



## Scouting as a Developmental Ecosystem: A Mechanism-Based Model of Youth Leadership Formation

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### Abstrak

*Youth leadership development remains a central yet under-theorized domain in contemporary human capital and nonformal education research. While existing studies highlight the outcomes of Positive Youth Development (PYD) and youth empowerment, limited attention has been given to the mechanisms that systematically transform participation into sustained leadership trajectories. Addressing this gap, this article develops a mechanism-based and multi-level conceptual framework that explains how scouting functions as a developmental system shaping youth leadership formation. Drawing on the integration of PYD, youth empowerment theory, developmental assets, ecological systems, and leadership pipeline perspectives, the proposed model conceptualizes leadership as a dynamic and recursive process. It identifies key mechanisms, including experiential challenge, reflective meaning-making, progressive responsibility, and institutional recognition, that collectively drive the progression from training exposure to leadership readiness and pipeline outcomes. The framework contributes theoretically by bridging the mechanism, progression, and integration gaps in youth development literature. Practically, it offers a structured approach for designing youth programs that align developmental processes with leadership pathways. The study provides a foundation for future empirical testing and advances a more comprehensive understanding of youth leadership development in nonformal education contexts.*

### Keywords

youth leadership development; positive youth development; youth empowerment; developmental mechanisms; leadership pipeline; scouting; nonformal education

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# 1. Introduction

The development of youth leadership has become an increasingly critical global priority in response to growing societal complexity, declining civic engagement, and the need for sustainable human capital formation. Across diverse socio-cultural contexts, youth are no longer positioned merely as beneficiaries of social systems but as active contributors to community resilience and institutional sustainability. This shift has intensified scholarly attention toward understanding how structured developmental processes can transform youth participation into meaningful leadership capacity (Damon, 2004; Flanagan & Levine, 2010; Sherrod *et al.*, 2010).

Within this discourse, Positive Youth Development (PYD) has emerged as a dominant theoretical paradigm, emphasizing strengths-based approaches that cultivate competencies, confidence, connection, character, and caring—the widely recognized “Five Cs” (Lerner *et al.*, 2005; Bowers *et al.*, 2010; Catalano *et al.*, 2004). A substantial body of empirical research demonstrates that participation in structured youth programs is associated with improved psychosocial functioning, civic engagement, and leadership-related outcomes (Durlak *et al.*, 2010; Fredricks & Eccles, 2006; Mahoney *et al.*, 2005). More recent studies extend this perspective by highlighting that PYD operates as a cumulative and context-sensitive process, where repeated engagement in supportive environments produces compounding developmental effects over time rather than immediate outcomes (Pivec *et al.*, 2023; Ataç *et al.*, 2024).

Parallel to PYD, youth empowerment theory provides a complementary lens by emphasizing agency, participation, and the capacity of young individuals to influence their social environments. Empowerment is conceptualized as a multidimensional construct encompassing psychological, relational, and structural components that enable youth to act meaningfully within their contexts (Zimmerman *et al.*, 2011; Christens & Peterson, 2012; Wong *et al.*, 2010). Empirical evidence underscores the importance of youth–adult partnerships and participatory structures in fostering leadership and civic engagement (Zeldin *et al.*, 2013; Chrifou *et al.*, 2024). However, emerging research suggests that empowerment outcomes are highly contingent upon institutional design; without structured pathways and sustained support, empowerment may remain situational and fail to translate into long-term leadership trajectories (Augsberger *et al.*, 2024; Furrer *et al.*, 2023).

Despite these theoretical advancements, a persistent limitation remains across the literature. Existing studies tend to conceptualize leadership as an outcome variable rather than as a developmental trajectory shaped by underlying mechanisms. While PYD identifies key developmental outcomes and empowerment theory explains processes of agency formation, both perspectives offer limited explanation of how participation systematically evolves into sustained leadership roles over time (Lerner, 2004; Roth & Brooks-Gunn, 2003; Wong *et al.*, 2010). Similarly, leadership development research acknowledges the importance of staged progression—from participation to responsibility and leadership—but often lacks a unified theoretical framework that integrates these stages with developmental processes (Conner & Strobel, 2007; Gould & Voelker, 2012; Hornyak *et al.*, 2022).

This gap becomes particularly salient within nonformal education systems, such as scouting, which provide structured yet flexible environments for youth development. Scouting programs integrate experiential learning, peer collaboration, and community engagement, aligning closely with the principles of PYD and empowerment theory (Larson, 2000; Hansen *et al.*, 2003; Fraser-Thomas *et al.*, 2005). Research consistently highlights the role of such programs in fostering character, civic responsibility, and leadership skills (Westberg Broström, 2013). Nevertheless, the existing body of literature remains fragmented, often focusing on outcomes or isolated processes without articulating the mechanisms that connect training experiences to leadership progression.

From a theoretical standpoint, this fragmentation reflects a broader limitation in youth development research: the absence of integrated, mechanism-based models that simultaneously account for temporal sequencing, multi-level interactions, and institutional reinforcement. While ecological systems theory and developmental assets frameworks provide important insights into contextual influences (Bronfenbrenner & Morris, 2006; Lerner & Callina, 2014; Syvertsen *et al.*, 2019), they primarily identify conditions and resources rather than explicating how these elements are activated and transformed into leadership pathways. Recent scholarship calls for more precise and integrative approaches that move beyond descriptive frameworks toward explanatory models capable of capturing dynamic developmental processes (Lerner, 2018; Overton, 2015).

Addressing this gap requires a conceptual shift from outcome-oriented analysis toward a mechanism-based and multi-level understanding of youth leadership development. Specifically, it is necessary to explain how (1) structured training experiences generate developmental assets, (2) these assets facilitate empowerment processes, and (3) empowerment is translated into sustained leadership roles within organizational and societal contexts. Such an approach enables a more comprehensive understanding of leadership formation as a dynamic, recursive, and systemically embedded process.

In response, this article proposes a hybrid developmental mechanism model that conceptualizes scouting as a multi-level system transforming training experiences into leadership pipeline outcomes. The model integrates Positive Youth Development, empowerment theory, developmental assets, ecological systems, and leadership pipeline perspectives into a unified framework. It identifies key mechanisms—such as experiential challenge, reflective meaning-making, progressive responsibility, and institutional recognition—that collectively drive leadership progression.

The contributions of this article are both theoretical and practical. Theoretically, it advances youth development literature by introducing a mechanism-based leadership pipeline perspective, thereby addressing longstanding gaps related to causal explanation and process integration. Practically, it provides a framework for designing youth programs that align developmental mechanisms with structured progression pathways, enhancing leadership outcomes and civic engagement. These contributions are particularly relevant for strengthening nonformal education systems and align with broader global priorities, including SDG 4 (Quality Education), SDG 16 (Strong Institutions), and SDG 17 (Partnerships).

The remainder of this article is structured as follows. The next section synthesizes relevant theoretical foundations and identifies the theoretical gap. This is followed by the development of the conceptual framework, including mechanism identification and multi-level mapping. The article then presents the conceptual model and formal propositions, before concluding with a discussion of theoretical contributions, practical implications, and directions for future research.

## 2. Literature Review

This section synthesizes key theoretical streams underpinning youth leadership development within nonformal education contexts. Rather than treating theories as isolated perspectives, this review adopts an integrative approach to demonstrate how Positive Youth Development (PYD), youth empowerment, developmental assets, ecological systems theory, and leadership pipeline perspectives collectively explain the transformation of youth participation into leadership trajectories. The synthesis emphasizes that leadership development is not a static outcome but a dynamic, multi-level process shaped by interacting mechanisms and contextual conditions (Lerner, 2018; Overton, 2015; Lerner & Callina, 2014).

