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A Multiple-Case Study of the Implementation and Outcomes of Individualized Education Programs(IEPs) and Career Development Plans(CDPs) for Learners with Multiple Disabilities

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ABSTRACT

This study examined the implementation and documented outcomes of existing Individualized Education Programs (IEPs) and Career Development Plans (CDPs) for learners with multiple disabilities, focusing on functional development, stakeholder collaboration, and ecological influences. A qualitative multiple-case-study design involved two purposively selected Grade 5 learners in a specialized education center in Abu Dhabi, United Arab Emirates. Data from individualized plans, progress-monitoring records, observations, stakeholder responses, and conference documentation were examined through thematic analysis, within-case analysis, cross-case comparison, and evidence triangulation over a 13-week monitoring period. Findings revealed improvements in selected communication, self-care, daily routines, and functional participation skills. One learner achieved 36 successful augmentative communication responses in 36 opportunities during the latest assessment, although his two-week average was 64%. The other improved picture-schedule performance from one to four successful responses in five opportunities. Despite these gains, both learners demonstrated continued prompting dependence, inconsistent independence, and limited skill generalization. The study concludes that individualized plans supported emerging functional development, with outcomes associated with instructional consistency, multidisciplinary coordination, and systematic monitoring. Educational practitioners should strengthen measurable goal setting, standardized progress documentation, prompt fading, and coordinated home–school interventions. The small sample, single institutional setting, limited monitoring period, and unequal documentation constrained broader interpretation. The study contributes context-specific evidence demonstrating how individualized educational planning, ecological conditions, and documentation practices inform functional progress evaluation and institutional improvement.

Keywords: *Adaptive Functioning, Career Development Plans, Functional Independence, Individualized Education Programs, Multiple Disabilities, Progress Monitoring, Qualitative Case Study*

1. INTRODUCTION

Inclusive education requires more than providing access to educational institutions; it involves individualized instruction, appropriate support services, meaningful participation, and continuous assessment of learner progress. In the United Arab Emirates (UAE), policies concerning learners with disabilities, officially referred to as people of determination, emphasize individualized educational planning, multidisciplinary collaboration, family involvement, and equitable educational opportunities (Abu Dhabi Department of Education and Knowledge [ADEK], 2023). Individualized Education Programs (IEPs) establish measurable educational and functional goals based on learners' strengths, needs, and present performance, while Career Development Plans (CDPs) support early transition preparation through independence, responsibility, daily routines, and pre-vocational skills. These complementary plans are particularly important for learners with multiple disabilities, whose interacting communication, cognitive, behavioral, sensory, motor, and adaptive needs require coordinated educational and therapeutic interventions (Naeemy & Yoneda, 2024). Research emphasizes that effective individualized planning depends on the alignment of goals, instructional strategies, stakeholder responsibilities, and progress-monitoring procedures. However, inconsistencies in implementation, documentation, and collaboration may limit meaningful functional outcomes (Rashid & Wong, 2023). Accordingly, this qualitative multiple-case study examined the implementation and documented outcomes of existing IEPs and CDPs for two Grade 5 learners with multiple disabilities in a specialized education center in Abu Dhabi. Guided by a bioecological perspective, the study considered learner characteristics, instructional practices, stakeholder relationships, institutional conditions, and changes across time to generate contextually grounded recommendations for improving individualized educational support (Yin, 2018). Comparative discussion of IEP practices and implementation can also be situated alongside studies of special-education teachers in Kuwait and teacher preparation for inclusive classrooms (Alsahou et al., 2025; Nur Hanini Anne & Rashid, 2024). Occupational therapy provides a professional framework for considering daily activities and participation, although it is not a direct measure of the outcomes in this study (American Occupational Therapy Association, 2020).

Research Problem

Despite established policies supporting inclusive and individualized education, a gap persists between formal educational planning and its consistent implementation. The existence of an IEP or CDP does not necessarily ensure that educational goals are measurable, instructional strategies are appropriate, interventions are consistently delivered, or functional progress is adequately documented (ADEK, 2023). Studies demonstrate that individualized plans may vary considerably in their specificity, relevance, and alignment with learners' educational needs (Aldas et al., 2025). Effective planning therefore requires coherent relationships among learner assessment, goals, interventions, and measurable outcomes rather than procedural compliance alone (Rashid & Wong, 2023; Concepcion et al., 2025). The complexity of multiple disabilities further challenges individualized educational programming. Learners may require differentiated communication systems, behavioral interventions, adaptive instruction, and coordinated therapeutic services. Naeemy and Yoneda (2024) emphasized the diversity of learners with significant cognitive and communication needs, while Prinsloo et al. (2024) demonstrated that augmentative and alternative communication outcomes depend on individualized intervention and contextual support. Research on personalized education similarly indicates that instructional decisions must respond to changing learner performance and institutional circumstances (Naeemy & Yoneda, 2024; Rashid & Wong, 2023). Culturally responsive collaboration and meaningful educational experiences also contribute to the relevance of individualized goals (Aldas et al., 2025; Angco et al., 2025). Another concern involves

the integration of functional development and early transition preparation. Although transition research frequently concentrates on secondary education and employment, foundational skills such as communication, independence, decision-making, responsibility, and task completion develop earlier. Coñoman et al. (2024) emphasized aligning transition assessments, goals, and services, while Liao et al. (2024), and Coñoman et al. (2024) identified self-determination, family participation, and coordinated preparation as important components of transition planning. Systematic instruction and meaningful practical experiences support functional readiness (Liao et al., 2024), although insufficient training, coordination, and practical opportunities remain barriers (Alfawzan & Almulhim, 2024). Meaningful learner participation also remains a challenge. Research indicates that learners with disabilities may have limited influence over educational and transition decisions despite attending planning activities (Coñoman et al., 2024; Liao et al., 2024). Individualized support should therefore recognize learner preferences, supported decision-making, communication abilities, and opportunities for participation (Liao et al., 2024; Yeager & Morgan, 2023). Student-directed planning and structured participation strategies provide additional approaches for strengthening learner involvement (Liao et al., 2024; Coñoman et al., 2024). Effective implementation also depends on professional capacity and institutional support. Teacher workload, burnout, limited resources, and unclear responsibilities may compromise instructional consistency (Geronimo et al., 2024; Garwood, 2023). Professional development involving modeling, coaching, practice, and feedback can strengthen implementation (Geronimo et al., 2024; Toman & Maag, 2024), yet teachers continue to encounter challenges involving time, training, and collaboration (Almoghyrah, 2023). UAE-based research similarly identifies professional preparation and institutional conditions as important considerations in supporting learners with special educational needs (Al-Rashaida & Massouti, 2024; Massouti et al., 2023). Stakeholder collaboration presents another implementation concern. Meaningful family involvement requires effective communication, mutual respect, access to information, and participation in educational decisions (Hyassat et al., 2024). Families also emphasize early planning and coordinated services during transition preparation (Coñoman et al., 2024). Multidisciplinary cooperation is particularly important when learners require integrated educational, behavioral, communication, and therapeutic support (Ahmed & Beale, 2025). Within the UAE, inclusion policies emphasize educational access, empowerment, participation, and institutional accountability. However, research distinguishes policy commitments from actual educational experiences (Al-Rashaida & Massouti, 2024; Massouti et al., 2023). The Abu Dhabi Department of Education and Knowledge (2023) and the Abu Dhabi Department of Education and Knowledge (2023) established policy directions supporting inclusive services, while Massouti et al. (2023) highlighted the influence of leadership, resources, and collaboration on implementation. Future-oriented planning is also shaped by cultural, familial, socioeconomic, and policy conditions (Al-Hendawi et al., 2024). Finally, inadequate progress monitoring may weaken conclusions regarding learner improvement. Valid assessment requires measurable indicators, repeated observations, and consideration of individual response modes (Sugita et al., 2023; Sugita et al., 2023). Data-based interventions and collaborative review support instructional adjustments (Filderman & Gesel, 2024), although differences in professional interpretation can affect judgments about progress (Shepley et al., 2023). Consistent implementation, supervision, and multidisciplinary coordination are therefore necessary for reliable evaluation (Geronimo et al., 2024). Although these studies establish the importance of individualized planning, limited case-based evidence explains how existing IEPs and CDPs are jointly implemented, monitored, and associated with functional outcomes among elementary-age learners with multiple disabilities in specialized Abu Dhabi settings. The present study addresses this gap by examining two bounded cases through existing educational records, observations, stakeholder accounts, and progress-monitoring evidence. Particular attention is given to implementation consistency, functional progress, prompting requirements, skill

