

Article

From Special Education Provision to Meaningful Participation: A Bounded Integrative Review of School Inclusion

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Abstract:

Special education systems can increase the amount of formal provision without at the same time ensuring that students have adequate access to instruction, communication, and involvement in educational decisions. In this article, the origins of these gaps are examined through a bounded integrative review of an already available body of research publications. After applying a set of pre-defined criteria to assess relevance and removing those publications which were duplicate or ineligible, the review included 13 papers: 11 empirical studies, one synthesis of instructional research, and one scholarly policy review. A structured narrative analysis was conducted in which the issues concerning identification and placement, instructional practices, accessibility, and student involvement were compared, taking into account the different study designs and the varying degrees of evidential strength. Four closely related findings were identified. The patterns of identification and placement varied depending on the student groups involved and the methods of measurement employed. It was necessary to have clear arrangements for providing support since this involved a shared responsibility. Access to communication and technology depended on the conditions under which they were used in daily life. The students' views showed that there were implementation difficulties which administrative indicators on their own could not pick up. Evidence from bilingual deaf education also questioned the notion that physical placement alone guarantees educational inclusion. The synthesis provides a framework that connects the recognition of a need, the delivery of support, participation, and the review of learning. This framework generates testable propositions rather than offering an established causal model. Due to the limited sampling frame and the fact that the evidence is primarily observational, any generalisations must be treated with caution. The review recommends that special education should be evaluated not only on the basis of traditional measures of provision and placement but also by considering the actual opportunities students have to learn, communicate, and take part.

Keywords:

Special Education, Inclusive Education, Student Participation, Assistive Technology, Educational Assessment, Integrative Review

1. INTRODUCTION

A support plan, a specialist teacher, or an assistive device only addresses part of a student's educational experience. The plan may name accommodations that are not always available. An assistive device might not work because the classroom materials are not accessible. A student may be in a general education class without taking part in the main learning activities. These problems concern the link

between the provision of support and the student's actual educational experience. [Burakov et al. \(2026\)](#) interviewed students who had received Section 504 support, found that there had been limited involvement at all stages during eligibility, planning, and implementation. [Tuttle and Carter \(2026\)](#) also documented cases in which students with visual impairments valued the use of assistive technology but suffered from technical failures, had insufficient skills,

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and received limited support. These findings indicate that implementation is a major research issue.

Special education and inclusive education are closely connected, but the same administrative method cannot be used to evaluate their objectives. Special education involves giving students specialised teaching and support in order to meet their specific educational needs, whereas inclusion is concerned with students' access to educational opportunities and their participation in school life. On the basis of these definitions we are able to distinguish between the resources that a system offers and the actual achievements of students in using those resources. Taylor et al. (2025) question the emphasis placed on physical placement in reforming special education, arguing that compliance-based arrangements can lead to exclusion even when students are in general education settings. The policy issue that they highlight calls for a range of different types of evidence to be used: what aspects of the educational provision are responsible for the gap between formal access and real participation?

The question is hard because the evidence is dispersed across various research traditions. Research in the field of administration examines who receives a disability determination and where the students are educated. Studies carried out in the classroom focus on teaching methods, assessment techniques, and the relationships between students and teachers. Qualitative studies describe the experiences that may not be captured in administrative data sets. Reviews of interventions evaluate learning in specific curriculum areas. Each of these sources offers information at a different level; for example, Yu et al. (2025) looked at the racial and ethnic patterns relating to autism identification and access to services in California, while Mao et al. (2026) put together interventions involving fractions for middle-school students who have disabilities or difficulties with mathematics. None of these sources alone is capable of explaining how eligibility, daily teaching, and the student's experience are connected.

It is possible for an integrative review to examine these connections without treating different findings as if they were the same. This article focuses on school education, including the aspect of entering school at an early age and how this relates to later educational outcomes. It brings together the evidence concerning identification, placement, the method of instruction, accessibility, and student involvement. The analysis includes special educational settings because if they had been excluded from the start, the argument would have been circular. For instance, Finton et al. (2025) examined language and academic development in a bilingual school for deaf students; the findings from their study suggest that attention should be paid to linguistic access and the educational context, even in a discussion that is centered on inclusion.

