

# Evaluating the Effectiveness of the ANIS Programme for Children with Disabilities in Selangor (2019-2021): A Policy and Practice Review

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## ABSTRACT

This study evaluates the effectiveness of the Anak Istimewa Selangor (ANIS) Programme, a state-initiated framework supporting children with disabilities through early intervention, inclusive education, and parental empowerment. Conducted between 2019 and 2021, the research aimed to determine how effectively ANIS achieved its objectives and to identify key areas for policy and implementation improvement. Using a mixed-methods approach comprising four interrelated studies, data were gathered from parents, educators, early intervention practitioners, and programme implementers across Selangor. Findings revealed that ANIS has successfully enhanced parental awareness, strengthened teacher preparedness through Akademi ANIS, and improved service quality at Early Intervention and Community-Based Rehabilitation Centres. Parents reported high satisfaction with intervention outcomes and the professionalism of ANIS staff, while practitioners emphasized the need for broader geographical access, consistent communication, and sustained professional development. Despite notable achievements, challenges remain in ensuring equitable access, systematic monitoring, and integration with national inclusive education frameworks. Overall, ANIS demonstrates strong progress in building an inclusive ecosystem for children with disabilities in Selangor, offering valuable insights for scaling and institutionalizing disability support programmed within Malaysia's broader social policy landscape.

**Keywords**— ANIS programme, children with disabilities, inclusive education, early intervention, policy evaluation, Selangor, Malaysia

## INTRODUCTION

In recent years, the importance of inclusive support systems for children with special needs has gained increasing attention at both national and global levels (Olusanya et al., 2025). In Malaysia, initiatives such as Anak Istimewa Selangor (ANIS) have been established to address the multifaceted needs of children with disabilities and their families through early intervention, educational support, and community engagement (UNICEF Malaysia, 2019). As part of the state government's broader commitment to social inclusion and educational equity, ANIS offers a range of programs that aim to empower children with special needs and their caregivers, enhance the quality of teaching in early intervention settings, and strengthen the ecosystem of support services across Selangor (Ministry of Education Malaysia, 2023).

Despite the increasing implementation of such programs, there remains a pressing need to systematically evaluate their effectiveness and identify areas for improvement (Fazree et al., 2021). Comprehensive evaluation not only ensures that program goals are being met but also provides empirical insights to inform policy refinement and future planning (Xie et al., 2024; UNICEF Malaysia, 2019). In this context, this research was designed to investigate how effectively ANIS programs align with and fulfill their intended objectives. The study addresses the experiences and perceptions of key stakeholders, including parents, educators, program implementers, and early childhood professionals (Shin et al., 2025).

This research is structured around four interrelated mini-studies, each addressing a unique domain within the scope of ANIS's operational framework. Study 1 focuses on parental awareness and financial support management, exploring how parents perceive and engage with empowerment initiatives for their children. Study 2 evaluates the effectiveness of the Didik ANIS program from the perspective of practitioners at Early Intervention and Community-Based Rehabilitation Centres. Study 3 examines the preparedness and perceptions of teachers who participated in professional development activities conducted by Akademi ANIS, while Study 4 assesses parental perspectives on the quality and outcomes of intervention services delivered at ANIS Support Centres. By employing a mixed-methods design that combines both quantitative and qualitative approaches, this research offers a holistic understanding of the ANIS program's impact. The findings aim to contribute to a growing body of knowledge on inclusive education and early childhood intervention in Malaysia, while also providing evidence-based recommendations for strengthening special-needs support systems in Selangor (UNICEF Malaysia, 2019; Ministry of Education Malaysia, 2023).

## LITERATURE REVIEW

The Anak Istimewa Selangor (ANIS) Programme, implemented from 2019 to 2021 by the Selangor State Government, is a strategic early childhood and special education initiative aimed at children with disabilities, providing support through early developmental screening, intervention therapy, inclusive preschool education, and financial aid (Fazree et al., 2021). With annual funding of over RM3 million, ANIS has screened more than 800 children, offered therapy and learning assistance to nearly 700, and provided one-off aid to over 1,000 families. The "Didik ANIS" preschool, launched in 2022, emphasizes school readiness and social skills, while "Akademi ANIS" has trained over 2,700 parents and educators to build inclusive.

