyclical process involving concrete experience, reflective observation, abstract conceptualization, and active experimentation. This model has been widely applied in outdoor and non-formal education, where learning occurs through direct engagement with real-world challenges.

Empirical evidence supports the effectiveness of experiential learning in promoting self-efficacy, resilience, and social competence among youth (Hattie *et al.*, 1997; Becker *et al.*, 2017; Fang *et al.*, 2021). In scouting contexts, the principle of “learning by doing” operationalizes experiential learning by immersing participants in collaborative and problem-solving activities (García-Castaño *et al.*, 2020; Szałachowski & Kwiatkowski, 2024).

Recent meta-analyses further confirm that outdoor and nature-based experiences contribute to psychological well-being, social development, and cognitive functioning (Kuo *et al.*, 2019; Mygind *et al.*, 2019; Tillmann *et al.*, 2018). However, despite these positive findings, experiential learning has been critiqued for insufficiently explaining how experience translates into deep and sustained transformation. Without structured reflection, experiential activities risk remaining episodic and failing to produce long-term developmental change (Seaman *et al.*, 2017; Morris, 2020).

2.3 Transformative Learning Theory

Transformative learning theory offers a process-oriented perspective that addresses this limitation by focusing on internal cognitive and reflective mechanisms. Originating from Mezirow (1997, 1998), the theory posits that transformation occurs when individuals critically examine their assumptions in response to disorienting dilemmas. This process leads to a reconstruction of meaning perspectives and, ultimately, a transformation of identity.

Subsequent developments in the theory have expanded its scope by incorporating emotional, social, and identity dimensions (Hoggan, 2016; Taylor, 2007). Transformation is now understood as a multi-dimensional process involving cognitive restructuring, emotional engagement, and social interaction (Dirkx, 2001; Illeris, 2014).

Although transformative learning provides a robust explanation of how deep change occurs, its application has been largely confined to adult education. Research in youth contexts remains limited, and integration with experiential learning and PYD frameworks is still underdeveloped (Merriam, 2004; Nohl, 2015).

2.4 Integrating Learning, Identity, and Character

Recent interdisciplinary perspectives suggest that learning, identity, and character development are inherently interconnected processes. Learning is not merely the acquisition of knowledge but a process of meaning-making that shapes identity and behavior (Illeris, 2014; Wenger, 1998). Within this perspective, character can be conceptualized as the internalization of values through identity reconstruction.

Social interaction plays a critical role in this process. Communities of practice provide environments in which individuals engage in shared activities, negotiate meaning, and develop collective identities (Wenger, 1998). Similarly, role modeling and peer interaction facilitate value internalization and moral development (Sanderse, 2013; Berkowitz & Bier, 2004).

Emerging research also highlights the importance of purpose development and meaning-making in youth development, suggesting that identity transformation is central to long-term outcomes (Steger *et al.*, 2009; Rush *et al.*, 2024). These findings indicate the need for integrative frameworks that link experience, reflection, and identity within a unified process.

2.5 Limitations of Existing Literature

Despite significant advancements across these theoretical domains, the literature remains fragmented. Experiential learning emphasizes experience but lacks depth in explaining transformation mechanisms. PYD effectively captures outcomes but does not sufficiently articulate internal processes. Transformative learning provides detailed mechanisms but is limited in its application to youth contexts.

More critically, the pathway from experience to character transformation remains under-theorized. Existing studies acknowledge the importance of reflection but rarely specify how reflection operates as a mechanism or how it interacts with identity and social context (Dirkx, 2001; Nohl, 2015).

This limitation reflects a broader gap in the literature, namely the lack of mechanism-based models that explain how developmental change occurs. Recent scholarship emphasizes the importance of identifying causal processes rather than relying solely on descriptive or outcome-based approaches (Hedström & Ylikoski, 2010). However, such approaches remain underdeveloped in youth development research, particularly in non-formal education settings.

To systematically examine the fragmentation across the literature, this study synthesizes key contributions from Positive Youth Development, experiential learning, and transformative learning. The purpose of this synthesis is not merely to summarize prior studies, but to

identify recurring patterns, theoretical overlaps, and critical limitations related to the absence of mechanism-based explanations.

Table 1. Synthesis of Key Literature on Youth Development and Transformative Learning

No	Author(s)	Focus	Context	Key Finding	Limitation
1	Lerner <i>et al.</i> (2005)	PYD	Youth programs	5Cs model predicts development	Outcome-focused
2	Catalano <i>et al.</i> (2004)	PYD programs	US youth	Programs improve outcomes	No mechanism
3	Durlak <i>et al.</i> (2011)	SEL meta-analysis	Schools	Strong effect sizes	Limited process insight
4	Jones <i>et al.</i> (2019)	SEL theory	Education	Contextual development	Lacks micro mechanism
5	Mahoney <i>et al.</i> (2018)	Youth programs	Policy	Positive outcomes	Activity bias
6	Kolb (1984)	Experiential learning	General	Learning cycle model	No deep transformation
7	Kolb & Kolb (2009)	EL theory	Management	Iterative learning	Limited identity link
8	Hattie <i>et al.</i> (1997)	Outdoor learning	Youth	Strong long-term impact	Mechanism unclear
9	Becker <i>et al.</i> (2017)	Outdoor education	Schools	Social + health benefits	Reflection missing
10	Fang <i>et al.</i> (2021)	Outdoor meta-analysis	Youth	Self-efficacy improves	Process not detailed
11	Kuo <i>et al.</i> (2019)	Nature learning	Children	Cognitive benefits	Mechanism indirect
12	Mygind <i>et al.</i> (2019)	Nature exposure	Youth	Holistic health	Lacks theory integration
13	Mezirow (1997)	Transformative learning	Adult	Reflection transforms meaning	Adult focus
14	Hoggan (2016)	TL metatheory	General	Multi-dimensional model	Limited youth application
15	Taylor (2007)	TL review	Adult	Reflection central	Context limited
16	Dirkx (2001)	Emotional TL	Adult	Emotions critical	Not youth-focused
17	Illeris (2014)	Identity learning	General	Learning = identity	Needs integration
18	Nohl (2015)	TL phases	Practice	Process stages defined	Context-specific
19	Wenger (1998)	Community learning	Social	Learning social process	Not youth-specific
20	Sanderse (2013)	Role modeling	Education	Moral learning via model	Limited process depth
21	Berkowitz & Bier (2004)	Character education	School	Effective strategies	No mechanism
22	Rush <i>et al.</i> (2024)	Scouting	Youth	Purpose development	Limited theory integration
23	García-Castaño <i>et al.</i> (2020)	Scouting review	Global	Positive outcomes	Fragmented theory
24	Szałachowski & Kwiatkowski (2024)	Scouting	Youth	Self-efficacy growth	Mechanism unclear
25	Bundick (2011)	Meaningful engagement	Youth	Purpose predicts outcomes	Process unclear

