Students with Intensive Needs in an Inclusive Education System: A Literature Review

Mohammad Idrees Naeemy[a]*, Hiroki Yoneda[b]

[a]Graduate School of Comprehensive Human Sciences, Institute of Human Sciences, University of Tsukuba, Tsukuba, Japan
[b]Institute of Human Sciences, University of Tsukuba, Tsukuba, Japan

*E-mail: idrees.naeemy@gmail.com, hyoneda@human.tsukuba.ac.jp

Abstract: Educating students with various types and degrees of disabilities in regular classrooms remains challenging. Despite the global agenda and push for inclusive education, students with disabilities, particularly those with multiple and severe disabilities, are still being educated in segregated environments. In this qualitative study of peer-reviewed research literature, we aim to understand students with intensive needs (SINs), their current situation in inclusive education systems in developed and developing countries, and the best approaches to how they are being or should be educated in inclusive education systems. The results indicate that students who experience severe challenges in their physical, intellectual, developmental, mental, or emotional capabilities, or a combination of these factors, could be called SINs, as they have a set of significant academic, communication, or behavioral challenges across various domains. Currently, most SINs worldwide spend 20% or more of their educational time outside of the regular school day class. We suggest that utilizing Universal Design for Learning (UDL) principles as part of the opportunities to learn (OTL) framework and the concept of Communities of Practice (CoP) would be useful in designing an inclusive education model in which SINs will not only be included but also benefit from the curriculum in a regular classroom. Future research should focus on the implementation of suggested inclusive education models for SINs.

Keywords: inclusive education; intensive needs; severe disabilities.

INTRODUCTION

In 1994, UNESCO introduced the term "Inclusive Education" through the Salamanca Statement, which implied a significant departure from segregated educational practices towards fostering inclusivity. Following the adoption and ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2006 (United Nations, 2006), inclusive education gained recognition as an international human right and became the global standard. Since its inception, the understanding, implementation, and interpretation of this concept have showcased variations in practical execution and scholarly exploration, both internationally across different countries and even within specific regions (Magnússon, 2019), affected by their complex historical, cultural, political, and economic background (Artiles & Dyson, 2005). Despite the adoption of inclusive education policy objectives, many students with Special Educational Needs (SEN) continue to receive education in special schools or separate classes in mainstream schools worldwide (Banks & McCoy, 2017; Haakma et al., 2021; Kurth et al., 2019; Pirttimaa et al., 2015). Truly inclusive education, according to international standards, requires SEN students to receive 80% or more of their instruction in regular classes alongside non-SEN students (Ramberg & Watkins, 2020).

Leijen et al. (2021) analyzed two contrasting discourses in education. One discourse focuses on meeting the educational needs of specific students through special schools or classes (inclusion for some), whereas the other advocates providing education to all students in a single class (inclusion for all). Despite differing perspectives on the rights of children

with special needs, the prioritization of voice, and future goals, both discourses share a common emphasis on addressing these children's needs. They also acknowledged the responsibility of the educational system to create suitable conditions for their learning. Leijen et al. (2021) proposed bridging these two discourses by integrating children with SEN into regular schools. This approach aims to empower students, enabling them to become active and equal citizens in the future. They also suggest retaining special schools and special education teachers as supplementary resources, available to students from regular schools who require varying forms of additional support, either occasionally or over the long term (Leijen et al., 2021).

The original concept of inclusive education aims to provide educational opportunities for students with special educational needs (SEN) while challenging traditional practices that segregate students based on a medical model of disability(Kurth et al., 2018). Oh-Young and Filler (2015) conducted a meta-analysis comparing outcomes for students with disabilities in various placement settings, revealing that students in more integrated environments achieved higher levels of success academically and socially than those in segregated settings. A recent research review by Kefallinou et al.(2020) extensively supports the justification for inclusive education from both educational and social aspects. The study emphasizes the positive impact of integrating students with disabilities into mainstream education, not only benefiting their academic performance but also providing broader societal advantages, including improved social integration, increased academic opportunities, qualifications, enhanced employability, and the development of meaningful personal relationships within the community. Cologon(2020) emphasized the benefits of inclusive education, underscoring its positive influence on academic progress, communication proficiency, and the promotion of positive behavior and social development in students with severe disabilities. Nevertheless, it is crucial to acknowledge that the families of these students have shared their experiences, revealing that advocating for inclusion is frequently marked by extended, demanding, and emotionally draining endeavors.

Our literature review is focused on investigating the status of students with intensive needs in foreign countries' inclusive education systems. This research is part of a broader project aimed at providing insights into the development of an inclusive education system in Japan that focuses on supporting the intensive needs of regular schools. Presently, Japan's special education landscape reflects ongoing efforts to advance inclusive education for disabled children. Following the ratification of the UNCRPD, Japan introduced a system in which special needs schools served as hubs for diverse and continuous learning. The existing educational framework for SEN students in Japan evolved from special schools, now known as special needs schools. Historically, these institutions have offered meticulous instructions tailored to specific disability types, accumulating specialized expertise over time. Recent legislative amendments have led to a shift, primarily by placing disabled children in regular classes in mainstream schools. However, the option of providing specialized learning environments is still available when necessary to accommodate the specific needs of these children. Notably, discussions regarding inclusive education in Japan have shifted from the physical location of education delivery to the content and quality of inclusive education (Yoneda, 2020).

The primary objective of this research is to examine the status of SINs within inclusive education systems abroad and to gain insights into the development of an "intensive needs support model inclusive education system" in Japan. This study aims to address the following fundamental questions:

1. What constitutes the definition of "intensive needs" or who qualifies as individuals with intensive needs, as described in existing scholarly literature?

2. How are students with intensive needs educated in inclusive educational settings in foreign countries? What are prevailing practices and strategies?
3. What is the most efficacious approach to educating individuals with intensive needs within an inclusive education system? What strategies and methodologies can be used to achieve optimal outcomes?

METHOD

This is a qualitative study based on Systemic Literature Review (SLR) methodology, to gather information about Students with Intensive Needs (SINs) in an inclusive education setting. SLR serves as a research methodology employed to systematically gather, determine, and carefully assess the extant body of research studies, encompassing articles, conference proceedings, books, and dissertations. This method involves a rigorous and organized approach to the identification and critical analysis of accessible scholarly literature(Pati & Lorusso, 2018). Before initiating this SLR, upon searching different databases, the authors didn't find any SLR focusing specifically on SINs in inclusive education in the current literature. We utilized databases such as Google Scholar, ERIC, and the Tulips Discovery database of the University of Tsukuba to gather peer-reviewed literature. In addition, citation chains and recommended articles were used to gather more related literature. The search was conducted during the first half of 2023. The primary objective was to answer the research questions, particularly to identify research about students with intensive needs or students with severe or multiple disabilities in inclusive education, focusing on this specific subgroup in both developed and developing countries.

RESULTS AND DISCUSSION

The research employed specific keywords and phrases like "intensive needs" "severe disabilities", "inclusive education" and "regular class," with Boolean operators "AND" and "OR" during the search process. Additionally, advanced search options, and alternative terms like "students with significant disabilities," "extensive support needs," and "significant needs" were utilized to broaden the search. On Google Scholar while utilizing the advanced search options and limiting the results to reviewed articles, the search results were around 496 hits, while ERIC yielded 46 hits, but only nine when limited to peer-reviewed articles. The Tulips Discovery database of Tsukuba University returned only seven hits, which decreased to four when restricted to journal articles. Reviewing the titles and abstracts, only Four articles specifically mentioned or focused on "intensive needs" in special education or inclusive education settings. To broaden access to relevant literature based on reading the above four articles, the search term "intensive needs" was modified to "significant needs" "extensive support needs" "severe disabilities" and "multiple disabilities". The authors also accessed articles through the "similar/recommended articles" feature of academic journals and utilized citation chaining (reference mining) techniques to locate relevant studies.