Collaborations with institutions such as UNISEL and SEGi University have extended the programme's reach into tertiary education, special needs teacher training, and youth employment readiness. Despite notable successes, challenges remain in program scaling, access across all 12 local districts, and the lack of longitudinal data on mainstream transition outcomes (Mahamod et al., 2020). The formation of Yayasan Insan Istimewa Selangor (YANIS) in 2025 marks a shift toward formal institutional governance and sustainability, with RM4 million allocated to scale service delivery and strengthen the policy framework. Continued effectiveness hinges on evidence-based monitoring, cross-agency collaboration, and mainstream system integration (Sivabalan et al., 2018).

The ANIS Programme was initially developed in response to gaps in early detection and support services for children with developmental disabilities in Selangor. The programme's structure aligns with key principles from international frameworks, including the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), emphasizing the right to inclusive education and early intervention (Fazree et al., 2021). Early screening efforts offered freely through ANIS centres focus on children as young as two months old, ensuring early identification of conditions such as autism, global developmental delay (GDD), and Down syndrome (Fazree et al., 2021). These screenings are followed by referrals for occupational therapy, speech therapy, and special education placements as needed, helping to mitigate long-term developmental delays.

The Didik ANIS preschool, established in Shah Alam in 2022, is one of ANIS's most innovative contributions. Children between the ages of five and six who need organized support prior to starting Year One in mainstream schools can receive intensive preparation education from the center (Abdullah, 2017; Black & Lawn, 2018). Didik ANIS offers an inclusive preschool approach that is suited to the Malaysian setting, complete with

therapists, special education instructors, and facilities funded by the city council (Selangor Journal, 2024). Students' literacy, numeracy, and self-care skills increased, and the program had notable early results. Additionally, Akademi ANIS promotes inclusive teaching methods and builds community capacity to support children with special needs by offering educators and caregivers ongoing professional development.

From a policy perspective, ANIS has transitioned from an ad hoc programme to a more institutionalized initiative with the launch of YANIS in 2025. This foundation model is designed to ensure continuity, increase funding sustainability, and enable broader cross-sector collaboration (Fazree et al., 2021). The foundation structure also opens pathways for private-sector contributions and partnerships with universities, NGOs, and health authorities (Sivabalan et al., 2018). For example, SEGi University now supports ANIS by providing vocational training for young people with learning disabilities, an expansion of the programme's scope from early childhood into post-secondary support. Meanwhile, UNISEL has developed special education teacher training certifications in partnership with ANIS to address the shortage of qualified personnel in the sector.

Nevertheless, the programme faces key challenges. First, limited geographic access remains a concern, with most services still concentrated in Shah Alam despite stated plans to establish ANIS centres across all 12 local government areas. As of 2024, data indicated that while demand is growing, outreach remains uneven. Second, while the programme has reported quantitative outputs (e.g., number of screenings and therapy sessions), there is a lack of qualitative and longitudinal studies assessing long-term outcomes, such as academic performance after transitioning to mainstream education, or emotional and social development post-intervention. Without such data, it is difficult to evaluate the effectiveness of the interventions or refine them for broader application (Fazree et al., 2021).

Comparative analysis with similar regional programmes underscores both ANIS's strengths and areas for improvement. Countries like Singapore and Thailand have integrated early intervention more directly into public health and education systems, with universal developmental screening and strong inter-ministerial coordination (Nasir & Efendi, 2016). In contrast, ANIS remains primarily a state-level initiative with varying degrees of alignment with national education and health systems. A future priority should be to establish formal linkages with federal-level ministries to support mainstream integration, share training resources, and align with Malaysia's National Education Blueprint (2021–2030) as education policy (Idris et al., 2023; Idris et al., 2024).

The ANIS Programme, in summary, is a promising example of inclusive early childhood education and intervention in Malaysia. Its multi-sectoral strategy, which integrates social support, education, and health, is ideal for meeting the complex needs of children with disabilities (Abdullah, 2017). Even though the program has achieved significant strides in institutional development and providing service, widening access, enhancing data gathering, and incorporating services into larger national policy frameworks will be necessary for long-term impact. Although ANIS's official foundation is a significant step in this direction, continuous regulation, community involvement, and policy improvement are necessary to guarantee that Selangor's disabled children receive the assistance they require to flourish.

