

# Establishing a Digital School Environment Friendly to Children with Special Needs Through Inclusive Policies and Practices

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## ABSTRACT

Digital inclusive education requires teachers, institutions, and all stakeholders to be ready to adapt in order to provide equal learning opportunities for children with special needs. This study describes the dynamics of teacher adaptation, administrative and psychosocial challenges, and institutional strategies for creating a technology-friendly learning environment. It also highlights the role of professional mentoring, family collaboration, and community-based innovation as keys to survival in the early stages of a digital inclusive teacher's career. The results show that institutional support systems have a significant effect on the quality and sustainability of inclusive education. Institutions that are proactive in providing infrastructure, strengthening human resource capacity, and developing adaptive curricula are better able to realize equitable digital education. On the other hand, monitoring, periodic evaluation, and improved psychosocial services are the main foundations for the success of the programmed. Efforts to strengthen the digital education ecosystem require not only technological innovation, but also cultural transformation, reflective habits, and comprehensive partnerships between schools, families, and communities. This article emphasizes that equitable education can only be achieved if all institutional policies and practices are based on a commitment to inclusion, sustainability, and continuous adaptation to the changing times.

## INTRODUCTION

Inclusive education has become a global priority with the aim of providing equal access for all learners, including children with special needs. The evolution of digital technology has also driven a paradigm shift in inclusive education services, particularly in designing adaptive learning environments that are responsive to diverse needs. Currently, advances in online learning systems, accessibility support tools, and digital assessment tools have expanded the educational landscape for children with special needs. However, it should be noted that these technological innovations must be accompanied by equal access. Studies show that the gap in access to education, especially in developing countries, remains a major obstacle to true inclusivity (Rojak & Khayru, 2022). This transformation has created new opportunities while adding complexity to the implementation of education, particularly in terms of policy and institutional practices. Meanwhile, efforts by governments and schools to develop digital-based inclusive policies are often

hampered by administrative challenges, increasingly complex classroom management, and diverse responses from students and parents (Karagianni & Drigas, 2023). These transformative efforts are essentially an integral part of a larger educational vision, namely building competencies for sustainability through adaptive global citizenship. As emphasized by Mardikaningsih et al. (2021), education must be able to foster adaptive and sustainability-oriented capacities.

For teachers in the early years of their careers, adapting to digital-based inclusive education creates psychological pressure and a need for coping strategies that differ from conventional teaching. Administrative burdens, managing student diversity, and high expectations from schools and families often cause prolonged anxiety, stress, and fatigue (Flack et al., 2020). In this situation, effective emotional management in daily life emerges as a key aspect of maintaining psychological well-being, which is the foundation of teacher resilience (Irfan & Darmawan, 2021). Beginning teachers often face a

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gap between the inclusive pedagogical theory they learn in lectures and the dynamic reality in the field. As a result, many teachers experience burnout or consider attrition in the early stages of their careers due to emotional exhaustion and feelings of isolation from the work community. Various coping strategies have been identified, ranging from forming social support networks, seeking mentors or role models, to developing personal coping mechanisms. However, the success of these strategies is greatly influenced by teachers' mental preparedness and institutional support (Korolkova et al., 2023).

The study of inclusive education in the digital age needs to be supported by a hermeneutic phenomenological approach that places the experiences of teachers and educational actors at the center of meaning exploration. Analysis of life experiences, self-perceptions, and the process of negotiating the professional identity of inclusive teachers provides a unique understanding of the dynamics of role transformation in the world of digital education. The scope of analysis is expanded to examine best practices in education management to address changing social expectations regarding education for children with special needs. Qualitative literature studies with thematic synthesis provide a conceptual basis for in-depth analysis of policy patterns and institutional practices that strengthen teacher resilience and the effectiveness of digital inclusive education. With this approach, it is hoped that successful policy practices, effective social support mechanisms, and professional sustainability strategies relevant to current educational needs will be identified. In building sustainable change, education also plays a role as a vehicle for shaping adaptive social awareness and behavior, as emphasized in studies on education for sustainable development (Gautama & Mardikaningsih, 2022).

There is a gap between the concept of inclusion and its implementation in digital schools, where the lack of concrete implementation tools in policies often confuses and stresses teachers in accommodating students' needs (Florian & Black-Hawkins, 2011). The administrative burden resulting from digitization and the challenges of managing diverse classes on digital platforms further exacerbate teachers' emotional exhaustion (Lambert et al., 2017). On the other hand, pressure from parents who demand personalization and regular updates without the support of a structured communication system adds to teachers' workload (Lindqvist et al., 2019). This kind of social pressure significantly affects educators' perceptions and emotional well-being (Fajar et al., 2021), so novice teachers need clear

managerial guidance to cope with psychosocial pressures and feelings of isolation due to immature digitalization.