The study is based on three research questions. The first of these is to look at the way in which the selected publications show the differences between formal special education services and the level of educational participation of students. The second question is to find the organisational,

instructional and interpersonal conditions which help to explain these differences. The third question is about what can be inferred with regard to school improvement and which claims require further empirical testing. The aim of the study is to give an account of the implementation that is grounded in evidence while at the same time keeping the particular features of the special educational needs involved. It does not try to estimate the average effect of inclusive placement and it does not claim that it provides a comprehensive summary of the international literature; its more restricted objective is to set up defensible links among a clearly defined group of publications and to raise questions which future research can test.

2. CONCEPTUAL ORIENTATION

The analysis outlines four areas: provision, access, participation, and learning. Provision includes things like decisions regarding eligibility, the allocation of particular staff members, the drawing up of support plans, and the provision of equipment. Access means whether students are able to use the curriculum, the communication environment, and the learning materials when they are required. Participation involves taking part in academic activities, in the relationships one has, and in the decisions that have an effect on your education. Learning refers to changes in knowledge or skills over a period of time. These categories are analytical distinctions established for this review and should not be seen as a validated measurement scale; they are meant to prevent the error of interpreting an increase in resources as an improvement in the educational experience.

The fact that the methods differ also makes it easier to understand the disagreements in the literature. For example, a placement study could indicate that students have better access to general education, whereas an interview study would document the difficulties they experience in those classrooms. It is possible for both of these observations to be true. Similarly, a student may be able to get written information on their own by using technology without there being an obvious change on an academic test. Conversely, an improvement on a narrowly focused instructional measure does not demonstrate broader participation or the ability to apply what they have learned to other tasks. Mao et al. (2026) make a distinction between strong performance on intervention-related measures and weaker evidence concerning more distant outcomes. As a result, the outcome that is selected affects what a review can reasonably conclude.

A second difference concerns needs and the environments in which these needs have an effect. Kurth et al. (2025) found that the greater a student's support needs were, the more restrictive their placement would be. This result does not imply that support needs are unimportant, nor does it show that any classroom can meet all of a student's needs without first making the necessary preparations. On the contrary, it highlights the manner in which schools turn their knowledge of a student into decisions about the services and settings offered. The present review aims to find out whether the need identified leads to the design

of support, whether that support is available during instruction, and whether the students' experiences result in changes being made. These questions provide a framework for organisation without assuming there is a single causal explanation.

3. RESEARCH METHODOLOGY

3.1. Review Design and Sampling Frame

In order to gather together the evidence from different methodological approaches concerning the implementation of special education in school settings, a bounded integrative review was carried out. The reason is that integrative reviews enable the examination of both empirical and theoretical material, and so long as the purpose, the methods of sampling, the evaluation of the sources, and the process of synthesis are made clear (Whittemore & Knafl, 2005), the review in question is most accurately described as a structured review of evidence which had already been provided, rather than as a systematic review based on a database search.

The research questions and the criteria for eligibility were drafted following an initial examination of the existing publications. A protocol for the review was not preregistered. Although this approach enabled the review to concentrate on a well-defined problem as indicated by the available evidence, it also meant that the decisions about the scope might have been influenced by the characteristics of the material available. It has therefore been made explicit what the scope of the review is, which studies were excluded, and the limitations relating to the evidence. Web-based checking was only carried out when necessary in order to secure methodological or bibliographic clarification and was not used as a way of identifying further studies involving schools. The review methodology was based on that of Whittemore and Knafl, (2005) and the paper was not regarded as one of the substantive publications in the evidence synthesis.

3.2. Eligibility and Selection

The studies that were included were those which focused on children of school age who had disabilities, had been identified as having special educational needs, or were suffering from persistent learning difficulties, particularly in regard to their early educational experiences and how these related to their later performance at school. Even studies involving pupils who did not have special educational needs were taken into account when the issue in question was inclusive education. The review looked at empirical research on topics such as identification, placement, classroom practices, the use of support services, or the students' own experiences. Similarly, instructional syntheses and policy analyses were included if they dealt directly with the organisation or the delivery of special education in schools.

The research that was carried out in both segregated and inclusive educational settings has been included because the review was concerned with the conditions affecting students' participation in educational provision and not with a particular placement model.

All publications that covered subjects not connected with clinical or social issues, those concerned with general education without focusing specifically on disabilities, studies about higher education, examinations of research infrastructure rather than of the services offered in schools, general reviews of technology without a specific examination of how support is provided in schools, or research involving the development of algorithms which had not assessed the implementation of support in schools were excluded. Eligibility was determined by the degree to which the publication answered the review questions and not by the name of the journal, the publication venue, or the perceived status of the publication. When the abstracts were not enough to judge whether a publication was relevant, the full text, particularly the methods and discussion sections was examined.