## 2.1 Positive Youth Development and Leadership Formation

Positive Youth Development (PYD) represents a foundational paradigm in understanding how youth acquire competencies necessary for thriving and leadership. Moving beyond deficit-based approaches, PYD emphasizes strengths, assets, and developmental potential embedded within supportive contexts (Damon, 2004; Benson *et al.*, 2006; Lerner *et al.*, 2005). Central to this framework is the Five Cs model—competence, confidence, connection, character, and caring—which collectively contribute to a sixth outcome, contribution, closely associated with civic engagement and leadership (Bowers *et al.*, 2010; Lerner *et al.*, 2005; Geldhof *et al.*, 2014).

Empirical evidence consistently demonstrates that participation in structured youth programs enhances psychosocial development, social competence, and leadership-related outcomes (Durlak *et al.*, 2010; Durlak *et al.*, 2011; Fredricks & Eccles, 2006; Mahoney *et al.*, 2005). Organized activities serve as developmental contexts that facilitate identity formation, initiative, and social responsibility (Hansen *et al.*, 2003; Roth *et al.*, 2010; Eccles & Gootman, 2002). Longitudinal studies further indicate that sustained engagement in such programs contributes to cumulative developmental gains over time (Lerner *et al.*, 2005; Bowers *et al.*, 2014).

Recent scholarship extends PYD by emphasizing its context-sensitive and cumulative nature, where developmental outcomes emerge through repeated interactions between individuals and their environments. Studies highlight the role of ecological assets, including natural environments and community contexts, in shaping youth development (Bowers *et al.*, 2021; Ardoin *et al.*, 2022). Contemporary research also demonstrates the relevance of PYD in addressing mental health challenges, resilience, and post-pandemic recovery among youth populations (Pivec *et al.*, 2023). Cross-cultural studies further confirm the adaptability of PYD across diverse socio-cultural contexts (Wiium & Dimitrova, 2019; Dimitrova *et al.*, 2018).

Despite its strengths, PYD literature often conceptualizes leadership as a distal outcome rather than explicating the mechanisms that connect participation to leadership progression. While the Five Cs framework identifies key developmental indicators, it provides limited explanation of how these attributes are systematically transformed into structured leadership roles over time (Lerner, 2004; Roth & Brooks-Gunn, 2003; Buenconsejo & Datu, 2022). This limitation highlights the need for a more process-oriented understanding of leadership formation within PYD frameworks.

## 2.2 Youth Empowerment Theory

Youth empowerment theory provides a complementary perspective by focusing on agency, participation, and the capacity of youth to influence their environments. Empowerment is conceptualized as a multidimensional construct encompassing psychological, relational, and structural components (Zimmerman *et al.*, 2011; Christens & Peterson, 2012; Peterson & Zimmerman, 2004). It involves the development of critical awareness, decision-making skills, and opportunities for meaningful participation (Jennings *et al.*, 2006).

A central contribution of empowerment theory lies in its emphasis on youth–adult partnerships, which redistribute power and enable collaborative learning and decision-making (Zeldin *et al.*, 2013; Jacquez *et al.*, 2013; Mitra, 2008). Empirical studies demonstrate that such partnerships enhance leadership capacity, civic engagement, and organizational learning (Chrifou *et al.*, 2024). Participatory approaches, including youth-led initiatives and participatory action research, further reinforce empowerment by fostering co-creation and reflexivity (Cargo & Mercer, 2008; Chrifou *et al.*, 2024).

Recent research highlights that empowerment outcomes are highly contingent upon institutional contexts. Studies show that enabling environments—characterized by

supportive policies, inclusive governance, and access to resources—are essential for sustaining youth engagement (Furrer *et al.*, 2023; Augsberger *et al.*, 2024; Trull-Oliva & Soler-Masó, 2021). Without such structures, empowerment may remain situational and fail to translate into long-term developmental outcomes.

However, empowerment theory also exhibits limitations. While it effectively explains how youth develop agency, it often lacks a structured account of how empowerment translates into sustained leadership trajectories. The transition from participatory engagement to formal leadership roles remains under-theorized, particularly in relation to organizational progression (Wong *et al.*, 2010; Ozer *et al.*, 2013). This suggests the need to integrate empowerment processes with developmental and institutional frameworks.

### **2.3 Developmental Assets and Ecological Systems**

The developmental assets framework provides a structured approach to understanding the internal and external resources that support youth development. Internal assets include competencies, values, and self-regulation, while external assets encompass relationships, opportunities, and institutional supports (Benson & Scales, 2009; Syvertsen *et al.*, 2019; Lerner & Benson, 2003). These assets collectively contribute to thriving and positive developmental outcomes.

Ecological systems theory complements this perspective by situating youth development within nested systems, ranging from immediate environments to broader societal contexts (Bronfenbrenner & Morris, 2006). The relational developmental systems approach further emphasizes the dynamic and bidirectional interactions between individuals and their environments (Lerner & Callina, 2014; Overton, 2015).

Empirical research supports the importance of asset-based and ecological approaches. Non-parental adults, peer networks, and community environments play critical roles in shaping youth outcomes (Scales *et al.*, 2006; Bowers *et al.*, 2014). Structured programs that integrate multiple developmental assets are more effective in promoting leadership and civic engagement (Eccles & Gootman, 2002; Small & Memmo, 2004). Moreover, contextual factors such as socio-economic conditions and gender influence access to developmental opportunities (Gomez-Baya *et al.*, 2022; Hamilton & Hamilton, 2009).

Recent studies highlight that developmental assets function as dynamic enablers rather than static resources, interacting across systems to produce developmental outcomes. This interactionist perspective suggests that the effectiveness of assets depends on how they are activated within specific program structures (Ardoin *et al.*, 2022).

Nevertheless, while these frameworks provide a comprehensive understanding of developmental conditions, they do not fully explain how assets are mobilized into leadership pathways. This limitation reinforces the need for mechanism-based integration.

### **2.4 Leadership Pipeline in Nonformal Education**

Leadership development is increasingly conceptualized as a pipeline process rather than a discrete outcome. This perspective emphasizes progression through stages, including participation, skill acquisition, responsibility, and leadership roles (Conner & Strobel, 2007). Effective pipelines require structured opportunities, mentoring, and institutional scaffolding to sustain engagement and growth.

Research in youth sports and extracurricular contexts demonstrates that structured participation fosters transferable leadership skills such as teamwork, communication, and problem-solving (Fraser-Thomas *et al.*, 2005; Camiré *et al.*, 2012; Perkins & Noam, 2007). Leadership development programs further highlight the importance of intentional design, where developmental stages are aligned with support systems and progression pathways (Gould & Voelker, 2012; Hornyak *et al.*, 2022).

Recent studies emphasize that leadership pipelines are shaped by organizational practices and institutional contexts. For example, talent management approaches influence leadership development trajectories by structuring opportunities and recognition systems (Meyers *et al.*, 2020; Bunders *et al.*, 2021). Additionally, recursive processes—such as feedback loops and role transitions—play a critical role in sustaining leadership development (Hornyak *et al.*, 2022).

Despite these advances, leadership pipeline research remains fragmented across domains. There is limited integration of these perspectives within nonformal education systems, particularly scouting. Moreover, existing models often lack explicit articulation of the mechanisms that connect early participation to advanced leadership roles.

## 2.5 Scouting, Civic Engagement, and Societal Contribution

Scouting represents a distinctive form of nonformal education that integrates experiential learning, character development, and civic engagement. It provides structured pathways for youth to develop skills, assume responsibilities, and contribute to their communities (Westberg Broström, 2013). Participation in scouting aligns closely with core principles of PYD, including active engagement, skill development, and contribution to society (Larson, 2000; Catalano *et al.*, 2004).

Civic engagement is a central outcome of scouting and related youth programs. Participation in community-oriented activities fosters social identity, responsibility, and commitment to societal well-being (Flanagan & Levine, 2010; Checkoway & Aldana, 2013; Sherrod *et al.*, 2010). These experiences contribute to the development of purpose and identity, which are critical for leadership (Damon *et al.*, 2003; Bronk, 2014).