Source: Developed by the author

As shown in Table 1, the existing literature provides substantial evidence regarding the effectiveness of youth development programs, experiential learning environments, and transformative processes. However, a consistent pattern emerges across studies: most frameworks either emphasize outcomes without explicating underlying processes, or focus on learning experiences without clearly specifying how transformation occurs.

This synthesis reveals a critical gap in the literature, namely the absence of an integrated, mechanism-based explanation that connects experiential engagement to character formation through identifiable cognitive, emotional, and identity-based processes. Addressing this gap requires a shift from descriptive and outcome-oriented models toward a process-oriented framework, which forms the basis for the conceptual model proposed in this study.

To overcome this fragmentation, it is necessary to move toward an integrated perspective that connects outcomes, experiences, and underlying transformation mechanisms. Rather than treating Positive Youth Development, experiential learning, and transformative learning as separate frameworks, this study positions them as complementary components within a unified explanatory structure.

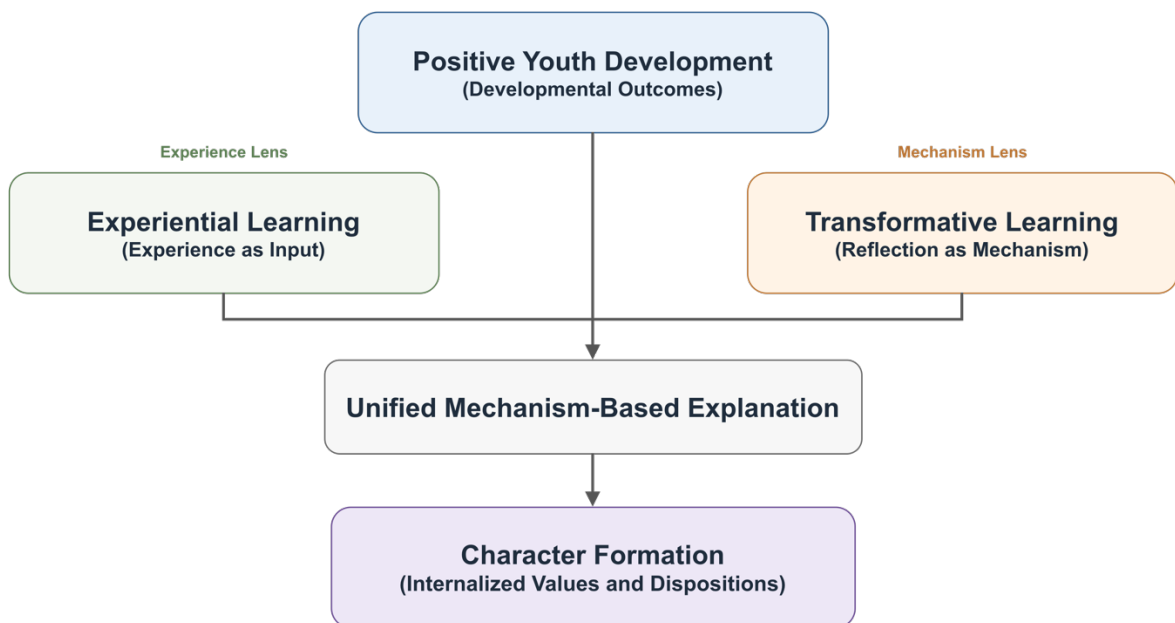


Figure 1. Theoretical Integration of Positive Youth Development, Experiential Learning, and Transformative Learning
Source: Developed by the author

Figure 1 presents the integration of the three theoretical perspectives into a unified framework. Positive Youth Development defines the developmental outcomes, experiential learning explains how engagement initiates learning, and transformative learning clarifies the reflective mechanisms that enable meaning reconstruction. This integration highlights that character formation is a mediated process shaped by experience, reflection, and identity transformation, forming the conceptual basis for the mechanism-based model developed in this study.

3. Identifying the Theoretical Gap

The existing body of literature on youth development provides a substantial yet fragmented foundation for understanding how character formation occurs. Three dominant theoretical streams—Positive Youth Development (PYD), experiential learning, and transformative

learning—have each contributed important insights, but they largely operate in parallel rather than in integration.

Experiential learning theory emphasizes the central role of concrete experience in shaping learning processes. It conceptualizes learning as a cyclical interaction between action and reflection, where knowledge is constructed through engagement with real-world situations (Kolb, 1984; Kolb & Kolb, 2009). Within youth contexts, particularly in outdoor and scouting environments, experiential engagement has been consistently identified as a key driver of developmental outcomes such as self-efficacy, resilience, and social competence (Hattie *et al.*, 1997; Becker *et al.*, 2017; Fang *et al.*, 2021). However, despite its explanatory strength, experiential learning remains limited in its ability to explain how experiences translate into deep and enduring character transformation. The theory identifies experience as a starting point but does not sufficiently elaborate the internal processes that mediate transformation.

The Positive Youth Development framework, in contrast, provides a robust conceptualization of developmental outcomes. By emphasizing constructs such as competence, connection, and character, PYD highlights the positive potential of youth participation in structured activities (Lerner *et al.*, 2005; Catalano *et al.*, 2004). Empirical studies consistently demonstrate that engagement in youth programs is associated with improved behavioral and psychosocial outcomes (Durlak *et al.*, 2011; Taylor *et al.*, 2017). However, similar to experiential learning, PYD predominantly focuses on outcomes rather than processes. It effectively answers the question of what changes occur, but provides limited insight into how these changes are produced at the micro-level (Jones *et al.*, 2019; Mahoney *et al.*, 2018).