The criteria for including articles in this review were as follows:
a) studies discussing inclusive education in developing or developed countries outside Japan,
b) containing insights about students with severe, multiple disabilities, or developmental and intellectual disability,
c) school-level education,
d) peer-reviewed,
e) articles published after 2007 (after the adoption of UNRCPD),
f) English language and

g) full text accessible online.

During the in-depth study of articles, it was considered to question whether a study is about SINs and inclusive settings or not. After the in-depth reading of the abstracts of the collected articles, a list of 30 articles was compiled for use in this literature review (Table 1), including the author/s name and year of publication, title, research design, purpose, and results of each article. The selected studies were from the US (14), Finland (3), the Netherlands (2), Australia (2), Germany, Hong Kong, Myanmar, Vietnam, India, Malaysia, Ireland, Canada, and one from more than two countries.

Table 1. List of research articles in chronological order

No	Author/s (Year)	Country	Title	Design	Purpose	Results
1	Lewis Jackson et al. (2022)	US	Examination of Contextual Variables Across and Within Different Types of Placement for Elementary Students With Complex Support Needs	Qualitative Study	This research investigated various factors related to four distinct student placements, categorized based on the proportion of time that specific students were present in general education classrooms (i.e., 80% or more, 40%–79%, less than 40%, 0%). These factors encompassed aspects such as the classroom environment, curriculum, teaching methods, and support provided to students.	The findings of this research indicate that in more restrictive placements, the utilization of evidence-based practices and support for students to access and advance in the general education curriculum at their age/grade level was limited or not adequately implemented. Overall, results endorse the idea that enabling students to access the general education curriculum is context-dependent, and placing students in restrictive settings negatively affects their opportunities for learning and progress within that curriculum.
2	Steve R. Entrich (2021)	Germany	Understanding Cross-National Differences in Inclusive Education Coverage: An Empirical Analysis	Mixed (quantitative & qualitative)	This study analyzes cross-national differences in inclusive education coverage in over 50 societies.	The results indicate that the level of institutionalization of inclusive education in a society is not influenced by factors such as national income or educational expenses. Instead, the variations in school inclusion across different nations primarily stem from the structural characteristics of the school system and its inherent institutional framework, particularly the extent of institutional differentiation.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
3	Ineke Haakma et al. (2021)	Netherlands	Inclusion moments for students with profound intellectual and multiple disabilities in mainstream schools: The teacher assistant's(TA) role in supporting peer interactions	Observational Study	To explore the type of activities offered during inclusion moments, the interaction between students with PIMD and their peers, and the role of TAs.	The study discovered that students with profound intellectual and multiple disabilities (PIMD) had inclusion moments within mainstream schools, often initiated by peers rather than the students with PIMD themselves. Surprisingly, students with PIMD didn't respond to most of these initiations, and the study could not determine the reasons due to their limitations. Teacher assistants (TAs) made efforts to facilitate peer interactions for students with PIMD, but the extent of their involvement varied among TAs.
4	Jennifer A. Kurth et al. (2021)	US	Faculty Perceptions of Expertise for Inclusive Education for Students With Significant Disabilities	Delphi Study	This research aimed to expand upon the prior collaborative research by Ruppar, Olson, and Roberts, which focused on cultivating teacher proficiency in educating students with significant disabilities in inclusive environments. It also aimed to investigate how faculty specializing in special education for students with significant disabilities equipped teachers to deliver special education services within inclusive settings.	The study's results highlight essential skills and attributes that teacher candidates should be educated on and encouraged to develop. Furthermore, it offers specific strategies for imparting this knowledge and skill set in higher education classrooms, K-12 schools, and the community. The top 10 skills emphasize the necessity for teacher candidates to acquire various competencies.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
5	Peter Westwood (2021)	Hong Kong	Integration to Inclusion in Hong Kong: Not an Easy Progression	Qualitative Study	To examine the progression of inclusive education in Hong Kong, transitioning from a period of segregation and integration to full inclusion.	The Hong Kong education system predominantly relies on special schools for students with severe disabilities, but the move toward inclusion encounters significant hurdles. These challenges include coping with large class sizes, addressing teachers' resistance to inclusion, managing parental expectations, bridging gaps in teacher expertise for adapting the curriculum and providing personalized teaching, and navigating ongoing conflicts between the idea of inclusive education for all and the pursuit of academic standards.
6	Yoshiko Tonegawa (2021)	Myanmar	Contextualization of Inclusive Education: Education for Children with Disabilities in Myanmar	Case Study Method.	The primary objective of this research was to investigate the real-world implementation of inclusive education for children with disabilities within the current educational framework, considering that inclusive education is a significant global initiative in the field of education.	The research discovered that the education system in Yangon, Myanmar, has established inclusive education by leveraging the resources available in both special and regular schools. Special schools play a crucial role in meeting the needs of visually impaired students by imparting essential life skills and practical knowledge. Additionally, they provide extra study time and create safe learning environments. However, the study also highlighted challenges in connecting special schools with regular schools.
7	Jukka Vetoniemi & Eija Kärnä (2021)	Finland	Being included – experiences of social participation of pupils with special education needs in mainstream schools	Qualitative study-Narrative Inquiry Methodology	This research aims to address a research gap by shedding light on the experiences and emotions of students with special educational needs (SEN) regarding their social engagement in regular Finnish classrooms.	Mere physical inclusion in schools is inadequate to guarantee the complete engagement of students with special educational needs. Schools should undergo modernization to better accommodate diverse student populations by enhancing interactive social learning models and the quality of teaching.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
8	Michael F. Giangreco (2020)	US	"How Can a Student with Severe Disabilities Be in a Fifth-Grade Class When He Can't Do Fifth-Grade Level Work?" Misapplying the Least Restrictive Environment	Qualitative Study	The article aims to offer insights drawn from over four decades of experience working with students with disabilities, their parents, educators, special education professionals, support providers, school leaders, and assistants. These insights revolve around a fundamental question: What are the reasons behind the limited inclusion of students with severe disabilities in mainstream educational settings?	The author presents five factors contributing to the limited inclusion of students with severe disabilities: (a) the persistence of ableism, (b) schools often misinterpreting the least restrictive environment regulations from the Individuals with Disabilities Education Act when making placement decisions, (c) challenges in understanding and implementing curriculum inclusion among team members, (d) a tendency among some professionals to view instruction as an either/or choice, and (e) conventional methods of systemic change often neglecting students with severe disabilities.
9	Nguyen Xuan Hai et al. (2020)	Vietnam	Inclusion in Vietnam: More than a Quarter Century of Implementation	Qualitative Study	This article explores the development of special education policies and services in Vietnam, beginning from their introduction to the present expansion of inclusive education for children and youth with disabilities.	In Vietnam, a 2016 national survey revealed that an impressive 94.2% of students with disabilities were integrated into mainstream education, and nearly half of them had intellectual disabilities. On average, schools had 8.3 students with disabilities. Special classrooms and schools were rarely used, except for students with hearing difficulties, where about 26% attended special classrooms.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
10	Samantha Gross Toews et al. (2020)	US	Ecobehavioral Analysis of Inclusive Classrooms and Instruction That Supports Students With Extensive Support Needs	Mixed (quantitative & qualitative)	The purpose of this study was to identify the characteristics of academic instruction in inclusive elementary and middle school classrooms that include students with ESN.	Results demonstrated students with ESN were highly engaged in a variety of academic content with a range of educators, curricular adaptations, and academic supports in both elementary and middle school classrooms.
11	Martin Agran et al. (2020)	US	Why Aren't Students with Severe Disabilities Being Placed in General Education Classrooms: Examining the Relations Among Classroom Placement, Learner Outcomes, and Other Factors	Qualitative Study	This article examines reasons and rationales that appear to underlie why students with severe disabilities are placed mostly in segregated settings	Six determinants of placement practices have more to do with sociocultural and capacity factors than student educational needs: (a) perceptions of competence and resulting placement policies, (b) economic and demographic stratification, (c) biases, (d) teacher preparation and experience, (e) lack of resources and capacity, and (f) absence of knowledge of current research.
12	Jennifer A. Kurth et al. (2019)	US	Considerations in Placement Decisions for Students With Extensive Support Needs: An Analysis of LRE Statements	Qualitative Study-content analysis	This study examines the least restrictive environment statements of 88 students' IEPs to determine what factors, including supplementary aids and services, were considered in making placement decisions.	Supplementary aids and services were overlooked in placement decisions, with a focus on factors like curriculum, environment, student deficits, and personnel needs, and students predominantly participated in non-academic activities in general education settings.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
13	Akie Yada & Hannu Savolainen (2019)	Finland and Japan	Japanese and Finnish teachers' perceptions and self-efficacy in inclusive education	Quantitative Survey	This study examines whether teachers' perceptions differ by country(Japan and Finland), severity of disability, and disability type. Moreover, the correlations between perceptions and self-efficacy for inclusive practices are investigated.	Finnish teachers generally preferred more inclusive settings compared to their Japanese counterparts which indicates that disability type and severity influence teacher perceptions and attitudes. Both Japanese and Finnish teachers believed that segregated environments were more suitable for students with severe disabilities.