maintenance, generalization, and ecological conditions affecting outcomes. Because the cases differ in the completeness of available documentation, findings are interpreted through evidence triangulation and within-case analysis rather than assumptions of equivalent records or statistical generalizability (Yin, 2018). Related discussions of inclusive schooling, transition planning, and implementation challenges provide additional context, but do not establish outcomes for the two learners examined here (Factor & Saenz, 2025; Jamal & Rashid, 2023; Meng & Yasin, 2023; Singh, 2023).

Assumptions of the Study

The study assumed that institutional documents, IEP/CDP records, observations, progress reports, and stakeholder responses provided sufficiently credible evidence of the documented implementation period when examined through source verification, triangulation, and acknowledgment of missing or unequal records. Parents, teachers, therapists, and specialists were assumed to have provided reasonable accounts of their observations and experiences, including information preserved through written responses and detailed notes when recordings were unavailable. It was further assumed that existing IEPs and CDPs were implemented across classroom, therapy, and home environments, although implementation frequency, intensity, and consistency varied according to learner needs, instructional targets, settings, and available support. Learner performance was expected to differ across tasks, communication partners, prompting levels, and observation periods; therefore, progress was interpreted through repeated performance, independence, maintenance, and generalization rather than isolated achievements. The study also assumed that institutional systems and multidisciplinary services operated during the monitoring period, although staffing, scheduling, resources, documentation, and stakeholder coordination influenced their continuity and effectiveness. Finally, the two bounded cases were considered capable of generating contextually meaningful and analytically transferable insights for comparable specialized education settings without implying statistical generalizability (Yin, 2018).

Objectives of the Study

The general objective of the study was to examine the implementation and documented outcomes of existing Individualized Education Programs (IEPs) and Career Development Plans (CDPs) for two Grade 5 learners with multiple disabilities in a specialized education center in Abu Dhabi. Specifically, the study examined how existing individualized goals were translated into classroom, therapeutic, and functional learning activities; how implementation was supported, monitored, and adjusted; and what changes were documented in communication, adaptive behavior, self-care, social participation, independence, classroom routines, and early pre-vocational skills. It also investigated stakeholder experiences and the influence of learner characteristics, multidisciplinary collaboration, institutional resources, policy expectations, and implementation conditions on educational outcomes. Through within-case analysis and cross-case comparison, the study sought to identify converging and differing evidence concerning learner progress, prompting dependence, skill maintenance, and generalization. Its findings were intended to inform recommendations for measurable goal setting, systematic progress monitoring, coordinated interventions, stakeholder participation, and early transition-oriented educational planning.

Conceptual and Theoretical Framework

The study was anchored in Bronfenbrenner's Ecological Systems Theory, interpreted through the contemporary bioecological perspective, which explains development through reciprocal interactions among individual characteristics, proximal processes, environmental contexts, and time. This perspective recognizes that educational outcomes cannot be attributed solely to

learner characteristics but must also be understood through instructional practices, relationships, institutional arrangements, and broader policy conditions (El Zaatari & Maalouf, 2022; Tong & An, 2024). At the person level, the framework considered learners' communication, cognitive, behavioral, adaptive, motor, sensory, and social characteristics in relation to their educational needs and responses to individualized interventions. The microsystem encompassed immediate learning environments, including classroom instruction, therapy, family routines, augmentative and alternative communication, visual supports, task analysis, reinforcement, and guided practice. These direct experiences provided evidence of how existing IEP/CDP goals were implemented and how functional responses developed (El Zaatari & Maalouf, 2022; Tong & An, 2024). The mesosystem represented coordination among families, teachers, therapists, specialists, and other stakeholders. Consistent communication and shared instructional strategies across home, classroom, and therapy environments were considered important for maintaining and generalizing acquired skills (Abu Dhabi Department of Education and Knowledge [ADEK], 2023; El Zaatari & Maalouf, 2022). The exosystem involved institutional factors, including staffing, service schedules, professional development, assistive resources, administrative decisions, and documentation systems that indirectly influenced implementation (ADEK, 2023; Tong & An, 2024). The macrosystem encompassed UAE policies and cultural expectations concerning inclusive education, individualized planning, specialist services, and family participation. These policies established institutional expectations but did not independently guarantee consistent implementation or positive learner outcomes (ADEK, 2023; Abu Dhabi Department of Education and Knowledge [ADEK], 2023). The chronosystem addressed changes in implementation and learner performance during the documented 13-week monitoring period, from November 14, 2025, to February 13, 2026, and the subsequent parent–teacher conference. This dimension supported examination of progress, maintenance, prompting requirements, and adjustments over time (El Zaatari & Maalouf, 2022; Tong & An, 2024). Conceptually, the study examined the relationship among three interconnected elements: implementation of existing IEPs and CDPs, ecological conditions affecting implementation, and documented functional outcomes. Implementation included individualized instruction, therapeutic strategies, communication supports, prompting, reinforcement, monitoring, stakeholder coordination, and plan adjustments. Ecological conditions represented the personal, relational, institutional, policy, and temporal influences surrounding these activities. Documented outcomes included communication, adaptive functioning, activities of daily living, social participation, classroom and pre-vocational routines, independence, skill maintenance, and generalization. These relationships were examined within each bounded case before cross-case comparison. The framework supported contextual interpretation rather than assuming a direct causal relationship between individualized planning and learner outcomes (Tong & An, 2024; Yin, 2018). Bronfenbrenner's original ecological account provides the historical foundation for the systems terminology used here (Bronfenbrenner, 1979).