Recent research highlights the role of structured youth programs in promoting leadership and empowerment outcomes across diverse contexts. Studies show that program design, institutional support, and participatory structures significantly influence youth engagement and development (Greeno *et al.*, 2023; Crowther *et al.*, 2024). These findings reinforce the relevance of scouting as a platform for leadership development.

However, despite its long-standing role, the theoretical understanding of scouting as a developmental system remains limited. Existing studies are often descriptive or outcome-oriented, with limited attention to the mechanisms that underpin leadership formation. This gap is particularly relevant in light of contemporary challenges, including digital transformation and evolving youth expectations.

## 2.6 Toward a Mechanism-Based, Multi-Level Framework

The reviewed literature demonstrates that youth leadership development is shaped by a complex interplay of developmental assets, empowerment processes, ecological systems, and structured program experiences. While each theoretical perspective provides valuable insights, none alone sufficiently explains how youth participation evolves into sustained leadership trajectories. A structured synthesis table is required to demonstrate that the framework is not an arbitrary combination of theories but a deliberate integration addressing specific limitations. The table clarifies how each theoretical stream contributes to the model while resolving its conceptual gaps.

**Table 1.** Theoretical Integration Matrix for Mechanism-Based Youth Leadership Development

Theory	Core Contribution	Key Limitation in Existing Literature	Role in the Proposed Model
Positive Youth Development (PYD)	Identifies developmental outcomes (competence, confidence, connection, character, caring, contribution)	Emphasizes outcomes rather than explaining causal processes leading to leadership progression	Provides outcome structure and developmental targets within the pipeline

<b>Theory</b>	<b>Core Contribution</b>	<b>Key Limitation in Existing Literature</b>	<b>Role in the Proposed Model</b>
Youth Empowerment Theory	Explains agency, participation, and youth voice through psychological, relational, and structural dimensions	Lacks structured explanation of how empowerment translates into sustained leadership roles	Serves as the process layer linking developmental assets to leadership readiness
Developmental Assets Framework	Defines internal and external resources supporting youth development (skills, relationships, opportunities)	Focuses on resource availability rather than activation and transformation mechanisms	Functions as the mediating layer between participation and empowerment
Ecological Systems Theory	Situates development within nested systems (individual, relational, organizational, societal)	Emphasizes context but does not specify mechanism-based causal pathways	Provides the multi-level architecture structuring interactions across levels
Leadership Pipeline Perspective	Conceptualizes leadership as staged progression from participation to formal roles	Often fragmented and weakly integrated with developmental theories	Defines the progression logic from readiness to leadership roles and outcomes
Scouting as Nonformal Education System	Provides structured experiential learning, civic engagement, and leadership opportunities	Typically analyzed descriptively without mechanism-based explanation	Serves as the empirical and institutional context operationalizing the model

*Source: Developed by the authors*

Table 1 consolidates the theoretical foundations underlying the proposed framework by explicitly linking each perspective to its analytical function within the model. Table 1 supports the article’s argument by demonstrating that the framework is not a loose aggregation of theories but a mechanism-based integration in which each component addresses a specific conceptual gap: namely mechanisms, progression, and multi-level alignment.

A critical limitation across these perspectives is the lack of integration between mechanisms, progression pathways, and multi-level interactions. PYD emphasizes outcomes, empowerment theory highlights agency, developmental assets identify resources, and leadership pipeline theory focuses on progression. However, the connections between these elements remain under-theorized.

This limitation underscores the need for an integrative framework that combines mechanism-based reasoning with a multi-level systems perspective. Such a framework must explain how training experiences generate developmental assets, how these assets facilitate empowerment, and how empowerment is translated into leadership roles within institutional contexts.

By addressing this gap, the present study advances a conceptual model that positions scouting as a developmental ecosystem, integrating individual, relational, organizational, and societal processes into a coherent leadership pipeline.

### 3. Identifying the Theoretical Gap

The existing body of literature on youth development has generated substantial insights into the outcomes associated with Positive Youth Development (PYD), youth empowerment, and participation in structured programs. Foundational and contemporary studies consistently

demonstrate that youth engagement in organized activities contributes to psychosocial competence, civic engagement, and leadership-related capacities (Lerner *et al.*, 2005; Catalano *et al.*, 2004; Durlak *et al.*, 2010). More recent research further highlights the importance of ecological assets, participatory environments, and contextual supports in shaping these outcomes (Bowers *et al.*, 2021; Ardoin *et al.*, 2022; Crowther *et al.*, 2024).

However, despite this strong empirical foundation, a critical limitation persists across the literature: the predominant focus on developmental outcomes rather than developmental mechanisms. PYD frameworks, for instance, effectively identify key indicators such as the Five Cs and contribution, yet they provide limited explanation of how specific program elements systematically produce these outcomes over time (Bowers *et al.*, 2010; Lerner, 2004; Buenconsejo & Datu, 2022). As a result, the causal pathways linking participation in youth programs to leadership formation remain insufficiently specified.

A similar limitation is evident within youth empowerment theory. While empowerment research offers valuable insights into agency, participation, and youth voice, it tends to prioritize participatory processes without fully accounting for developmental progression. Empirical studies demonstrate that youth–adult partnerships and participatory structures enhance empowerment outcomes (Zeldin *et al.*, 2013; Chrifou *et al.*, 2024). Nevertheless, empowerment does not inherently translate into sustained leadership roles. Without structured pathways and institutional reinforcement, empowerment may remain situational and fail to produce long-term leadership trajectories (Wong *et al.*, 2010; Ozer *et al.*, 2013; Augsberger *et al.*, 2024). This reveals a missing conceptual link between empowerment and leadership pipeline formation.

The developmental assets and ecological systems perspectives further deepen understanding by identifying the internal and external conditions that support youth development (Bronfenbrenner & Morris, 2006; Lerner & Callina, 2014; Syvertsen *et al.*, 2019). These frameworks emphasize the importance of relationships, opportunities, and contextual alignment in shaping developmental outcomes (Scales *et al.*, 2006; Eccles & Gootman, 2002). However, similar to PYD and empowerment frameworks, they primarily focus on what resources exist, rather than how these resources are activated and transformed into leadership trajectories. Recent studies suggest that assets function as dynamic enablers whose impact depends on interaction and activation within specific program structures (Gomez-Baya *et al.*, 2022). Yet, the mechanisms through which these processes unfold remain under-theorized.

Leadership development research introduces the notion of progression through stages—from participation to responsibility and leadership roles—thus moving closer to a process-oriented perspective (Conner & Strobel, 2007; Gould & Voelker, 2012; Hornyak *et al.*, 2022). However, this body of work remains fragmented and often lacks integration with broader developmental theories. In particular, it does not sufficiently explain how developmental assets and empowerment processes interact to produce leadership readiness and progression. Furthermore, leadership pipeline models are frequently domain-specific (e.g., sports, education, organizational settings) and lack generalizable theoretical integration within nonformal education contexts.

These limitations become particularly evident in the context of scouting and nonformal education systems. While existing studies highlight the contributions of scouting to character development, civic engagement, and experiential learning (Westberg Broström, 2013; Larson, 2000; Fraser-Thomas *et al.*, 2005), the literature remains largely descriptive and outcome-oriented. There is limited theoretical articulation of scouting as a developmental system with identifiable mechanisms and structured progression pathways. This fragmentation restricts the ability to explain how scouting activities systematically produce leadership outcomes.

Taken together, these observations reveal a multi-layered theoretical gap consisting of three interrelated deficiencies:

First, there is a mechanism gap, where existing theories identify outcomes and conditions but do not adequately explain the causal processes linking participation to leadership formation.