14	Emily M. Kuntz & Erik W. Carter (2019)	US	Review of Interventions Supporting Secondary Students with Intellectual Disability in General Education Classes	Qualitative Study	The purpose of this systematic review was to provide a comprehensive map of the literature addressing interventions delivered within general education classes to middle and high school students with intellectual disability.	Research has coalesced around five broad intervention approaches: (a) systematic instruction, (b) peer support arrangements, (c) self-management strategies, (d) peer-mediated communication interventions, and (e) educational placement changes.
15	Jacqueln Chovans (2018)	US	Effects of Data-Based Individualization on Reading Comprehension for High School Students with Intensive Needs in Reading	Multiple Probe across Participants Study	The aim is to examine the effects of Data-Based Individualization (DBI) on the reading comprehension of high school students with intensive needs in reading.	The study suggests that Data-Based Individualization (DBI) could serve as an effective instructional framework for delivering explicit reading comprehension strategy interventions to high school students with intensive reading needs.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
16	Sneh Bansal (2018)	India	Understanding Teachers' Perspective of Inclusive Education for Children With Special Needs (CWSN)	Mixed (quantitative & Qualitative) Awareness scale Prepared by CBSE+ Open ended Questionnaire with Focus Group Interviews	The primary objective of this study was to investigate teachers' perspectives on inclusive education within the Chandigarh region and to enhance our understanding of the factors that could impact the adoption of inclusive teaching methods within the school system.	The study revealed that many teachers believe that students with severe disabilities should receive education in specialized or separate settings. Special education teachers are equipped with specific teaching methods to effectively educate students with disabilities, although most of them also acknowledge the potential positive impact of inclusive education on the social and emotional development of students with disabilities.
17	Andrea L. Ruppar et al. (2018)	US	Developing Expertise in Teaching Students With Extensive Support Needs: A Roadmap		This article aims to summarize Author's previous research and offer guidance on enhancing teachers' skills in instructing students with Educational Support Needs (ESN) from their initial exposure as novices to achieving advanced expertise.	Educating students with ESN is intricate, influenced by factors like teacher training, school leadership, and personal teacher attributes. This examination unveiled the intricacies of the teacher's role, emphasizing the need for expertise in instructing students with ESN, challenging misconceptions about educators and learners, and promoting professional growth. Teacher trainers should equip teachers with the essential skills for teaching students with ESN and foster the qualities needed to evolve into specialists.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
18	Adnan Nasser Al Hazmi, & Aznan Che Ahmad (2018)	Malaysia	Universal Design for Learning to Support Access to the General Education Curriculum for Students with Intellectual Disabilities	Qualitative Study	This paper aims to examine the role of universal design for learning in supporting access to the general education curriculum for students with intellectual disabilities.	Utilizing the universal design for learning framework offers significant advantages in providing inclusive education for all students, regardless of their cognitive abilities. This approach promotes access to general education, fostering improved learning and development encompassing reading, writing, comprehension, decision-making, life skills, and social abilities, enabling students to lead fulfilling lives. It also supports teacher recruitment enhancements and training in innovative teaching methods, improving students' memory, differentiation, decision-making, and fair assessment, especially for those with cognitive challenges.
19	Kathleen Mortier (2018)	US	Communities of Practice: a Conceptual Framework for Inclusion of Students with Significant Disabilities	Qualitative Study	This conceptual paper discusses how communities of practice, as an alternative theoretical framework of knowledge, can address some of the persistent barriers to inclusive education for these students.	A community of practice offers a different approach to innovation than the conventional top-down method. It creates room for uncertainty and trust, bridging the divide between theoretical knowledge and practical expertise, and mitigating power imbalances and conflicting priorities among parents and educators. Embracing this flexible knowledge framework, based on local stories, aids inclusion teams in identifying novel ways to advance their practices.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
20	Deborah A. Taub et al. (2017)	US	Opportunities to Learn for Students With Extensive Support Needs: A Context of Research Supported Practices for All in General Education Classes.	Qualitative Study	This article aims to achieve several objectives: (a) establish a fundamental understanding of OTL within the broader context of general education literature, (b) present a more comprehensive definition of OTL concerning educational prospects for students with ESN, (c) offer an overview of the existing status of OTL for students with ESN, and (d) explore supplementary factors that enhance OTL for students with ESN.	There has been limited consideration regarding whether students with ESN are genuinely provided with fair and equal OTL. An examination of the alignment between the planned curriculum, the implemented curriculum, and the assessed curriculum reveals a significant discrepancy for students with ESN. This misalignment prevents us from asserting that students with ESN are indeed experiencing OTL.
21	Joanne Banks & Selina McCoy (2017)	Ireland	An Irish Solution…? Questioning the Expansion of Special Classes in an Era of Inclusive Education	Mixed (quantitative & qualitative)	To examine the nature and structure of special classes to understand whether they facilitate educational inclusion in Irish schools.	The presence of students with disabilities in special classes within mainstream schools may not guarantee genuine inclusion, as the extent of inclusion is questionable. The effectiveness of special classes in representing inclusive education depends on factors like the class's designation, the severity of students' needs, and the quality of school leadership. The prevalent discourse on inclusion sometimes leads governments to claim inclusion without achieving true inclusivity. In Ireland, this has resulted in the continued use and recent expansion of special classes, where students with disabilities are placed in separate settings with varying degrees of integration into mainstream education, resembling exclusion rather than inclusion.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
22	Henri Pesonen (2016)	Finland	Sense of belonging for students with intensive special education needs: An exploration of students' belonging and teachers' role in implementing support.	Qualitative Study	This thesis, which consists of three related, internationally published peer-reviewed articles (Studies I-III), aimed to examine, to what extent a sense of belonging can be supported in school and post-school life for students with intensive special education needs in Finland.	The results imply that students with Intensive special education needs may potentially experience a sense of belonging in both regular and specialized school settings when adults work together to establish a welcoming and supportive environment through personalized teaching methods.
23	Raija Pirttimaa et al. (2015)	Finland	Intensive Special Educational Needs and the Development of Inclusive Practices in Finland	The electronic questionnaire included Multiple-choice Questions in Addition to Open-ended Questions.	The purpose of this study was to examine how inclusive education is implemented in schools serving children with severe or intensive special educational needs. The survey asked school staff to estimate where the education of these children could be pedagogically effective and what sort of integration there was (in 2012).	It was revealed that partial integration, was the preferred choice among respondents when asked about organizing special support for pedagogical effectiveness. This viewpoint was widely shared across all age groups among the staff, and there were no statistically significant differences in this regard.
24	Laura Rae Mooney & Bonnie Lashewicz (2015)	Canada	For the Love of the Child: Bestowing Value amidst Inconsistent Inclusive Education Beliefs and Practices for One Student with Severe Disabilities	Instrumental Case Study Design	To present an instrumental case study examination of the inclusion experience of one Canadian student with a severe disability described from multiple parent and educator perspectives.	Inconsistent beliefs and practices related to inclusion hurt the academic development of students with Down syndrome who also have signs of Autism. This inconsistency creates confusion among parents, educators, and students, resulting in missed educational opportunities. The effectiveness of inclusive education for students with severe disabilities appears to be more dependent on the quality of teaching rather than simply expressing care and love for the child.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
25	National Center on Intensive Intervention-NCII (2013)	US	Implementing Intensive Intervention: Lessons Learned From the Field	Mixed (quantitative & qualitative)	The purpose of this document is to present findings from an exploratory study of how five high-performing districts, which we refer to as NCII's knowledge development sites, defined and implemented intensive intervention.	The study's findings, derived from data across five districts, reveal both facilitating factors and challenges in implementing intensive intervention within a multi-tiered system of support (MTSS). Across all sites, intensive intervention was integral to MTSS and prominently relied on data-driven instructional decision-making. Capacity-building practices, such as securing broad stakeholder buy-in, enhancing staff expertise, maintaining flexibility in scheduling, and establishing connections with related initiatives, were emphasized across all districts.
26	Chris Forlin (2013)	Australia	Inclusive Education for Students with Disability: A Review of the Best Evidence Relation to theory and Practice	Qualitative Research- Literature Review	This report identifies research and evidence-based literature regarding outcomes of inclusive education for students with disability internationally, and specifically within Australia.	The international evidence indicates that good practice in inclusive education involves consideration of a range of aspects. The key approaches adopted in Australia focus on whole-school practice and in-class support. As a whole, school-level good practices include adjustments to cultures, policies, and practices, development of support structures, regimes of funding support, and the provision of and access to equitable learning opportunities.
27	Heather Lucas (2013)	US	The Effects of Two Types of Reading Interventions on the Test Scores of Students who Have Intensive Special Needs	Quasi-experimental Design	The purpose of this study was to determine which of two types of reading interventions, phonics-based or sight word-based, was more effective in improving reading scores of students with intensive special education needs on the TOWRE assessment.	The elementary-aged intensive needs students who participated in the sight word-based reading intervention scored significantly higher on the Sight Word Efficiency (SWE) subtest of the Test of Word Reading Efficiency (TOWRE) assessment than did the elementary-aged intensive needs students who participated in the phonics-based reading intervention

