

Strengthening Transition Programs for Children with Special Needs (ABK): A Pathway Toward Inclusive Education and Independent Living

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Abstract:

Transition programs support children with special needs (ABK) in moving from school to higher education, work, community life, and independent living. While global research shows that strong governance and coordination improve autonomy and long-term outcomes, implementation in Southeast Asia, especially Indonesia, remains uneven. This review synthesizes 25 years of Scopus-indexed research (2000–2025) using PRISMA and a CIMO analytical frame to examine how pedagogical, family, and policy contexts influence outcomes for ABK. Three domains dominate the evidence base: educator and institutional readiness, family and community engagement, and policy alignment. High-performing systems are characterized by individualized skills development, sustained interagency collaboration, and culturally responsive approaches. Indonesian studies demonstrate strong community-based practices but face barriers related to evaluation capacity and cross-sector governance. A regionally responsive ecological model is proposed to emphasize autonomy, participation, and systemic coherence. Inclusive transition should function as a long-term pathway supporting meaningful adult participation and inclusion.

Keywords: Transition Planning; Inclusive Education; Students with Disabilities; Interagency Collaboration; Life-Course Framework; Independent Living

1. Introduction

Transition programs constitute a critical architecture within contemporary inclusive education systems, functioning as intentional, multifaceted mechanisms that support learners with disabilities referred to in Indonesia as Anak Berkebutuhan Khusus (ABK) as they navigate the complex progression from formal schooling to adulthood, employment, higher education, and independent living. Within global policy discourse, transition planning extends the meaning of inclusion beyond mere access to educational settings, reframing it as a sustained, life-course process that ensures continuity across developmental, institutional, and socio-economic spheres. Landmark frameworks such as the Individuals with Disabilities Education Act (IDEA) and Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID) exemplify this paradigm by embedding individualized planning, interagency coordination, and formal accountability structures that yield demonstrable improvements in autonomy, employability, and long-term quality of life. Collectively, these systems illustrate that transition outcomes are optimized when pedagogical practices, familial engagement, and policy infrastructures operate in an integrated and mutually reinforcing manner.

Notwithstanding these global advancements, pronounced disparities persist between jurisdictions with well-established transition ecosystems and those where inclusive reforms are nascent or unevenly implemented. Research in Southeast Asia particularly Indonesia reveals recurrent challenges, including inconsistent teacher preparedness, fragmented family school partnerships, and insufficiently institutionalized interagency collaboration. Policies such as Permendiknas No. 70/2009 broaden access to educational placement but offer limited direction regarding coordinated transition planning or systematic postschool tracking. Consequently, transition processes frequently default to informal, family-led arrangements rather than structured institutional pathways, reflecting the intersecting influences of cultural collectivism, policy incoherence, and systemic capacity constraints. Much of the existing Indonesian scholarship remains descriptive and localized, often lacking theoretical integration and therefore contributing minimally to broader international discourse or systemic reform efforts.

This landscape reveals a substantive research gap: the field lacks rigorous, theoretically anchored syntheses that compare established global transition models with the socio-cultural, institutional, and policy realities of Indonesia. Moreover, limited engagement with integrative theoretical perspectives such as life-course theory, ecological systems theory, and inclusive education frameworks has hindered the development of conceptual models that adequately capture the dynamic, longitudinal, and relational nature of transition for ABK. Empirical work has similarly underexamined how critical determinants, including teacher competence, family participation, and policy alignment, interact to shape both immediate and distal outcomes. Addressing these theoretical and empirical voids is essential for

advancing contextually responsive, evidence-informed transition practices.

To respond to these gaps, the present study offers a theoretically grounded and critically comparative synthesis of global transition frameworks, with particular emphasis on individualized planning, interagency collaboration, inclusive postsecondary participation, and life-course case management. Drawing from a Scopus-indexed corpus spanning 2000–2025, the analysis identifies how structural features ranging from governance arrangements and resource allocation to professional development and family partnership condition the effectiveness and sustainability of transition systems across diverse settings. By juxtaposing Western and Southeast Asian models, the study elucidates structural asymmetries while also identifying avenues for hybridization that reconcile the procedural rigor of global frameworks with the cultural embeddedness and relational logic characteristic of Indonesian contexts.

By positioning Indonesia within global debates on transition and inclusive education, this study makes a substantive contribution to cross-cultural transition research and addresses a longstanding gap in the literature. Its findings offer actionable insights for educators, policymakers, and scholars committed to designing coherent, contextually adaptive transition systems capable of supporting ABK in achieving meaningful participation, developmental continuity, and lifelong autonomy.

2. Methods

2.1. Research Design

This study employed a systematic literature review (SLR) grounded in the PRISMA 2020 framework. The review design was intentionally selected to move beyond surface-level summarization and instead enable a rigorous, conceptually informed analysis of how transition programs for children with special needs (ABK) are theorized, implemented, and evaluated across diverse educational systems. By adopting an SLR, the study sought to synthesize not only empirical outcomes but also the underlying assumptions, contextual contingencies, and methodological orientations that shape the development of transition models globally. The approach reflects a doctoral-level commitment to analytic depth, whereby the literature is treated as a site of theoretical negotiation rather than a repository of isolated findings.