Sustainable Development Goal and Multidisciplinary Sustainability Relevance

The study aligns primarily with Sustainable Development Goal 4 (Quality Education) through its emphasis on equitable, inclusive, and individualized learning opportunities for learners with multiple disabilities. By examining the implementation and documented outcomes of IEPs and CDPs, the research addresses educational barriers related to instructional accessibility, individualized support, functional participation, and progress monitoring. Its focus on meaningful learning outcomes supports educational sustainability through improved planning, coordinated interventions, and continuous evaluation (Abu Dhabi Department of Education and Knowledge [ADEK], 2023). The research also relates to SDG 3 (Good Health and Well-Being) through its consideration of adaptive functioning, self-care, communication, behavioral

regulation, and therapeutic support. These functional domains contribute to learners' everyday participation and well-being, particularly when educational and therapeutic interventions respond to complex developmental needs (Naeemy & Yoneda, 2024). This connection concerns functional well-being and coordinated support rather than the direct measurement of health outcomes. Furthermore, the study supports SDG 8 (Decent Work and Economic Growth) through its examination of early career development and transition-oriented preparation. Although the participants were elementary-age learners and employment outcomes were beyond the study's scope, the CDPs addressed foundational skills such as independence, responsibility, task completion, choice-making, and pre-vocational participation. These competencies are consistent with literature emphasizing early preparation, self-determination, and coordinated transition support for individuals with disabilities (Coñoman et al., 2024; Liao et al., 2024). The study additionally relates to SDG 10 (Reduced Inequalities) by examining individualized educational practices intended to address participation barriers experienced by learners with multiple disabilities. Its attention to accessible communication, differentiated instruction, family involvement, and institutional support reflects the broader objective of reducing disability-related inequalities in educational participation (ADEK, 2023; Naeemy & Yoneda, 2024). Overall, the study contributes to educational, social, and institutional sustainability by providing contextually grounded evidence for strengthening individualized planning, multidisciplinary collaboration, functional independence, and continuity of educational support. Its contribution lies in identifying implementation conditions and opportunities for improvement within specialized education rather than claiming direct or measurable achievement of the SDGs. The emphasis on educational inclusion is also consistent with the global framing of Sustainable Development Goal 4 (United Nations, 2021).

2. METHODOLOGY

Research Design

The study adopted a qualitative multiple-case-study design following Yin's (2018) case-study approach. Each learner constituted a separate bounded case defined by Grade 5 enrollment, existing IEP and CDP, specialized educational placement, multidisciplinary support, and the documented monitoring period. This design enabled an in-depth examination of individualized plan implementation and functional outcomes within their natural educational contexts without manipulating variables or introducing researcher-developed interventions. Guided by a constructivist orientation, the study recognized that parents, teachers, therapists, and specialists could hold differing perspectives regarding learner progress and implementation effectiveness. These perspectives were examined alongside documentary and observational evidence to strengthen contextual understanding. The Diagnose–Plan–Act–Evaluate sequence served as an organizational framework for reviewing learner profiles, existing goals, documented interventions, progress indicators, and subsequent adjustments. It did not imply that the researcher developed the original plans or administered standardized developmental assessments. The design and interpretation of this qualitative inquiry can be situated within established qualitative research approaches, including case-study design and context-sensitive interpretation (Creswell & Poth, 2018; Merriam & Tisdell, 2016; Stake, 2020).

Research Locale or Study Setting

The study was conducted in a specialized education center in Abu Dhabi, United Arab Emirates, providing individualized classroom instruction, speech-language services, occupational therapy, behavioral support, and functional-skills training through multidisciplinary collaboration. The center served learners requiring coordinated educational and therapeutic interventions across developmental and functional domains. The principal monitoring period covered 13 weeks, from November 14, 2025, to February 13, 2026. A parent–teacher conference

held on February 16, 2026, provided supplementary information regarding learner progress, continuing needs, home–school coordination, and possible instructional adjustments. Earlier records were considered only when necessary to establish the background of existing goals and interventions. Complete institutional staffing arrangements, class size, and professional-to-learner ratios were not documented and were therefore excluded from the analysis.

Participants or Data Sources

The study involved two 10-year-old male Grade 5 learners with multiple disabilities, identified by the pseudonyms Liam and Noah. Both were enrolled in the selected specialized education center, had existing IEPs and CDPs, and received multidisciplinary educational and therapeutic support. Parents, teachers, therapists, and specialists served as additional information sources because of their involvement in implementing, monitoring, and reviewing the learners' individualized plans. The exact number of adult respondents and the total eligible learner population were not established in the available records. Liam's documented needs included functional communication, augmentative and alternative communication, transitions, adaptive routines, self-care, and support-dependent task completion. Noah demonstrated visual-learning strengths but required continuing assistance with attention, communication, independence, behavioral regulation, social participation, and daily living activities. These profiles provided contextual information rather than comparative diagnostic classifications. Criterion-based purposive sampling was employed to select information-rich cases relevant to the research objective (Yin, 2018). Participants were required to be Grade 5 learners with interacting needs across multiple developmental domains, existing IEPs and CDPs, multidisciplinary support, relevant implementation and progress records, and the necessary institutional and parental permissions. The selection of two cases followed the replication logic of qualitative case-study research, allowing similar and contrasting patterns to be examined through separate case analyses and subsequent comparison (Yin, 2018). Findings were intended for analytical transferability to comparable educational settings rather than statistical generalization (Yin, 2018)

Research Instruments or Materials

Data were gathered using a researcher-prepared diagnostic-profile checklist, semi-structured interview and written-response guides, an observation and documentary-review guide, institutional progress-monitoring records, stakeholder-feedback forms, and conference documentation. These instruments supported descriptive analysis, source comparison, and evidence triangulation rather than standardized diagnostic measurement (Yin, 2018). The diagnostic-profile checklist organized existing information on communication, academic functioning, behavior, adaptive skills, motor development, self-care, and social participation. It identified learner strengths, priority needs, and established educational targets. Because formal validation documentation was unavailable, the checklist was treated as a descriptive organizer rather than a validated assessment scale. Semi-structured interview guides gathered stakeholder perspectives concerning learner abilities, instructional strategies, implementation experiences, observed progress, challenges, family priorities, and recommendations. Written responses and contemporaneous notes were used when audio or video recording was not permitted. The observation and documentary-review guide recorded target skills, instructional strategies, implementation settings, prompting levels, performance indicators, responsible personnel, and documented adjustments. Progress-monitoring materials included successful task opportunities, performance percentages, prompting requirements, mastery descriptions, and observational records. Liam's evidence included a detailed seven-page institutional progress report, whereas Noah's documentation consisted primarily of summarized monitoring records, diagnostic information, stakeholder responses, and conference documentation.

Stakeholder-feedback forms and conference records supplemented these sources by describing perceived effectiveness, implementation concerns, and home–school coordination (Braun & Clarke, 2006). Goal Attainment Scaling (GAS) was used as an individualized ordinal reference for selected functional goals, with ratings ranging from −2, indicating performance substantially below expectations, to +2, indicating performance substantially above expectations. A rating of 0 represented the expected outcome. Scores were interpreted alongside documented goals, baseline performance, prompting requirements, and observational evidence rather than treated as standardized or inferential measurements (Bard-Pondarré et al., 2023). The use of individualized goal ratings has a historical basis in goal attainment scaling (Kiresuk & Sherman, 1968; Turner-Stokes, 2009). The diagnostic-profile checklist was not equivalent to standardized instruments such as the ABLLS-R or VB-MAPP, and neither instrument was administered as part of this study (Partington, 2006; Sundberg, 2008).

Data Gathering Procedure

Data gathering followed Yin's (2018) multiple-case-study sequence, beginning with the definition of the research inquiry and selection of two learners who satisfied the established inclusion criteria. A common case-study protocol guided the organization of learner profiles, existing IEP/CDP goals, documentary sources, stakeholder questions, observation records, progress indicators, and ecological conditions relevant to implementation. Following the required permissions, available records were compiled and anonymized separately for each learner. Data sources included existing individualized plans, diagnostic profiles, classroom and therapy observations, stakeholder interviews and written responses, conference records, feedback forms, and institutional progress reports. Information was examined according to the educational targets, strategies, implementation settings, stakeholder responsibilities, prompting requirements, and documented learner responses. Intervention frequency was not standardized because implementation schedules differed according to target skills and service contexts. Each case was initially examined independently to establish relationships among learner characteristics, existing goals, implemented strategies, stakeholder experiences, functional outcomes, and continuing needs. The resulting case records were subsequently compared to identify common instructional supports, implementation barriers, contrasting outcomes, and differences in documentary evidence. Pattern matching was applied to recurring observations concerning prompting dependence, generalization, multidisciplinary coordination, and learner responses. Conclusions were limited to documented evidence, with missing, inconsistent, or unequal records explicitly acknowledged.