Transformative learning theory offers a more process-oriented perspective by emphasizing the role of critical reflection in enabling individuals to reassess and reconstruct their frames of reference. Transformation is understood as a fundamental shift in meaning perspectives, often triggered by disorienting dilemmas and facilitated through reflective discourse (Mezirow, 1997, 1998). Subsequent developments in the theory further highlight the importance of emotional engagement, identity reconstruction, and social interaction in shaping transformation processes (Hoggan, 2016; Illeris, 2014). Despite its explanatory depth, transformative learning has been largely confined to adult education contexts and remains insufficiently integrated into youth development research (Merriam, 2004; Nohl, 2015).

Taken together, these theoretical perspectives provide complementary yet incomplete explanations of youth development. Experiential learning identifies experience as the input, PYD captures developmental outcomes, and transformative learning explains internal reflective processes. However, the relationships among these elements remain under-specified. In particular, the pathway through which concrete experiences are transformed into character outcomes via intermediate cognitive, emotional, and identity-based processes is insufficiently theorized.

More critically, the literature lacks a mechanism-based explanation that systematically links experiential engagement to character transformation. Existing models tend to rely on implicit assumptions that participation leads to development, without specifying the causal processes that mediate this relationship. This limitation reflects a broader issue in social and educational research, where outcome-oriented approaches often dominate over process-based explanations (Hedström & Ylikoski, 2010).

The absence of such mechanisms is particularly problematic in the context of scouting, where experiential learning environments are rich and diverse but not adequately theorized in terms of internal transformation processes. While prior studies have documented positive outcomes of scouting participation, they rarely articulate how experiences are translated into identity reconstruction and value internalization (García-Castaño *et al.*, 2020; Rush *et al.*, 2024).

This gap has significant implications. Theoretically, it limits the integration of complementary perspectives and constrains the development of a unified framework for understanding youth transformation. Practically, it results in the design of youth programs that emphasize activity participation without systematically embedding reflective and transformative processes. Consequently, character development initiatives risk becoming activity-based rather than process-oriented, reducing their long-term effectiveness (Sklad *et al.*, 2012).

In response to these limitations, the present study addresses the need for an integrated, mechanism-based model that explicates how experiential engagement leads to transformative character development. By synthesizing experiential learning, transformative learning, and Positive Youth Development perspectives, the study conceptualizes character formation as a dynamic process involving disorienting experiences, critical reflection, identity reconstruction, and value internalization. This approach moves beyond descriptive and outcome-based models toward a causal explanation of transformation within non-formal youth education contexts.

The theoretical gap identified in the preceding discussion highlights the need for a mechanism-based framework that systematically explains how experiential engagement leads to character transformation. To address this gap, the present study proposes an integrative conceptual model that captures the sequential and iterative processes through which experience is translated into internalized character values. The model synthesizes insights from experiential learning, transformative learning, and Positive Youth Development into a unified explanatory structure.

Building on the identified theoretical gap, this study advances a mechanism-based model that explicitly specifies the causal processes linking experiential engagement to character outcomes. Unlike prior approaches that emphasize either inputs or outcomes, the proposed framework focuses on how transformation unfolds through a sequence of interrelated mechanisms.

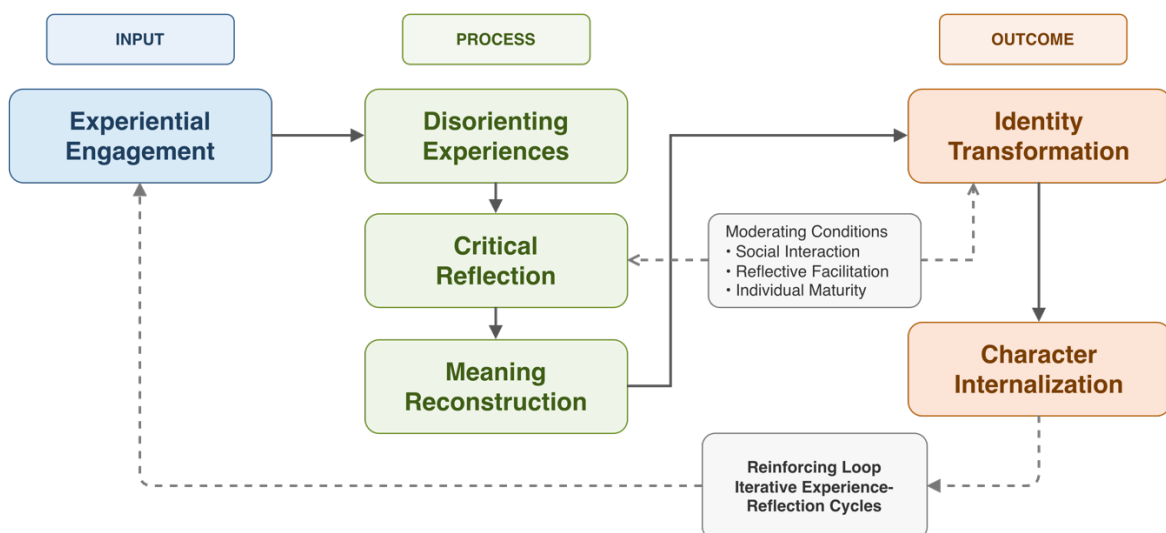


Figure 2. Mechanism-Based Model of Character Transformation in Scouting
Source: Developed by the author

As shown in Figure 2, character transformation is conceptualized as a structured sequence of mechanisms connecting experience to outcomes. Experiential engagement generates disorienting experiences that trigger critical reflection as the central transformative mechanism. Through this process, individuals reconstruct meaning and integrate new perspectives into their identity, leading to the internalization of character values.