The risk of burnout and attrition among teachers in the field of digital-era inclusive education is increasing due to the absence of a professional induction system, limited forums for reflection on practice, and the lack of digital-based peer support collaboration. Various literature highlights the need for mental preparedness, institutional support, and affirmative policies to protect the psychological stability and sustainability of the teaching profession (Flack et al., 2020; Lindqvist et al., 2019). This classic problem indicates a gap between policy expectations and the social reality of schools, which must be addressed through evidence-based policy research.

Public and academic attention has begun to focus on the urgency of inclusive education as digital transformation widens educational access inequalities. Digital technology is perceived as a solution to some long-standing challenges, but recent research has shown fragmentation and resistance at the implementation level (Florian & Spratt, 2013). In response to these challenges, systematic efforts to bridge the gap in technology access and digital skills are crucial, as emphasized by Arifin and Darmawan (2021) in the context of providing equal educational and employment opportunities in the technological era. In the last two decades, teachers' coping strategies for managing stress have been a recurring empirical topic, particularly among novice teachers and in developing country education systems.

The rapid growth in the number of students with special needs and increasing socio-cultural diversity in school environments further emphasize the need for digital-based inclusive education policy reform. Cross-country studies have found that the motivation, mental health, and psychosocial readiness of educators determine the effectiveness of inclusive service transformation (Lambert et al., 2017). Thus, this study is relevant to contributing new insights to the academic field of evidence-based education, and the results are expected to be used as a reference for future policy formulation.

The purpose of this study is to critically analyses the patterns of adaptation, psychological pressure, and coping strategies of inclusive education teachers at the beginning of their careers in the implementation of digital-based learning services; as well as to examine effective institutional policies and practices that provide equal access to education for children with special needs. The contribution of this study is a proven cross-literature synthesis that can be used as a reference

for the development of policies and training in digital inclusive education.

## **RESEARCH METHOD**

This study utilizes a qualitative literature design with thematic synthesis, which enables the identification and analysis of narrative patterns from various verified sources regarding inclusive education for children with special needs in the digital age. The initial step involved determining the inclusion criteria, namely publications from academic books and peer-reviewed articles discussing inclusive education, children with special needs, digital innovation, teacher adaptation strategies, institutional policies, and psychosocial pressure.

The literature search was conducted on various reputable academic databases such as Scopus, ScienceDirect, Google Scholar, and the National Library of Indonesia. The combination of keywords used included: inclusive education, special needs, digital adaptation, teacher resilience, educational policy, institutional support, and psychosocial pressure. The selection process began with the identification of titles and abstracts, followed by a review of the full content of publications that passed the initial stage. The collected data were extracted using a data matrix (Booth et al., 2016), covering a summary of findings, theoretical basis, and methodological details of each article.

Theme coding was carried out through the thematic synthesis steps recommended by Braun and Clarke (2006), namely data familiarization, initial code generation, theme search, theme review, and theme naming until the final synthesis structure was determined. The validation process was carried out through triangulation through discussions between independent researchers, and all data were re-evaluated for potential bias. The critical appraisal of the literature also referred to the standards of Creswell and Poth (2017), ensuring empirical quality and consistency of analysis. Thus, the results of this study are scientifically accountable and free from invalid sources.

## **RESULT AND DISCUSSION**

### **Teacher Adaptation and Survival Strategies in Digital Inclusive Education**

The early stages of a career as an inclusive education teacher in the digital age are marked by drastic changes in the work environment. In the early years of their careers, inclusive education teachers face tremendous challenges in adapting to the digital learning environment. A major change occurred when they had to adapt from conventional learning

patterns to learning that utilizes technology and digital media. This requires not only mastery of online software or learning applications, but also the ability to provide meaningful learning experiences for children with special needs in a virtual space full of limitations (Carrim & Bekker, 2022). This challenge becomes even more complex when teachers must also understand and respond to the dynamics of student learning behavior in the digital realm, where social media has created new patterns of interaction and expectations that can affect learning engagement (Kurniawan et al., 2022). This complex adaptation emphasizes that the role of educational institutions is crucial in supporting the adjustment process for teachers, especially in building discipline and participation among students in a new classroom environment (Rozikin et al., 2023).

Novice teachers often experience psychological pressure due to the heavy burden of responsibility coupled with feelings of unpreparedness to face new demands. For teachers and teacher educators, creating high-quality learning designs that have a meaningful impact on students can be a challenge and a psychological burden (Nguyen & Bower, 2018). Adapting teaching methods to suit the characteristics of children with special needs requires extra creativity, especially as each child has a different level of technological understanding. Another challenge arises when teachers must maintain effective, empathetic, and communicative interactions even though they cannot meet face-to-face. This condition requires teachers to be quick to update their skills, not only in academic aspects but also in personal aspects, so that a warm relationship between teachers, students, and parents can be created even though it is only through digital media. The overall situation shows that the initial adaptation of inclusive teachers is a complex process fraught with multidimensional pressures.