Second, there is a progression gap, where the transition from participation and empowerment to sustained leadership roles is insufficiently theorized and lacks structured conceptualization.

Third, there is an integration gap, where key theoretical perspectives—PYD, empowerment, developmental assets, and leadership pipeline—remain fragmented and are not synthesized into a coherent explanatory framework.

In addition, existing research rarely integrates these dimensions into a unified model that simultaneously accounts for temporal sequencing, multi-level interaction, and institutional reinforcement. This lack of integration limits both theoretical advancement and practical applicability in designing scalable youth development systems (Lerner, 2018; Overton, 2015).

Addressing this gap requires a conceptual shift toward a mechanism-based, multi-level, and progression-oriented framework that explains how structured training experiences generate developmental assets, how these assets facilitate empowerment processes, and how empowerment is translated into sustained leadership roles within organizational and societal contexts. Such an approach enables a more comprehensive understanding of youth leadership development as a dynamic and systemically embedded process.

In response, this article advances a hybrid conceptual model that integrates Positive Youth Development, youth empowerment, developmental assets, ecological systems, and leadership pipeline perspectives into a unified framework. By explicitly identifying and linking developmental mechanisms across levels, the model seeks to provide a theoretically robust explanation of how scouting functions as a system that transforms participation into leadership outcomes.

## **4. Conceptual Approach and Analytical Strategy**

This section develops the conceptual foundation of the study by integrating multiple theoretical traditions into a coherent analytical framework. Building on the identified theoretical gaps, the approach adopts a mechanism-based and multi-level systems perspective to explain how youth participation in scouting evolves into leadership capacity. Rather than relying on outcome-based reasoning, this framework emphasizes causal processes, temporal sequencing, and cross-level interactions as central to understanding leadership development (Lerner, 2018; Overton, 2015; Lerner & Callina, 2014).

### **4.1 Theory Synthesis: Toward a Mechanism-Based Integration**

The proposed framework synthesizes five major theoretical streams: Positive Youth Development (PYD), youth empowerment theory, developmental assets, ecological systems theory, and leadership pipeline perspectives. Each contributes a distinct explanatory component, yet their integration is necessary to capture the complexity of youth leadership development.

PYD provides the foundational logic of strengths-based development, emphasizing how structured experiences foster competencies, character, and contribution (Lerner *et al.*, 2005; Bowers *et al.*, 2010; Catalano *et al.*, 2004). However, its explanatory power is limited in

specifying how these developmental outcomes translate into structured leadership progression.

Youth empowerment theory introduces a process-oriented dimension by explaining how agency, participation, and shared decision-making enable youth to influence their environments (Zimmerman *et al.*, 2011; Christens & Peterson, 2012). Empirical studies further highlight the role of youth–adult partnerships and participatory structures in strengthening empowerment processes (Zeldin *et al.*, 2013; Chrifou *et al.*, 2024). Yet, empowerment alone does not ensure progression into leadership roles without institutional pathways.

The developmental assets framework contributes by identifying internal and external resources: such as competencies, relationships, and opportunities, that support youth development (Benson & Scales, 2009; Syvertsen *et al.*, 2019). Complementing this, ecological systems theory situates these assets within nested environmental systems, emphasizing dynamic interactions across levels (Bronfenbrenner & Morris, 2006; Lerner & Callina, 2014).

Finally, leadership pipeline theory introduces a progression-based perspective, conceptualizing leadership as a staged developmental trajectory supported by mentoring, role differentiation, and institutional scaffolding (Conner & Strobel, 2007; Gould & Voelker, 2012; Hornyak *et al.*, 2022). Organizational research further underscores the importance of structured pathways and recognition systems in sustaining leadership development (Meyers *et al.*, 2020; Bunders *et al.*, 2021).

Integrating these perspectives, the proposed framework conceptualizes youth leadership development as a mechanism-driven process in which:

- 1) structured experiences generate developmental assets,
- 2) these assets activate empowerment processes, and
- 3) empowerment facilitates progression into leadership roles within institutional contexts.

This synthesis moves beyond theoretical fragmentation by establishing a unified explanatory logic linking resources, processes, and outcomes.

## 4.2 Conceptual Mapping: A Multi-Level Developmental System

To operationalize this synthesis, the framework maps key constructs across four interrelated levels: individual, relational, programmatic, and institutional. This mapping reflects the multi-level nature of youth development and aligns with relational developmental systems theory (Lerner & Callina, 2014; Overton, 2015).

At the individual level, leadership development is grounded in internal capacities such as competence, self-regulation, identity, and purpose. These attributes emerge through participation and are critical for leadership readiness (Gestsdottir & Lerner, 2008; Bronk, 2014).

At the relational level, interactions with peers, mentors, and adult leaders serve as key developmental contexts. Youth–adult partnerships, peer belonging, and mentoring relationships provide social support, feedback, and opportunities for collaborative learning (Zeldin *et al.*, 2013; Mitra, 2008; Scales *et al.*, 2006).

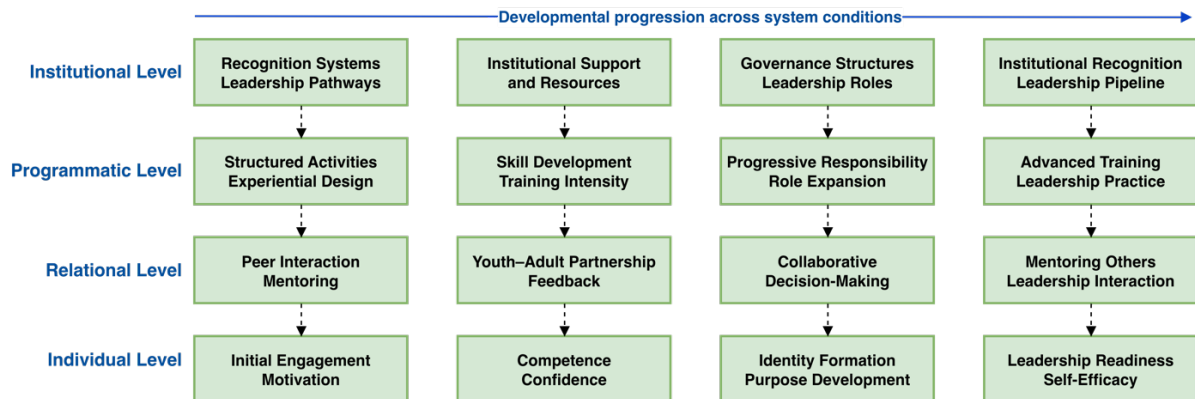
At the programmatic level, the design and structure of youth activities shape developmental opportunities. Organized programs, experiential learning, and progressive challenges create environments that facilitate skill acquisition and leadership practice (Mahoney *et al.*, 2005; Durlak *et al.*, 2010; Fraser-Thomas *et al.*, 2005).

At the institutional level, broader organizational systems provide recognition, resources, and pathways for leadership progression. Institutional practices, governance structures, and

talent development approaches influence the extent to which youth transition into leadership roles (Meyers *et al.*, 2020; Bunders *et al.*, 2021; Eccles & Gootman, 2002).

This multi-level mapping highlights that leadership development is not confined to individual traits but emerges from the alignment and interaction of processes across levels.

A multi-level representation is required to clarify that leadership development does not emerge from a single domain but from the interaction of nested systems. The figure organizes developmental processes across levels while preserving vertical alignment to emphasize cross-level integration rather than linear sequencing.



**Figure 1.** Multi-Level Developmental System of Youth Leadership Formation  
*Source: Developed by the authors*

The framework articulated in Figure 1 clarifies how leadership development emerges from the alignment of processes across institutional, programmatic, relational, and individual levels. Figure 1 supports the article’s argument by demonstrating that each stage of the developmental pathway is embedded within and reinforced by cross-level interactions, thereby extending the analysis beyond linear progression toward a systemically integrated model.