The model adopts a mechanism-based logic, where each stage represents a causal link in the transformation process. This clarifies how and why developmental change occurs,

moving beyond descriptive accounts toward a process-oriented explanation. The framework also acknowledges that transformation is dynamic and context-sensitive, shaped by iterative cycles and social interaction. A more detailed structural representation of the proposed model, including explicit mapping of causal pathways, is provided in [Appendix A](#) and [Appendix B](#).

Importantly, the model emphasizes that transformation is not linear but iterative, occurring through repeated cycles of experience and reflection. Social interaction, reflective facilitation, and individual developmental factors further shape the effectiveness of these processes. By explicating these mechanisms, the model provides a more comprehensive understanding of how non-formal learning environments contribute to sustained character development.

4. Conceptual Approach and Analytical Strategy

Building upon the theoretical gap identified in the preceding section, this study adopts a mechanism-based conceptual approach grounded in theory synthesis and causal process reasoning. Rather than treating youth development as an outcome of participation alone, the approach emphasizes the identification and articulation of underlying mechanisms that explain how experiential engagement leads to character transformation. This orientation aligns with contemporary developments in social science that prioritize explanatory depth through the specification of causal pathways linking inputs, processes, and outcomes (Hedström & Ylikoski, 2010; Clarke *et al.*, 2019).

4.1 Conceptual Development Strategy

The conceptual development of this study is anchored in a theory synthesis approach that integrates three major theoretical traditions: experiential learning, transformative learning, and Positive Youth Development (PYD). Each of these perspectives contributes distinct explanatory components to the overall framework.

Experiential learning provides the foundational logic of how learning emerges from concrete engagement with real-world activities (Kolb, 1984; Kolb & Kolb, 2009). PYD offers a structured understanding of developmental outcomes, particularly in terms of character and psychosocial growth (Lerner *et al.*, 2005; Catalano *et al.*, 2004). Transformative learning, in turn, explains the internal processes through which individuals reinterpret experiences and reconstruct meaning, leading to identity transformation (Mezirow, 1997; Hoggan, 2016).

Rather than positioning these theories as parallel explanatory lenses, this study integrates them within a unified mechanism-based structure. This integration is guided by a causal-process perspective, in which theoretical constructs are linked through sequential and interdependent relationships. In this framework, experiential engagement functions as the initiating condition, reflective processes act as the core mechanism, and character formation represents the outcome of identity transformation.

Importantly, this study adopts a cross-disciplinary integration strategy by incorporating insights from psychology, education, and youth development. Constructs such as self-regulation (Zimmerman, 2000), identity formation (Vygotsky, 1978), and social interaction (Wenger, 1998) are integrated to enhance the explanatory power of the model. This interdisciplinary grounding ensures that the framework captures the complexity of youth transformation as both an individual and socially embedded process.

4.2 Analytical Techniques

To operationalize the conceptual development, this study employs a set of analytical techniques that support rigorous theory construction.

First, a systematic thematic synthesis is conducted to identify recurring constructs and relationships across the literature. This involves extracting key concepts related to experience, reflection, identity, and character from multiple theoretical domains and organizing them into coherent analytical categories (Taylor, 2007; Jones *et al.*, 2019). Thematic synthesis enables the integration of fragmented insights into a unified conceptual structure.

Second, the study employs conceptual mapping to visualize and organize the relationships among constructs. Conceptual mapping facilitates the identification of causal linkages and clarifies how different components of the framework interact. By structuring the relationships between experiential inputs, reflective processes, and developmental outcomes, this technique supports the development of a coherent explanatory model (Kolb & Kolb, 2009; Mezirow, 2000).

Third, and most critically, the study adopts a mechanism identification approach. This approach focuses on specifying the underlying processes that explain how one construct leads to another, moving beyond descriptive associations toward causal explanation (Hedström & Ylikoski, 2010). In this context, the transformation process is decomposed into intermediate stages, including disorienting experiences, critical reflection, meaning reconstruction, and identity transformation. This decomposition enables a more precise understanding of how experiential engagement produces character outcomes.

Finally, the study incorporates a process-tracing logic to ensure internal coherence within the model. Process tracing allows for the systematic linking of stages within the transformation sequence, ensuring that each step is theoretically justified and causally connected. This approach strengthens the explanatory validity of the framework by demonstrating how transformation unfolds over time.

4.3 Framework Construction Logic

The construction of the conceptual framework follows a structured and sequential logic designed to ensure theoretical coherence and explanatory clarity.

The first step involves identifying the core constructs that define the transformation process. Based on the literature synthesis, these constructs include experiential engagement, disorienting experiences, critical reflection, meaning reconstruction, identity transformation, and character outcomes (Mezirow, 1997; Kolb, 1984; Lerner *et al.*, 2005).

The second step focuses on specifying the causal relationships among these constructs. Drawing on mechanism-based theorizing, the framework articulates how each stage of the process leads to the next. Experiential engagement generates situations that challenge existing assumptions, leading to disorienting experiences. These experiences trigger critical reflection, which enables individuals to reinterpret meaning and reconstruct their understanding of self and context. This process culminates in identity transformation and the internalization of character values (Hoggan, 2016; Illeris, 2014).

The third step involves structuring the transformation process into a dynamic and iterative sequence. Rather than conceptualizing transformation as a linear progression, the model acknowledges that learning occurs through repeated cycles of experience and reflection. This iterative structure is consistent with both experiential learning and transformative learning theories, which emphasize continuous adaptation and refinement of meaning (Kolb & Kolb, 2009; Mezirow, 2000).

In addition, the framework incorporates moderating and contextual factors that influence the effectiveness of the transformation process. These include social interaction, reflective facilitation, and individual developmental characteristics. By integrating these factors, the model accounts for variation in outcomes and reflects the contextual nature of youth development (Bronfenbrenner & Morris, 2006; Ungar, 2011).

5. Conceptual Development and Propositional Logic

This section presents the central theoretical contribution of the study by articulating a mechanism-based framework of character transformation in scouting contexts. Moving beyond outcome-oriented explanations, the framework explicates how experiential engagement is translated into internalized character values through a sequence of interconnected processes. By integrating experiential learning, transformative learning, and Positive Youth Development (PYD), the model provides a structured and causal account of how transformation unfolds (Mezirow, 1997; Kolb, 1984; Lerner *et al.*, 2005).