2.2 Search Strategy

A comprehensive search was conducted in Scopus, selected for its broad coverage of peer-reviewed scholarship in education, disability studies, and public policy. The review covered 2020–2025, a period characterized by significant international shifts in inclusive education frameworks and policy-driven transition reform.

A Boolean search string was developed to integrate conceptual, contextual, and policy dimensions:

("transition" OR "transition planning" OR "transition program")

AND ("inclusive education")

AND ("disability" OR "special needs" OR "ABK")

AND ("independent living" OR "self-determination" OR "autonomy")

AND ("policy" OR "school-to-work" OR "higher education" OR "TPSID")

AND ("Indonesia" OR "Southeast Asia" OR "USA" OR "Europe")

During preliminary screening, it became apparent that several pertinent studies did not explicitly use the term transition, but instead framed related constructs such as readiness, participation, or interagency coordination. This observation prompted iterative refinement of search terms, a process that ensured a more conceptually inclusive and context-sensitive evidence base.

2.3 Inclusion and Exclusion Criteria

The eligibility criteria were designed to ensure conceptual coherence, methodological transparency, and relevance to transition scholarship.

Studies were included if they:

were published in Scopus-indexed, peer-reviewed journals;

employed empirical designs or offered evaluative analyses of programs;

explicitly examined transition planning, inclusive education, vocational preparation, autonomy development, or independent living;

focused on individuals with disabilities, including ABK;

were written in English and published between 2020–2025.

Studies were excluded if they:

lacked empirical grounding or methodological detail;

did not address transition outcomes or did not involve ABK populations;

were conference proceedings, dissertations, or grey literature;

did not provide full-text access.

Interestingly, several publications that initially appeared relevant based on their titles were later excluded because "transition" referred to institutional restructuring or conceptual transitions rather than the educational trajectories of learners. This underscores the semantic variability surrounding transition terminology and highlights the importance of careful interpretive screening.

2.4 Screening and Selection Process

Screening and Selection Process. The screening process unfolded across four stages: Identification 559 records retrieved. Deduplication 114 duplicates removed.

Title and abstract screening 312 studies retained. Full-text assessment 336 articles evaluated; 10 excluded due to misalignment. A PRISMA flow diagram was developed to visually document the decision-making pathway. Notably, the relatively

high number of exclusions at the full-text stage reflects the conceptual heterogeneity in transition research, where similar terminology often masks divergent theoretical orientations.