No	Author/s (Year)	Country	Title	Design	Purpose	Results
28	Anke de Boer et al. (2014)	Netherlands	Evaluating the Effectiveness of an Intervention Program to Influence Attitudes of Students Towards Peers with Disabilities.	A Quasi-experimental Longitudinal Study	To examine the effectiveness of an intervention program to influence attitudes of elementary school students towards peers with intellectual, physical and severe physical and intellectual disabilities.	The study found that an immediate improvement in positive attitudes was seen among kindergarten students after the intervention, but it did not have a lasting effect. Both the intervention and control groups had more positive attitudes at the final measurement. However, the intervention did not impact the attitudes of elementary school students.
29	Turki Alquraini & Dianne Gut (2012)	US	Critical components of successful inclusion of students with severe Disabilities: literature review	Qualitative Study	This review aims to summarize literature on effective practices for inclusive education, particularly focusing on the critical components that enable successful inclusion of students with disabilities in inclusive schools. It also offers insights into the key factors that improve the quality of inclusive education programs for students with severe disabilities.	The literature suggests that accommodations and adaptations benefit collaborative school teams in supporting students with severe disabilities to access and progress in the general education curriculum. Effective instructional strategies, merging typical and special education approaches, can aid these students in their curriculum advancement. Consideration of collaboration's key attributes is essential for establishing a successful inclusive environment for students with severe disabilities.

No	Author/s (Year)	Country	Title	Design	Purpose	Results
30	Michael Arthur-Kelly et al. (2008)	Australia	Interaction, inclusion and students with profound and multiple disabilities: towards an agenda for research and practice	Illustrative Case Studies from a Recent Observational Study	To propose some directions for research and practice that authors believe will further inform how best to understand, engage and educate students with profound and multiple disabilities (PMD).	The study shows that inclusive classrooms have much higher communication levels, with nearly half the day involving interactions between students with profound intellectual and multiple disabilities (PMD) and their peers. In contrast, segregated classrooms have only 27% of such interactions. Furthermore, significant differences in peer interactions exist between these settings, with regular classrooms having peers as interaction partners 17% of the time, while special classes have only 4%. This highlights the crucial role of inclusive education in promoting communication and social interactions for PMD students.

What are intensive needs and who are individuals with intensive needs?

In this literature review, it is evident that the term "intensive needs," or more specifically, "intensive special education needs," is not widely utilized in current academic literature. Instead, alternative terminology such as "significant support needs," "extensive support needs" and "multiple and complex needs" is favored and individuals with these needs are named as having "significant cognitive disabilities, multiple disabilities, or severe (intellectual) disabilities," among others.

Lucas (2013) characterized students with intensive needs (SINs) as individuals facing significant challenges in academic, communication, or behavioral areas. This often includes students with intellectual disabilities, Down's syndrome, cerebral palsy, and autism. Lucas clarified that the term "significant cognitive disabilities" is more commonly employed to describe students with moderate to severe intellectual disabilities, often accompanied by additional conditions, such as autism or physical disabilities (Lucas, 2013).

Pesonen (2016) emphasizes that the term "intensive special education needs," known as "vaativa erityinen tuki" in Finnish, originated from the VETURI research project in Finland (2011-2015). Furthermore, he underscores that the term "Significant Support Needs" is frequently used in international literature (Pesonen, 2016). It encompasses students with low-incidence disabilities or those with severe and multiple disabilities, often characterized by significant cognitive impairments that may co-occur with sensory and physical disabilities (Carroll et al., 2011; Hallahan et al., 2014).

Notably, the term "significant support needs" excludes individuals with mental health issues or those with autism spectrum disorder (ASD), whether low- or high-functioning. Regarding the VETURI research project, "intensive special education needs" encompass students facing severe mental health challenges, ASD, emotional disabilities, physical disabilities, or developmental and intellectual disabilities (Pesonen, 2016).

The survey conducted by Kurth et al. (2021) defined students with significant disabilities as the 1% eligible for their state's alternate assessment. Conversely, Taub et al.

(2017) characterize students with "extensive support needs" as those requiring pervasive support in academic and daily living areas. This group may include individuals with conditions such as autism, intellectual disabilities, or multiple disabilities, who are also eligible for the state's alternate assessment.

Fuchs et al. (2010) identified students with intensive reading needs as those who did not respond adequately to typical interventions, even with additional support such as smaller group sizes and increased instructional time. These students require intensive reading interventions that can be provided within or outside special education settings.

These definitions collectively highlight the presence of multiple or combined disabilities, and the concept of severe disability. Alquraini and Gut (2012) described students with severe disabilities as those with significant deficiencies in cognitive abilities that affect their daily activities (Alquraini & Gut, 2012). Similarly, Rosengard et al. (2007) emphasize that multiple and complex needs entail various requirements that necessitate support from multiple services. Furthermore, Rankin and Regan (2004) stress that complex needs encompass a broad range of requirements and high levels of need.