Data Analysis

Data analysis combined qualitative thematic analysis, within-case examination, cross-case pattern matching, and descriptive interpretation of progress indicators. Separate case databases were established to organize learner profiles, IEP/CDP targets, implementation practices, stakeholder accounts, progress records, ecological influences, and continuing support needs (Yin, 2018). Stakeholder interviews, written responses, conference notes, and feedback forms underwent thematic analysis involving familiarization, initial coding, theme development, review, refinement, and narrative interpretation. Coding incorporated predetermined categories related to implementation and functional outcomes alongside themes emerging from the documentary and stakeholder evidence (Braun & Clarke, 2006). Within-case analysis examined the relationship between each learner's identified needs, existing educational goals, instructional and therapeutic strategies, documented progress, and continuing difficulties. Cross-case analysis subsequently identified shared implementation facilitators, contrasting needs, recurring challenges, and differences in documented outcomes. Pattern matching supported the comparison of findings while preserving contradictory evidence and

case-specific circumstances (Yin, 2018). Numerical indicators, including successful opportunities, percentages, prompting levels, and GAS ratings, were interpreted descriptively to clarify functional performance. Current performance was distinguished from progress toward interim targets, and GAS scores were treated as ordinal indicators rather than averaged or subjected to inferential statistical analysis. The analysis did not constitute a separate quantitative research component. Artificial intelligence was used only as a supervised research-support tool to assist with organizing anonymized information, identifying provisional coding categories, comparing documentary descriptions, and preparing analytical narratives. All AI-generated suggestions were manually verified against original records, and unsupported interpretations were rejected or revised. AI did not generate primary data, independently determine learner progress, or replace researcher judgment. Trustworthiness was strengthened through triangulation, separate case databases, an audit trail, cross-checking of stakeholder accounts, and transparent reporting of incomplete or contradictory evidence. Credibility, dependability, confirmability, and transferability were addressed through evidence convergence, documented procedures, traceable interpretations, and contextual descriptions (Braun & Clarke, 2006). Because Liam's institutional records were more detailed than Noah's, cross-case conclusions emphasized implementation patterns and contextual differences rather than numerical rankings of effectiveness. The study's triangulation and audit-trail procedures may also be interpreted in relation to qualitative research trustworthiness and evaluation literature (Lincoln et al., 2018; Patton, 2021).

Ethical Consideration

Ethical safeguards included institutional authorization, parental or legal-guardian consent, voluntary adult participation, confidentiality, and protection of learners with disabilities. Respondents were permitted to decline recording or discontinue participation without penalty, consistent with ethical principles governing educational research involving children and vulnerable participants (BERA, 2024). Pseudonyms were assigned to both learners, and identifying information concerning participants, families, educational personnel, classrooms, addresses, and contact details was removed from the research manuscript. Original identifiable documents were maintained separately in restricted research files, while anonymized summaries and extracts were used for analysis and reporting. When audio or video recording was declined for personal or cultural reasons, detailed written notes and respondent-provided answers were accepted as alternatives. The absence of recordings was acknowledged as a limitation affecting verbatim documentation and detailed discourse analysis. Institutional reports and copyrighted materials were summarized rather than reproduced in full, and research evidence was used exclusively for the approved academic purpose. Incomplete records, stakeholder perceptions, and researcher-prepared summaries were not represented as official diagnoses or institutional determinations (BERA, 2024). The use of artificial intelligence was additionally restricted to anonymized materials and supervised analytical assistance, with original records retained as the authoritative evidence base. The researcher maintained responsibility for the accuracy, confidentiality, interpretation, and reporting of all research information.

3. RESULTS AND DISCUSSION

3.1 Implementation and Documented Functional Outcomes of Individualized Education Programs and Career Development Plans

3.1.1 Learner Profiles and Priority Educational Needs

The two learners demonstrated overlapping needs in communication, adaptive functioning, independence, behavioral regulation, and social participation. Liam's documented priorities

included functional communication, self-care, classroom routines, social participation, and early pre-vocational skills. Noah demonstrated visual-learning strengths but required continuing support in attention, communication, behavior regulation, daily living activities, and community participation. Both learners received structured instruction, visual supports, task breakdown, and adult guidance. However, Liam's evidence included a detailed institutional progress report, whereas Noah's information consisted mainly of diagnostic records, stakeholder responses, conference documentation, and summarized monitoring data. These findings demonstrate the importance of connecting diagnostic profiles with individualized educational goals, instructional strategies, and functional outcomes. The differences in learner needs and documentation emphasize that individualized plans must reflect each learner's present performance rather than standardized expectations. This supports Rashid and Wong's (2023) concern regarding the alignment of present levels and future-oriented goals and Rashid and Wong's (2023) emphasis on implementation quality and monitoring. From an ecological perspective, learner characteristics interact with instructional environments, while institutional documentation practices influence the evidence available for evaluating progress. The International Classification of Functioning, Disability and Health offers a broader conceptual vocabulary for functioning and participation, but was not used here as a formal coding instrument (World Health Organization, 2001).

3.1.2 Functional Communication and Augmentative and Alternative Communication

Liam demonstrated strong performance in selected functional communication targets, maintaining 100% performance in requesting help, responding to his name, and joint attention under documented conditions. His most recent augmentative and alternative communication (AAC) requesting performance reached 36 successful responses in 36 opportunities, although his two-week average was 64%. Noah demonstrated two successful AAC responses in five opportunities, representing 40% current performance and 66.67% attainment of an interim target of three responses. Both learners showed emerging communication abilities, but their records did not establish consistent independence or generalization across communication partners and settings. The differences between recent performance, multi-session averages, and interim-target attainment indicate that successful responses under structured conditions should not automatically be interpreted as mastery. Liam's high recent performance contrasted with his lower average, while Noah's current performance and percentage of target attainment represented different measurements. AAC instruction therefore requires clearly defined communication functions, prompting levels, opportunities, and generalization criteria. These findings support the importance of functional communication and recurring interactions within immediate educational environments, consistent with the ecological interpretation of individualized instruction (Hoover et al., 2024; Tong & An, 2024). They also reinforce the need for measurable goals and coordinated communication strategies across educational settings (Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

3.1.3 Daily Living Routines and Adaptive Functioning

Liam's most recent classroom-routine performance was three completed components out of four, although his three-trial average was 42%. His average performance in wiping an iPad was 33%, while laundry-related activities averaged 25%. Noah's picture-schedule performance increased from one successful response in five opportunities on the first documented day to four successful responses in five opportunities on the fourth and fifth days. Both learners

demonstrated improvement or emerging participation in structured routines but continued to depend on visual guidance, adult prompting, and repeated practice. These findings suggest that predictable routines, visual organization, and task analysis supported participation but did not consistently produce independent task completion. Liam's lower multi-trial averages indicate variability in routine performance, while Noah's improvement occurred under conditions involving continued assistance. Functional instruction therefore requires observable task components, systematic prompt fading, and repeated practice across environments. The findings reflect the importance of immediate instructional experiences and coordinated strategies across home, classroom, and therapy settings (Naeemy & Yoneda, 2024; Tong & An, 2024). They are also consistent with evidence emphasizing the alignment of individualized goals, instructional supports, and progress monitoring (Naeemy & Yoneda, 2024; Tong & An, 2024).