After the duplicate records had been deleted and the eligibility criteria had been taken into account, the final evidence base included 13 publications. A selection record was maintained so as to record the reasons for both inclusion and exclusion, and source notes were employed to link each publication that was included to its contribution to the analytical themes.

3.3. Data Extraction and Critical Appraisal

The information in question was taken from the full texts of the publications listed in the study. Special attention was given to obtaining details concerning the bibliographic features, the study context, the participants or the evidence base, the research design, the specific provision or practice in question, the main findings, and the reported limitations. The publication details were recorded according to the version of the journal that appeared in the material being examined, and in cases where data on the volume or issue were not available, the advance-online-publication details were used if appropriate.

The assessment examined the types of inferences that each research design permits. In the case of quantitative studies, attention was given to the limitations connected with sampling, the temporal order of the data, the adjustments made for covariates, the way missing data was dealt with, and the agreement between the measures cited and the conclusions drawn. For the qualitative studies, the review looked at issues relating to recruitment, the setting in which the study took place, the methods employed to collect the data, the analytical procedures used, and the limitations affecting transferability. As for the instructional synthesis, the evaluation considered how thorough the search for evidence was, the range of research designs included, and the degree to which the reported results matched the intervention or instructional practice. The policy analysis was seen as an interpretive contribution and not as an estimate of the intervention's effects.

There was no overall quality score or official degree of certainty; instead, the appraisal served to evaluate the strength and accuracy of the language used in explaining each separate finding. Studies were not rejected merely because of methodological limitations.

3.4. Synthesis and Analytical Approach

The evidence was synthesised by means of a structured narrative comparison. The first stage of coding was based on the review questions and sought to identify and place the information, establish who was responsible for instruction, deal with the issue of assessment, make sure that access to communication and technology was available, and get the students involved in making decisions about their education. The observations at the source level were then compared within each of these categories and divided into four broader analytical conclusions concerning allocation, the delivery of instruction, usable access, and student participation in support decisions.

The fundamental unit of synthesis was each finding as it was reported in the specific study context; even if a publication was associated with more than one analytical theme, multiple contributions from the same publication were not considered as separate cases of corroboration.

The quantitative results were interpreted by considering their original direction, the scale on which they had been measured, and the limitations of the study design. As for the qualitative evidence, it was used to provide insight into people's experiences and into possible mechanisms, rather than to estimate the prevalence among the population. Contradictory, mixed, or qualifying evidence was incorporated into the synthesis. Particular attention was given to the evidence concerning bilingual deaf education, to the inconsistent longitudinal associations identified in the research on social competence, and to the small adverse associations for certain outcomes among classmates who did not have special educational needs. These cases were regarded as important in deciding whether the interpretations were based on oversimplified assumptions about placement or on the assumption that inclusive education brings about uniform benefits for all outcomes and all groups.

A meta-analysis was not performed because the publications involved studied very different populations, considered different exposures, used different research designs, applied different measures, and assessed different outcomes. When the results had been obtained as a result of secondary syntheses, they were not considered to be independently reviewed primary studies unless the particular publication had also been part of the evidence base.

The screening, extraction and synthesis were all carried out within a single analytical procedure. There was no second independent reviewer, no duplicate coding, and no evaluation of interrater reliability. In an attempt to reduce errors involving transcription and attribution, the pertinent passages were again checked off against the original publications, but this step does not count as independent review. The analysis was based only on published material and did not involve the acquisition or reanalysis of individual-level participant data.

4. FINDINGS

4.1. Characteristics of the Evidence

The 13 publications included 11 empirical studies, one synthesis of instructional research, and one scholarly review of policy. The editions of the journals available were from the years 2023 to 2026. The empirical studies were conducted in the United States, Germany, Taiwan, Lithuania, and the Netherlands. At the individual level, the samples consisted of 10 students who were interviewed about assistive technology and 22,700 students without special educational needs who took part in the German assessment study. In the case of California, administrative data at the state level were used. As the evidence covered a variety of disability and learning profiles, the studies cannot be considered as observations of a single homogeneous population. Furthermore, the publication dates did not match the data-collection dates since a number of the more recent publications looked at educational experiences which had been recorded many years earlier.