5.1 Core Constructs of Transformation

The framework is built upon six interrelated constructs that define the transformation process as a dynamic and mechanism-driven system.

Experiential engagement represents the initial condition, referring to active participation in structured scouting activities involving challenge, collaboration, and uncertainty. Such engagement provides the situational context in which learning is initiated and developmental processes are activated (Kolb & Kolb, 2009; Hattie *et al.*, 1997).

Disorienting experiences emerge when individuals encounter situations that disrupt existing assumptions and expectations. These experiences create cognitive and emotional disequilibrium, which is essential for triggering deeper learning processes (Mezirow, 1998; Nohl, 2015).

Critical reflection functions as the central mechanism of transformation. Through reflective processes, individuals examine their experiences, question assumptions, and reinterpret meaning, enabling cognitive restructuring and perspective change (Mezirow, 1997; Schön, 1983).

Meaning reconstruction represents the process through which individuals develop new interpretations of their experiences. This stage integrates cognitive insights and emotional responses, allowing individuals to form revised meaning structures (Merriam, 2004; Illeris, 2014).

Identity transformation refers to the incorporation of reconstructed meanings into the self-concept. This stage reflects a shift in identity, where individuals redefine their beliefs, values, and sense of self (Vygotsky, 1978; Steger *et al.*, 2009).

Character internalization represents the final outcome, where transformed identities are stabilized into enduring values and consistent behavioral dispositions (Lerner *et al.*, 2005; Wagner & Ruch, 2023).

5.2 Mechanism of Transformation

The transformation process unfolds through a structured sequence of interdependent stages that connect experiential input to character outcomes.

Experiential engagement introduces individuals to real-world challenges that require adaptation and problem-solving. These experiences create conditions under which disorienting situations may arise, particularly when individuals encounter uncertainty or failure (Kolb, 1984; Lawton & Brandon, 2005).

Disorienting experiences act as catalysts for transformation by disrupting existing cognitive frameworks and generating tension that demands resolution (Mezirow, 1998; Hoggan, 2016). This tension activates critical reflection, which enables individuals to interpret and make sense of their experiences (Taylor, 2007; Cranton, 2006).

Through reflection, individuals engage in meaning reconstruction, developing new interpretations that integrate both cognitive and emotional dimensions (Dirkx, 2001; Merriam, 2004). These reconstructed meanings are subsequently incorporated into the individual's identity, resulting in identity transformation (Illeris, 2014; Mezirow, 2000).

Finally, identity transformation leads to the internalization of character values, which are expressed as stable dispositions and observable behaviors (Lerner *et al.*, 2005; Bundick, 2011).

Importantly, this process is iterative rather than linear. Repeated cycles of experience and reflection reinforce and deepen transformation over time, contributing to the stability of character outcomes (Kolb & Kolb, 2009; Mezirow, 2000).

Although the transformation process can be described sequentially, it does not occur in a strictly linear manner. Instead, transformation unfolds through repeated cycles of experience and reflection, where each iteration reinforces and deepens the learning process. To capture this dynamic nature, the framework is extended into an iterative model.

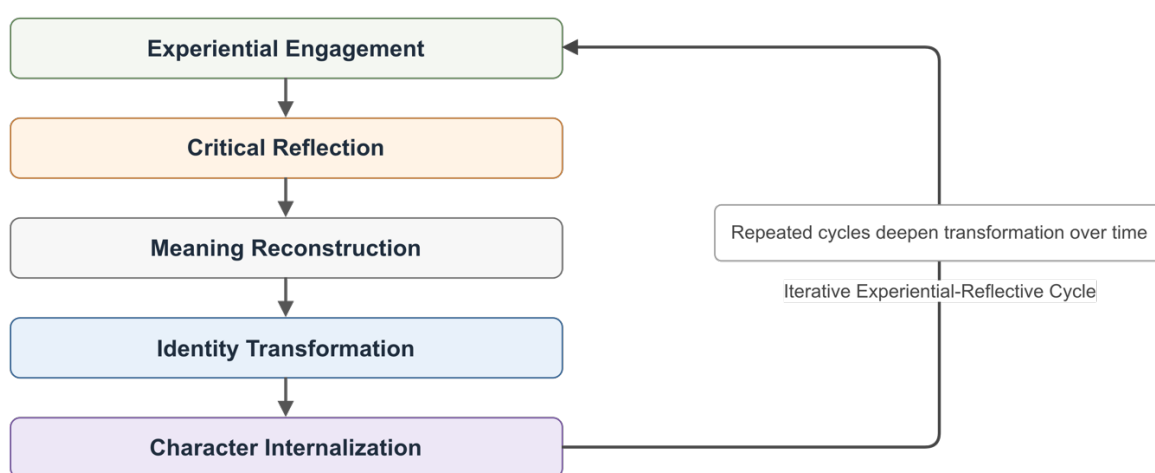


Figure 3. Iterative Dynamics of Character Transformation through Experiential and Reflective Cycles

Figure 3 illustrates the iterative dynamics of the transformation process. Rather than a one-directional flow, the model emphasizes recursive cycles between experiential engagement and critical reflection. Each cycle contributes to deeper meaning reconstruction and more stable identity transformation, ultimately strengthening the internalization of character values.

This iterative perspective extends the mechanism-based model by incorporating temporal depth and reinforcement, offering a more realistic explanation of how sustained character development emerges over time.

5.3 Role of Social Context

The transformation process is embedded within a social environment that shapes its effectiveness.

Peer interaction facilitates reflective dialogue and perspective-taking, enhancing the depth of meaning-making processes (Youniss *et al.*, 2002; Jones *et al.*, 2019). Role modeling by adult leaders provides concrete behavioral examples that support value internalization (Sanderse, 2013; Berkowitz & Bier, 2004).

Participation in communities of practice further reinforces transformation by providing shared norms, collective identities, and opportunities for ongoing engagement (Wenger, 1998). These social dynamics highlight that transformation is co-constructed rather than purely individual (Bronfenbrenner & Morris, 2006; Ungar, 2011).