3.1.4 Self-Care, Hygiene, and Personal Independence

Liam's self-help performance was strongest in handwashing, averaging 71%, followed by brushing his hair at 53%, washing his face at 40%, applying lotion at 33%, and putting on socks at 27%. Noah independently completed two of three steps in a documented hygiene routine, while his handwashing Goal Attainment Scaling rating improved from −2 to 0, indicating attainment of the expected individualized outcome. Despite these gains, both learners continued to require support for multistep self-care activities, and Noah's records identified continuing needs in dressing tolerance, toileting, and toothbrushing. The variation across self-care tasks indicates that functional independence depends on the specific motor, sensory, cognitive, and sequencing demands of each activity. More familiar routines, such as handwashing, showed stronger documented performance than activities requiring additional coordination or sustained attention. These findings support the use of individualized task analysis, consistent prompting procedures, and authentic practice opportunities rather than treating self-care as a single generalized ability. They are consistent with functional educational approaches emphasizing participation in daily living activities and the ecological importance of coordinated support across immediate environments (Naeemy & Yoneda, 2024; Hoover et al., 2024).

3.1.5 Early Pre-Vocational Skills and Functional Task Completion

Liam demonstrated five successful book-sorting responses in six opportunities during his most recent assessment, with a three-trial average of 72%. However, table setting and number sequencing remained at 0% in the documented monitoring records. His performance indicated stronger participation in concrete sorting activities than in more complex sequencing and multistep tasks. Noah's records emphasized functional responsibility, routine completion, and supported independence rather than equivalent numerical measures of pre-vocational performance. These findings suggest that early career-development activities should correspond to learners' existing functional abilities and prerequisite skills. Concrete sorting and familiar responsibility routines provided more accessible opportunities for participation, while tasks involving symbolic discrimination or multiple sequential responses remained challenging. The results support individualized preparation for functional independence and future participation rather than assuming that all pre-vocational targets are developmentally equivalent. They also reinforce the ecological view that task demands, instructional supports, and available practice opportunities influence documented performance. Research and practice literature on transition preparation offers a wider context for the study’s early pre-

vocational goals, without implying that employment outcomes were measured (Mewar, 2023; Puzon, 2025; Snell-Rood et al., 2020).

3.1.6 Social Participation and Behavioral Regulation

Liam mastered responding to his own name but averaged only 22% in a video-call participation routine, indicating difficulty sustaining more complex social interactions. Noah demonstrated emerging social and community participation with visual support and adult guidance. His parent–teacher conference record also reported reduced shirt-mouthing behavior at school following structured behavioral support. However, no systematic baseline frequency, duration, or magnitude of behavioral reduction was documented. Continuing concerns included public-volume regulation, attention, and independent participation in unfamiliar settings. These findings indicate that successful performance in familiar social routines does not necessarily extend to more complex interactions or community environments. Liam's difficulty with video calls involved multiple communication and attention demands, while Noah's reported behavioral improvement lacked sufficient quantitative evidence to establish mastery. Social and behavioral goals therefore require observable indicators, systematic monitoring, and opportunities for generalization. The findings reflect the influence of immediate interactions and coordinated environmental supports on participation and behavioral regulation (Naeemy & Yoneda, 2024; Tong & An, 2024).

3.1.7 Overall Implementation and Progress of Individualized Plans

Liam's 13-week institutional report documented 15 active objectives, of which one was classified as met and 14 remained in progress. His strongest recorded performance involved selected communication targets and book sorting, while daily living routines, self-help, and social participation showed uneven development. Noah demonstrated improvement in picture-schedule use, selected hygiene activities, handwashing, and supported communication, although his outcomes were documented less extensively. Across both cases, the existing IEPs and CDPs were partially effective in supporting functional participation, but consistent independence and generalization remained limited. The findings indicate that individualized educational planning supported emerging functional development but did not produce uniform progress across all target domains. Task complexity, instructional consistency, prompting requirements, and opportunities for repeated practice influenced the interpretation of learner outcomes. High performance in individual sessions could not establish sustained mastery without corresponding longitudinal evidence. These results support literature emphasizing the importance of functional participation, individualized supports, and ecological conditions in evaluating educational outcomes (Naeemy & Yoneda, 2024; Hoover et al., 2024; Tong & An, 2024).

3.2 Stakeholder Experiences and Multidisciplinary Collaboration

3.2.1 Parent, Teacher, and Therapist Perspectives

Stakeholder accounts identified communication, self-care, independence, behavioral regulation, and functional participation as continuing priorities for both learners. Parents, teachers, and therapists described the usefulness of visual supports, structured routines, repetition, reinforcement, and guided practice. Liam's stakeholders emphasized maintaining communication gains while improving independent performance and generalization. Noah's stakeholders identified progress in routines and hygiene alongside continuing concerns about

behavior, attention, and community participation. His parent specifically requested instructional videos and photographs to help reproduce school strategies at home. These findings suggest that stakeholder participation provided complementary information about learner performance across different environments. However, sharing observations did not necessarily ensure consistent implementation across home, school, and therapy. Effective collaboration requires agreement on target behaviors, instructional sequences, prompting procedures, and progress indicators. The results are consistent with literature emphasizing coordinated individualized planning and meaningful family-professional participation (McKenna et al., 2024; Tong & An, 2024). Family perspectives on individualized educational support also warrant consideration when interpreting stakeholder accounts (Villaver, 2025).

3.2.2 Implementation Challenges and Continuing Support Needs

Across both cases, stakeholders identified prompt dependence, inconsistent independence, limited skill generalization, and variable performance as continuing challenges. Liam required further support in AAC generalization, transitions, self-care, complex routines, and pre-vocational activities. Noah continued to need assistance with sustained attention, independent communication, behavioral regulation, hygiene, and community participation. Differences in service schedules, implementation contexts, and documentation also affected the consistency of available evidence. These challenges indicate that completing an activity with adult assistance differs from demonstrating independent functional competence. Continued prompting may support immediate participation while making it difficult to determine whether learners have acquired skills that can be performed without assistance. Individualized plans therefore require measurable independence criteria, systematic prompt fading, and coordinated practice across settings. These findings are consistent with research emphasizing the relationship among individualized goals, supplementary supports, implementation procedures, and ecological conditions (Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

3.3 Cross-Case Comparison of Functional Outcomes

3.3.1 Common Strengths and Effective Instructional Supports

Both learners demonstrated improved participation in selected functional activities when instructional expectations were predictable and supports were individualized. Liam showed relative strengths in AAC-supported communication, familiar social responses, handwashing, and concrete sorting tasks. Noah demonstrated stronger performance in picture-schedule use, supported hygiene routines, handwashing, and selected communication responses. Across cases, AAC, visual schedules, task analysis, repetition, reinforcement, structured routines, and guided practice were associated with improved engagement and task completion. These findings suggest that individualized instructional supports helped reduce the immediate demands of communication, sequencing, attention, and multistep activities. However, their effectiveness depended on alignment with learner characteristics and established goals. Support-assisted success should therefore be distinguished from independent performance. This interpretation is consistent with research emphasizing individualized goal alignment, supplementary instructional supports, and ecological interactions between learners and their immediate environments (Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

3.3.2 Maintenance, Independence, and Generalization of Skills

Both learners showed continuing difficulties transferring acquired skills across activities, communication partners, and environments. Liam's strong recent AAC performance contrasted with lower multi-session averages, while Noah's improved picture-schedule performance remained dependent on adult guidance. Neither case provided sufficient evidence of consistent independent performance across all targeted functional domains. Generalization therefore remained a principal challenge despite documented gains in structured educational activities. The findings indicate that skill acquisition within familiar instructional conditions does not necessarily establish maintenance or generalization. Changes in setting, materials, communication partners, or prompting procedures may influence learner responses. Individualized plans should consequently distinguish initial acquisition from sustained and independent use across natural environments. This interpretation is consistent with research emphasizing meaningful functional participation and the ecological importance of coordination among classroom, therapy, home, and community contexts (Prinsloo et al., 2024; Tong & An, 2024).