Based on this literature, it can be concluded that "intensive needs" refers to the needs of individuals who experience severe challenges related to their mental health, emotional well-being, physical capabilities, developmental or intellectual abilities, or a combination of these factors. These needs may involve significant academic, communication, and behavioral challenges across various domains, including academic and daily living activities. These complex needs arise from multiple interrelated issues that require expertise from various professionals and services to ensure an individual's learning, rehabilitation, and quality of life. The problems associated with these intensive needs have both a broad range of challenges and a high level of complexity, requiring support from multiple professionals with specialized skills in any field, including schools. Individuals with intensive needs may utilize nonlinguistic communication and exhibit learning characteristics that require more time to learn as well as intensive forms of instructional support, whom we refer to as students with intensive needs (SINs). The following diagram illustrates our conclusions:
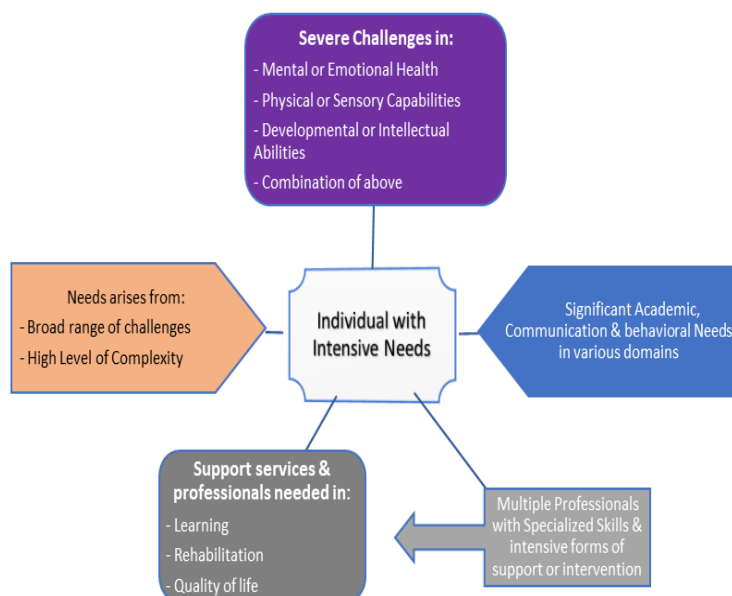

Figure 1. Elements of understanding individuals with intensive needs

How are students with intensive needs currently being educated within inclusive education settings overseas?

Ramberg and Watkins (2020) pointed out that, despite the development of inclusive educational structures worldwide, the number of educational systems in which all students learn together in inclusive settings within mainstream schools is quite limited. The data suggest that, in many countries, there has been a significant enhancement in the provision of special needs education. However, more than ten years after the adoption of the UNCRPD, the global shift from exclusive to inclusive special education can be characterized as progressing at a relatively slow pace (Ramberg & Watkins, 2020).

Globally, many students with SEN (particularly SINs) continue to receive education in segregated settings such as special schools, where they are entirely separated from mainstream education. Alternatively, they may have been placed in special classes at regular schools for more than 20% of their time, signifying a form of separation. In some cases, there is partial integration, in which they participate in shared lessons or activities with their peers. However, full inclusion, which entails students with disabilities receiving the majority (80% or more) of their education in regular classrooms, remains limited (Ramberg & Watkins, 2020).

Inclusive education offers several advantages to students with SEN, including improved access to the general curriculum, enhanced student engagement, better academic and functional skill performance, and positive social and behavioral outcomes. Additionally, when students without disabilities share classrooms with peers with disabilities, it generally has either a neutral or beneficial impact on their academic and social experiences. This effect is particularly notable in classes in which SINs exist. In these settings, students without disabilities also gain benefits such as reduced apprehension of differences, increased comfort with diversity, improved social cognition, enhanced self-concept, and the development of ethical principles and caring friendships. Furthermore, they experience greater empathy, increased awareness and tolerance of differences, learn to assist others, and acquire specific skills such as sign language (NCD, 2018).

Despite the advantages of including students with special needs in regular classrooms, various challenges have hindered their inclusion. Federal laws have not effectively ensured that student SEN (including SINs) are placed in general education classrooms, as required by law. Morningstar, Kurth, and Johnson (2017) analyzed a decade of data in the US and found that SINs are primarily taught in separate classes, and there has been little improvement in providing access to less restrictive settings (Morningstar et al., 2017). Another study by Kurth et al. (2019) examined the Individualized Education Plans (IEPs) of 88 SINs from six states in the US and discovered that many students with SINs have limited access to general education, mostly during non-academic periods.

Recent data indicate that only a small percentage of students with intellectual and multiple disabilities have been enrolled in general education, with a minimal increase over the last 40 years. The percentage of students with intellectual disabilities in general education decreased (from 17.9% in 2010 to 16.9% in 2014 (Brock, 2018) and remains low (16.9%) in the US (Giangreco, 2020).

Pirttimaa et al. (2015) focused on determining the most effective way of providing special support to Finnish students with SINs. The findings revealed that from the perspective of school staff, particularly teachers of all age groups, part-time integration was considered the most suitable approach. It was emphasized that physical integration, in which SINs share the same school building, serves as a crucial starting point for promoting integration and inclusion (Pirttimaa et al., 2015). In contrast, research conducted by Yada and Savolainen (2019) compared teachers' perceptions in both Japan and Finland,

considering factors such as severity and type of disability. Results indicated that teachers in both countries believed that segregated environments were more appropriate for students with severe disabilities. Japanese teachers believe that greater segregation benefits students with severe visual, auditory, and physical disabilities. In contrast, full-time special classes are preferable for students with severe intellectual disabilities. Additionally, Finnish teachers favored more segregated educational settings for students with severe hearing disabilities and behavioral problems (Yada & Savolainen, 2019).

Reviewing the existing literature and examining the case of "a limited inclusive education in phase" in Yangon of Myanmar, Tonegawa (2022) argues that although the effectiveness of one-track inclusive education is not deniable if all the needs of children with disabilities are fulfilled, in the current situation many countries face difficulties in implementing this model. Each country, especially low-income countries, needs to understand its resources and utilize them effectively to fit its context.

Hai et al. (2020) focused on the development of special education policies and services in Vietnam. They highlight Vietnam as one of the most inclusive Asian countries in terms of educating children with disabilities. This research, based on a national survey in 2018, revealed that 94.2% of students with disabilities were integrated into general education classes, with a significant proportion having intellectual disabilities. However, an exception was noted for children with hearing impairments, as nearly 26% attended special classrooms. The exceptional situation and Position Paper of the World Federation of the Deaf in 2018 raised questions about the operational definition of inclusion of deaf learners, indicating that mere placement in mainstream schools without appropriate sign language support can be challenging. Similar concerns apply to the SINs (Hai et al., 2020).

Haakma et al. (2021) investigated a special class project known as "To School Together" in the Netherlands, aimed at promoting the inclusion of SINs. Their findings revealed that students with profound intellectual and multiple disabilities (PIMD) experienced moments of inclusion in mainstream schools, often initiated by their peers rather than by students with PIMD themselves. Surprisingly, students with PIMD did not respond to most of these initiatives. In this context, teacher assistants (TAs) play a significant role in facilitating peer interactions for students with PIMD, with a focus on providing direct support, including medical assistance, while primary teaching responsibilities remain with teachers (Haakma et al., 2021).

Hong Kong research has indicated that inclusive education has faced challenges, with the education system relying heavily on special schools to accommodate students with severe disabilities. Teachers encountered the greatest difficulties when trying to integrate students with emotional and behavioral disorders, intellectual disabilities, attention-deficit/hyperactivity disorder, and autism spectrum disorder. These difficulties stem from students' inherent challenges in independent learning (Westwood, 2021).

However, Bansal's 2018 study in a specific region of India revealed that many teachers believed that students with severe disabilities should receive their education in specialized or separate settings. Several factors have contributed to this negative perspective, including inadequate infrastructure, insufficient training in managing the behaviors of children with various disabilities in the classroom, the need for adapted teaching strategies such as curriculum modifications, a shortage of resource teachers and support staff, limited parental involvement affecting student motivation, and overcrowded classrooms (Bansal, 2018).

Banks and McCoy (2017) investigated the nature and structure of special classes in Irish schools to determine their role in promoting educational inclusion. They found that merely including students with disabilities in these special classes in mainstream schools did

not guarantee genuine inclusion. The effectiveness of these classes in fostering inclusive education hinges on factors such as the class's designation, the severity of students' needs, and the quality of school leadership. To address this issue and ensure real inclusion, comprehensive school-wide inclusive education policies and improved resource allocation in mainstream education are essential.