It was useful for identifying the links but lacked balance when it came to testing them. The administrative and survey studies demonstrated the pattern of allocation and revealed the associations. Details regarding implementation were gathered from interviews with students and from ethnographic studies. In a number of the studies, repeated observations were made in order to examine development, although they did not overcome the selection effects. Evidence of the intervention at a particular curriculum level was provided by the review of the fraction-intervention. These differences show how each source contributed to the subsequent findings.

4.2. Identification and Placement Shape Access Unevenly

Yu et al. (2025) examined data from California relating to the identification of autism, inclusion in general education, and access to services. They found that the rate at which Hispanic/Latino and Pacific Islander students were identified as autistic was lower than that of students from other groups, and that Black autistic students had less inclusion in general education. Even though the difference in identification rates between White and Hispanic/Latino students decreased during the period under review, disparities still remained. These results demonstrate that being able to obtain an educational identification is not the same as having access to specific settings and services later on; therefore, an improvement in one area cannot be taken as evidence that equity has been achieved at every stage of the process. Since the analyses were primarily descriptive and did not consider important student and district characteristics, they do not reveal the causes of the observed differences.

Ortiz and Chow (2026) give yet another cautions about the way disproportionality is interpreted. Using data which they collected from elementary schools over a period of time, they divided the emergent bilinguals from the English-proficient bilinguals and examined both how common they were and the grades in which they were first identified.

The unadjusted data showed that emergent bilinguals were more often found in disability categories linked to language, while English-proficient bilinguals were less common in the earlier grades. But after the data had been adjusted for developmental, academic, health and sociodemographic factors, neither of the two bilingual groups had a higher adjusted prevalence across the grades than might be expected as a simple explanation of overrepresentation would imply. The findings show how important it is to take into account language background, grade, disability category, and the particular model employed in an equity analysis.

There is also another matter which is related but distinct. [Kurth et al. \(2025\)](#) examined 98 elementary school students who had complex support needs in 59 different schools. The more intense the support given, the lower the chances of the students being placed in an inclusive environment. Their analysis found an odds ratio of 0.667 for each one-standard-deviation increase in the level of support needs. This shows an association identified in a relatively small, cross-sectional sample and does not demonstrate that greater support causes the need for segregation. The study also mentioned problems concerning the interpretation of the teacher-rated outcomes since the teachers compared the students with their peers, the characteristics of whom varied depending on the setting. Therefore, placement has an impact both on the educational opportunities available and on the reference group used when assessing performance.

Putting these publications together shows that the need to be recognised and the decision to allocate support should be evaluated separately. Although identifying a need may give someone access to services, it can also result in being put into restricted educational arrangements. A low rate of identification might suggest that support was not provided, but this conclusion can only be drawn after the relevant comparison has been made and the actual need has been looked at. Therefore, the synthesis requires a careful examination of the decision-making processes rather than treating either a high or a low identification rate as inherently desirable. [Taylor et al. \(2025\)](#) offer a policy interpretation of this matter by questioning educational systems which mainly organise opportunities on the basis of categorical placement.

4.3. Instructional Responsibility and Assessment Determine What Provision Delivers

[Kluge-Brück et al. \(2026\)](#) asked 518 German teachers who were teaching at the primary level to provide information on the extent of their responsibility for eight behavioural-support tasks. Through the use of latent class analysis, four different patterns of current responsibility were found, these ranging from a low level of involvement by special-educators to cases involving shared or more specialised arrangements. The general and special education teachers generally gave more responsibility to their own professional group. Those teachers who reported having a closer degree of collaboration were more likely to describe the responsibility as being shared, while the arrangements

as they were envisaged usually included a greater degree of sharing. The study shows that there is a difference between supporting collaboration and agreeing on how responsibility should be distributed in practice. It did not prove that one of the patterns led to better behavioural outcomes, and the teachers were not necessarily referring to the same teams.

It is necessary to draw this distinction because, in practice, shared responsibility can still be unclear. Setting a behavioural goal, offering support throughout instruction, and assessing progress are all different things. The review holds that each of these areas should have definite ownership and should offer chances for joint review. It is not essential for all professionals to carry out the same type of work; specialist knowledge can remain separate even if the educational programme is jointly planned. The evidence given by [Kluge-Brück et al. \(2026\)](#) in support of negotiating roles does not imply that professional boundaries should disappear or that a particular staffing arrangement will be appropriate for every school.