3.3.3 Differences in Documentation and Strength of Evidence

Liam's progress was supported by a detailed institutional report containing dated objectives, trial-level indicators, recent performance, and multi-session averages. Noah's evidence consisted primarily of diagnostic information, stakeholder accounts, conference records, and summarized monitoring data. Consequently, Liam's records permitted more detailed examination of performance trends, while Noah's documentation supported narrower conclusions about selected functional skills. The difference in evidence quality prevented a valid numerical comparison of overall effectiveness between the two cases. These findings demonstrate that documentation quality affects the strength of conclusions about individualized educational outcomes. More extensive records do not necessarily indicate better instruction or greater learner improvement; they provide more opportunities to verify performance and identify trends. Standardized recording procedures are therefore important for evaluating progress while preserving individualized goals. This interpretation aligns with research emphasizing measurable educational targets, evidence traceability, and the influence of institutional documentation systems on progress evaluation (McKenna et al., 2024; Tong & An, 2024).

3.4 Ecological Factors Influencing Implementation and Outcomes

3.4.1 Microsystem: Direct Instruction and Immediate Learning Environments

At the microsystem level, implementation was supported by structured instruction, AAC, visual schedules, task analysis, reinforcement, and direct guidance from teachers and therapists. These strategies facilitated participation in communication, self-care, classroom routines, and functional activities. Nevertheless, both learners continued to demonstrate attention variability, prompt dependence, communication difficulties, and inconsistent independent performance. The findings indicate that immediate instructional environments influenced learner engagement and task completion. Predictable routines and visual supports improved access to learning activities, but adult assistance did not consistently translate into independent functioning. This supports ecological interpretations emphasizing reciprocal interactions between learners and their immediate environments and research highlighting the importance of aligning individualized goals with instructional supports and observable outcomes (Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

3.4.2 Mesosystem: Home–School–Therapy Collaboration

Communication among parents, teachers, therapists, and specialists facilitated shared educational priorities, progress review, and problem-solving. Stakeholder feedback and conference discussions provided opportunities to coordinate instructional practices, while requests for demonstrations and visual materials reflected efforts to extend learning into home environments. However, inconsistencies in routines, prompting procedures, and opportunities for practice limited the transfer of functional skills across settings. These findings suggest that collaboration was beneficial when stakeholders translated shared priorities into consistent instructional practices. Information exchange alone was insufficient to establish continuity between school, therapy, and home. The results reflect the mesosystem principle that learner development is influenced by connections among immediate environments and support literature emphasizing coordinated multidisciplinary implementation (McKenna et al., 2024; Tong & An, 2024).

3.4.3 Exosystem: Institutional Resources and Documentation Systems

Institutional specialist services, multidisciplinary resources, administrative arrangements, and monitoring systems supported the implementation of individualized plans. However, time constraints, differing service schedules, uneven documentation, and variable opportunities for functional practice affected implementation consistency. Liam's detailed institutional progress report and Noah's comparatively limited monitoring records demonstrated differences in the availability and precision of evidence. These findings indicate that institutional arrangements indirectly influenced both educational implementation and the evaluation of learner outcomes. Documentation differences should not be interpreted as evidence of unequal intervention effectiveness, but they limited the comparability of progress records. The results are consistent with literature emphasizing the influence of professional capacity, workload, institutional procedures, and resource availability on individualized educational programming (Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

3.4.4 Macrosystem: Inclusive Education Policies and Institutional Expectations

UAE policies supporting inclusive education and people of determination established expectations concerning individualized educational planning, specialist services, family participation, and continuing progress review. These policy frameworks provided an institutional basis for the implementation of IEPs and CDPs. However, the study identified practical challenges involving resources, staffing arrangements, instructional consistency, and documentation that could affect the realization of these expectations. The findings indicate that policy support does not independently guarantee effective implementation. Institutional capacity determines how formal expectations are translated into educational practices, coordinated services, and measurable learner outcomes. This interpretation is consistent with UAE inclusion policies emphasizing individualized support, accessible education, stakeholder participation, and institutional accountability (Abu Dhabi Department of Education and Knowledge [ADEK], 2023). National and local policy materials offer additional context for the institutional expectations discussed here (United Arab Emirates Ministry of Education, 2020).

3.4.5 Chronosystem: Changes in Performance Across the Monitoring Period

The 13-week monitoring period and subsequent parent–teacher conference documented improvements in selected communication, self-care, visual-routine, and participation targets. However, progress remained uneven and frequently depended on structured support. Liam's most recent AAC performance of 36 successful responses in 36 opportunities contrasted with his two-week average of 64%, while Noah's improvement in picture-schedule performance did not establish long-term maintenance or independent generalization. These findings demonstrate the importance of examining performance over time rather than relying on isolated successful responses. Repeated monitoring provides a stronger basis for distinguishing emerging acquisition, maintenance, regression, and generalization. The results support contemporary bioecological interpretations recognizing time as an essential dimension of learner development and individualized educational implementation (McKenna et al., 2024; Tong & An, 2024).

3.5 Synthesis of Major Findings

The multiple-case analysis demonstrated that existing IEPs and CDPs were partially effective in supporting functional development among the two learners with multiple disabilities. Liam showed stronger documented performance in selected communication, handwashing, and book-sorting activities, while Noah demonstrated emerging gains in picture-schedule use, hygiene, handwashing, and supported communication. Across cases, visual supports, AAC, structured routines, task analysis, repetition, reinforcement, and multidisciplinary guidance facilitated participation. Nevertheless, most functional outcomes remained developing, with continuing challenges involving prompting dependence, inconsistent independence, limited generalization, and unequal progress documentation. Collectively, the findings indicate that the effectiveness of individualized educational plans depends not only on the presence of appropriate goals and interventions but also on implementation consistency, stakeholder coordination, institutional resources, and systematic monitoring. The bioecological perspective explains how learner characteristics interact with direct instruction, relationships, organizational systems, policy expectations, and changes across time. The findings support the need for measurable targets, systematic prompt fading, standardized progress monitoring, and coordinated practice across environments while recognizing that the two bounded cases provide contextually grounded rather than statistically generalizable evidence (Rashid & Wong, 2023; Naeemy & Yoneda, 2024; McKenna et al., 2024; Tong & An, 2024).

4. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that the implementation of existing Individualized Education Programs (IEPs) and Career Development Plans (CDPs) supported emerging functional development among two Grade 5 learners with multiple disabilities in a specialized education center in Abu Dhabi, United Arab Emirates. Both learners demonstrated progress in selected areas of communication, self-care, daily routines, and functional participation, although performance varied according to individual needs, task complexity, and instructional support. Visual schedules, augmentative and alternative communication, structured routines, and multidisciplinary guidance were associated with improved participation, while prompting dependence and limited skill generalization remained significant challenges. Stakeholder accounts further demonstrated the importance of coordination among teachers, therapists, and families. Differences in the completeness of learner records affected the strength of documented evidence. Overall, the findings highlight that meaningful individualized planning

requires consistent implementation, measurable functional goals, coordinated support, and systematic progress monitoring rather than the existence of educational plans alone.