The tension between theoretical knowledge and practical reality is a common experience for novice teachers. The gap between the pedagogical theory learned during teacher training and the reality of digital practice is often a source of pressure in itself. New teachers learn many things when they jump straight into the world of work, and often these things have not been studied in depth at university (Toquero, 2021). They are forced to think and act quickly, learn from failure, and improvise without adequate guidance. This situation often causes anxiety and concern about making mistakes that could impact on the development of students. Often, novice teachers have to find their own solutions when faced with emergency situations such as

technical problems during online learning or sudden changes in schedules and materials. This complex situation becomes even more challenging when teachers do not receive sufficient formal support from schools or educational institutions, so they tend to rely on informal support from colleagues. The presence of mentors or seniors who are willing to provide guidance is very helpful in the adjustment process, but not all teachers are fortunate enough to have this. This condition emphasizes the importance of a support bridge between the academic world and real-world practice in the digital field.

Beyond pedagogical challenges, administrative demands also add to the workload of novice teachers. High administrative burdens also color the lives of inclusive education teachers in the digital age, especially for those who are just starting their careers (Efthymiou, 2023). Digital administration, which requires regular reporting, documentation of learning processes and outcomes, and consistent communication with parents or guardians of students, must be carried out effectively without reducing the amount of attention given to child development. Novice teachers often find it difficult to divide their time between meeting administrative demands and their core duties as learning facilitators. The technical complexity of online learning management applications also poses a challenge, as not all children with special needs can easily adapt to digital systems. If the administrative burden is not balanced with good time management and coping strategies, teachers can fall into a state of stress, emotional exhaustion, and even consider changing professions. On the other hand, the demand for personalized individual reports requires a great deal of attention, so teachers must be very careful in managing every request from the school and the expectations of students' families. The accumulation of these demands shows how non-pedagogical aspects can affect the sustainability of inclusive teachers' careers.

The complexity of teaching increases along with the diversity of students' needs in the digital space. The diversity of student characteristics in digital classrooms further complicates the dynamics of teaching. Teachers not only have to deal with ever-changing technical constraints, but also have to recognize and understand the unique needs of each student. This situation requires teachers to develop flexible, empathetic, and adaptive communication strategies to ensure that learning remains effective. Many parents expect highly personalized services, while teachers' capacities and resources are very limited. Amidst these limitations, inclusive teachers

are required to always think creatively in order to develop materials, tools, and teaching methods so that students remain engaged and feel valued. The urgent need for the development of this creative capacity has received attention in various educational studies, as emphasized by Ramle (2021) regarding the importance of developing creativity and critical thinking skills. Another dynamic that has emerged is the demand to respond immediately to complaints from both students and parents, especially those related to connectivity or accessibility issues. Without solid support from the school or administrative team, the pressure felt can have a negative impact on teachers' mental health and work motivation. This situation highlights how vulnerable novice teachers are when they have to balance high expectations with limited resources.

In facing these pressures, social support is an important pillar for novice teachers. One of the keys to survival for inclusive education teachers in facing these difficult early days is to build a strong social network. Novice teachers need to actively seek support and a place to share their experiences and find solutions to the problems they face. Online communities or discussion forums often serve as alternatives for discussing, exchanging ideas, and motivating fellow teachers from various schools or even across regions. This spirit of collaboration also gives rise to new innovations in teaching techniques and psychological approaches to students. The existence of a support system in the form of groups or peer support is very effective in maintaining teachers' enthusiasm and resilience amid professional and personal pressures. Teachers are also becoming accustomed to building relationships not only with fellow educators but also with parents as equal partners in supporting children's development. This social network serves as a safe space that helps teachers persevere and grow.

In addition to social support, improving personal capacity is an inevitable necessity. The ability to adapt to the times requires teachers to never stop learning and to continue developing themselves. In an effort to improve their professional capacity, novice teachers actively seek online training, attend seminars, and utilize free educational materials available on the internet. For inclusive education teachers, this training is not only about mastering technology, but also about understanding psychological approaches to dealing with children with special needs in the digital world. The availability of abundant learning resources is both an opportunity and a challenge. Teachers must be able to sort out which training is most relevant and

appropriate to the actual challenges in the classroom.

In addition, the ability to share training results and build a sustainable learning community is very helpful in fostering confidence and a spirit of innovation amid limitations. By always being open to new training, teachers can strengthen their competencies while reducing the sense of alienation that often arises in online learning, which lacks direct interaction. This process of self-development is an important foundation for strengthening the professionalism of novice teachers. For teachers, learning efforts that involve technology, psychology, pedagogy, and social networking can build technical competencies that hone socio-professional competencies such as collaboration, empathy, and adaptation, which are very much needed in today's inclusive and digital education ecosystem (Hariani et al., 2021).