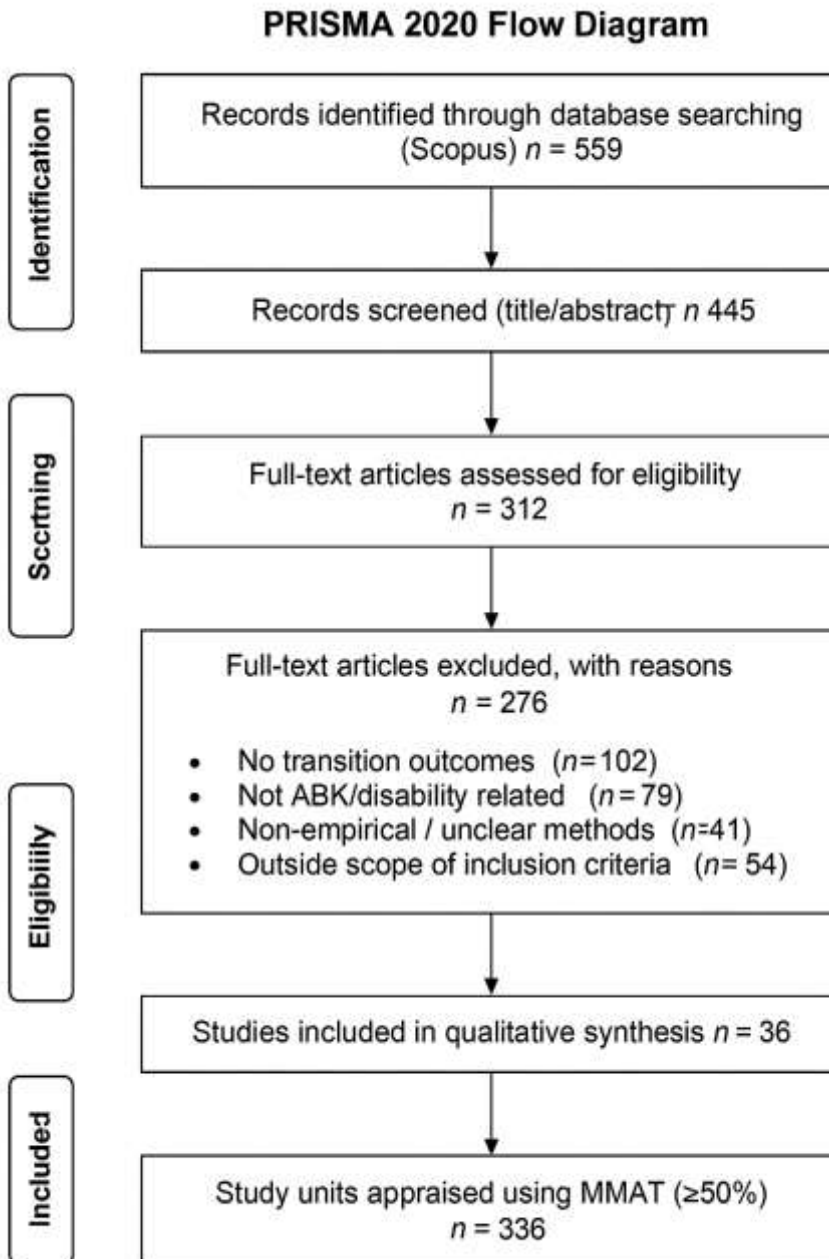


Figure 1: The Prisma flow diagram detailing the screening and selection process

2.5. Quality Appraisal

Methodological quality was assessed using the Mixed Methods Appraisal Tool (MMAT 2018). Two independent reviewers evaluated each study, and discrepancies were reconciled through iterative discussion. Only studies scoring $\geq 50\%$ were included. The appraisal considered: clarity and coherence of conceptual framing; sampling strategies and recruitment procedures; rigor of data collection and analytic methods; transparency of reporting; alignment between research questions, theory, and methodology. This evaluative process reflects doctoral-level standards of rigor, ensuring that the synthesis draws from studies that demonstrate methodological soundness and theoretical integrity.

2.6 Data Extraction and Synthesis

Data extraction followed a structured protocol encompassing: authorship, publication year, and geographic context; research design, participants, and methodological approach; theoretical orientation (e.g., ecological frameworks, self-determination theory, life-course perspectives); intervention components (teacher competencies, family involvement, interagency collaboration); transition outcomes (educational attainment, autonomy, employment, community participation); sociocultural and policy contexts shaping program implementation. A CIMO (Context–Intervention–Mechanism–Outcome) framework guided the synthesis. This analytical model was chosen for its ability to illuminate why specific interventions produce particular outcomes within given contexts. Interestingly, across studies, mechanisms such as autonomy support, interagency coordination, and family engagement appeared more consistently influential than the formal structure of the programs themselves—suggesting that transition success may hinge more on relational and systemic conditions than on program typologies.

2.7 Bias Mitigation

Several strategies were employed to address potential bias: multi-reviewer screening and appraisal to enhance reliability; explicit coding procedures and documentation of interpretive decisions; triangulation across geographic contexts to reduce regional bias; reflexive journaling to surface researcher assumptions. Although these measures strengthen analytic rigor, publication bias remains a possibility, particularly given that unsuccessful or discontinued transition initiatives are less frequently represented in indexed databases.

3. Theoretical Background

Transition planning for children with special needs (Anak Berkebutuhan

Khusus/ABK) is anchored in a constellation of theoretical traditions that elucidate how individual capacities, familial dynamics, institutional arrangements, and broader sociocultural structures interact to shape postschool trajectories. Building upon leading scholarship in transition studies including the Q1 works of Doren et al. (2012), Dubois et al. (2020), and Dubois, Guay, and St-Pierre (2022) this section synthesizes ecological, developmental, motivational, and programmatic frameworks to construct a theoretically rigorous foundation aligned with contemporary international standards in inclusive education.

3.1 Ecological and Life-Course Perspectives

Bronfenbrenner's Ecological Systems Theory positions transition as a nested developmental process shaped by reciprocal interactions across multiple systemic layers. At the microsystem level, family relationships, teacher behaviors, and peer interactions directly shape ABK learners' daily experiences and developmental opportunities. Mesosystem dynamics particularly the coherence or fragmentation of home-school collaboration mediate the alignment of expectation, communication, and support. Exosystem and macrosystem structures, including community resources, sociocultural norms, policy regimes, and socioeconomic conditions, further condition the quality, continuity, and accessibility of transition supports.

A life-course perspective extends this ecological framing by conceptualizing transition not as a discrete event but as an unfolding developmental pathway shaped by cumulative experiences across childhood and adolescence. Evidence from the NLTS2 demonstrates that early academic engagement, sustained family expectations, and system-level support predict later outcomes such as graduation, postsecondary enrollment, and employment. When applied to Southeast Asian contexts, the life-course lens reveals the profound influence of collectivist values, kinship obligations, and cultural expectations surrounding dependency and interdependence. These cultural logics reconfigure the meaning of "independence" and reorient transition trajectories away from Western notions of individual autonomy toward relationally negotiated forms of adult participation.