### 4.3 Mechanism Identification: Core Drivers of Leadership Development

Building on the conceptual mapping, the framework identifies six core mechanisms that drive the transformation of participation into leadership capacity.

First, experiential challenge refers to structured activities that require effort, problem-solving, and adaptation. Such challenges stimulate learning and competence development, particularly in outdoor and community-based contexts (Larson, 2000; Ardoin *et al.*, 2022; Bowers *et al.*, 2021).

Second, reflective meaning-making involves processes through which youth interpret experiences and construct personal meaning. Reflection integrates experiences into identity and purpose, which are critical for leadership development (Damon *et al.*, 2003; Bronk, 2014).

Third, progressive responsibility captures the gradual increase in roles and expectations within programs. This mechanism enables youth to transition from participation to leadership by reinforcing competence and confidence (Conner & Strobel, 2007; Gould & Voelker, 2012).

Fourth, youth–adult partnership emphasizes collaborative relationships that facilitate shared decision-making and mentorship. These partnerships enhance empowerment and provide opportunities for leadership practice (Zeldin *et al.*, 2013; Jacquez *et al.*, 2013).

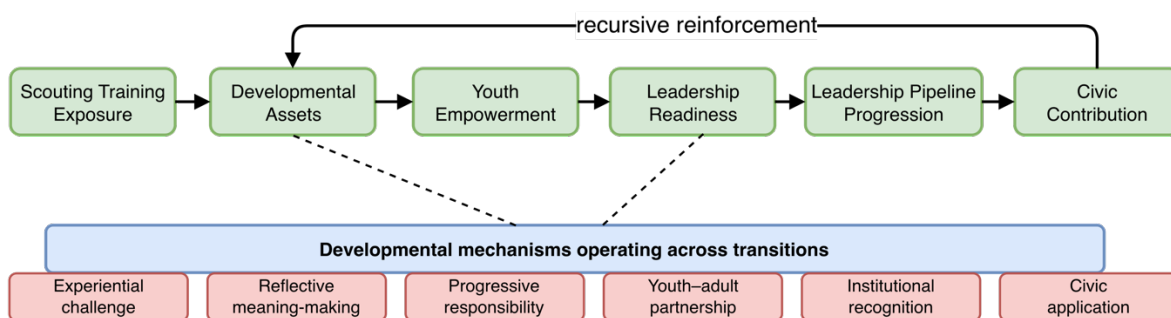
Fifth, institutional recognition refers to formal acknowledgment of achievements and roles. Recognition systems reinforce motivation and signal readiness for leadership progression (Meyers *et al.*, 2020; Bunders *et al.*, 2021).

Sixth, civic contribution highlights opportunities for applying leadership skills in real-world contexts. Engagement in community activities fosters responsibility and connects individual development to societal outcomes (Flanagan & Levine, 2010; Checkoway & Aldana, 2013; Greeno *et al.*, 2023).

Importantly, these mechanisms are interdependent and mutually reinforcing, creating cumulative developmental momentum. Their interaction across levels produces a dynamic process that sustains leadership progression over time (Bowers *et al.*, 2021).

#### 4.4 Analytical Logic: From Participation to Leadership Pipeline

The analytical logic of the framework explains how the identified mechanisms collectively produce a structured leadership pipeline. The process is conceptualized as a sequential yet recursive pathway:



**Figure 2.** Mechanism-Based Leadership Pipeline in Scouting  
*Source: Author's conceptualization*

Figure 2 clarifies the internal structure of the proposed model by distinguishing the sequential developmental pathway from the mechanisms that enable movement across stages. The dashed connectors indicate that mechanisms are not a separate list of factors but operate as transition drivers linking asset formation, empowerment, readiness, and leadership progression within the scouting ecosystem.

The process begins with training exposure, where youth engage in structured activities that provide experiential challenges and learning opportunities (Mahoney *et al.*, 2005; Durlak *et al.*, 2011).

Through repeated engagement, these experiences generate developmental assets, including competencies, relationships, and values that support further development (Benson & Scales, 2009; Syvertsen *et al.*, 2019).

These assets activate empowerment processes, enabling youth to develop agency, autonomy, and the capacity to influence their environments (Zimmerman *et al.*, 2011; Christens & Peterson, 2012).

As empowerment strengthens, youth achieve leadership readiness, characterized by the integration of competence, confidence, and purpose (Conner & Strobel, 2007; Hornyak *et al.*, 2022).

Finally, leadership readiness facilitates progression into the leadership pipeline, where individuals assume formal and informal leadership roles within organizations and society (Gould & Voelker, 2012; Bunders *et al.*, 2021).

Importantly, this process is not strictly linear. Feedback loops, reinforcement mechanisms, and contextual influences shape the trajectory, making leadership development a recursive and systemically embedded process (Overton, 2015; Lerner, 2018).

## 5. Results: Conceptual Development

This section develops the proposed conceptual framework by specifying the core constructs and multi-level mechanisms that collectively explain how scouting functions as a developmental system transforming participation into leadership outcomes. Rather than presenting constructs as isolated elements, the framework conceptualizes them as an interconnected continuum in which each stage both depends on and reinforces the others. This approach aligns with relational developmental systems theory, which emphasizes dynamic, bidirectional processes in human development (Lerner & Callina, 2014; Overton, 2015).

### 5.1 Core Constructs

The conceptual model is anchored in six core constructs representing sequential yet interrelated stages of youth leadership development. These constructs form a developmental continuum that links participation in structured programs to broader societal contribution, providing a clear analytical structure for understanding leadership formation.

Scouting training intensity captures the depth, frequency, and diversity of youth participation in structured activities. It reflects exposure to experiential learning environments characterized by outdoor challenges, teamwork, and problem-solving tasks that stimulate developmental processes. Such environments have been shown to enhance learning, identity formation, and adaptive capacities, particularly when engagement is sustained over time (Larson, 2000; Mahoney *et al.*, 2005; Ardoin *et al.*, 2022).

Building on this foundation, developmental assets represent the internal and external resources generated through participation. These assets include competencies, values, relationships, and opportunities that collectively support positive development. Empirical research indicates that developmental assets play a mediating role in translating participation into outcomes, reinforcing the importance of resource accumulation as a critical stage in the developmental process (Benson & Scales, 2009; Syvertsen *et al.*, 2019; Gomez-Baya *et al.*, 2022).

The next stage, youth empowerment, reflects the development of agency, voice, and decision-making capacity. Empowerment marks a transition from passive involvement to active engagement, where youth begin to influence their environments and participate in decision-making processes. This construct is shaped by both individual experiences and relational dynamics, particularly within participatory and collaborative settings (Zimmerman *et al.*, 2011; Christens & Peterson, 2012; Chrifou *et al.*, 2024).

As empowerment develops, individuals reach leadership readiness, a stage characterized by the integration of competence, confidence, and purpose. At this stage, youth demonstrate the ability to assume responsibility, guide others, and make informed decisions. Leadership readiness reflects not only the accumulation of skills but also the internalization of identity and values associated with leadership roles (Conner & Strobel, 2007; Hornyak *et al.*, 2022).

Subsequently, leadership pipeline progression captures the movement of youth into increasingly complex and formalized leadership roles. This progression is supported by structured pathways, mentoring systems, and institutional recognition, which collectively facilitate sustained engagement and advancement within organizational contexts (Gould & Voelker, 2012; Bunders *et al.*, 2021).

Finally, civic contribution represents the broader societal outcome of the developmental process. At this stage, youth apply their leadership capacities to address community needs, engage in civic activities, and contribute to social development. This construct reflects the ultimate integration of individual development with societal impact (Flanagan & Levine, 2010; Checkoway & Aldana, 2013).