Behind various external demands, mental readiness plays a very decisive role. Mental readiness is a key variable in determining the sustainability of inclusive teachers' careers in the digital age. Teachers who are optimistic, psychologically resilient, and have a strong will to develop tend to be more successful in overcoming the challenges of the early years of their careers. Amidst the tide of digital transformation that is redefining social and work interactions, teachers' psychological resilience is no longer merely a personal competency, but a strategic necessity to adapt to the demands of a new society (Darmawan et al., 2021). Mental readiness can refer to teachers' beliefs about their abilities as educators or their goals in teaching (motivation), how they feel about their students or subjects (emotions), or how they regulate their emotions (self-regulation) (Bardach et al., 2022). However, not all teachers have the same mental readiness, so it is important to pay special attention to the development of emotional and spiritual skills in the work environment. Teachers need to build self-confidence, stress management, and the ability to manage frustration that may arise due to technical constraints, administrative pressure, or external demands. Efforts to build a positive self-concept, belief in personal capacity, and a reflective attitude make teachers more resilient in facing turmoil in digital schools. Equally important, a caring and inclusive environment will strengthen the mental state of novice teachers who are still searching for their professional identity. With a well-managed mental state, teachers have a greater chance of surviving and thriving.

A collaborative work environment also contributes to a positive mental state for novice teachers. A culture of collaboration in the workplace

also has a major influence on the resilience of inclusive education teachers in the early stages of their careers. The importance of this collaborative culture shows that involvement in the development of academic culture is a key factor in the implementation of effective education (Rojak, 2023). This is in line with the principle that an inclusive and supportive organizational culture not only improves performance but also significantly contributes to the psychological well-being of individuals within it (Irfan, 2021). Schools that build traditions of mentoring, knowledge sharing, and the courage to share difficult experiences together generally create a healthy work atmosphere. Novice teachers feel valued and accompanied so that they dare to try new things without fear of failure. On the other hand, schools that do not foster a culture of mutual support or have minimal mentoring initiatives tend to make teachers quickly exhausted and lose interest. The success of consistently implementing mentoring or internal internship programmers is closely related to a decrease in burnout rates and an increase in novice teachers' enthusiasm for learning. In addition, direct experience in intensive supervision and reflective discussions has been proven to enrich insight and strengthen teachers' loyalty to their profession. This culture is an important determinant in maintaining the motivation of novice teachers.

The adaptation of inclusive teachers cannot be understood as merely mastering technology. Adaptation does not only mean technical adjustments to digital devices or applications, but also requires a transformation of personal capacity. Inclusive education teachers in the digital age are expected to be bold agents of change, take the initiative to conduct self-evaluations of the programmers they run, and share good practices within the school environment and community. This transformation process requires adaptive readiness and resilience built from the outset, as demonstrated in a study on the importance of building resilience and adaptive readiness for novice teachers in facing the professional world (Liwak et al., 2023). Teachers are required to critically assess the effectiveness of learning activities, be ready to make continuous adjustments, and be accustomed to reflective thinking whenever they encounter failures or obstacles. This evaluation process not only includes analyzing test or assignment results, but also measuring the level of satisfaction of students and parents, as well as looking at the impact on the character development and independence of children with special needs. Teachers who are accustomed to reflecting tend to be wiser in facing

external challenges and are not easily discouraged when faced with failure in implementing new strategies. This transformation shows that adaptation is both personal and professional.

In practice, the adaptation process often clashes with various structural pressures. However, novice teachers' adaptation efforts are often faced with tension between the need for personal development and external pressure from institutions. Many innovations that have been tried and implemented by teachers are ultimately hampered by administrative policies or targets that are too rigid and difficult to achieve in a short period of time. Teachers feel that their space for creativity is limited, so they have to think harder to find ways to balance meeting the demands of their superiors and maintaining their spirit of innovation. This tension directly affects teachers' psychological well-being, where adequate organizational support plays an important role in creating balance and reducing workload (Darmawan, 2022). Ideally, educational institutions should be able to build a support and supervision system that is not rigid, but rather relaxed and open to accepting the various dynamics faced by novice teachers. That way, every failure does not become a frightening spectrum, but rather an opportunity to learn together so that the quality of digital inclusive education services can improve over time. The balance between regulation and flexibility is key to creating a healthy work environment.