3.2 Self-Determination Theory (SDT)

Self-Determination Theory (SDT), articulated by Deci and Ryan, provides a robust psychological account of how autonomy, competence, and relatedness needs shape motivation and adaptive functioning. Within transition studies, SDT has emerged as a powerful explanatory framework for understanding why some ABK youth display sustained engagement during the school-to-work transition while others encounter disengagement or maladaptive patterns.

Empirical research demonstrates that autonomy-supportive environments foster autonomous motivation, thereby enhancing persistence, psychological well-being, and successful postschool adjustment. Youth who perceive higher autonomy support

from fathers and peers exhibit stronger autonomous motivation and, consequently, higher rates of successful transition and well-being. Conversely, controlled forms of motivation rooted in pressure, coercion, or guilt predict diminished adaptive functioning and poorer transition outcomes.

In the Indonesian context, SDT provides a critical interpretive lens for interrogating the tension between familial expectations, cultural norms of interdependence, and the cultivation of student agency. It helps differentiate between culturally embedded interdependence and psychologically detrimental forms of overcontrol an essential analytic distinction for designing culturally responsive transition supports.

3.3 Expectancy–Value Theory (EVT)

Expectancy Value Theory (EVT) posits that individuals' choices and persistence are shaped by their expectations of success and the subjective value assigned to specific activities. This framework is highly relevant for ABK transitions given the substantial influence of parental expectations on academic and postschool outcomes. Findings from the NLTS2 illustrate that parents' expectations regarding graduation, employment, and postsecondary engagement significantly predict students' academic performance, engagement, and eventual outcomes. EVT thereby illuminates the mechanisms through which parental beliefs and sociocultural norms function as motivational resources or constraints within the broader ecological system. In Indonesian contexts, where parents often assume central decision-making authority, EVT highlights the need to align transition planning with family belief systems while promoting aspirational yet realistic expectations.

3.4. Transition-Focused Frameworks: Kohler's Taxonomy

Kohler's Taxonomy for Transition Programming offers a field-defining conceptualization of the core components required for high-quality transition services. The taxonomy identifies five interconnected domains: student-focused planning student development interagency collaboration Family involvement program structure. Global transition models such as TPSID provide empirical evidence for the effectiveness of structured, intersectoral collaboration and individualized planning in improving inclusion and postschool participation for students with intellectual disabilities. In Indonesia, where transition policies remain fragmented across ministries and service agencies, Kohler's framework offers a theoretically grounded blueprint for improving system coordination, enhancing procedural coherence, and institutionalizing accountability.

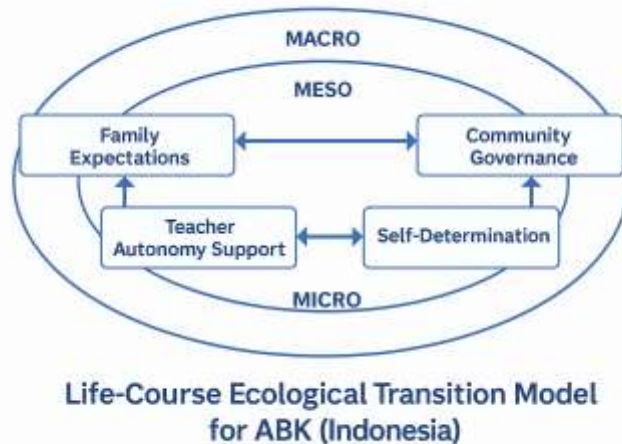


Figure 2: Life-Course Ecological Transition Model fo ABK (Indonesia)

3.5 Integrative Theoretical Positioning

Collectively, these theoretical frameworks converge to conceptualize ABK transition as a multidimensional, culturally embedded, and developmentally dynamic process. Ecological and life-course theories illuminate the systemic and temporal dimensions of transition; SDT and EVT elucidate motivational and expectation-driven mechanisms; while Kohler's Taxonomy provides an operational architecture for designing and evaluating transition programs.

Synthesizing insights from global Q1 transition literature, this study adopts an integrative theoretical approach attentive to both international evidence and Indonesia's sociocultural realities. This integrative perspective underscores the imperative for culturally attuned, systemically coordinated, and psychologically informed transition models capable of fostering autonomy, meaningful participation, and long-term independence for ABK learners.

4. Review of Findings

The body of research reviewed here reveals a consistent, theoretically grounded pattern: transitions for learners with disabilities are shaped not by isolated interventions but by the complex interplay of multiple ecological layers. Teacher capacity, family expectations, institutional structures, and policy arrangements intersect to influence the extent to which young people navigate the movement from school to adult roles. This multifactorial character aligns with evidence from large-scale longitudinal studies most notably the National Longitudinal Transition Study (NLTS2) which demonstrate that postschool outcomes are strongly conditioned by parental expectations, opportunities for autonomy development, and the degree of institutional coordination surrounding the learner. More recent literature synthesizing

diverse international contexts similarly underscores that independence is not a uniform construct but one deeply mediated by cultural norms, relational dynamics, and systemic affordances.