5.4 Boundary Conditions of Transformation

The effectiveness of the transformation mechanism is contingent upon several contextual and individual factors.

The intensity of experience influences the likelihood of triggering disorienting dilemmas, with more challenging experiences producing stronger transformative effects (Hattie *et al.*, 1997; Sibthorp *et al.*, 2008).

The quality of reflective facilitation determines the depth of reflection and the effectiveness of meaning-making processes (Schön, 1983; Taylor, 2007).

Individual developmental capacity, including cognitive maturity and self-regulation, shapes engagement with reflective processes (Piaget, 1972; Zimmerman, 2000).

Finally, the social environment influences opportunities for interaction and the norms that guide behavior, thereby shaping transformation outcomes (Vygotsky, 1978; Bronfenbrenner & Morris, 2006).

5.5 Propositional Logic of the Model

Building on the mechanism-based framework outlined above, the relationships among constructs can be articulated in the form of theoretically grounded propositions that clarify the causal pathways of transformation.

P1: *Experiential engagement positively influences the emergence of disorienting experiences.*

Challenging and immersive activities increase the likelihood of disrupting existing assumptions and generating the disequilibrium necessary for transformation (Kolb, 1984; Hattie *et al.*, 1997).

P2: *Disorienting experiences trigger critical reflection.*

Situations that challenge prior beliefs stimulate reflective processes aimed at resolving inconsistencies and reconstructing meaning (Mezirow, 1997; Taylor, 2007).

P3: *Critical reflection mediates the relationship between experiential engagement and meaning reconstruction.*

Through reflection, individuals reinterpret experiences and transform them into structured understanding (Schön, 1983; Dirkx, 2001).

P4: *Meaning reconstruction leads to identity transformation.*

Revised interpretations are integrated into the self-concept, resulting in shifts in identity and perspective (Illeris, 2014; Mezirow, 2000).

P5: *Identity transformation positively influences character internalization.*

Changes in identity are reflected in the adoption of stable values and consistent behavioral dispositions (Lerner *et al.*, 2005; Wagner & Ruch, 2023).

P6: *Social interaction moderates the relationship between critical reflection and identity transformation.*

Dialogue, role modeling, and participation in communities of practice enhance reflective depth and facilitate identity reconstruction (Wenger, 1998; Sanderse, 2013).

P7: *Iterative cycles of experience and reflection strengthen long-term character development.*

Repeated engagement in experiential-reflective processes reinforces transformation and stabilizes character outcomes over time (Kolb & Kolb, 2009; Mezirow, 2000).

To operationalize the mechanism-based framework into a testable structure, the relationships among constructs are formalized into a set of theoretically grounded propositions. These propositions translate the conceptual model into explicit causal pathways, enabling future empirical validation.

Table 2. Propositional Logic of the Mechanism-Based Model

Proposition & Relationship		Theoretical Rationale	Key Supporting Literature
P1	Experiential engagement positively influences disorienting experiences.	Challenging and immersive activities disrupt existing assumptions and create cognitive-emotional disequilibrium.	Kolb (1984); Hattie <i>et al.</i> (1997)
P2	Disorienting experiences trigger critical reflection.	Situations that challenge prior beliefs stimulate reflection to resolve inconsistencies and reconstruct meaning.	Mezirow (1997); Taylor (2007)
P3	Critical reflection mediates the relationship between experiential engagement and meaning reconstruction.	Reflection transforms episodic experience into structured interpretation and deeper understanding.	Schön (1983); Dirkx (2001)
P4	Meaning reconstruction leads to identity transformation.	Revised meanings are integrated into self-concept, producing shifts in identity and perspective.	Illeris (2014); Mezirow (2000)
P5	Identity transformation positively influences character internalization.	Identity-level change stabilizes values into consistent behavioral dispositions.	Lerner <i>et al.</i> (2005); Wagner and Ruch (2023)
P6	Social interaction moderates the relationship between critical reflection and identity transformation.	Dialogue, role modeling, and community participation deepen reflection and support identity reconstruction.	Wenger (1998); Sanderse (2013)
P7	Iterative cycles of experience and reflection strengthen long-term character development.	Repeated experiential-reflective cycles reinforce transformation and stabilize character outcomes over time.	Kolb and Kolb (2009); Mezirow (2000)

Source: Developed by the author

Table 2 formalizes the mechanism-based model into a structured set of propositions that define the causal relationships among constructs. Each proposition represents a directional linkage that can be empirically examined, including direct effects, mediating mechanisms, and moderating influences. To support future empirical validation, the constructs presented in the model are operationalized into measurable indicators, as detailed in Appendix B.

This propositional structure enhances the analytical rigor of the model by transforming it from a conceptual framework into a testable theoretical system. It also provides a clear foundation for future empirical studies employing structural equation modeling to examine the validity of the proposed transformation process.

6. Discussion

This discussion interprets the proposed mechanism-based model within the broader scholarly landscape, positioning it as a response to the longstanding fragmentation across Positive Youth Development (PYD), experiential learning, and transformative learning

literatures. By integrating these perspectives into a coherent explanatory framework, the study advances a process-oriented understanding of character formation and contributes to ongoing efforts to develop mechanism-based theories in youth development research (Hedström & Ylikoski, 2010; Hoggan, 2016).

6.1 Theoretical Contributions

The primary theoretical contribution of this study lies in its integration of three major theoretical traditions that have historically evolved in parallel rather than in synthesis. While PYD has provided a robust framework for conceptualizing desirable developmental outcomes (Lerner *et al.*, 2005; Catalano *et al.*, 2004), and experiential learning has clarified the role of action and experience in learning processes (Kolb, 1984; Kolb & Kolb, 2009), transformative learning has offered a nuanced account of how individuals reconstruct meaning through critical reflection (Mezirow, 1997; Mezirow, 2000). However, prior research has largely treated these perspectives as complementary but separate domains.

This study advances the literature by demonstrating that these theories can be integrated into a unified mechanism-based model that explains not only what outcomes emerge, but how they emerge. By specifying the sequential processes linking experience, reflection, identity transformation, and character internalization, the model shifts the analytical focus from outcome-based evaluation toward causal explanation. This shift aligns with broader developments in social science that emphasize the importance of mechanism-based theorizing for advancing theoretical precision and explanatory depth (Hedström & Ylikoski, 2010).