Forlin (2013) explored the outcomes of inclusive education for students with disabilities globally and in Australia. Successful inclusive education involves the consideration of various factors. In Australia, the key approaches to inclusive education focus on both whole-school practices and in-class support. At the school level, these practices entail adjusting cultures, policies, and processes; establishing support structures; implementing funding support systems; and providing equitable learning opportunities. In the classroom, effective practices include adapting the curriculum, using universal design principles, leveraging information technologies, developing individual education plans (IEPs), and maintaining a strong emphasis on quality teaching for all students (Forlin et al., 2013).

Entrich (2021) examined inclusive education coverage across more than 50 societies and found that the degree of institutionalization of inclusive education within a society was not dependent on factors such as a nation's income or educational spending. Rather, disparities in the extent of inclusive education between countries largely arise from the structural characteristics of the educational system and its institutional framework, particularly its level of institutional diversity. Moreover, how special educational needs are defined and promoted within a nation's educational system significantly influences the scope of inclusive education coverage.

Analyzing the above-mentioned current situation in various countries, it can be suggested that schools should undergo modernization to better accommodate diverse student populations by enhancing interactive social learning models and the quality of teaching (Vetoniemi & Kärnä, 2021).

What would be the most beneficial approach to provide education to individuals with intensive needs within an inclusive education system?

As observed in the literature, there is a global movement promoting the education of students with and without disabilities (including SINs) in the same classroom for 80% or more of the school day, with a strong emphasis on genuine inclusion. However, without a well-established framework for inclusive education, regular schools may offer only surface-level content presentations for SINs, thereby lacking meaningful learning opportunities. SINs must have substantial access to the intended curriculum, demonstrate progress, and enhance their postschool outcomes (Taub et al., 2017).

A literature review conducted by Alquraini and Gut (2012) concluded that the successful inclusion of students with severe disabilities relies on several key factors, including accommodations and adaptions, instructional strategies, effective collaboration, peer involvement, the role of teacher assistants, and the involvement of parents and families of students with and without disabilities.

A systematic review by Kuntz and Carter (2019) focused on interventions for secondary students with intellectual disabilities in general education classes and identified five main approaches to these interventions. These approaches include systematic instruction, peer-support arrangements, self-management strategies, peer-mediated communication interventions, and adjustments to educational placements.

Taub et al. (2017) propose an amended Opportunities to Learn (OTL) framework to provide a comprehensive perspective on the components necessary for the inclusion of SINs.

They argue that to ensure access to the planned curriculum, its implementation, and assessment, purposefully designed classrooms and school practices should incorporate a universal design for learning (UDL) principles, ecologically tailored individualized content, and the provision of support and materials. These elements are essential to enable students to actively participate and make continuous progress in the intended curriculum throughout the school day.

Implementing a UDL framework provides substantial benefits in delivering inclusive education to students, regardless of their cognitive abilities. This method facilitates equal access to general education, leading to enhanced learning and development across various aspects such as reading, writing, comprehension, decision-making, life skills, and social competence. This empowers students to pursue fulfilling lives. Moreover, UDL supports the improvement of teacher recruitment and training in innovative teaching approaches, leading to enhanced memory, differentiation, decision-making, and fair assessments, particularly for students facing cognitive challenges. The emphasis on behavioral effectiveness and class-wide peer tutoring highlights the potential of innovative educational interventions to address issues related to instructional and implementation effectiveness. In summary, educators should adopt behavioral principles to boost functional and social literacy in students with intellectual disabilities (Al Hazmi & Ahmad, 2018).

Simultaneously, studies have proposed that Data-Based Individualization (DBI) represents a promising instructional model for providing targeted reading comprehension strategies to high school students with significant reading challenges (Chovanes, 2018). The DBI is a step-by-step process that involves analyzing progress monitoring and diagnostic assessment data, followed by tailoring a validated academic or behavioral intervention. It begins when the data show that a student is not progressing sufficiently with a secondary intervention (or Tier 2). The first step is to increase the intensity of the program, often through quantitative changes such as smaller group sizes or more time, while collecting frequent progress data. If a student remained unresponsive, diagnostic data were collected to identify specific skill deficits. The results of the diagnostic assessment, combined with the teacher's analysis, guided the customization of the intervention to meet the student's unique needs. Customization often involves qualitative changes in instructional components, such as adding vocabulary exercises or increasing support. The teacher continued to collect progress data at regular intervals to assess whether further adjustments were needed to adequately support the students. Overall, the DBI offers a structured approach to gradually enhance instruction and support based on data (National Center on Intensive Intervention, 2013).

DBI is commonly integrated into a Multi-Tiered System of Support (MTSS), which is a comprehensive system of academic and behavioral interventions. This system offers varying levels of support based on individual student needs and relies on collaborative teams and data-based decision-making. An MTSS is typically structured into three tiers:

Tier 1: Core instruction aimed at meeting the needs of all students.

Tier 2: Secondary intervention designed for students requiring additional support beyond core instruction.

Tier 3: Tertiary intervention for students who do not respond adequately to either core or secondary interventions. This level often involves intensive and individualized support.

In essence, the MTSS ensures a holistic approach to addressing students' diverse needs through a tiered system of support and data-based decision-making (National Center on Intensive Intervention, 2013).

Moreover, in contrast to the traditional top-down approach, a new conceptual framework called "Communities of Practice (CoP)" offers an innovative alternative. In CoPs, a group of individuals share a passion and engage in ongoing interactions to deepen their knowledge. It focuses on the intersections of community, practice, identity, and meaning as vital aspects of learning. This model strongly links the learning process to the negotiation of meaning and evolving identities, transforming learners from passive recipients into active participants through interactive shared practices. In the context of inclusive education, educators should explore the potential of communities of practice to enhance their knowledge and skills in accommodating students with disabilities. Inclusive education involves highly individualized processes that adapt to the ever-changing dynamics of the classroom, considering factors such as activities and individual and group dynamics. This dynamic nature makes it impossible for educators to be fully prepared in advance, emphasizing the need for continuous knowledge development through interactions with others who share a commitment to include every student. Collaboration among various stakeholders, including special and general educators, therapists, parents, and students, has consistently been highlighted as crucial in inclusive education, fostering a sense of shared focus and ongoing dialogue in various life contexts (Mortier, 2020).

From the presented results, we suggest that to develop an inclusive education model in which SINs are successfully included, Data Based Individualization in a Multi-Tiered System of Support based on principles of universal design for learning and the concept of CoPs should be utilized to ensure true OTL for SINs in regular classroom settings.

The inclusion of students with intensive needs in general education remains one of the most difficult changes in school systems worldwide. As inclusive education becomes more commonly embraced in educational discourse, localized interpretations, fresh challenges, and practices that exclude it are emerging (Lalvani et al., 2015; Ryndak et al., 2014). Entrich (2021) suggested that for inclusive education to be effectively implemented, it relies on isomorphism, a method in which school institutions align with universally recognized expectations. Powell (2015) identified three distinct isomorphism types.

- Mimetic isomorphism: Schools emulate the practices of top-performing inclusive schools.
- Normative Isomorphism: A transformation in benchmarks, categorizations, and anticipations in special education.
- Forced isomorphism: A compulsion for nations and their educational frameworks to adopt inclusive education.

Normative isomorphism is recommended to achieve the optimum form of inclusion. We believe that the failure to successfully include some countries may have been due to forced isomorphism, so forced isomorphism should be avoided. Agran et al. (2020) highlighted six determinants of SIN placement in segregated settings that have more to do with sociocultural and capacity factors than student educational needs: (a) perceptions of competence and resulting placement policies, (b) economic and demographic stratification, (c) biases, (d) teacher preparation and experience, (e) lack of resources and capacity, and (f) absence of knowledge of the current research(Agran et al., 2020).