4.1. Teacher and School Readiness

Across national systems and programmatic contexts, teacher readiness emerges as a decisive anchor of high-quality transition practices. Teachers exert influence not only by delivering instruction but by constructing learning environments that cultivate autonomy, engagement, and psychological safety. Within the framework of Self-Determination Theory (SDT), autonomy-supportive pedagogy characterized by meaningful choice, transparent rationale, and recognition of students' perspectives has been shown to foster higher levels of autonomous motivation, which in turn predict well-being and successful school-to-work transitions among youth with learning difficulties. Yet empirical evidence also demonstrates that teacher capacity is deeply constrained by systemic pressures: insufficient professional development, inconsistent interagency collaboration, and resource shortages can erode implementation fidelity.

Table 1. Summary of Studies on Teacher/School Readiness (Competence, Training, Curriculum Adaptation)

Authors (Year)	Country	Setting / Sector	Focus	Method	Key Findings	Relevance Note
Scaletti et al. (2025)	Italy	Municipal corporation (non-education)	Training	Ethnographic case study	Training promotes organizational cultural change; carbon accounting used as learning mechanism	Not related to ABK or education sector
Rosli & Kamaluddin (2024)	Malaysia	National Archives (public sector)	Staff competence	Qualitative interviews	Identified reporting challenges and gaps in staff competency and valuation expertise	Not related to ABK or teacher/school readiness

Authors (Year)	Country	Setting / Sector	Focus	Method	Key Findings	Relevance Note
Faiz & Md. Taib (2025)	Indonesia	Islamic NGOs (multi-sector)	Competence assessment	AHP; questionnaires	Proposed assessment model for NGO accountability and priority attributes	Does not address teacher competence, curriculum, or ABK outcomes

4.2 Family Involvement in Transition

A substantial body of research affirms that families particularly parents play an irreplaceable role in shaping transition trajectories. Parental expectations regarding graduation, employment, and further education consistently predict actual postschool outcomes and exert influence through mechanisms such as aspiration setting, perceived capability, and engagement in transition activities. SDT-informed scholarship extends this understanding by demonstrating that autonomy-supportive parenting enhances adolescents' autonomous motivation and psychological well-being during the transition period.

In collectivist contexts such as Indonesia, family roles are even more pronounced. Decision-making around work, independence, and education is embedded within broader familial obligations, cultural expectations, and shared responsibility structures. However, families often encounter barriers including limited access to reliable information, inconsistent institutional guidance, and socioeconomic constraints that impede their full participation in transition planning.

Table 2. Family Involvement in Transition: Roles, Cultural Contexts, and Outcomes

Authors (Year)	Region	Primary Role	Family	Key Supports / Strategies	Outcomes
Johnson et al., 2022	United States	Active participation in IEP/transition meetings		Structured invitations; student-led flexible scheduling	Improved plan alignment; stronger postschool outcomes
CEC (2023)	Global (U.S.-based)	Extended family input in planning	family	Culturally responsive materials; bilingual documents	Higher engagement; reduced mismatch in goals

Authors (Year)	Region	Primary Role	Family	Key Supports / Strategies	Outcomes
Ju, 2018	CLD communities	Co-defining goals; advocacy		Cultural liaisons; interpreters; plain-language summaries	Increased participation; clearer communication
Int. Journal of Instruction, 2019	Indonesia (Java)	Home support; communication with teachers	learning	Parent training; routine teacher updates	Improved school engagement; stronger transition foundation
Atlantis Press, 2021	Indonesia	Monitoring learning; endorsing inclusion		Feedback loops; parent questionnaires	Better coordination; needs identified early
World Bank & IIEI, 2023	Indonesia (rural)	Identifying needs; home-based support		Local outreach; online diagnostics; referral tools	Earlier detection; more accurate service matching
UGM Digital Press, 2021	Asia/Global	Practicing life and work skills at home		Family coaching; community skills programs	Higher employability; increased participation
Kokorelias et al., 2023	Canada	Coordinating services; navigating systems		Care navigators; joint planning with agencies	Smoother transitions; reduced caregiver burden
Almalki, 2021	Middle East	Limited participation due to time/knowledge		Parent training; role clarification; flexible scheduling	Greater participation; improved understanding
Shikarpurya, 2023	South Asian diaspora	Mobilizing family networks; buffering barriers		Peer support; community navigation groups	Strengthened coping; sustained engagement
Open Psychology Journal, 2024	Global	Co-setting goals; monitoring progress		Regular parent-teacher meetings; advocacy groups	Social inclusion gains; clearer long-term planning
Qalamuna, 2025	Indonesia / SEA	Collaborative partner planning-implementation-evaluation	across	Parent capacity-building; strengthened school-community	Better collaboration; clearer identification of gaps

Authors (Year)	Region	Primary Role	Family	Key Supports / Strategies	Outcomes
				partnerships	

4.3 Policy and Structural Support

The contrast between systems with well-established policy frameworks and those with fragmented or underdeveloped regulations is striking. In Western contexts, statutory instruments such as IDEA and programs like TPSID institutionalize cross-sector coordination, accountability, and long-term monitoring. By contrast, transition infrastructures in Southeast Asia remain characterized by fragmentation, uneven implementation, and limited policy coherence.