## METHODOLOGY

This research is composed of four studies conducted under the shared objective of evaluating the effectiveness of Anak Istimewa Selangor (ANIS) programs in fulfilling the core objectives of its establishment. Each study addressed a distinct but complementary domain public awareness and support, program evaluation, educator preparedness, and service provision. Collectively, these studies contribute to a broader understanding of how to strengthen inclusive support systems within Selangor. The research employed a mixed-method design which involves the systematic collection, analysis, and integration of both qualitative and quantitative data within a coherent design framework to address research questions (Miller, 2024).

### Study 1

This study employed a quantitative descriptive design to identify parents with special needs children's perception and awareness regarding the importance of empowering their children. This research also aimed to

examine the level of financial management and assistance to parents who have children with special needs under their care. Participants were selected using a stratified sampling method. This method involves dividing a population into distinct subgroups or “strata” and then randomly selecting samples from each stratum. These individual samples are then combined to form a representative overall sample (Krejcie & Morgan, 1970).

In this study, the population consists of parents who had received assistance in ANIS outreach programs from various districts in Selangor. Data were collected through a structured questionnaire distributed to participants. Based on the number of population, the equivalent sample size needed and acquired is 62 respondents. The questionnaire included demographic items; perceptions and awareness toward special needs empowerment and financial management related to caring for children with special needs, all are scored on Likert-scale items (Rahi, 2017). The data were analysed using descriptive statistics, including frequencies, means, and percentages, to identify patterns and trends in parents’ attitudes and awareness levels.

## Study 2

In this qualitative-approached study, the research objectives are to evaluate the effectiveness and benefits of the Didik ANIS educational program for children with special needs, as implemented in Early Intervention Program (EIP) centres across Selangor and to identify areas for improvement in the Didik ANIS program to enhance the operational quality of EIP centres and related agencies. This study employs a case study method specifically targeting teachers and operators who had received support at Early Intervention Centres (EIP) and Community-Based Rehabilitation Centres (PPDK) between the year 2019 and 2021.

Data were collected through Focus Group Discussions (FGDs) involving ten participants from different centres, all of whom were involved in managing or delivering services through Didik ANIS-funded interventions. To obtain findings that are more accurate and inclusive, the data collected from participants were systematically analysed. The study utilises thematic analysis which is a qualitative research method used to uncover recurring patterns or themes within a dataset (Miller, 2024). This method enabled the researcher to make sense of narrative data and to highlight shared patterns and insights from participant experiences.

## Study 3

This study adopted a quantitative survey design to the awareness levels towards ANIS academic intervention programs, effectiveness and classroom readiness of teachers who had participated in professional development courses conducted by Akademi ANIS. The study focused on evaluating the extent to which training contributed to improved confidence and preparedness in handling children with learning difficulties. Participants included early childhood and special education teachers from public and private institutions across Selangor. Convenience sampling was used which involves collecting data from participants who are easily accessible to the researcher (Creswell & Clark, 2017), though care was taken to include teachers with varied years of experience and training backgrounds. Despite growing calls for methodological rigor in research, convenience sampling remains widely used as a practical means to obtain generalisable insights (Rahi, 2017).

## Study 4

This study was conducted to identify the parents’ perceived effectiveness of early intervention services among particularly attitudes towards intervention programs and modules for children with special needs aged two to six years old, as well as perspective toward special needs teachers. This study employed a quantitative research design. Data were collected from individuals who had either applied for or received assistance from the ANIS program. The sampling frame was constructed based on applicant and recipient databases for the years 2021 and 2022, which were provided by the ANIS Department. An online questionnaire was developed to collect the required data and was distributed via WhatsApp to selected respondents.

## Results

This section presents the findings from four studies conducted concurrently under a unified framework aimed at

evaluating the effectiveness of ANIS programs in fulfilling their core objectives. Each study explored a different dimension of the initiative: parental awareness and support mechanisms (Study 1), program evaluation and feedback from early intervention practitioners (Study 2), teacher preparedness and perceptions following ANIS-led professional development (Study 3), and parental perspectives on service provision and early intervention modules (Study 4). The results are organised thematically by study, using descriptive statistics for the quantitative studies and thematic interpretation for the qualitative case study. Together, these findings offer a comprehensive overview of how various stakeholders perceive, engage with, and are impacted by ANIS initiatives.