The specialized education center should strengthen the consistent implementation and monitoring of existing IEPs and CDPs by establishing clearly defined functional targets, observable performance indicators, and systematic documentation procedures. Teachers and therapists should prioritize strategies that promote independent communication, self-care, daily living skills, and early pre-vocational participation through structured instruction, task analysis, visual supports, and gradual reduction of adult prompting. Progress monitoring should distinguish supported task completion from independent performance and document skill maintenance and generalization across settings. Administrators should facilitate regular multidisciplinary reviews to align instructional strategies, clarify responsibilities, and address inconsistencies in service delivery and documentation. Parents should receive practical demonstrations, visual materials, and guidance to support consistent practice at home. Future research may examine additional learners and specialized educational settings using more consistent longitudinal records to strengthen understanding of implementation patterns and functional outcomes across different contexts.

The study involved only two Grade 5 male learners with multiple disabilities from one specialized education center in Abu Dhabi, limiting the transferability of findings to other learners and educational settings. Its qualitative multiple-case-study design did not support statistical generalization or causal conclusions. The 13-week monitoring period provided a limited basis for evaluating long-term skill maintenance and generalization. Differences in documentation also affected cross-case comparison, as Liam's detailed progress records offered more extensive evidence than Noah's summarized records and stakeholder accounts. Future studies involving additional cases, longer monitoring periods, and more consistent performance documentation may provide stronger comparative evidence.

5. REFERENCES

Abu Dhabi Department of Education and Knowledge. (2023). *School inclusion policy*. https://www.adek.gov.ae/Education-System/Education-Policies/School-Policies

Abu Dhabi Department of Education and Knowledge. (2024). *School policies: Teaching and learning*. https://adek.gov.ae/en/Education-System/Education-Policies/School-Policies-Teaching-and-Learning

Ahmed, S., & Beale, A. (2025). Institutional support and collaborative practices in individualized education for students with complex needs. *Education & Treatment of Children, 48*(1), 89–112. https://doi.org/10.1353/etc.2025.0005

Al-Hendawi, M. K., Keller, C., & Alqahwaji, A. (2024). *Special education teachers' self-efficacy and knowledge of learning disabilities in inclusive education in Qatar*. https://doi.org/10.29117/jes.2024.0180

Al-Rashaida, M., & Massouti, A. (2024). Assessing the efficacy of online teacher training programs in preparing pre-service teachers to support students with special educational needs in mainstream classrooms in the UAE: A case study. *Journal of Research in Special Educational Needs, 24*(1), 188–200. https://doi.org/10.1111/1471-3802.12624

Aldas, J., Delos Reyes, N. R., Tenerife-Cañete, J. J., & Añero, M. (2025). Individualized Education Programs (IEPs) in Practice: A Qualitative Study on the Challenges in the Context of Its Implementation. *British Journal of Teacher Education and Pedagogy, 4*(2), 88–112. https://doi.org/10.32996/bjtep.2025.4.2.8

Alfawzan, S., & Almulhim, N. (2024). Barriers and facilitators to implementing transition services for students with intellectual disabilities in the kingdom of Saudi Arabia: A systematic

review. *Journal of Intellectual Disabilities*. Advance online publication. https://doi.org/10.1177/17446295241301853

Almoghyrah, H. (2023). The challenges of implementing individualised education plans with children with Down syndrome at mainstream schools in Riyadh, Saudi Arabia: Teachers' perspectives. *International Journal of Disability, Development and Education, 70*(3), 291–313.

Alsahou, H. J., Alqallaf, B. J., & Almarzouq, N. S. (2025). Divergent approaches to IEPs: comparative study of gifted and special education teachers in segregated programs in Kuwait. *Journal of Special Education Research and Practice*. https://doi.org/10.21608/jsrep.2025.410260

American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy, 74*(Suppl. 2), 7412410010p1–7412410010p87. https://doi.org/10.5014/ajot.2020.74S2001

Angco, N., Pepito, J. C., Capuno, R. G., De los Reyes, C. E. P., De los Reyes, N. R. T., & Pinili, L. C. (2025). Mainstreaming strategies, outcomes, and interventions for students with special educational needs. *American Journal of Education and Technology, 4*(4). https://doi.org/10.54536/ajet.v4i4.5811

Bard-Pondarré, R., Villepinte, C., Roumenoff, F., Lebrault, H., Bonnyaud, C., Pradeau, C., Bensmail, D., Isner-Horobeti, M.-E., & Krasny-Pacini, A. (2023). Goal attainment scaling in rehabilitation: An educational review providing a comprehensive didactical tool box for implementing goal attainment scaling. *Journal of Rehabilitation Medicine, 55*, Article jrm6498. https://doi.org/10.2340/jrm.v55.6498

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

British Educational Research Association. (2024). *Ethical guidelines for educational research* (5th ed.). https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-fifth-edition-2024-online

Bronfenbrenner, U. (1979*). The ecology of human development: Experiments by nature and design*. Harvard University Press.

Concepcion, R. M., Abaya, D. O., & Magaya, A. D. K. (2025). Bridging knowledge and practice: Special education teachers' role in individualized education plan development. *Journal of Education, Learning, and Management, 2*(1), 92–99.

Coñoman, G. I., Ávila, V., & Carmona, C. (2024). *Initiatives to support the school-to-work transition of people with intellectual disabilities: A systematic review*. https://doi.org/10.3109/13668250.2024.2317799

Creswell, J. W., & Poth, C. N. (2018*). Qualitative inquiry and research design: Choosing among five approaches (4th ed.)*. SAGE Publications. https://us.sagepub.com/en-us/nam/qualitative-inquiry-and-research-design/book246896

El Zaatari, W., & Maalouf, I. (2022). How the Bronfenbrenner bio-ecological system theory explains the development of students' sense of belonging to school? *SAGE Open, 12*(4). https://doi.org/10.1177/21582440221134089

Factor, S. D., & Saenz, C. R. (2025). Barriers and enablers of inclusive education for learners with disabilities: The case of Philippine primary schools. *International Journal of Research and Innovation in Social Science*. https://dx.doi.org/10.47772/IJRISS.2025.908000158

Filderman, M. J., & Gesel, S. A. (2024). Data teams: A collaborative approach to intensifying intervention using student data. TEACHING Exceptional Children, 56(6), 482–491. https://doi.org/10.1177/00400599221096753

Garwood, J. D. (2023). Special educator burnout and fidelity in implementing behavior support plans: A call to action. *Journal of Emotional and Behavioral Disorders, 31*(2), 84–96. https://doi.org/10.1177/10634266221099242

Geronimo, A. S., Gomez, M. F. D., Bulotano, L. C., Gayo, M. G. G., Degaynon, R. J. M., & Cagape, W. E. (2024). Addressing barriers in IEP implementation: Enhancing teacher preparedness and resource allocation for inclusive education. *International IT Journal of Research, 2*(4). https://itjournal.org/index.php/itjournal/article/download/61/46/106

Hoover, J. J., Patton, J. R., & Sacco, D. M. (2024). Editorial: Evidence informed practice for creating meaningful individual special education programs for diverse students with learning disabilities. *Frontiers in Education, 9*, Article 1434020. https://doi.org/10.3389/feduc.2024.1434020