Gaps in teacher preparation, inter-ministerial coordination, resource distribution, and evaluation capacity constrain the scalability of transition initiatives. Such limitations highlight the importance of indigenizing transition frameworks—adapting global models to local sociocultural conditions—to enhance both contextual legitimacy and programmatic efficacy.

Table 3. Policy and Structural Support: Frameworks, Implementation, and Key Outcomes

Authors (Year)	Region	Policy / Framework & Implementation	Key Outcomes & Challenges
Rosli & Kamaluddin (2024)	Malaysia	Accrual accounting & heritage asset reporting; implemented through government departments and technical staff interviews	Outcome: Entity reported HA and initiated improvements. Challenges: Reporting gaps, weak guidelines, limited valuation expertise.
Scaletti et al. (2025)	Italy	Sustainability using carbon accounting; driven by leadership commitment and targeted staff training	Outcome: Cultural & organizational shifts toward sustainability. Challenges: Resistance to change; reliance on strong leadership.
Faiz & Md. Taib (2025)	Indonesia	Accountability assessment model for Islamic NGOs; stakeholder-oriented AHP with seven information attributes	Outcome: Identifies “accessible & understandable” as core quality. Challenges: Not for benchmarking; stakeholder literacy constraints.
Papenfuß &	Austria–	Public corporate governance	Outcome: Varied

Authors (Year)	Region	Policy / Framework & Implementation	Key Outcomes & Challenges
Wagner-Krechlok (2023)	Germany–Switzerland	codes; applied using a 150-criteria diffusion framework	diffusion across fields. Challenges: Inconsistent regulatory commitment; uneven code quality. Outcome: Improved M&A performance and risk-taking.
Zhao & Yang (2025)	China	Government fault-tolerance mechanisms (FEMs) applied in SOEs at multiple administrative levels	Challenges: Effects depend on manager incentives; regional variation. Outcome: Actionable improvement plans for regulators.
Stakeholders on Audit Committees (2024)	Libya	Legal and regulatory framework for audit committees; mixed-methods evaluation	Challenges: Need to refine laws, reduce state intervention, and strengthen professional capacity.

4.4 Transition Toward Independence

Person-centered pedagogies remain the cornerstone of effective transition programming. Research indicates that the incorporation of blended learning modalities, adaptive technologies, and reflective assessment fosters both cognitive and functional autonomy among ABK. Independence, in this context, is conceptualized as a socially mediated construct cultivated through iterative practice, feedback, and guided mentorship.

Table 4. Transition Toward Independence: Skills, Supports, Outcomes, and Barriers

Country	Transition Focus & Supports	Key Outcomes	Barriers / Challenges
Indonesia	Life Skills (ADL/IADL): school-based modules, task analysis, visual schedules (12–16 weeks)	Improved ADL scores (VABS/ABAS), meal prep, hygiene, money use	Limited teacher training; inconsistent home practice
Indonesia	Employment (Supported/Competitive): BLK partnerships, 3-month internships, job coaching	Job placement 35–60%; 10–20 paid hrs/week; month retention	Employer stigma; transport issues; few job coaches

Country	Transition Focus & Supports	Key Outcomes	Barriers / Challenges
Malaysia	Independent Living – Travel Training: route mapping, mobile apps prompting hierarchy	More independent trips; accurate navigation; passed safety checks	Paratransit gaps; parental safety concerns; cost
Thailand	Social Participation: peer mentoring, inclusive clubs, twice-monthly outings	More community participation; stronger social networks; reduced isolation	Limited accessible venues; caregiver availability
Philippines	Self-Advocacy & Student-Led IEP: workshops, role-play, rights education	Higher IEP participation; improved communication; higher GAS scores	Teacher readiness; meeting time constraints
Vietnam	Home–School Life Skills Generalization: parent coaching, routines, video modeling	Increased completion; generalization settings	ADL better across Family workload; irregular follow-up
Singapore	Independent Living – Assistive Tech: AAC/planners, apps, smart-home cues	Higher independence; functional prompts needed	Device cost; technical maintenance; user training
Indonesia	Community-Based Instruction (CBI): in-situ training in markets, banks, clinics	Stronger generalization; real-world prompts	Transport cost; staffing ratios
Indonesia	Work Readiness: portfolios, CV building, interview simulation, soft skills	Improved work-readiness scores; better interview performance	Limited counselors; weak employer linkages
Malaysia	Supported Housing: weekends, budgeting, modules	Higher independence; increased safety skills	ADL Few supported-living options; funding needs
Thailand	Inclusive Recreation: sports/arts with peers; monthly showcases	Higher participation; improved self-esteem; sense of belonging	Venue accessibility; social stigma
Indonesia	Integrated Transition Pathways: inter-agency planning, referral tracking, case managers	More complete transition plans; higher service uptake; reduced drop-off	Data-sharing limits; coordination burdens; monitoring gaps

4.5 Long-Term Outcomes

Longitudinal evidence consolidates the view that well-articulated transition systems generate durable benefits across employment, education, psychosocial adjustment, and self-determination metrics. The sustainability of these outcomes depends on continuous mentorship, predictable financing, and adaptive monitoring.