The way in which students are assessed can also influence the kind of education they receive. [Raudienė et al. \(2026\)](#) conducted a critical ethnography that lasted 15 months in one school in Lithuania, employing lesson observations, meetings, interviews, and other types of interaction. Their analysis revealed that some pupils with special educational needs were given fewer task requirements, that grades took into account both effort and behaviour, and that there was a pressure to prepare for standardised tests. This situation could make a student seem successful within the grading system while at the same time concealing the fact that they had limited access to challenging material. Even though these findings pertain to a particular assessment culture and do not show how widespread such practices are in Lithuania, they do demonstrate one way in which a student's inclusion in the classroom can exist alongside a lack of access to the full curriculum.

[Mao et al. \(2026\)](#) provide additional evidence about what instruction entails. They examined 39 studies involving fraction interventions carried out with middle-school students who had disabilities or difficulties in mathematics. In those studies, explicit instruction and the use of multiple representations were often featured, usually in conjunction with opportunities for the students to talk about what they were learning. The authors noted that the results from the group studies were either positive or mixed, and that the effects in the single-case studies were generally large, although they did caution against the differences in study design. The benefits were more clearly seen on tests that were closely linked to the skills that had been taught than on those that were more remote. While several of the interventions concentrated on basic fraction topics, there was less research covering some of the middle-school content and word problems. Therefore, effective support should consider the instructional content, the question of transfer, and curricular progression, rather than just suppose that extra teaching time will be sufficient.

4.4. Communication and Technology Require Usable Support

Cheng et al. (2026) examined assistive technology by means of survey data collected from 702 special education teachers in Taiwan. Teachers who had more teaching experience and those employed in self-contained classrooms were more likely to have adopted the technology. In cases where experience exceeded 10 years, the odds ratio was 1.486, with a 95% confidence interval of [1.086, 2.034]. These figures relate to the odds of using the technology and not to the proportionate improvements in student learning. The measures of teaching and learning benefits employed in the study were based on the teachers' own perceptions. Due to self-report bias, the particular nature of the setting, and the small number of cases in some of the analyses, the interpretation is limited. While the study does identify the conditions associated with adoption, it does not show that the devices led to direct academic gains.

Tuttle and Carter (2026) examined the devices were used from the standpoint of 10 students with visual impairments. The students pointed out the benefits of obtaining information and carrying out tasks, as well as the difficulties they experienced due to inaccessible formats, unreliable equipment, and their lack of familiarity with the devices' functions. A few of them also referred to the stigma attached to using them or chose to use alternative methods for some activities. This demonstrates that merely having a device does not imply that a student has access to it; a student must be able to use the device to carry out the task within the time limits and social conditions of the lesson. Although the small and deliberately chosen sample does not tell us how frequently these difficulties occur, it does bring to light specific problems that schools can consider in their own contexts.

The two studies focus on different stages in the process of supplying technology. Whereas Cheng et al. (2026) look at the factors linked to reported adoption, Tuttle and Carter (2026) found the students try to use the technology. Together, their work establish a difference between availability and reliable access during teaching. Training, materials that are compatible with the technology, and prompt technical assistance thus become part of the educational support. The evidence also questions the notion that more advanced equipment always results in a better experience. The manner in which the technology is used depends on the students' skills, their preferences, and the requirements of the particular task. These factors should be considered when assessing the technology, just as they should be when carrying out the procurement and inventory processes.

Finton et al. (2025) did not limit themselves to examining the availability of equipment; instead they studied repeated assessments from a school in the United States that teaches both American Sign Language and English to deaf students. The original dataset consisted of 797 students, 569 of whom had completed at least one Measures of Academic Progress assessment, including 20 students who had hearing caregivers and who entered the school

before the age of three. The academic performance of the early-entry students was similar to that of the group with deaf caregivers, while the later-entry students who had hearing caregivers achieved on average less. The authors regarded the group with deaf caregivers as the appropriate benchmark for the situation, and it therefore cannot be assumed that the age-expected level of achievement is the same as that of hearing monolingual individuals. Among the possible explanations for part of the association are still selection effects, survivorship bias, and unmeasured differences between families.