Upon closer examination, the adaptation of novice teachers occurs through a layered and dynamic process. The adaptation of novice teachers in digital inclusive education is not a simple linear process, but rather occurs through non-linear phases filled with trial and error, reflection, and diverse interactions with their surroundings. Novice teachers need sufficient time to integrate their new knowledge into practice and apply it in the classroom. This process is said to be effective and can help increase teachers' confidence in their own practices (Makoa & Segalo, 2021). Each teacher independently develops highly personal coping strategies, influenced by life experiences, individual character, and access to various resources in the form of knowledge, internal school relationships, and external communities. Successful adaptation is usually inseparable from individual motivation, social support, and the availability of facilities and training based on real practice, not just theory. Even so, in the end, the adaptation process is never truly complete, because the dynamics of digital education continue to evolve and demand continuous transformation from teachers and a commitment to

always learn new things. This view emphasizes that adaptation is a continuous journey throughout a teacher's career.

Therefore, systemic support is an important prerequisite for the successful adaptation of novice teachers. Strengthening the educational ecosystem that supports adaptation strategies and the development of teacher resilience from the first year of work is vital to ensuring the quality of digital inclusive education services. Without institutional policy synergy, a supportive professional community, and various structured self-development programmers, teachers' psychosocial burdens will become heavier and difficult to handle independently. Educational institutions must be able to facilitate forums for sharing experiences, mentoring, and mental health support for novice teachers. In addition, realistic time and workload management, recognition of initiative and courage to try new innovations, and regular access to expert consultation are important components for building a conducive work environment. In this way, teachers can continue to persevere, develop, and become pioneers in providing quality digital inclusive education on an ongoing basis. It is this collective effort that will ensure the sustainability and quality of inclusive education in the digital age.

### **Institutional Support and Digital Inclusive Education Policy**

Efforts to realize equitable education for children with special needs in the digital age stem from a strong institutional commitment. Equal education for children with special needs in the digital age requires educational institutions to develop inclusive, flexible, and adaptive policies. The formulation of these policies must begin with an institutional commitment to ensuring that every child, regardless of their circumstances, has the right to equal education (Turner-Cmuchal & Aitken, 2016). This commitment must be specifically oriented towards eliminating all forms of discrimination, not only based on ability, but also other forms of social discrimination that can impact the psychological well-being and social engagement of students, as discussed in the literature on identity, stigma, and coping strategies in society (Pakpahan et al., 2022). Institutions need to design a vision and mission that explicitly emphasizes the importance of services for children with special needs, then implement it in daily operational policies.

The goal of inclusive education itself is to create an education service system that includes children with various types of special needs to study in

inclusive schools or inclusive classes with their normal peers (Siahaan, 2022). Therefore, in its implementation, one of the priorities is to ensure that there is no discrimination in student admission, provision of facilities, or human resource development. Every policy produced should consider ease of access to digital learning, fair treatment, and the integration of technology as the main means of accommodating the diverse needs of students in the modern era.

This policy commitment needs to be realized in concrete terms through the provision of adequate support facilities. In addition, institutional practices are also directed at providing adequate and friendly digital infrastructure for children with special needs. The most basic first step is to ensure that all students, without exception, have access to learning software and hardware (Andrian et al., 2022). Educational institutions need to assess technological needs such as computer equipment, internet access, and special learning software relevant to their respective needs. Adjustments to digital classroom facilities, such as the use of interactive devices, captions, or voice aids, have become the new standard in inclusive education systems. These supporting practices are important so that children with special needs are not left behind and can fully participate in every learning activity, both online and offline. Inclusive infrastructure must also be combined with the provision of readily available technical assistance services. The availability of accessible infrastructure is the main foundation for the realization of equitable digital learning.

In addition to infrastructure, inclusive policies are also strongly reflected in the curriculum design that is implemented. Curriculum development is also a tangible manifestation of pro-inclusion policies at the institutional level. Digital education curricula must provide ample space for personalized learning according to the specific needs of each student. This can be achieved through the development of flexible teaching materials, increasing the variety of evaluation methods, and providing easily accessible digital modules (Nofiaturrahmah & Rahmawati, 2023). An inclusive curriculum does not simply add special content, but rather harmonizes all learning processes so that they are oriented towards developing the unique potential of each child. Monitoring, evaluation, and revision of the curriculum are carried out periodically, involving educators, counsellors, and experts so that it remains relevant to technological developments and needs in the field. This effort is important so that digital

education can truly support meaningful learning for all students. With an adaptive curriculum, the learning needs of children with special needs can be accommodated more optimally.

The implementation of an inclusive curriculum requires readiness and continuous support for educators. The practice of continuous teacher mentoring is a key part of equitable education policy. Educational institutions must provide regular training to improve the pedagogical and technical competencies of inclusive teachers, particularly in the use of digital technology. In addition to workshops, other forms of training such as peer mentoring, group discussions, and intensive supervision are very useful in enriching teachers' experiences. These mentoring efforts must also actively address broader social barriers, including stereotypes that can limit opportunities and reinforce inequality in educational settings, as examined in a study on the role of social stereotypes in shaping opportunities and inequalities (Sajjapong et al., 2022). This policy encourages the creation of a culture of collaborative learning in schools and strengthens solidarity among staff. Targeted administrative support, a simple digital reporting system, and recognition of teacher innovation greatly help to create a productive and conducive working environment for innovation in special needs education in the digital age. Consistent teacher mentoring strengthens the overall quality of inclusive education services.