4.6 Synthesis

Global and regional findings converge on three defining dimensions of effective transition to independence: Comprehensive life-skills education integrated throughout the educational continuum. Institutionalized interagency collaboration that maintains continuity across settings.

Culturally responsive frameworks that harmonize familial expectations with policy objectives. Independence thus emerges as a dynamic developmental continuum co-produced through the interplay of individual capacities, family systems, institutional structures, and sociocultural norms.

5. Discussion

5.1 Critical Synthesis Across Themes

5.1.1 Convergence and Divergence Across Themes

A holistic interrogation of the literature reveals that transition outcomes for Anak Berkebutuhan Khusus (ABK) emerge from a deeply interdependent constellation of pedagogical, familial, and policy-level forces. Teacher readiness, family engagement, policy coherence, and the cultivation of student autonomy do not operate as discrete determinants; rather, they converge in a mutually reinforcing ecosystem that governs the trajectory from schooling to adult participation.

Longitudinal evidence including analyses derived from the National Longitudinal Transition Study (NLTS2) demonstrates that sustained interagency coordination, clear expectations, and consistent monitoring substantively enhance postschool outcomes such as graduation, employment, and postsecondary participation. These findings affirm that high-quality transitions are the consequence of systemic coherence, not piecemeal intervention.

Despite this broad convergence, structural divergences between Western and Southeast Asian systems remain salient. Western transition regimes tend to rely on formal, codified accountability mechanisms, structured evaluation cycles, and legally mandated interagency arrangements. By contrast, many Southeast Asian contexts, particularly Indonesia, depend on family-led coordination, community reciprocity, and informal support networks. These divergent epistemic orientations reflect deeper sociocultural logics that shape the meaning of autonomy, responsibility, and adulthood.

5.1.2 Global and Southeast Asian Patterns

At a global level, research trajectories reflect a paradigmatic evolution from programmatic to systemic perspectives viewing transitions not as isolated events but as life-course processes mediated by intersecting institutional domains. Longitudinal mixed-methods studies validate the hypothesis that individualized educational planning with explicit postschool objectives fosters continuity in employment, higher education access, and independent living. Southeast Asian contexts reveal a different pattern: although culturally embedded practices strengthen familial involvement and community alignment, systemic discontinuities persist due to limited policy coherence, uneven teacher training, and underdeveloped interagency infrastructures. These structural gaps contribute to inconsistencies in transition outcomes, particularly for ABK in rural or resource-constrained communities.

5.1.3 Theoretical Integration

Integrating inclusive education theory with life-course perspectives yields a robust conceptual scaffold for understanding transition as a dynamic, relational, and policy-mediated process. Inclusive education theory foregrounds participation, equity, and differentiated pedagogical support, while life-course theory illuminates how developmental trajectories are structured through temporal, institutional, and sociocultural contingencies. When synthesized, these frameworks reconceptualize independence not as a terminal milestone but as an evolving relational state shaped by interactions between individual competencies, systemic supports, and cultural norms. Findings from NLTS2 and SDT-based scholarship reinforce this interpretation: autonomy development is markedly influenced by parent expectations, supportive instructional climates, and community conditions. As such, transition outcomes should be conceptualized as the product of co-constructed agency emerging from the interaction of families, schools, and broader policy ecologies.

5.2 Strengths and Weaknesses in Global vs. Indonesian Literature

5.2.1 Strengths in Global Literature

The global transition literature exhibits significant methodological and theoretical maturity. Longitudinal mixed-methods designs, rigorous evaluation frameworks, and embedded policy linkages enable strong external validity and cross-context comparability. Institutionalized data infrastructures allow policymakers and practitioners to refine interventions based on longitudinal patterns rather than short-term snapshots. Furthermore, global research operationalizes established theoretical models including Kohler's Taxonomy, social-cognitive frameworks, and Self-Determination Theory to explicate how teacher readiness, family involvement, and systemic structures jointly shape transition trajectories. Such theoretically grounded evidence contributes to a nuanced understanding of the mechanisms underlying effective transitions.

5.2.2 Gaps in Indonesian and Southeast Asian Literature

In contrast, Indonesian and broader Southeast Asian research, although rich in cultural insight, remains limited in its longitudinal scope, theoretical integration, and systemic explanatory depth. Existing studies frequently document promising school-level innovations and family-driven practices, yet these contributions seldom extend into evaluative frameworks capable of linking micro-level practices to macro-level outcomes. The absence of cohesive data systems further exacerbates these gaps. Unlike longitudinal datasets available in Western contexts, Indonesia lacks integrated systems capable of tracking ABK trajectories into adulthood. Thus, future scholarship must embrace methodological diversification integrating longitudinal, comparative, and mixed-methods designs while embedding culturally sensitive evaluative indicators.