The effectiveness of inclusive education for SINs appears to be more dependent on the quality of teaching rather than simply expressing care and love for the child (Mooney & Lashewicz, 2015). Ruppar, Roberts, and Olson (2018) argued that teaching SINs is a complex endeavor affected by teacher education, school leadership and culture, and individual teacher characteristics. Kurth et al. (2021) highlighted the essential skills and attributes that candidate teachers should be educated and encouraged to develop. The top 10 skills emphasize the necessity for teacher candidates to acquire competencies such as

personalizing support, utilizing strength-based methods effectively, fostering collaboration and advocacy, and integrating systematic and explicit instruction into natural routines.

Giangreco (2020) argues that many students with severe disabilities have found success in general education placement, demonstrating the feasibility of their inclusion. He presented five factors contributing to the limited inclusion of SINs: (a) the persistence of ableism, (b) schools often misinterpreting the least restrictive environmental regulations from the IDEA when making placement decisions, (c) challenges in understanding and implementing curriculum inclusion among team members, (d) a tendency among some professionals to view instruction as an either/or choice, and (e) conventional methods of systemic change often neglecting students with severe disabilities.

Jackson et al. (2022) conducted a study of various placements for students with complex support needs and found that enabling these students to access the general education curriculum depended on the context. Placing them in restrictive settings has a detrimental impact on their opportunities to learn and progress within the curriculum. OTL assumes that every student can engage with and respond to the curriculum content presented in class. However, this assumption often does not hold for students with SIN (Jackson et al., 2022).

To enhance OTL for all students, Taub et al. (2017) proposed the inclusion of Universal Design for Learning (UDL) principles. These principles focus on providing multiple means and opportunities for engagement, representation, and expression of learned knowledge. This approach aims to create a flexible learning environment in which all students, regardless of their needs, acquire knowledge and develop learning skills (CAST, 2018). UDL is not a one-size-fits-all approach but offers diverse ways for students to access and achieve their learning goals across various curriculum components, including goals, instruction, learning content, and assessment (Almumen, 2020).

Research utilizing the concept of CoPs shows that it is a powerful framework for fostering collaboration, developing shared knowledge, and ultimately enhancing inclusive education for students with diverse needs. It emphasizes that such outcomes may not be achievable solely through traditional teacher training or explanations about inclusion and disability but through ongoing collaborative efforts.

CONCLUSION

Our literature review examines the educational landscape of students with intensive needs in inclusive educational systems worldwide. We found that SINs encompass individuals facing significant challenges across various domains, including physical, intellectual, developmental, mental, and emotional.

Despite global efforts in inclusive education, it is concerning that most SINs continue to spend a substantial portion (20% or more) of their educational time outside regular classroom settings. To address this issue, we propose incorporating UDL principles within the OTL framework. Additionally, we recommend leveraging the concept of CoP to create an inclusive education model that not only includes SINs but also allows them to thrive within the regular classroom curriculum.

Our research suggests that future studies focus on the practical implementation of the proposed inclusive education model for SINs. This will bridge the gap between the global inclusive education agenda and the actual experiences of students with intensive needs, ultimately fostering a more inclusive and equitable educational environment. Furthermore, the orientation toward a model of multidisciplinary collaboration that distinguishes and organizes the instructional and support roles to be played by teachers from the support roles to be played by non-teaching professionals is also an area for further work.

DISCLOSURE AND CONFLICTS OF INTEREST

The authors report there are no competing interests to declare.

REFERENCES

Agran, M., Jackson, L., Kurth, J. A., Ryndak, D., Burnette, K., Jameson, M., Zagona, A., Fitzpatrick, H., & Wehmeyer, M. (2020). Why Aren't Students with Severe Disabilities Being Placed in General Education Classrooms: Examining the Relations Among Classroom Placement, Learner Outcomes, and Other Factors. *Research and Practice for Persons with Severe Disabilities*, *45*(1). https://doi.org/10.1177/1540796919878134

Al Hazmi, A. N., & Ahmad, A. C. (2018). Universal Design for Learning to Support Access to the General Education Curriculum for Students with Intellectual Disabilities. *World Journal of Education*, *8*(2). https://doi.org/10.5430/wje.v8n2p66

Almumen, H. A. (2020). Universal Design for Learning (UDL) Across Cultures: The Application of UDL in Kuwaiti Inclusive Classrooms. *SAGE Open*, *10*(4). https://doi.org/10.1177/2158244020969674

Alquraini, T., & Gut, D. (2012). Critical components of successful inclusion of students with severe disabilities: Literature review. *International Journal of Special Education*, *27*(1).

Artiles, A. J., & Dyson, A. (2005). Inclusive education in the globalization age. *Contextualizing Inclusive Education*.

Banks, J., & McCoy, S. (2017). An Irish solution…? Questioning the expansion of special classes in an era of inclusive education. *Economic and Social Review*, *48*(4).

Bansal, S. (2018). Understanding Teachers' Perspective of Inclusive Education for Children With Special Needs (CWSN). *Educational Quest*, *9*(1).

Carroll, D., Fulmer, C., Sobel, D., Garrison-Wade, D., Aragon, L., & Coval, L. (2011). School culture for students with significant support needs: Belonging is not enough. *International Journal of Special Education*, *26*(2).

CAST: Center for Applied Special Education. (2018). *Universal Design for Learning Guidelines version 2.2*. http://udlguidelines.cast.org

Chovanes, J. (2018). *Effects of data-based individualization on reading comprehension for high school students with intensive needs in reading* [Doctoral dissertation, Lehigh University]. https://www.proquest.com/dissertations-theses/effects-data-based-individualization-on-reading/docview/2099587145/se-2

Cologon, K. (2022). Is inclusive education really for everyone? Family stories of children and young people labelled with 'severe and multiple' or 'profound' 'disabilities.' Research Papers in Education, 37(3). https://doi.org/10.1080/02671522.2020.1849372

Entrich, S. R. (2021). Understanding cross-national differences in inclusive education coverage: An empirical analysis. *IAFOR Journal of Education*, *9*(1). https://doi.org/10.22492/ije.9.1.02

Forlin, C. I., Chambers, D. J., Loreman, T., Deppler, J., & Sharma, U. (2013). *Inclusive education for students with disability: A review of the best evidence in relation to theory and practice*. http://www.aracy.org.au/publications-resources/command/download_file/id/246/filename/Inclusive_education_for_students_with_disability_-_A_review_of_the_best_evidence_in_relation_to_theory_and_practice.pdf

Fuchs, L. S., Fuchs, D., & Compton, D. L. (2010). Rethinking response to intervention at middle and high school. In *School Psychology Review* (Vol. 39, Issue 1). https://doi.org/10.1080/02796015.2010.12087787

Giangreco, M. F. (2020). "How Can a Student with Severe Disabilities Be in a Fifth-Grade Class When He Can't Do Fifth-Grade Level Work?" Misapplying the Least Restrictive Environment. *Research and Practice for Persons with Severe Disabilities*, *45*(1). https://doi.org/10.1177/1540796919892733

Haakma, I., De Boer, A. A., Van Esch, S., Minnaert, A. E. M. G., & Van Der Putten, A. A. J. (2021). Inclusion moments for students with profound intellectual and multiple disabilities in mainstream schools: The teacher assistant's role in supporting peer interactions. *European Journal of Special Needs Education*, *36*(2). https://doi.org/10.1080/08856257.2021.1901374

Hai, N. X., Villa, R. A., Van Tac, L., Thousand, J. S., & Muc, P. M. (2020). Inclusion in Vietnam: More than a quarter century of implementation. *International Electronic Journal of Elementary Education*, *12*(3). https://doi.org/10.26822/iejee.2020358219

Hallahan, D., Kauffman, J., & Pullen, P. (2014). Exceptional learners. An introduction to special Education. In *Exceptional Learners: An Introduction to Special Education*.