Furthermore, the study extends transformative learning theory into the domain of youth development. Traditionally applied within adult education, transformative learning is recontextualized here as a framework applicable to adolescents engaged in structured non-formal learning environments. This extension is theoretically significant because it reconceptualizes youth not merely as recipients of developmental inputs, but as active agents engaged in meaning-making and identity reconstruction (Illeris, 2014; Merriam, 2004).

6.2 Extension to Existing Literature

The proposed framework contributes to the extension of existing literature in several important ways. First, it expands the applicability of transformative learning theory by embedding it within the context of scouting and youth organizations. This demonstrates that transformative processes are not limited to formal or adult learning settings, but can also emerge in experiential, community-based environments (Mezirow, 1998; Cranton, 2006).

Second, the framework addresses a key limitation in experiential learning literature. While experiential learning emphasizes the importance of concrete experience, it has often been critiqued for insufficiently explaining how experiences lead to deep and lasting transformation (Becker *et al.*, 2017; Kuo *et al.*, 2019). By incorporating critical reflection and identity reconstruction as mediating mechanisms, the model provides a more comprehensive explanation of how experiential processes translate into developmental outcomes.

Third, the study advances PYD literature by offering a mechanism-based account of character formation. Existing PYD frameworks effectively describe developmental outcomes but often lack detailed explanations of the processes that generate these outcomes (Jones *et al.*, 2019; Mahoney *et al.*, 2018). By linking participation in youth activities to internal cognitive, emotional, and identity-based processes, the present model fills this gap and enhances the explanatory power of PYD.

Importantly, this integrative perspective aligns with emerging research that emphasizes the role of meaning-making, purpose development, and identity formation in youth development

(Steger *et al.*, 2009; Rush *et al.*, 2024). By situating these elements within a coherent theoretical structure, the study contributes to a more holistic understanding of youth transformation.

6.3 Implications for Practice

The findings of this study have significant implications for the design and implementation of youth development programs, particularly within scouting contexts.

First, the model suggests that effective programs should move beyond activity-based approaches and intentionally incorporate structured reflection as a core component. Experiences alone are insufficient to produce transformation unless they are accompanied by opportunities for critical reflection and meaning-making (Schön, 1983; Brookfield, 2017). This implies that program design should include reflective sessions, guided discussions, and feedback mechanisms.

Second, the role of adult leaders and facilitators must be reconceptualized. Rather than functioning primarily as instructors, leaders should act as facilitators of transformative learning processes. This involves guiding reflection, fostering dialogue, and supporting participants in reconstructing meaning from their experiences (Sanderse, 2013; Berkowitz & Bier, 2004). The effectiveness of youth programs is therefore contingent not only on activities, but also on the quality of facilitation.

Third, the model highlights the importance of social learning environments. Peer interaction, collaboration, and participation in communities of practice enhance reflective depth and support identity transformation (Wenger, 1998). Programs should therefore be designed to foster interaction, shared experiences, and collective learning processes.

Finally, the framework underscores the need for systemic alignment in youth development programs. Program objectives, learning activities, facilitation strategies, and evaluation methods should be aligned with a mechanism-based understanding of transformation. Such alignment enhances program coherence, replicability, and long-term impact (Eccles & Gootman, 2002; Bundick, 2011).

6.4 Future Research Directions

The conceptual model developed in this study opens several promising avenues for future research.

First, empirical validation of the proposed propositions is essential. Quantitative studies can examine the mediating role of critical reflection and the moderating effects of social interaction, while qualitative research can explore the lived experiences of participants undergoing transformation (Taylor, 2007; Hoggan, 2016).

Second, longitudinal research designs are needed to capture the dynamic and iterative nature of transformation. Since the model emphasizes repeated cycles of experience and reflection, longitudinal studies are particularly well-suited to examining how these processes unfold over time and contribute to sustained character development (Sibthorp *et al.*, 2008; Lerner *et al.*, 2005).

Third, cross-cultural validation is necessary to assess the generalizability of the model across diverse contexts. Youth development processes are shaped by cultural norms, institutional structures, and social environments, which may influence transformation mechanisms (Ungar, 2011; Bronfenbrenner & Morris, 2006).

In addition, future research may explore the integration of digital and hybrid learning environments within the framework. As youth engagement increasingly occurs in digital spaces, understanding how transformative processes operate in these contexts represents an important direction for extending the model (Arbaugh & Hwang, 2015).

7. Conclusion

This article develops a mechanism-based conceptual model that explains how scouting activities contribute to character formation among youth. By integrating experiential learning, transformative learning, and Positive Youth Development perspectives, the study advances a process-oriented framework that links experiential engagement to character internalization through critical reflection and identity transformation. The model demonstrates that character development is not an automatic outcome of participation, but a structured and iterative process driven by interconnected cognitive, emotional, and social mechanisms.

The primary contribution of this study lies in its shift from outcome-based explanations toward a mechanism-based understanding of youth development. By explicating the causal pathways that connect experience, reflection, identity reconstruction, and character formation, the framework addresses a critical gap in the literature and provides a more comprehensive account of how transformation occurs in non-formal learning environments. In doing so, the study extends transformative learning theory into the youth domain and positions it as a central lens for understanding identity-driven developmental processes.

Beyond its theoretical contribution, the model offers a foundation for future empirical research aimed at testing and refining the proposed mechanisms. Longitudinal and cross-contextual studies will be particularly important to examine the iterative nature of transformation and the role of contextual factors in shaping developmental outcomes. Such research will strengthen the explanatory and predictive capacity of mechanism-based approaches in youth development.

From a practical perspective, the study highlights the importance of designing youth programs that intentionally integrate experience, reflection, and social interaction. By aligning program structure with transformative processes, organizations can enhance the effectiveness and sustainability of character development initiatives. Ultimately, this framework contributes to a more rigorous and theoretically grounded understanding of how non-formal education can foster meaningful and lasting transformation among young people. The extended structural representation in [Appendix A](#) and the measurement framework in [Appendix B](#) provide a clear pathway for transforming the proposed conceptual model into an empirically testable structure.