5.2.3 Comparative Interpretation

A cross-regional comparative lens highlights the dialectical tension between Western institutional formalism and Indonesian communal embeddedness. Western systems operationalize inclusion through codified governance mechanisms, structured developmental benchmarks, and enforceable legal mandates. Indonesian systems, by contrast, ground inclusion in relational trust, familial stewardship, and community reciprocity. The most promising path forward lies in hybridization integrating the structural precision of Western governance with the relational ethos of Indonesian sociocultural systems. Such hybrid models support both institutional sustainability and cultural legitimacy.

5.3 Role of Contextual and Cultural Factors

5.3.1 Cultural and Familial Centrality

Cultural contexts fundamentally shape conceptualizations of independence, responsibility, and adult participation. In Indonesian settings, independence is conceptualized as relational interdependence, embedded within familial and communal obligations. Families thus function not as auxiliary supports but as co-architects of transition trajectories. Models that foreground family school co-production such as collaborative goal-setting, participatory IEP development, and culturally aligned communication strategies demonstrate enhanced continuity and sustained transition outcomes.

5.3.2 Community Norms and Stigma

Community norms exert a parallel influence on ABK's transition trajectories by mediating social participation, labor market access, and identity formation. Stigma, deficit-oriented discourse, and exclusionary community structures can restrict

opportunities, whereas community-based mentorship and inclusive training programs can cultivate competence, belonging, and self-advocacy.

5.3.3 Contextualization and Policy Design

Ensuring contextual fidelity requires reconciling familial interdependence with state-led governance structures. Incorporating kearifan lokal (local wisdom) into national transition guidelines and evaluation metrics such as familial satisfaction, communal acceptance, and cultural congruence enhances policy relevance and effectiveness.

5.4 Future Opportunities and Implications

5.4.1 Systemic Integration and Policy Alignment

Advancing inclusive transition systems in Southeast Asia necessitates a deliberate shift toward integrated, multisector governance. Aligning mandates across education, labor, health, and social protection ministries will promote policy coherence, equitable resource allocation, and longitudinal continuity.

5.4.2 Practical Implications for Schools and Educators

Schools and practitioners should: embed sequenced life-skills and self-advocacy curricula across the educational continuum; institutionalize structured family school collaboration mechanisms; formalize employer partnerships through coordinated work-based learning and job-coaching systems; strengthen professional development focused on transition case management and interorganizational collaboration.

5.4.3 Directions for Future Research

Substantial knowledge gaps remain, including the scarcity of longitudinal evidence from non-Western contexts, limited availability of culturally validated measures of independence and quality of life, and underrepresentation of rural communities. Future research should prioritize: life-course methodologies linking school-age interventions to adult outcomes; pragmatic trials evaluating culturally adapted models; governance-focused research on sustainable financing, accountability regimes, and data interoperability

6. Conclusion

Across diverse educational ecosystems, three interdependent pillars emerge as the foundation of effective transition systems for Anak Berkebutuhan Khusus (ABK): (a) individualized, developmental planning that systematically cultivates self-determination and functional competence; (b) formalized interagency infrastructures that coordinate the work of schools, families, employers, and

community organizations; and (c) policy architectures anchored in stable financing and longitudinal accountability mechanisms. When these elements operate in concert, evidence consistently demonstrates gains in employment, postsecondary engagement, social participation, and autonomous functioning.

These dynamics unfold across nested ecological levels. Micro-level levers such as teacher expertise, differentiated instructional design, and programmatic structure shape students' proximal learning environments. Meso-level dynamics including sustained family involvement and cross-sector collaboration mediate continuity between home, school, and community, reducing fragmentation during the transition to adulthood. Macro-level governance, encompassing clearly articulated institutional roles, interoperable data systems, and mandated transition requirements within Individualized Education Plans (IEPs), exerts a structuring influence on fidelity and equity. Within Indonesia and the broader Southeast Asian region, the literature documents both promising innovations and persistent structural constraints. Culturally grounded approaches—such as family-centered planning, mentorship traditions, and community-based training—demonstrate contextual alignment and immediate benefits. Yet efforts to scale these models are hindered by inconsistent cross-sector coordination, variable teacher preparation, and the absence of integrated longitudinal data. Advancing transition quality in this context demands codified interagency mandates, expanded investment in employer partnerships and supported employment pathways, and the development of unified national data infrastructures. The analysis underscores the imperative for integrated governance, strategic capacity building, and evidence-informed policy reform to ensure that inclusive transition functions not merely as an educational intervention but as a sustained, culturally responsive pathway toward meaningful adult autonomy and social inclusion for ABK.

7. Author Contributions (CRediT):

Imam Yuwono contributed to the conceptualization of the study, development of the methodology, formal analysis, investigation, drafting of the original manuscript, and visualization of findings.

Utomo contributed to data validation, resource management, data curation, critical review and editing of the manuscript, and overall supervision of the research process.

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Conflict of Interest

The authors declare no conflict of interest.

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