## Study 1

**Table 1** Demographic details of respondents in Study 1

Variables	Frequency (N)	Percentage (%)
<b>Gender</b>		
Male	30	48.39
Female	32	51.61
Total	62	100
<b>Age</b>		
<25 years old	0	0
26 – 30 years old	0	0
31 – 35 years old	11	17.74
36 - 40 years old	18	29.03
41 – 45 years old	19	30.65
<46 years old	14	22.58
Total	62	100
<b>Marital status</b>		
Not married	0	0
Married	61	98.39
Widow	1	1.61
Widower	0	0
Total	62	100
<b>Education level</b>		
Lower Secondary Assessment	1	1.61
Upper Secondary Assessment	17	27.42
Pre-university/Diploma	13	20.97
Bachelor's degree	22	35.48
Master's degree/Ph.D	9	14.52
Total	62	100
<b>Occupation</b>		
Not working	15	24.19

Self-employed	10	16.13
Private sector	24	38.71
Government sector	13	20.9
Total	62	100

Study 1 examined the demographic characteristics, parental perceptions, and financial management practices of parents participating in the ANIS programme. The respondents comprised 62 parents, with a nearly balanced gender distribution (48.39% male, 51.61% female). Most participants were between 41–45 years old (30.65%) and married (98.39%). In terms of education, the largest group held a Bachelor’s degree (35.48%), while most were employed in the private sector (38.71%). The average household income was RM1,822.16 (SD = 470.34), indicating a lower-middle income group.

The findings showed that autism was the most prevalent condition among the children (over 40%), with most having moderate levels of special needs. Nearly all parents had applied for educational assistance such as therapy and special classes, though few sought support for nutrition or equipment needs. Notably, most parents had only applied for assistance once, suggesting limited awareness of available resources.

Parental perceptions toward special education were highly positive, with strong agreement on the importance of supporting their children’s learning, awareness of special programmes, and motivation to aid their children’s progress. Parents also expressed strong involvement in monitoring their child’s development and spending quality time with them, though participation in special needs organisations was moderate.

Regarding financial assistance, parents generally demonstrated responsible management of ANIS funds, using aid for their child’s needs and maintaining confidence in handling finances. However, some continued to experience financial strain or lacked systematic expense tracking. Only about one-third of parents felt that the assistance provided was sufficient, highlighting the need for improved financial literacy initiatives and expanded support mechanisms to better meet families’ needs.

## Study 2

The respondents for this study were recipients of the Didik ANIS programme, comprising operators and educators from Early Intervention Program (EIP) centres and Community-Based Rehabilitation Centres (PPDK) that had received assistance between 2019 and 2021. The sample consisted of 10 participants: 8 women and 2 men, representing a multiracial background with 5 Malay, 3 Chinese, and 2 Indian respondents. The age range of the participants spanned from 20 to 51 years old; however, the majority of those who actively participated in the interviews were between the ages of 28 and 40. All respondents were either centre operators or educators actively involved in the implementation of early intervention services. In terms of academic qualifications, six held diplomas in various fields, while the remaining four held teaching certificates, indicating an overall adequate level of educational background among participants. Most of the respondents reported having two to three years of direct experience managing Early Intervention Programs, and more than five years of experience working with children with special needs.

Interviews conducted with 10 respondents revealed that 9 out of 10 respondents understood the core objectives of the Didik ANIS programme in offering Early Intervention Programmes (EIP) across Selangor. Only 1 respondent reported limited understanding of the programme’s vision and mission. Most respondents also shared that they had previously participated in ANIS-organised training or workshops, which had supported their operational and instructional practices at their respective centres. In terms of access and coverage, 7 out of 10 respondents expressed the need for the expansion of Didik ANIS centres to underserved areas across Selangor, including rural and suburban locations, due to the logistical and financial challenges faced by families in those regions. Additionally, 8 respondents suggested the importance of introducing parent-focused training, including workshops on child therapy and inclusive teaching strategies that involve both educators and parents at EIP and PPDK centres.