Taken together, these constructs form a coherent developmental continuum that links individual growth with organizational progression and societal contribution, providing a structured basis for the proposed conceptual model.

A second table is necessary to operationalize the model by specifying how mechanisms function across levels and what outcomes they produce. Without this mapping, the framework risks remaining abstract despite its strong theoretical integration.

**Table 2.** Mechanisms, Multi-Level Activation, and Developmental Outcomes

<b>Mechanism</b>	<b>Primary Level of Activation</b>	<b>Activated Process</b>	<b>Immediate Developmental Outcome</b>	<b>Contribution to Leadership Progression</b>
Experiential Challenge	Programmatic	Engagement in structured, effortful, and problem-solving activities	Skill acquisition and adaptive competence	Initiates developmental asset formation
Reflective Meaning-Making	Individual	Interpretation and internalization of experiences through reflection	Identity development and sense of purpose	Transforms experience into leadership-relevant meaning
Progressive Responsibility	Programmatic / Institutional	Gradual increase in roles, expectations, and accountability	Confidence and role competence	Enables transition from participation to leadership readiness
Youth–Adult Partnership	Relational	Shared decision-making and collaborative interaction with adults	Agency and empowerment	Strengthens capacity for leadership practice and influence
Institutional Recognition	Institutional	Formal acknowledgment of roles, achievements, and progression	Motivation and legitimacy	Signals readiness and facilitates entry into leadership pipeline
Civic Application Mechanism	Programmatic / Societal	Application of skills in real-world community and civic contexts	Social responsibility and contribution	Extends leadership beyond organizational context into societal impact

*Source: Developed by the authors*

Table 2 specifies how each mechanism operates within the multi-level system by linking its point of activation to concrete developmental processes and outcomes. Table 2 strengthens the analytical clarity of the model by demonstrating that mechanisms are not abstract constructs but function as operational drivers that translate participation into leadership progression across stages and contexts.

## 5.2 Individual-Level Mechanisms

At the individual level, leadership development is driven by internal psychological and behavioral processes that emerge through participation in structured activities. These mechanisms transform external experiences into internal capacities, forming the foundation for subsequent developmental stages.

Self-regulation plays a central role in enabling youth to manage emotions, set goals, and persist in challenging situations. Through repeated exposure to structured tasks and

reflective experiences, individuals develop the capacity to regulate their behavior and adapt to changing conditions. This process is essential for transitioning from guided participation to autonomous leadership (Gestsdottir & Lerner, 2008).

Alongside self-regulation, confidence develops through successful experiences, feedback, and recognition within the program environment. Confidence reinforces the belief in one's ability to influence outcomes and take initiative, making it a critical precursor to leadership behavior. Empirical evidence suggests that confidence is closely linked to sustained engagement and leadership emergence (Bowers *et al.*, 2010; Lerner *et al.*, 2005).

Another key mechanism is purpose development, which involves the formation of meaningful goals and a sense of direction. Purpose emerges through reflective processes that connect personal experiences with broader societal contributions. This mechanism provides motivational grounding, ensuring that leadership engagement is sustained over time rather than situational (Damon *et al.*, 2003; Bronk, 2014).

In addition, competence development encompasses the acquisition of cognitive, social, and practical skills necessary for effective leadership. Participation in diverse activities enhances problem-solving, communication, and collaboration abilities, which are essential for leadership readiness. These competencies are not developed in isolation but through continuous interaction with structured environments and challenges (Durlak *et al.*, 2011; Hansen *et al.*, 2003).

Collectively, these individual-level mechanisms demonstrate how participation in scouting is internalized into capacities that enable leadership readiness, highlighting the importance of psychological development in the broader leadership pipeline.

### **5.3 Relational-Level Mechanisms**

Leadership development is also shaped by interactions within social relationships that provide support, feedback, and opportunities for collaboration. These relational mechanisms create a social environment that facilitates learning, identity formation, and empowerment.

Peer belonging reflects the sense of inclusion and connection within a group. A supportive peer environment enhances motivation, engagement, and identity formation, all of which are critical for leadership development. Research indicates that peer relationships play a significant role in shaping developmental trajectories and reinforcing participation (Scales *et al.*, 2006).

Mentoring represents another critical mechanism, involving guidance and support provided by more experienced individuals. Mentors facilitate skill development, offer feedback, and model leadership behaviors, thereby accelerating the transition from participation to leadership. The presence of supportive non-parental adults has been consistently linked to positive developmental outcomes (Bowers *et al.*, 2014; Conner & Strobel, 2007).

A more advanced relational mechanism is youth–adult partnership, where youth and adults share decision-making power and collaborate in organizational processes. Such partnerships not only enhance empowerment but also provide opportunities for leadership practice in real contexts. Empirical studies show that these partnerships contribute to both individual development and organizational learning (Zeldin *et al.*, 2013).

In addition, role modeling influences leadership development through observational learning. Exposure to peers, mentors, and leaders who demonstrate positive behaviors reinforces leadership norms and expectations. This mechanism aligns with social learning perspectives, where behavior is shaped through observation and imitation (Larson, 2000; Mitra, 2008).

These relational mechanisms highlight the importance of social context in facilitating leadership development, demonstrating that leadership emerges not only from individual capacities but also from interactions within supportive networks.

## 5.4 Organizational-Level Mechanisms

At the organizational level, leadership development is structured through program design and institutional practices that create pathways for progression. These mechanisms translate individual and relational processes into structured opportunities for leadership.

Structured progression refers to the systematic organization of activities and roles that guide youth through stages of development. By providing increasing levels of challenge and responsibility, programs enable participants to build competencies and transition into leadership roles. Such structured pathways are essential for sustaining engagement and ensuring developmental continuity (Eccles & Gootman, 2002; Roth & Brooks-Gunn, 2003).

Complementing this, badge and rank systems serve as formal indicators of achievement and progression. These systems not only motivate participation but also signal readiness for advancement within the organization. Recognition of achievement reinforces developmental milestones and provides clear pathways for progression (Westberg Broström, 2013).

Leadership roles within the organization provide opportunities for youth to apply their skills in real contexts. Assigning roles such as team leader or project coordinator enables the practical application of competencies and reinforces leadership identity. These experiences are critical for bridging the gap between readiness and actual leadership performance (Gould & Voelker, 2012; Perkins & Noam, 2007).

Finally, institutional recognition involves formal acknowledgment of achievements and contributions. Recognition systems validate competencies, reinforce motivation, and facilitate progression within the leadership pipeline. Organizational research highlights the importance of such systems in sustaining talent development and leadership growth (Meyers *et al.*, 2020; Bunders *et al.*, 2021).

Together, these mechanisms demonstrate how organizational structures create the conditions necessary for translating developmental processes into leadership outcomes.

## 5.5 Societal-Level Mechanisms

At the societal level, leadership development is connected to broader contexts of community engagement and social contribution. These mechanisms extend leadership beyond organizational boundaries, linking individual development to societal impact.

Service learning integrates community service with structured reflection, enabling youth to apply their skills in real-world contexts while developing civic responsibility. This approach has been shown to enhance both personal development and community engagement (Flanagan & Levine, 2010; Sherrod *et al.*, 2010).

Civic participation involves active engagement in societal processes, such as volunteering, advocacy, and decision-making. Participation in these activities reinforces the relevance of leadership skills and strengthens the connection between individual development and societal outcomes (Checkoway & Aldana, 2013).

In addition, community problem-solving provides opportunities for youth to address local challenges through collaborative efforts. This mechanism fosters critical thinking, teamwork, and social responsibility, reinforcing the practical application of leadership capacities (Greeno *et al.*, 2023; Trull-Oliva & Soler-Masó, 2021).

Finally, SDG-oriented contribution connects youth leadership to global development priorities, emphasizing sustainability, inclusion, and social impact. This perspective aligns

leadership development with broader societal goals, reinforcing the relevance of youth engagement in addressing global challenges.