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APPENDIX A - Extended Structural Representation of the Mechanism-Based Model

This appendix presents an extended structural representation of the mechanism-based model introduced in the main text. Unlike the conceptual visualization provided earlier, this version explicitly specifies the underlying causal pathways, including mediating mechanisms, moderating effects, and iterative dynamics that characterize the transformation process.

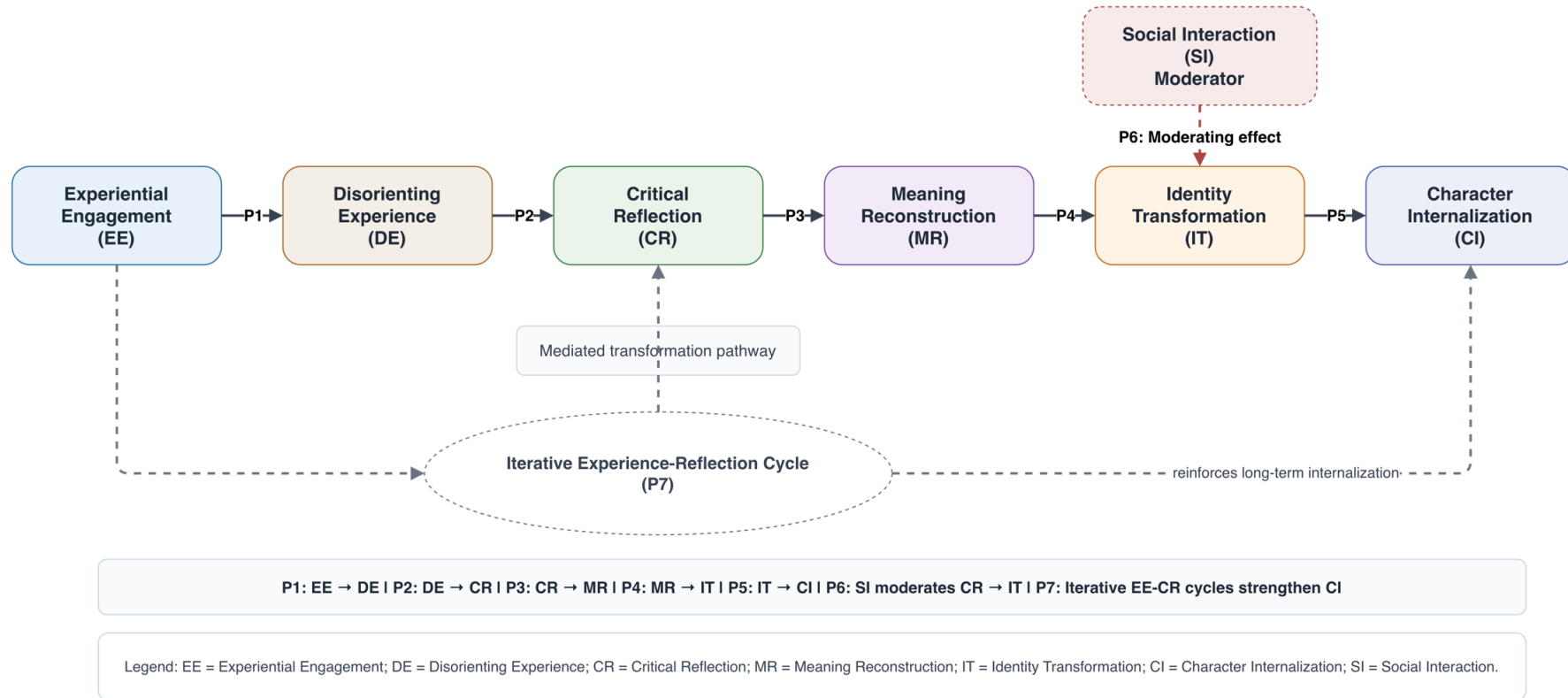


Figure A1. Extended Structural Representation of the Mechanism-Based Model with Propositional Mapping

This extended representation complements the conceptual model by providing a more detailed structural specification suitable for empirical testing. The explicit mapping of relationships facilitates the application of structural equation modeling techniques to examine the proposed transformation process.

APPENDIX B - Measurement Indicators for Empirical Validation

To enable empirical validation, the constructs in the mechanism-based model are operationalized into measurable indicators that capture experiential, reflective, social, and identity-based processes.

Table B1 - Measurement Indicators for Future Empirical Validation

Construct	Code	Proposed Indicator
Experiential Engagement	EE1	Scouting activities involve active participation in real-life tasks.
	EE2	Scouting activities require collaboration with peers.
	EE3	Scouting activities expose participants to meaningful challenges.
Disorienting Experience	DE1	Scouting experiences challenge participants' prior assumptions.
	DE2	Scouting activities create situations that require rethinking previous beliefs.
	DE3	Participants encounter uncertainty or difficulty during scouting activities.
Critical Reflection	CR1	Participants reflect on the meaning of their scouting experiences.
	CR2	Participants evaluate their own assumptions after scouting activities.
	CR3	Participants discuss lessons learned from their experiences.
Meaning Reconstruction	MR1	Participants develop new interpretations of their experiences.
	MR2	Participants connect scouting experiences with personal values.
	MR3	Participants understand themselves differently after reflection.
Identity Transformation	IT1	Participants begin to see themselves as more responsible individuals.
	IT2	Participants develop a stronger sense of purpose through scouting.
	IT3	Participants redefine their role within the group or community.
Character Internalization	CI1	Participants consistently apply positive values in daily behavior.
	CI2	Participants demonstrate stronger discipline after scouting involvement.
	CI3	Participants show greater responsibility in social situations.
Social Interaction	S11	Peer interaction helps participants understand their experiences.
	S12	Adult leaders provide role models for character development.
	S13	Group discussion strengthens participants' reflection and learning.

Table B1 specifies reflective indicators for each construct, enabling the examination of causal, mediating, and moderating relationships using structural equation modeling