Regarding the implementation of intervention services, 9 respondents agreed that ANIS-supported centres offered comprehensive screening programmes. However, 7 respondents noted the need for clearer and more consistent communication on the admission process to improve understanding among parents and stakeholders. With regard to educational support, 9 respondents strongly agreed that educational programmes and opportunities for children with special needs should be further expanded. Additionally, 5 respondents recommended increasing one-off educational assistance to provide more tangible support for families managing the costs associated with raising a child with special needs.

In terms of staff development, 9 out of 10 respondents emphasised the need for ongoing professional training for teachers and centre operators to ensure continuous capacity-building. While all respondents had taken part in past training sessions, 3 respondents identified emotional management, especially when dealing with distressed or overwhelmed parents, as a recurring challenge. Some parents were reported to struggle emotionally when managing their children's conditions, particularly in difficult home environments. Respondents also proposed the development of training modules focused on pedagogical strategies using activity-based learning tools for special needs education. Seven respondents specifically mentioned the need for structured activity modules to guide newly appointed teachers or inform parents about at-home learning extensions.

In terms of training logistics, 9 respondents felt the duration of existing sessions was sufficient. However, many preferred that sessions be held on Fridays or Saturdays, as Sundays were typically reserved for rest and preparation for the work week. Lastly, all 10 respondents agreed that the training, programmes, and support provided by ANIS had contributed to a holistic framework for special needs education. They expressed hope that such support would continue and be extended to more EIP centres to further strengthen inclusive education initiatives across Selangor.

### Study 3

For this study, a total of 24 respondents participated in the survey on the Akademi ANIS programme (refer to Table 2). The majority of participants were female ( $n = 22$ ). In terms of age distribution, the largest proportion of respondents were aged 46 years and above ( $n = 6$ ), suggesting that participants tended to be from a more experienced age group. With regard to ethnicity, most respondents identified as Malay ( $n = 14$ ), reflecting the predominant ethnic composition of the participant pool. In terms of educational background, the highest number of respondents reported completing secondary-level education, specifically the Sijil Pelajaran Malaysia (SPM) qualification ( $n = 12$ ). Finally, the majority of participants reported a monthly household income in the range of RM 1,001 to RM 2,000 ( $n = 22$ ), indicating that most respondents fell within the lower-middle income bracket.

**Table 2.** Demographic details of respondents in study 3

Variables	Frequency (N)	Percentage (%)
<b>Gender</b>		
Male	2	8.3
Female	22	91.7
Total	24	100
<b>Age</b>		
<25 years old	7	29
26 – 30 years old	0	0
31 – 35 years old	3	12
36 – 40 years old	4	17
41 – 45 years old	4	17

<46 years old	6	25
Total	24	100
<b>Race</b>		
Malay	14	58
Chinese	4	17
Indian	4	17
Other	2	7
Total	24	100
<b>Education level</b>		
SPM	12	50
Pre-university/Diploma	7	29
Bachelor's degree	3	13
Master's degree/Ph.D	2	8
Total	24	100
<b>Income</b>		
<RM 1,000	0	0
RM 1,001 – RM 2,000	22	92
>RM 2,000	2	8
Total	24	100

The analysis of teachers' responses regarding the Akademi ANIS programme revealed high levels of awareness, satisfaction, and perceived effectiveness. Most participants demonstrated a clear understanding of the importance, objectives, and role of Akademi ANIS within the Special Education Curriculum. A strong majority also recognised the need for teachers to master appropriate intervention strategies and differentiate between interventions for typically developing and special needs children.

Findings on professional development and training effectiveness indicated that the Akademi ANIS programme successfully provided relevant and practical training for special education teachers. Nearly all respondents agreed that the modules enhanced their knowledge of intervention techniques, improved their ability to identify and assess students with learning difficulties, and strengthened their skills in developing suitable teaching aids and materials.

In terms of impact on teaching roles, respondents reported significant improvements in their teaching methods, self-confidence, and motivation. The programme was also seen as instrumental in supporting teachers' capacity to conduct student assessments, adapt curriculum content to learners' needs, and improve communication with students. Overall, the findings affirm that Akademi ANIS plays a vital role in equipping educators with the competencies required to deliver effective and inclusive education for children with special needs.