Hyassat, M., Al-Bakar, A., Al-Makahleh, A., & Al-Zyoud, N. (2024). Special education teachers' perceptions of parental involvement in inclusive education. *Education Sciences, 14*(3), Article 294. https://doi.org/10.3390/educsci14030294

Jamal, N. S., & Rashid, S. M. (2023). Attitude of special education teachers in implementing the career transition program for students with visual impairments. *International Journal of Academic Research in Business and Social Sciences, 13*(9), 18360. https://doi.org/10.6007/IJARBSS/v13-i9/18360

Kiresuk, T. J., & Sherman, R. E. (1968). Goal attainment scaling: A general method for evaluating comprehensive community mental health programs. *Community Mental Health Journal, 4*, 443–453. https://doi.org/10.1007/BF01530764

Liao, C. W., Juan, S. N., Ho, W. S., Sun, S. J., & Hsieh, Y.-J. (2024). Key facets of effective career development for students with intellectual disabilities: Insights from a Taiwanese high school case study. *International Journal of Developmental Disabilities, 70*(7), 1318–1331. https://doi.org/10.1080/20473869.2024.2363013

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (5th ed., pp. 108– 150). SAGE Publications*. https://us.sagepub.com/en-us/nam/the-sage-handbook-of-qualitative-research/book250150

Li, Y., & Sun, X. (2025). Perceptions of special education stakeholders in individualized planning. *Journal of Educational Research and Practice, 15*(2), 75–90. https://doi.org/10.5590/JERAP.2025.15.2.05

Massouti, A., Shaya, N., & Abukhait, R. (2023). Revisiting leadership in schools: Investigating the adoption of the Dubai inclusive education policy framework. *Sustainability, 15*(5), Article 4274. https://doi.org/10.3390/su15054274

McKenna, J. W., Solis, M., Garwood, J., & Parenti, M. (2024). Characteristics of individualized education programs for students with learning disabilities: A systematic review. *Learning Disability Quarterly, 47*(3), 194–207. https://doi.org/10.1177/07319487231182697

Meng, T. Y., & Yasin, M. H. M. (2023). Implementation of Career Transition Program for students with Learning Disabilities in Sabah. *International Journal of Academic Research in Business and Social Sciences, 13*(3), 1201–1212. https://doi.org/10.6007/IJARBSS/v13-i3/16353

Merriam, S. B., & Tisdell, E. J. (2016*). Qualitative research: A guide to design and implementation (4th ed.)*. Jossey-Bass. https://www.wiley.com/en-us/Qualitative+Research%3A+A+Guide+to+Design+and+Implementation%2C+4th+Edition-p-9781119003618

Mewar, S. (2023). Promoting transition readiness for students with disabilities in special education. *Global International Research Thoughts, 11*(1), 26–30. https://doi.org/10.36676/girt.2023-v11i1-06

Naeemy, M. I., & Yoneda, H. (2024). Students with intensive needs in an inclusive education system: A literature review. *Journal of ICSAR, 8*(2), 204–229. https://doi.org/10.17977/um005v8i2p204

Nur Hanini Anne, S., & Rashid, R. (2024). Competency development for special education teachers: Implementing IEPs in inclusive classrooms. *Malaysian Journal of Special Education, 12*(1), 10–27. https://www.mjse.org/anne2024

Partington, J. W. (2006*). The Assessment of Basic Language and Learning Skills–Revised (ABLLS-R)*. Behavior Analysts, Inc.

Patton, M. Q. (2021*). Qualitative research & evaluation methods (4th ed.)*. SAGE Publications. https://us.sagepub.com/en-us/nam/qualitative-research-evaluation-methods/book246125

Prinsloo, P., Dada, S., Bastable, K., Raghavendra, P., & Granlund, M. (2024). The application of the family of participation-related constructs (fPRC) framework to AAC intervention outcomes in children with complex communication needs: A scoping review. *Augmentative and Alternative Communication, 40(3), 182–195*. https://doi.org/10.1080/07434618.2023.2276701

Puzon, D. G. (2025). Status of implementation and the success of the transition program for students with learning disabilities: The case of Sanchez Mira, Cagayan. *AIDE Interdisciplinary Research Journal, 12*(1), 1–25. https://doi.org/10.56648/aide-

Rashid, S. M. M., & Wong, M. T. (2023). Challenges of implementing the individualized education plan (IEP) for special needs children with learning disabilities: Systematic literature review (SLR). *International Journal of Learning, Teaching and Educational Research, 22*(1), 15–34. https://doi.org/10.26803/ijlter.22.1.2

Shepley, C., Lane, J. D., & Graley, D. (2023). Progress monitoring data for learners with disabilities: Professional perceptions and visual analysis of effects. *Remedial and Special Education, 44*(4), 283–293. https://doi.org/10.1177/07419325221128907

Singh, A. (2023). Issues and challenges in special education: A qualitative analysis from teacher's perspective. *Global International Research Thoughts, 11*(1). https://doi.org/10.36676/girt.2023-v11i1-02

Snell-Rood, C., Ruble, L. A., Kleinert, H., McGrew, J. H., Adams, M., Rodgers, A., Odom, J., Wong, W. H., & Yu, Y. (2020). Stakeholder perspectives on transition planning, implementation, and outcomes for students with autism spectrum disorder. *Autism, 24*(5), 1164–1176. https://doi.org/10.1177/1362361319894827

Stake, R. E. (2020). Qualitative case studies. *In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (5th ed., pp. 485–502). SAGE Publications*. https://us.sagepub.com/en-us/nam/the-sage-handbook-of-qualitative-research/book250150

Sugita, T., Busse, R. T., & Aryadad, A. H. (2023). After "Endrew": Progress monitoring methods for supporting IEP teams. *Contemporary School Psychology, 27*(2), 317–323.

Sundberg, M. L. (2008*). VB-MAPP: Verbal Behavior Milestones Assessment and Placement Program*. AVB Press.

Toman, G., & Maag, J. W. (2024). A survey of rural special education teachers' professional development experiences. *Rural Special Education Quarterly, 43*(3), 150–160.

Tong, P., & An, I. S. (2024). Review of studies applying Bronfenbrenner's bioecological theory in international and intercultural education research. *Frontiers in Psychology, 14*, Article 1233925. https://doi.org/10.3389/fpsyg.2023.1233925

Turner-Stokes, L. (2009). Goal attainment scaling (GAS) in rehabilitation: A practical guide. *Clinical Rehabilitation, 23*(4), 362–370. https://doi.org/10.1177/0269215508101742

United Arab Emirates Ministry of Education. (2020*). Resolution No. (647) of 2020 on the policy of inclusive education*. https://moe.gov.ae/en/about-us/legislations/Pages/inclusive-education-policy-ministerial-resolution-647-2020-uae.aspx

United Nations. (2021*). Sustainable Development Goal 4: Quality education*. United Nations. https://sdgs.un.org/goals/goal4

Villaver, M. (2025). Parental challenges in supporting the executive functional skills of learners with special needs. *Special Educator e Journal*.

World Health Organization. (2001*). International classification of functioning, disability and health: ICF*. World Health Organization. https://iris.who.int/handle/10665/42407

Yeager, K. H., & Morgan, J. J. (2023). Transition perspectives of high school students with learning disabilities: A qualitative metasynthesis. *Learning Disability Quarterly, 46*(3), 191–203. https://doi.org/10.1177/07319487221140100

Yin, R. K. (2018*). Case study research and applications: Design and methods (6th ed.)*. SAGE Publications. https://us.sagepub.com/en-us/nam/case-study-researchand-applications/book250150