The success of inclusive policies is also greatly influenced by the active involvement of families and communities. The active role of families is also key to supporting the effectiveness of equitable education implemented by educational institutions. Pro-inclusion policies should facilitate close collaboration between teachers, parents, and communities in the digital learning process. Best practices encourage the creation of regular communication forums for all stakeholders so that any issues affecting children can be identified and addressed quickly. When educational institutions open consultation spaces, provide family support programmers, and involve parents in the design of digital learning activities, student learning outcomes become more optimal. Thus, effective policies also mean providing ample space for families and communities to participate in digital education practices. Digital platforms facilitate collaboration and communication between students, teachers, and parents. Digital platforms can increase parental involvement in their children's education, including children with special needs (Al Husaeni & Wahyudin, 2023). Close collaboration

between schools and families strengthens the success of digital inclusive education.

In order for collaboration and services to be effective, a comprehensive assessment system is required. Educational institutions must strengthen comprehensive assessment and intervention systems to ensure that the needs of children with special needs are fully met in the digital age. Institutional policies must provide a structured assessment process from the outset, covering each student's academic abilities, social skills and access to technology. Based on this assessment, educational practices can be tailored individually, including the creation of personalized learning programmers, digital counselling services, or remedial interventions. In addition, a long-term monitoring system is needed to assess student progress and adjust intervention strategies according to their changing needs. With this system, each child is not only accepted administratively, but their actual needs are accommodated throughout the learning process. The assessment-based approach ensures that inclusive policies are truly oriented towards the individual needs of students.

The sustainability of these policies is inseparable from adequate financial support. The financing policies of educational institutions greatly influence the success of digital inclusive education for children with special needs. On the other hand, this funding challenge becomes even more complex when linked to the issue of poverty, which has a direct impact on access to and quality of education as a whole (Hariyani & Masnawati, 2022). Therefore, best practices encourage the allocation of special funds for the procurement of assistive devices, teacher training, and the development of learning applications. However, technical funding efforts must go hand in hand with changes in social perceptions. Stigma and negative perceptions in society often become invisible barriers that exacerbate access inequality, so that creating an inclusive and equitable society requires strategies that go beyond mere budget allocation (Hardyansah et al., 2021). Institutions need to create transparent and effective budgeting systems so that no part of the inclusive education process is neglected due to financial constraints. In addition, institutions are encouraged to actively establish partnerships with private institutions, governments, or communities to open up alternative sources of funding. Thus, the implementation of inclusive education does not only depend on the school's main budget, but also receives broad support from external parties. Strategic financial management ensures the sustainability of digital

inclusive education programmers.

In addition to structural policies, school culture plays an important role in the successful implementation of inclusion. Strategies to strengthen school readiness through the establishment of an inclusive culture are an important aspect of supporting the implementation of equitable digital education policies. An institutional culture that embraces diversity, is open to change, and values the contributions of every student and educator will accelerate the strengthening of the inclusive education system. This practice can be realised by establishing regular discussion forums, internal anti-bullying campaigns, and opening up innovation spaces for all school staff. Awarding students and teachers for their achievements in digital inclusive education should also be part of the school culture, so that every effort to fight for equality is appreciated by all.

The psychosocial well-being of students must be a priority in digital education policy, with institutions providing responsive online guidance and counselling services for children with special needs. These services need to go beyond academic aspects to include mental and social support, including proactive assistance in dealing with challenges such as self-confidence issues, social discrimination, or curriculum mismatches (Mareza & Nugroho, 2019). To maintain the quality and relevance of all-inclusive policies, a continuous evaluation system is needed that includes monitoring policy effectiveness, school community satisfaction, and learning outcomes. Evaluation findings should form the basis for policy adjustments to ensure that digital inclusive education remains adaptive and of high quality.

## CONCLUSION

The transformation of digital education presents both challenges and opportunities for teachers and educational institutions to fulfil the rights of children with special needs. Teachers' adaptation to digital inclusive education requires mental preparedness, technical expertise, and a supportive institutional system. Flexible, accessible institutional policies based on the value of equality are absolutely necessary, as are efforts to strengthen the professional-family-community ecosystem so that all students can develop optimally in this new era. The creation of an adaptive learning environment and continuous mentoring practices are the main foundations for the success of equal education for all.

The success of digital-based inclusive education will greatly affect the quality of human resources in the future, especially in shaping a generation that values

diversity and is able to work together in a multicultural and dynamic environment. An inclusive mindset applied from an early age will give rise to schools that are humanistic, innovative, and open to change. Adaptive policy implications and institutional practices are very significant in order to provide a responsive learning space, foster a spirit of collaboration, and guarantee the right to education for children with special needs as an integral part of society.