The study questions the notion that inclusion can be decided simply on the basis of being physically near to other children who can hear. A special bilingual setting may provide linguistic access and educational relationships that a class supposedly meant to be inclusive does not. Since the evidence is drawn from just one school, it cannot demonstrate that one form of placement is better than another. Its importance is that it makes it necessary to consider communication access when assessing participation. The review therefore still insists on striking a balance between eliminating practices which result in exclusion and making sure that students have access to the linguistic environment through which they can learn. Neither of these objectives should be considered as having been achieved simply because the setting has a certain name.

4.5. Student Involvement Exposes Gaps in Implementation

Burakov et al. (2026) conducted interviews with 20 young people aged between 12 and 18 about the support they received under Section 504. The participants stated that they had only a limited degree of involvement in deciding whether they were eligible, in drawing up their support plans, and in putting these plans into practice. In many instances it was the parents' level of understanding and their efforts on behalf of the young person's behalf that allowed them to obtain the support they needed, while their relationships with teachers could either assist or obstruct the process. The group was made up mostly of White individuals and included mainly those with high-incidence disabilities, so the results cannot be generalised to other groups. Nevertheless, the accounts do show that it is possible to have a completed support plan even when there is uncertainty as to how it was put together or as to how it can be ensured that it is implemented. Since the study focuses on the experiences of students within a particular support pathway, it should not be used as a basis for treating all different types of special education as being the same as Section 504 arrangements.

Students have both an informative and an ethical role, since they can find out if an accommodation is usable, if asking for it leads to unwanted attention, and if the help which has been promised is actually available when it is needed. Tuttle and Carter (2026) show the such observations about reveal problems that a simple total of devices could not detect. Furthermore, Burakov et al. (2026) also highlight the conflicts between advocacy and privacy. The synthesis

suggests that schools should set up ways of getting student feedback without making access depend on students having to make repeated public disclosures or on them having to confidently advocate for themselves. Although this recommendation is based on the experiences that have been reported, its effectiveness has not been evaluated in the studies examined.

Relationships are also a aspect of participation, even if the link between them and measured competence is not clear-cut. [De Swart et al. \(2023\)](#) carried out a study on students at 13 special Dutch schools for emotional and behavioural disorders. The number of participants was 441 in the first school year and 504 in the second, which gives a total of 586 different pupils. The connections between classroom structure, peer relationships, and social competence changed from year to year and depended on the source of the information. The authors made it clear that the findings were inconsistent and needed to be replicated. The evidence therefore indicates that attention should be paid to classroom relationships even though the idea that a positive climate reliably results in improvements in all areas of social competence is rejected.

The situations of classmates who have no identified special educational needs also have to be interpreted in a proportional manner. In a replication study, [Kocaj \(2025\)](#) examined 22,700 German fourth-graders who did not have special educational needs. The connections with inclusive education were generally slight; for spelling and mathematics there were small negative differences, the effect sizes amounting to about -0.09 , while a number of motivational and psychosocial outcomes showed no statistically significant differences. The findings do not support the view that there is widespread harm to classmates, but they also do not prove that there is no adverse association in any individual case. Since the study was cross-sectional and some disability groups were excluded, it is not possible to draw causal or population-wide conclusions. In order to evaluate inclusion it is necessary to be specific rather than make a general claim about all students and all outcomes.

5. DISCUSSION

5.1. Connecting Allocation to Educational Experience

The report identifies a typical problem in analysis, namely that measures of provision tend to correspond more with administrative decisions than with the experiences of the students whose circumstances the decisions are intended to improve. Research which examines who enters a particular service category provides information about entry into that service; placement studies concern the educational setting of students; and surveys relating to technology describe the way in which the technology is said to be used. While all of these indicators are relevant, none of them by itself can demonstrate that a student is able to take part in teaching, communicate effectively, or have an influence on decisions about support. The value of combining these different kinds of study is that it brings to light the areas in which further evidence is needed between the assignment of a resource and the resulting educational outcome.

The situation can be handled on a temporary basis by meeting the need, making plans and offering support, taking part in educational activities, and then examining both what has been learned and the student's experience. To accommodate the need it is necessary to accurately identify the difficulty and to understand how it is connected to the individual's language background or to their earlier opportunities. Planning and providing support means deciding on the instruction, naming the staff involved, selecting the materials to be used, and setting up the communication environment as a response. In relation to participation, the arrangements must be practical for everyday use. As for the review, this consists of checking whether the evidence of what has been learned and of the student's experience justifies making changes to the arrangements. The sequence does not have to be linear since an assessment that is inaccessible might influence recognition, and student feedback might prompt immediate changes to the way in which support is delivered.