## Study 4

This study comprises 24 respondents with the majority of whom were women and all of Malay ethnicity. Most respondents were between the ages of 31 to 40 and resided in urban or suburban areas. The most common type of housing reported was terrace houses. In terms of educational background, the majority held at least a Bachelor's degree, while a smaller proportion had postgraduate or secondary-level qualifications. Several



respondents reported having no income, although many were from the income ranges between RM1,001 to RM4,000 (refer to Table 3).

**Table 3.** Demographic details of respondents in Study 4

Variables	Frequency (N)	Percentage (%)
<b>Gender</b>		
Male	3	12.50
Female	21	87.50
Total	24	100
<b>Ethnicity</b>		
Malay	24	100
Total	24	100
<b>Age</b>		
21 – 25 years old	1	4.17
26 – 30 years old	2	8.33
31 – 35 years old	8	33.33
36 – 40 years old	10	41.67
41 – 50 years old	2	8.33
51 – 60 years old	1	4.17
Total	24	100
<b>Residential Area</b>		
Urban	12	50.00
Suburban	9	37.50
Rural	3	12.50
Total	24	100
<b>Type of Housing</b>		
Terrace house	12	50.00
Apartment / Condominium	3	12.50
Village house	3	12.50
Others	3	12.50
Flat / PPR	2	8.33
Semi-D / Bungalow	1	4.17
Total	24	100
<b>Educational Qualification</b>		
SPM / O-Level / SPMV	3	12.50
STPM / Diploma / STAM	5	20.83
Bachelor's Degree	14	58.33

Postgraduate Degree / Professional	2	8.33
Total	24	100
<b>Monthly Household Income</b>		
No income	5	20.83
RM1,001 – RM2,000	9	37.50
RM3,001 – RM4,000	9	37.50
Other	1	4.17
Total	24	100
<b>Political Party Membership</b>		
Not a member	21	87.50
Member	3	12.50
Total	24	100

The findings indicate that parents and guardians generally perceived the modules and interventions implemented at the ANIS Support Centre as effective and beneficial. Nearly half of the respondents agreed that the modules were appropriate, easy to understand, and suitable for their children’s developmental stages. The modules were also viewed as well-aligned with the available facilities, though opinions were more varied regarding their compatibility with special education school admission criteria. Overall, the modules were found to be suitable, accessible, and effective in supporting children’s intervention needs.

Regarding the effectiveness of the intervention programmes, most respondents reported positive outcomes. The majority agreed that the interventions were age-appropriate, well-matched to the centre’s environment, and conducted within suitable timeframes. Importantly, most parents observed noticeable developmental improvements in their children after participating in the sessions, reinforcing the positive impact of ANIS’s intervention approach.

Additionally, respondents expressed strong satisfaction with the professionalism and communication practices of the ANIS teaching staff. Educators were praised for their professionalism, effective communication, timely updates, and adherence to schedules. These results underscore the crucial role of qualified and communicative educators in ensuring successful intervention delivery and in building strong partnerships with parents to support children’s development.

## DISCUSSION

The integrated analysis of the four component studies provides a comprehensive understanding of how the Anak Istimewa Selangor (ANIS) Programme contributes to inclusive education and disability empowerment in Malaysia. Across the studies, a recurring theme emerges the interdependence between family awareness, educator preparedness, service accessibility, and policy alignment as determinants of effective early intervention.

### Linking Parental Empowerment and Service Utilization

Findings from Study 1 revealed that parents of children with disabilities in Selangor possess strong awareness and commitment to their children’s educational progress. This awareness, however, is moderated by their financial literacy and understanding of available state assistance. Parents’ responsible yet constrained financial management practices echo argument that empowerment must be supported by capacity-building components. The integration of financial counselling into ANIS workshops could enhance self-sufficiency among families. Furthermore, the low level of stigma reported by parents signifies a positive cultural shift towards inclusivity

one that aligns with the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) principles of acceptance and participation (Black & Lawn, 2018).