Educational institutions are expected to continue to update policies, strengthen teacher training, and expand partnerships with families and communities in order to provide fair and sustainable digital inclusive education. Regular monitoring and evaluation of programmed implementation is necessary, particularly in terms of technological support, psychosocial services, and personal assessment. The government and the wider community are encouraged to actively participate in creating a supportive environment, so that digital education is not merely the latest innovation, but a bridge towards an inclusive and mutually empowering society.

## REFERENCES

- Al Husaeni, D. F., & Wahyudin, W. (2023). Digital Transformation in Special Needs Education: Computational Bibliometrics. *ASEAN Journal of Community and Special Needs Education*, 2(2), 97-110.
- Andrian, R., Yasin, A. M., Hanan, M. R. I., Ramadhan, M. I., Ridwan, T., & Hikmawan, R. (2022). Development of a Digital Platform Prototype, to Facilitate Inclusive Learning for Children with Special Needs. *Jurnal Online Informatika*, 7(2), 161-167.
- Arifin, S., & Darmawan, D. (2021). Technology Access and Digital Skills: Bridging the Gaps in Education and Employment Opportunities in the Age of Technology 4.0. *Journal of Social Science Studies*, 1(1), 163-168.
- Bardach, L., Klassen, R. M., & Perry, N. E. (2022). Teachers' Psychological Characteristics: Do They Matter for Teacher Effectiveness, Teachers' Well-Being, Retention, and Interpersonal Relations? An Integrative Review. *Educational Psychology Review*, 34(1), 259-300.
- Booth, A., Sutton, A., & Papaioannou, D. (2016). *Systematic Approaches to A Successful Literature Review (2nd ed.)*. Sage Publications, Londo.
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Carrim, N., & Bekker, T. L.-A. (2022). Placing Inclusive Education in Conversation with Digital Education. *South African Computer Journal*, 34(2), 18-34.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches (4th ed.)*. Sage Publications, Los Angeles.
- Darmawan, D. (2022). The Relationship between Work-Life Balance and Perceived Organizational Support to Employees Psychological Well-Being of Employees in Modern Work Environments. *Journal of Social Science Studies*, 2(1), 73-80.
- Darmawan, D. et al. (2021). *Psychological Perspective in Society 5.0*. Zahir Publishing, Jogjakarta.
- Efthymiou, E. (2023). Examining Teachers' Perspectives on Equitable Digital Education: A Case Study on Delivering High-Quality an Inclusive Learning Experiences in Special Education. In book: *Inclusive Phygital Learning Approaches and Strategies for Students with Special Needs*, 99-130.
- Fajar, A. S. M., Zakki, M., Darmawan, D., Evendi, W., & Mujito. (2021). A Socio-Psychological Analysis of Adolescents' Choice of Ideals in an Environment of Social Pressure. *Journal of Social Science Studies*, 1(1), 251-256.
- Flack, C. B., Walker, L., Bickerstaff, A., Earle, H., & Margetts, C. (2020). Educator Perspectives on the Impact Of COVID-19 in Inclusive Education Settings. *Education and Information Technologies*, 25(6), 5081-5100.
- Florian, L., & Black-Hawkins, K. (2011). Exploring Inclusive Pedagogy. *Teachers and Teaching: Theory and Practice*, 17(5), 597-609.
- Florian, L., & Spratt, J. (2013). Enacting Inclusion: A Framework for Interrogating Inclusive Practice. *European Journal of Special Needs Education*, 28(2), 119-135.
- Gautama, E. C., & Mardikaningsih, R. (2022). Driving Sustainable Behavior Change Through Education and Public Awareness. *Journal of Social Science Studies*, 2(1), 259-264.
- Hardyansah, R., Saputra, R., & Negara, D. S. (2021). Social Perception and Stigma: Creating an Inclusive and Equal Society. *Journal of Social Science Studies*, 1(1), 79-86.
- Hariani, M., & Masnawati, E. (2022). Assessing the Impact of Poverty on Children's Access to and Quality of Education: Implications for Interventions and the Breaking of the Poverty Cycle. *Journal of Social Science Studies*, 2(2), 1-6.
- Hariani, M., Safira, M. E., & Wahyuni, S. (2021). Multidisciplinary Education and the Growth of Social Competence in Children. *Journal of Social Science Studies*, 1(2), 253-258.
- Irfan, M. (2021). The Organizational Culture's