The framework is an interpretation which has arisen out of this review and not one that has been derived from the datasets contained in it; its value lies in the way that it makes the missing connections obvious. The contributions of [Yu et al. \(2025\)](#) and [Ortiz and Chow \(2026\)](#) are primarily in the fields of recognition and allocation. [Kluge-Brück et al. \(2026\)](#) address the question of responsibility in relation to delivery. [Cheng et al. \(2026\)](#), [Finton et al. \(2025\)](#), and [Tuttle and Carter \(2026\)](#) are concerned with usable access. [Raudienė et al. \(2026\)](#) and [Mao et al. \(2026\)](#) show why assessment and instructional outcomes need to be carefully interpreted. Even though these sources taken together do not demonstrate that changing each stage will result in a particular improvement, they do highlight relationships that are worth investigating further.

The framework also allows one to distinguish between a failure to provide support and a student's inability to make progress. If the kind of help which had been promised could not in fact be given, then poor performance on tasks does not show whether or not the teaching method was adequate. Conversely, if the help was given consistently and the student was able to make use of it, any continuing difficulty should lead to a further investigation of the material, the amount of support, or the way in which it is assessed. This distinction is a direct outcome of the synthesis and should affect the way in which data is gathered rather than allow ineffective support to go on for ever. The question then is whether or not schools have sufficient evidence to decide what changes are necessary.

5.2. Preserving Specialised Expertise Within Inclusion

[Taylor et al. \(2025\)](#) advocate for a more integrated setup of general and special education and question the categorical arrangements that result in marginalisation. Although the empirical data allows for an analysis of how services support students in their educational activities, it does not include testing a full reorganisation of the institutions. [Kluge-Brück et al. \(2026\)](#) show an interest in shared responsibility despite the fact that there are existing

differences in practice. Their findings suggest that explicit negotiation is better than assuming that collaboration will spontaneously develop out of proximity. It is possible to have a common commitment to students' learning together with differences in professional expertise, provided that these differences lead to coordinated support rather than to separate expectations as to whose students matter.

The cases referred to in connection with deafness and visual impairment make it very clear what is required in terms of specialist knowledge. Merely making general remarks to show one's approval is not sufficient if one really wants to ensure that people have access to fluent language models, accessible formats, and are given instruction on how to use the devices. Finton et al. (2025) describe a situation that has a particular linguistic and educational structure. Tuttle and Carter (2026) set out the problems which demand technical and teaching-related solutions. To view all special arrangements as a barrier to inclusion would be to overlook these needs. On the other hand, the connection between the amount of support provided and the tendency towards restrictive placement discovered by Kurth et al. (2025) cautions against taking the need for expertise as an automatic justification for separating children.

The findings show that it is reasonable to evaluate settings in light of the educational circumstances they provide, even as we continue to consider the issue of exclusion. The relevant questions to ask are: who has the opportunity to talk to the student, what curriculum becomes available to him, whether or not he has reciprocal relationships, and how the decisions about support are examined. It is possible for a normal classroom to fail to meet these criteria; a special setting may meet some of them but will at the same time limit other possibilities. The corpus does not provide a single rule by which all placement decisions can be made. On the contrary, it promotes a more rigorous approach to the kind of evidence that is needed to justify educational arrangements.

6. IMPLICATIONS FOR SCHOOL PRACTICE

Schools could use the framework to examine a small number of specific support commitments which are already included in their programmes. With respect to each of these commitments the practical questions to be answered are when it should happen, who is responsible and how students' access will be checked. If a support is simply said to be available there remains uncertainty about whether it will in fact be provided. For example, behavioural support should connect planning with classroom implementation and with review, as found by Kluge-Brück et al. (2026). This is a suggested approach to applying the evidence, not a package that has been tested. Its purpose is to make the assumptions at the school level visible so that they can be examined.

An assessment must also be subject to the same degree of critical scrutiny. Schools should make a distinction between a student's achievement of the learning objective and the amount of effort they have expended, their behaviour, and

the circumstances surrounding their performance. Even though all these factors may be significant, combining them into a single grade can make it uncertain what the student has actually learned. Raudienė et al. (2026) provide situated evidence of this danger. The intervention evidence looked at by Mao et al. (2026) adds a further requirement: confirming that progress goes beyond the tasks that have been practised. The assessment system that is appropriate should keep a record of the access supportss that are needed while at the same time providing a clear description of the skill being assessed.