These societal-level mechanisms highlight that leadership development ultimately extends beyond individual and organizational contexts, contributing to broader systems of social change.

## 6. Conceptual Model and Propositions

This section presents the integrated conceptual model derived from the theoretical synthesis and mechanism-based reasoning developed in previous sections. The model explains how scouting operates as a developmental system that transforms structured training experiences into leadership outcomes through a sequence of interrelated processes and multi-level interactions. In addition, the model incorporates contextual conditions that influence the strength and effectiveness of these developmental relationships.

### 6.1 Conceptual Model

The proposed conceptual model is grounded in a process-oriented understanding of youth development, where leadership is conceptualized as a dynamic trajectory rather than a static outcome. This trajectory reflects the continuous interaction between individual capacities, relational processes, program structures, and institutional conditions, consistent with relational developmental systems theory (Lerner & Callina, 2014; Overton, 2015; Lerner, 2018).

At the initial stage, the scouting training system represents structured and experiential learning environments that expose youth to diverse developmental opportunities. These environments include outdoor challenges, teamwork, and community-oriented activities that stimulate learning and engagement. Participation in such contexts has been shown to foster skill acquisition, identity formation, and adaptive capacities (Mahoney *et al.*, 2005; Durlak *et al.*, 2010; Ardoin *et al.*, 2022).

Through sustained participation, these experiences generate developmental assets, which encompass internal competencies, social relationships, and value orientations. These assets serve as foundational resources that enable further psychological and social development. The developmental assets framework emphasizes that such resources are critical for positive developmental trajectories and function as mediators between participation and outcomes (Benson & Scales, 2009; Syvertsen *et al.*, 2019).

The accumulation of developmental assets facilitates the emergence of youth empowerment, characterized by increased agency, autonomy, and capacity for meaningful participation. Empowerment processes are reinforced through participatory structures and youth–adult partnerships, enabling youth to influence their environments and take initiative. Empirical research highlights the importance of these processes in fostering engagement and leadership potential (Zimmerman *et al.*, 2011; Christens & Peterson, 2012; Zeldin *et al.*, 2013).

As empowerment develops, individuals reach a stage of leadership readiness, where competencies, confidence, and purpose are integrated into a coherent capacity for leadership. At this stage, youth demonstrate the ability to assume responsibility, guide others, and contribute to organizational and community goals. Leadership readiness reflects the transition from developmental potential to actionable capability (Conner & Strobel, 2007; Hornyak *et al.*, 2022).

Subsequently, leadership readiness enables progression into leadership pipeline outcomes, where individuals assume formal and informal leadership roles within organizational and societal contexts. This progression is supported by institutional structures, recognition

systems, and opportunities for continued engagement, which sustain leadership development over time (Gould & Voelker, 2012; Bunders *et al.*, 2021).

In addition to these core relationships, the model recognizes several contextual conditions that shape developmental processes. The quality of adult mentorship plays a critical role in enhancing empowerment and leadership development by providing guidance, feedback, and support (Scales *et al.*, 2006; Bowers *et al.*, 2014). Institutional support, including resources and organizational structures, influences the availability of opportunities for participation and progression (Eccles & Gootman, 2002; Meyers *et al.*, 2020). The peer climate affects motivation and engagement through social interactions and group dynamics (Larson, 2000). Finally, community engagement opportunities provide contexts for applying leadership skills and connecting individual development with societal outcomes (Flanagan & Levine, 2010; Greeno *et al.*, 2023).

Taken together, the model conceptualizes youth leadership development as a multi-level and mechanism-driven process, in which structured experiences are transformed into leadership outcomes through the interaction of developmental assets, empowerment processes, and institutional pathways.

## 6.2 Propositions

Based on the conceptual model, a set of propositions is developed to guide future empirical investigation. These propositions reflect the sequential and interrelated nature of the developmental process, while also acknowledging the influence of contextual conditions.

### Proposition 1 (P1)

*Structured participation in scouting activities positively contributes to the formation of developmental assets among youth participants.*

This proposition is grounded in evidence that organized activities provide contexts for skill development, relationship building, and value formation, which collectively constitute developmental assets (Mahoney *et al.*, 2005; Durlak *et al.*, 2010; Benson & Scales, 2009).

### Proposition 2 (P2)

*Developmental assets facilitate the emergence of youth empowerment by enabling agency, participation, and decision-making capacity.*

Developmental assets function as enabling resources that support the transition from passive participation to active engagement, thereby strengthening empowerment processes (Syvertsen *et al.*, 2019; Gomez-Baya *et al.*, 2022).

### Proposition 3 (P3)

*The presence of strong youth–adult partnerships enhances the relationship between structured participation and youth empowerment.*

Collaborative relationships between youth and adults provide opportunities for shared decision-making and mentorship, which reinforce empowerment outcomes (Zeldin *et al.*, 2013; Chrifou *et al.*, 2024).

### Proposition 4 (P4)

*Youth empowerment contributes to the development of leadership readiness by strengthening confidence, competence, and purpose.*

Empowered youth are more likely to demonstrate initiative, responsibility, and leadership capacity, making empowerment a critical precursor to leadership readiness (Zimmerman *et al.*, 2011; Hornyak *et al.*, 2022).

### Proposition 5 (P5)

*Leadership readiness increases the likelihood of progression into formal and informal leadership roles within organizational contexts.*

Individuals who exhibit readiness are more capable of assuming leadership responsibilities and navigating organizational structures (Conner & Strobel, 2007; Gould & Voelker, 2012).

#### **Proposition 6 (P6)**

*Institutional recognition strengthens the transition from leadership readiness to leadership pipeline outcomes.*

Recognition systems validate competencies and signal readiness for advancement, thereby facilitating progression into leadership roles (Meyers *et al.*, 2020; Bunders *et al.*, 2021).

#### **Proposition 7 (P7)**

*Opportunities for civic engagement enhance the translation of leadership readiness into meaningful societal contribution.*

Engagement in community activities provides contexts for applying leadership skills and reinforces the connection between individual development and societal impact (Flanagan & Levine, 2010; Checkoway & Aldana, 2013).

## **7. Discussion**

This section interprets the proposed conceptual model by engaging it in dialogue with existing scholarship on youth development, empowerment, and leadership. The discussion advances theoretical clarification, derives practical and policy implications, and outlines a forward-looking research agenda. Central to this interpretation is the view that leadership formation is not a linear outcome but a dynamic, multi-level process shaped by interacting mechanisms, temporal sequencing, and institutional reinforcement (Lerner, 2018; Overton, 2015).

### **7.1 Theoretical Contributions**

A primary contribution of this study lies in advancing Positive Youth Development (PYD) by specifying the mechanisms through which developmental outcomes emerge. While PYD has been widely recognized for its strengths-based orientation and the articulation of the Five Cs, prior work has often emphasized outcomes without sufficiently explaining the causal processes that generate them (Lerner *et al.*, 2005; Bowers *et al.*, 2010). By identifying mechanisms such as experiential challenge, reflective meaning-making, and progressive responsibility, the present framework clarifies how structured participation is translated into leadership capacity. This process-oriented perspective responds to recent calls for greater theoretical precision and explanatory depth in PYD research (Ataç *et al.*, 2024).

A second contribution extends youth empowerment theory by embedding empowerment within a leadership pipeline logic. Existing literature has established the importance of agency, participation, and youth voice, particularly through youth–adult partnerships and participatory structures (Zimmerman *et al.*, 2011; Zeldin *et al.*, 2013). However, empowerment has frequently been treated as an endpoint rather than a transitional stage. The proposed model reconceptualizes empowerment as a mediating process that connects developmental assets to leadership readiness and progression. This reconceptualization addresses a key limitation in prior studies, where empowerment does not consistently translate into sustained leadership roles due to the absence of structured pathways and institutional reinforcement (Wong *et al.*, 2010; Ozer *et al.*, 2013; Augsberger *et al.*, 2024).