Jackson, L., Agran, M., Lansey, K. R., Baker, D., Matthews, S., Fitzpatrick, H., Jameson, M., Ryndak, D., Burnette, K., & Taub, D. (2022). Examination of Contextual Variables Across and Within Different Types of Placement for Elementary Students With Complex Support Needs. *Research and Practice for Persons with Severe Disabilities*, *47*(4). https://doi.org/10.1177/15407969221132248

Kefallinou, A., Symeonidou, S., & Meijer, C. J. W. (2020). Understanding the value of inclusive education and its implementation: A review of the literature. Prospects, 49(3–4). https://doi.org/10.1007/s11125-020-09500-2

Kuntz, E. M., & Carter, E. W. (2019). Review of Interventions Supporting Secondary Students with Intellectual Disability in General Education Classes. *Research and Practice for Persons with Severe Disabilities*, *44*(2). https://doi.org/10.1177/1540796919847483

Kurth, J. A., Allcock, H., Walker, V., Olson, A., & Taub, D. (2021). Faculty Perceptions of Expertise for Inclusive Education for Students With Significant Disabilities. *Teacher Education and Special Education*, *44*(2). https://doi.org/10.1177/0888406420921582

Kurth, J. A., Ruppar, A. L., Toews, S. G., McCabe, K. M., McQueston, J. A., & Johnston, R. (2019). Considerations in Placement Decisions for Students With Extensive Support Needs: An Analysis of LRE Statements. *Research and Practice for Persons with Severe Disabilities*, *44*(1). https://doi.org/10.1177/1540796918825479

Kurth, J. A., Miller, A. L., Toews, S. G., Thompson, J. R., Cortés, M., Dahal, M. H., de Escallón, I. E., Hunt, P. F., Porter, G., Richler, D., Fonseca, I., Singh, R., Šiška, J., Villamero, R., & Wangare, F. (2018). Inclusive education: Perspectives on implementation and practice from international experts. Intellectual and Developmental Disabilities, 56(6). https://doi.org/10.1352/1934-9556-56.6.471

Lalvani, P., Broderick, A. A., Fine, M., Jacobowitz, T., & Michelli, N. (2015). Teacher education, InExclusion, and the implicit ideology of Separate but Equal: An invitation to a dialogue. *Education, Citizenship and Social Justice*, *10*(2). https://doi.org/10.1177/1746197915583935

Leijen, Ä., Arcidiacono, F., & Baucal, A. (2021). The Dilemma of Inclusive Education: Inclusion for Some or Inclusion for All. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.633066

Lucas, H. (2013). *The Effects of Two Types of Reading Interventions on the Test Scores of Students who Have Intensive Special Needs* [Master, Goucher College]. https://mdsoar.org/bitstream/handle/11603/2385/MEd_Lucas_actionres_Sp2013.pdf?sequence=1

Magnússon, G. (2019). An amalgam of ideals–images of inclusion in the Salamanca Statement. *International Journal of Inclusive Education*, *23*(7–8). https://doi.org/10.1080/13603116.2019.1622805

Mooney, L. R., & Lashewicz, B. (2015). For the love of the child: Bestowing value amidst inconsistent inclusive education beliefs and practices for one student with severe disabilities. *Canadian Journal of Education*, *38*(4).

Morningstar, M. E., Kurth, J. A., & Johnson, P. E. (2017). Examining National Trends in Educational Placements for Students With Significant Disabilities. *Remedial and Special Education*, *38*(1). https://doi.org/10.1177/0741932516678327

Mortier, K. (2020). Communities of Practice: a Conceptual Framework for Inclusion of Students with Significant Disabilities. In *International Journal of Inclusive Education* (Vol. 24, Issue 3). https://doi.org/10.1080/13603116.2018.1461261

National Center on Intensive Intervention. (2013). *Implementing intensive intervention: Lessons learned from the field*. Department of Education, Office of Special Education Programs. https://intensiveintervention.org/sites/default/files/Lessons_Learned_From_Field_0.pdf

National Council on Disability (NCD). (2018). *The segregation of students with disabilities (IDEA Series)*. https://ncd.gov/sites/default/files/NCD_Segregation-SWD_508.pdf

Oh-Young, C., & Filler, J. (2015). A meta-analysis of the effects of placement on academic and social skill outcome measures of students with disabilities. Research in Developmental Disabilities, 47. https://doi.org/10.1016/j.ridd.2015.08.014

Pati, D., & Lorusso, L. N. (2018). How to Write a Systematic Review of the Literature. Health Environments Research and Design Journal, 11(1). https://doi.org/10.1177/1937586717747384

Pesonen, H. (2016). *Sense of belonging for students with intensive special education needs: An exploration of students' belonging and teachers' role in implementing support.* [Doctoral dissertation, University of Helsinki]. https://helda.helsinki.fi/handle/10138/159852

Pirttimaa, R., Kokko, T., Räty, L., Kontu, E., Pesonen, H., & Ojala, T. (2015). Intensive Special Educational Needs and the development of Inclusive Practices in Finland. In F. Dovigo, C. Favella, F. Gasparini, A. Pietrocarlo, V. Rocco, & E. Zappella (Eds.), *Special Education Needs and Inclusive Practices. An International Perspective. Conference Proceedings : Bisogni educativi speciali e pratiche inclusive. Una prospettiva internazionale. Atti del Convegno* (pp. 150–154). University of Bergamo.

Powell, J. J. W. (2015). Barriers to inclusion: Special education in the United States and Germany. In *Barriers to Inclusion: Special Education in the United States and Germany*. https://doi.org/10.4324/9781315635880

Ramberg, J., & Watkins, A. (2020). Exploring inclusive education across Europe: some insights from the European Agency Statistics on Inclusive Education. *FIRE: Forum for International Research in Education*, *6*(1). https://doi.org/10.32865/fire202061172

Rankin, J., & Regan, S. (2004). *Meeting Complex Needs: The future of Social care*.

Rosengard, A., Laing, I., Ridley, J., & Hunter, S. (2007). A Literature Review on Multiple and Complex Needs. *Social Research*.

Ruppar, A. L., Roberts, C. A., & Olson, A. J. (2018). Developing expertise in teaching students with extensive support needs: A roadmap. *Intellectual and Developmental Disabilities*, *56*(6). https://doi.org/10.1352/1934-9556-56.6.412

Ryndak, D. L., Taub, D., Jorgensen, C. M., Gonsier-Gerdin, J., Arndt, K., Sauer, J., Ruppar, A. L., Morningstar, M. E., & Allcock, H. (2014). Policy and the impact on placement, involvement, and progress in general education: Critical issues that require rectification. *Research and Practice for Persons with Severe Disabilities*, *39*(1). https://doi.org/10.1177/1540796914533942

Taub, D. A., McCord, J. A., & Ryndak, D. L. (2017). Opportunities to Learn for Students With Extensive Support Needs: A Context of Research-Supported Practices for All in General Education Classes. *Journal of Special Education*, *51*(3). https://doi.org/10.1177/0022466917696263

Tonegawa, Y. (2022). Contextualization of inclusive education: Education for children with disabilities in Myanmar. *International Journal of Instruction*, *15*(1). https://doi.org/10.29333/iji.2022.15121a

United Nations. (2006). *Convention on the rights of persons with disabilities*. https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

Vetoniemi, J., & Kärnä, E. (2021). Being included–experiences of social participation of pupils with special education needs in mainstream schools. *International Journal of Inclusive Education*, *25*(10). https://doi.org/10.1080/13603116.2019.1603329

Westwood, P. (2021). Integration to Inclusion in Hong Kong: Not an Easy Progression. *Australasian Journal of Special and Inclusive Education*, *45*(2). https://doi.org/10.1017/jsi.2021.5

Yada, A., & Savolainen, H. (2019). Japanese and Finnish teachers' perceptions and self-efficacy in inclusive education. *Journal of Research in Special Educational Needs*, *19*(S1). https://doi.org/10.1111/1471-3802.12478

Yoneda, H. (2020). *Development of the Japanese Inclusive Education System: From Special Schools to Curriculum Modification for Special-Needs Education in Regular Schools*. https://doi.org/10.2991/assehr.k.200824.228