- Inclusive Role in Improving Employee Performance and Welfare. *Journal of Social Science Studies*, 1(1), 105-110.
- Irfan, M., & Darmawan, D. (2021). Improving Psychological Wellbeing through Emotion Management in Daily Life. *Journal of Social Science Studies*, 1(1), 179-184.
- Karagianni, E. P., & Drigas, A. (2023). New Technologies for Inclusive Learning for Students with Special Educational Needs. *International Journal of Online Engineering (Ijoe)*, 19(5), 4-21.
- Korolkova, V. A., Lakhmotkina, V. I., & Yastrebova, L. A. (2023). Digital Technologies of Methodological Support for the Professional Growth of Special and Inclusive Education Teachers. *Perspektivy Nauki i Obrazovaniâ*, 62(2), 658-676.
- Kurniawan, Y., A. S. Lee, R. K. Khayru, & M. Hariani. (2022). Social Media, Impact on Student Learning Behavior. *Bulletin of Science, Technology and Society*, 1(1), 15-21.
- Lambert, R., Zoller Booth, J., & Hughes, B. (2017). Coping With Classroom Diversity: Teachers' Reflections on Their Professional Development. *Educational Research Review*, 21, 25-38.
- Lindqvist, G., Nilholm, C., Almqvist, L., & Wetsoe, G. E. (2019). Different Agendas? The Views of Different Occupational Groups on Inclusive Education. *European Journal of Special Needs Education*, 34(4), 472-486.
- Liwak, S., Darmawan, D., & El-Yunusi, M. Y. M. (2023). Adaptation Readiness and Resilience Building of Novice Teachers in Navigating the World of Education Professional Work. *Journal of Social Science Studies*, 3(1), 213-222.
- Makoa, M. M., & Segalo, L. J. (2021). Novice Teachers' Experiences of Challenges of Their Professional Development. *International Journal of Innovation, Creativity and Change*, 15(10), 930-942.
- Mardikaningsih, R., Masnawati, E., & Aisyah, N. (2021). Fostering Competence for Sustainability through Education and Adaptive Global Citizenship. *Journal of Social Science Studies*, 1(2), 267-272.
- Mareza, L., & Nugroho, A. (2019). Implementation of Counseling Guidance for Children with Special Needs (Viewed from Psychological Aspects, Socio-Culture and Science and Technology Development). *Dinamika Jurnal Ilmiah Pendidikan Dasar*, 11(2), 111-118.
- Nguyen, G. N., & Bower, M. (2018). Novice Teacher Technology-Enhanced Learning Design Practices: The Case of the Silent Pedagogy. *British Journal of Educational Technology*, 49(6), 1027-1043.
- Nofiaturrahmah, F., & Rahmawati, U. (2023). Inclusive Learning for Digital Natives in Sunan Kalijaga State Islamic University Yogyakarta. *Edukasia: Jurnal Penelitian Pendidikan Islam*, 18(1), 21-34.
- Pakpahan, N. H., Darmawan, D., & Rojak, J. A. (2022). Racial Discrimination and How Psychological Wellbeing and Social Engagement Impacts: A Review of the Literature on Identity, Stigma, and Coping Strategies in Multicultural Societies. *Journal of Social Science Studies*, 2(1), 87-94.
- Ramle, N. L. B. (2021). Developing Creativity and Critical Thinking Skills Through Art Education. *Journal of Social Science Studies*, 1(1), 169-172.
- Rojak, J. A. (2023). Factors Affecting Lecturer Involvement in Academic Culture Development and How Academic Culture Implements Higher Education. *Journal of Social Science Studies*, 3(1), 29-34.
- Rojak, J. A., & Khayru, R. K. (2022). Disparities in Access to Education in Developing Countries: Determinants, Impacts, and Solution Strategies. *Journal of Social Science Studies*, 2(1), 31-38.
- Rozikin, M. Z., Ghozali, S., & Darmawan, D. (2023). Teacher Adaptation and the Role of Educational Institutions to Foster Learner Discipline and Participation in the Classroom. *Journal of Social Science Studies*, 3(1), 199-212.
- Sajjapong, T., Darmawan, D., & Marsal, A. P. (2022). The Role of Social Stereotypes in Shaping Opportunities and Inequalities in Society: Their Impact on Education, Employment, and Intergroup Interactions. *Bulletin of Science, Technology and Society*, 1(1), 44-49.
- Toquero, C. M. D. (2021). 'Sana All' Inclusive Education Amid COVID-19: Challenges, Strategies, and Prospects of Special Education Teachers. *International and Multidisciplinary Journal of Social Sciences*, 10(1), 30-51.
- Turner-Cmuchal, M., & Aitken, S. (2016). ICT as a Tool for Supporting Inclusive Learning Opportunities. *In Implementing Inclusive Education: Issues in Bridging the Policy-Practice Gap*, 8, 159-180.

\*Ismail, M. Y. M. El-Yunusi, W. Efendi, & S. Ghozali. (2024). Establishing a Digital School Environment Friendly to Children with Special Needs Through Inclusive Policies and Practices, *Journal of Social Science Studies*, 4(1), 261 - 270.