A third contribution reframes scouting as a developmental leadership ecosystem operating across multiple levels. Previous research has highlighted the role of scouting in character formation, civic engagement, and experiential learning but has often treated these domains separately (Westberg Broström, 2013; Larson, 2000). The present framework integrates these dimensions into a unified system that links individual capacities, relational dynamics, organizational structures, and societal engagement. This integration aligns with relational

developmental systems theory, which emphasizes the interconnected and dynamic nature of development (Lerner & Callina, 2014). By doing so, the study moves beyond fragmented explanations and provides a comprehensive account of how nonformal education systems can generate leadership outcomes.

In addition, the model contributes to the broader developmental literature by linking micro-level mechanisms with macro-level outcomes. Many existing studies focus either on individual processes or contextual influences, but rarely integrate both within a single explanatory framework. By demonstrating how mechanisms operate across levels to produce leadership trajectories, the model enhances theoretical coherence and offers a more holistic understanding of youth development (Overton, 2015; Lerner, 2018).

## 7.2 Practical Implications

The conceptual model provides actionable insights for the design and implementation of youth development programs, particularly within scouting and similar nonformal education contexts. One key implication is the need to conceptualize training not as isolated activities but as staged leadership development processes. Programs should be structured to provide progressively increasing levels of challenge and responsibility, enabling youth to build competencies and transition into leadership roles over time. Evidence suggests that sustained and structured engagement produces stronger developmental outcomes than episodic participation (Mahoney *et al.*, 2005; Durlak *et al.*, 2010).

Another important implication concerns the role of mentoring and youth voice. High-quality mentoring relationships and youth–adult partnerships are critical for facilitating empowerment and leadership development. Programs that provide opportunities for youth to participate in decision-making processes are more likely to foster agency and sustained engagement (Zeldin *et al.*, 2013; Mitra, 2008). This highlights the importance of designing relational structures that support collaboration rather than hierarchical control.

The model also underscores the need for measurable indicators of leadership progression. While many programs focus on participation rates or skill acquisition, fewer track the transition from participation to leadership roles. The framework suggests that evaluation systems should include indicators related to developmental assets, empowerment levels, and leadership readiness. Such measures can provide more nuanced insights into program effectiveness and support continuous improvement (Syvertsen *et al.*, 2019; Hornyak *et al.*, 2022).

Furthermore, the findings indicate that program effectiveness depends not only on activity design but also on the alignment between mechanisms, progression pathways, and institutional structures. Programs that fail to integrate these elements may generate short-term engagement without producing long-term leadership outcomes. This reinforces the importance of adopting a systemic approach to program design.

## 7.3 Policy Implications

At the policy level, the proposed framework offers a foundation for strengthening youth development strategies within both organizational and national contexts. For institutions such as Gerakan Pramuka, the model provides a theoretically grounded approach to conceptualizing structured youth development systems that move beyond activity-based programming toward mechanism-based and progression-oriented design. By identifying key mechanisms and pathways, policymakers can develop more systematic and evidence-based training models.

More broadly, the framework supports the advancement of nonformal education policy by emphasizing developmental quality rather than participation quantity. Increasing access to programs is important, but it is equally critical to ensure that these programs are designed to

activate developmental mechanisms and support leadership progression. This shift aligns with contemporary perspectives on education that prioritize competency development, experiential learning, and lifelong engagement (Eccles & Gootman, 2002; Lerner, 2018).

The model also highlights the importance of cross-sector collaboration in youth development. Effective leadership formation requires coordination between educational institutions, community organizations, and policy frameworks. Such collaboration can enhance resource availability, create diverse opportunities for engagement, and strengthen pathways for leadership progression (Flanagan & Levine, 2010; Sherrod *et al.*, 2010).

Finally, the framework contributes to global development agendas by linking youth leadership development to broader societal outcomes. By fostering civic engagement and community contribution, structured youth programs can support the development of inclusive and resilient societies. This aligns with global priorities related to education, institutional development, and partnerships.

## 7.4 SDG Contributions and Future Research Agenda

The proposed framework contributes to multiple Sustainable Development Goals (SDGs) by positioning youth leadership development as a driver of broader societal impact. In relation to SDG 4, the model supports inclusive and lifelong learning by emphasizing nonformal education systems that develop competencies, values, and leadership capacities. In relation to SDG 16, it promotes civic responsibility and participation, which are essential for building strong and inclusive institutions. In relation to SDG 17, the framework highlights the importance of collaboration among schools, communities, and youth organizations in creating effective developmental ecosystems.

By linking individual development with societal outcomes, the model demonstrates how youth programs can contribute to sustainable development through the cultivation of leadership and civic engagement.

The proposed framework opens several avenues for future research. One important direction involves empirical testing of the proposed propositions, particularly through quantitative approaches such as structural equation modeling. Such studies can validate the relationships between constructs and assess the relative strength of different mechanisms.

Another promising direction is cross-cultural comparison. While PYD and empowerment frameworks have demonstrated adaptability across contexts, further research is needed to examine how cultural, institutional, and socio-economic factors influence leadership development processes. Comparative studies can provide insights into the generalizability of the model.

Longitudinal research also represents a critical area for future investigation. Leadership development is inherently a temporal process, and longitudinal studies can capture the evolution of developmental trajectories over time. Such research can provide deeper insights into the mechanisms that sustain leadership progression.

Finally, the increasing role of technology suggests the need to explore digital and hybrid forms of youth development. Integrating digital tools with traditional experiential learning may expand access and create new pathways for engagement, particularly in rapidly changing social environments.

## 8. Conclusion

This study develops a mechanism-based and multi-level conceptual framework to explain how youth participation in scouting is transformed into leadership outcomes. Moving beyond outcome-oriented perspectives, the model conceptualizes leadership development as a

dynamic process shaped by the interaction of structured experiences, developmental assets, empowerment processes, and institutional pathways. By integrating Positive Youth Development, youth empowerment theory, developmental assets, ecological systems, and leadership pipeline perspectives, the framework provides a more comprehensive and theoretically grounded explanation of youth leadership formation (Lerner, 2018; Overton, 2015).

A key contribution of this study lies in its clarification of the mechanisms that connect participation to leadership progression. The framework demonstrates that leadership does not emerge automatically from participation or empowerment alone but requires the alignment of developmental processes across individual, relational, organizational, and societal levels. In this sense, leadership formation is best understood as a cumulative and systemically embedded trajectory, rather than a discrete outcome. This perspective advances existing literature by addressing the mechanism gap, progression gap, and integration gap identified in prior research (Bowers *et al.*, 2010; Wong *et al.*, 2010).

The model also offers practical and policy-relevant insights by emphasizing the importance of designing youth programs as structured developmental systems. Programs that integrate experiential learning, mentoring, progressive responsibility, and institutional recognition are more likely to produce sustained leadership outcomes. At the same time, the framework highlights the role of contextual conditions, including mentorship quality, institutional support, and opportunities for civic engagement, in shaping developmental trajectories (Zeldin *et al.*, 2013; Meyers *et al.*, 2020).

Despite its contributions, this study remains conceptual in nature and thus requires empirical validation. Future research should test the proposed relationships across different contexts, examine the role of cultural and institutional variations, and explore the integration of digital and hybrid learning environments in youth development systems. Such efforts are essential to refine the model and enhance its applicability in diverse settings.

In conclusion, this study positions scouting as a developmental ecosystem that systematically transforms participation into leadership capacity. By articulating the mechanisms and pathways underlying this process, the proposed framework contributes to both theoretical advancement and practical innovation in youth development. It provides a foundation for designing more effective programs that not only engage youth but also prepare them to assume meaningful leadership roles in society.

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