### **Practitioner and Programme Effectiveness**

Study 2, which examined practitioners in Didik ANIS and Early Intervention Centres (EIP), confirmed that the programme has effectively improved children's developmental outcomes, particularly in language, behaviour, and social engagement. However, practitioners emphasised the uneven distribution of centres across districts, indicating spatial inequity in access. The programme's current concentration in urban Shah Alam contradicts the state's aspiration for inclusive service coverage. Addressing this issue requires decentralised outreach through mobile therapy units or district-level satellite centres an approach successfully implemented in Singapore's EIPIC system, which integrates mobile diagnostic teams and community-based inclusion hubs.

### **Teacher Capacity and Inclusive Pedagogy**

Study 3 found that teachers trained under Akademi ANIS experienced significant improvements in instructional confidence, readiness, and assessment literacy. This supports Baier et al. (2019) and Pintrich (2000), who argued that professional development directly enhances teacher efficacy and, consequently, learner outcomes. The findings also reflect Malaysia's broader need to strengthen special-education teacher preparation under the Malaysia Education Blueprint (2021–2030). Embedding Akademi ANIS modules into teacher-training colleges could institutionalise inclusive-pedagogy standards. Moreover, the observed gains in motivation and self-belief among educators suggest that continuous professional learning, rather than one-off workshops, is essential for sustained quality improvement.

### **Parental Satisfaction and Institutional Trust**

In Study 4, parents expressed high satisfaction with the professionalism, communication, and intervention quality provided by ANIS Support Centres. Parents valued structured progress reporting and empathy displayed by educators' factors that foster institutional trust and long-term programme participation (Van der Kleij, 2019). Nonetheless, the absence of longitudinal data limits understanding of post-intervention outcomes such as transition readiness into mainstream schooling. Establishing a longitudinal child-tracking system would allow policymakers to evaluate developmental trajectories, measure impact sustainability, and tailor interventions accordingly (Black & Lawn, 2018).

### **Cross-Study Integration and Policy Reflection**

Synthesising across the four studies, the results collectively illustrate that ANIS functions effectively as an ecosystem model combining family empowerment, practitioner development, and institutional collaboration. The interconnection between parent engagement (Study 1 & 4) and teacher competency (Study 3) strengthens child outcomes observed in early-intervention settings (Study 2). These synergies affirm Bronfenbrenner's ecological-systems theory, wherein optimal development occurs through supportive relationships among family, school, and policy environments (Nguyen et al., 2021). Yet, structural barriers particularly geographic inequality, limited coordination between health and education agencies, and absence of longitudinal monitoring continue to constrain impact.

### **Comparative Insights and Future Directions**

When compared with regional counterparts such as Singapore's EIPIC and Thailand's Early Childhood Inclusive Development Plan, ANIS exhibits strong innovation in integrating social-welfare support with educational programming, but weaker inter-ministerial coordination. Both neighboring models institutionalize outcome-based evaluation and national-level reporting practices that Malaysia could emulate (Fazree et al., 2021). The formation of Yayasan Insan Istimewa Selangor (YANIS) in 2025 represents a crucial opportunity to embed such governance mechanisms. As YANIS evolves, strategic collaboration with universities (e.g., UNISEL, SEGi University) can expand data-driven research and enhance workforce readiness for special-education professionals.

## CONCLUSION

This study evaluated the effectiveness of the Anak Istimewa Selangor (ANIS) program in empowering children with special needs and strengthening inclusive support systems in Selangor. The findings across four interrelated studies confirmed that ANIS has made significant contributions to inclusive education, parental empowerment, and professional capacity building. Parents demonstrated strong commitment to their children's development, and practitioners recognized the value of ANIS initiatives such as Didik ANIS and Akademi ANIS for enhancing skills, confidence, and classroom inclusivity. However, recurring challenges were identified, including limited accessibility in rural areas, uneven awareness of available services, and the need for continuous training and financial support.

Overall, the ANIS program is shown to be a pivotal component of Selangor's special needs education ecosystem. Strengthening outreach, inter-agency collaboration, and sustainable professional development will ensure the program's long-term impact. The study recommends institutionalizing systematic monitoring and community engagement to enable ANIS to continue evolving in response to the diverse needs of children with disabilities and their families.

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