The way in which technology is organised should allow students to use the equipment during ordinary lessons and must also provide for a response if any of the equipment or materials fail. It is possible to determine from student feedback whether the problem lies with an inaccessible file, unfamiliar software, the pressure of time, or the social aspect of using the device. Tuttle and Carter (2026) support the notion of concentrating on the specific task. The higher rate of adoption found by Cheng et al. (2026) in self-contained classes ought to prompt a study into how resources are distributed and into students' needs, not cause someone to conclude that such types of setting must provide better instruction. It must be remembered that adoption and educational benefit are separate outcomes.

Students who have different communication preferences and who vary in their level of confidence should all have the chance to take part in the planning process. A student might make a contribution before a meeting by using supported communication or by having a private conversation to discuss what works in lessons. The review recommends these methods as a way of making sure that the formal invitation is not seen as evidence of real involvement. As Burakov et al. (2026) point out, parent advocacy can be of benefit even if student knowledge is still not being fully used. Schools should examine whose views have an effect on the revisions and determine whether students can raise issues without putting their privacy or their relationships with teachers at risk.

6.1. An Empirical Agenda for Testing the Framework

The next phase of the research should involve examining the connections mentioned here by means of longitudinal studies which include the actual provision of support. A practical method would be to monitor students over the course of an academic year, noting the support that was planned, how it was actually carried out, the students' access to it during lessons, and their later learning outcomes. The data to be collected should include statements from the students as well as reports from teachers and administrative records. Where observations are nested within students, classrooms and schools, the analysis has to take this hierarchical structure into account. The primary question to be answered should be whether reliable delivery does in fact predict later participation and learning when baseline performance and the relevant support needs are considered. A prospective design would improve the temporal sequence, but on its own it would not eliminate confounding.

This leads to three propositions. The first of these is that the way in which formal provision relates to later learning should in part depend on whether support is offered when it is needed. The second proposition is that student-reported usability should include aspects of participation which cannot be picked up by measures of equipment ownership or by the amount of scheduled service time. The third is that the patterns of identification and placement should differ when language background, grade, and disability category are each examined separately. These propositions are falsifiable; for example, the second one would be weakened if usability, which had been well measured, failed to provide any new information after the established indicators of access had been taken into account. The framework should be altered in light of such results and should not be regarded as obviously true.

Intervention studies could be employed in order to look at clearly defined improvements, for instance by means of a structured process for reviewing student feedback or for organising support duties. If random assignment is feasible, then having comparison groups together with measures of implementation would help in distinguishing the programme's effects from any changes that took place at the same time. For smaller populations, well-designed repeated-measures or single-case studies might provide useful information about individual responses. The sample size should be decided on the basis of the expected variability of the outcomes, the clustering, and the type of inference that is wanted; there is no reason in the current corpus for setting an arbitrary target. The outcomes selected should include transfer to ordinary classroom tasks and any possible costs should be recorded, such as lost teaching time, an increased workload, or unwanted disclosure. These kinds of studies would enable the review's recommendations to be tested without assuming that more thorough documentation always results in better education.

7. LIMITATIONS

A key weakness of this review is the method used to select the sample. The 13 publications shown represent only the evidence that has been provided, not all the research which has been done in the area of special education. It is therefore possible that some relevant studies have been omitted, and the original search as well as the criteria employed for selecting the materials cannot be evaluated. Furthermore, the eligibility criteria were changed following the initial examination of the available publications, and no independent screening was carried out. For these reasons, some of the interpretive judgments are not reproducible, even though there are documented decisions concerning inclusion and exclusion and structured notes have been kept about the sources. A future review based on a database could find out whether the relationships identified in this synthesis are still evident when the findings are viewed within a wider and more systematically defined evidence base.

The empirical studies referred to also varied considerably in the populations they looked at, in the measures they employed, and in their research designs. A number of the

qualitative studies were based on small samples which were limited with respect to their demographic features. Administrative categories did not always correspond to the educational needs that had been separately identified, and observational analyses remained susceptible to bias because of selection effects and unmeasured confounding factors. In several cases the date on which the study was published did not closely coincide with the period during which the original data had been collected. For this reason the findings cannot be seen as a complete representation of current practices in all school systems. Since the evidence is focused on certain national and educational settings it also means that the results cannot easily be applied to countries that have different resources, languages, policies, and arrangements for special education.

The synthesis was not based on a validated instrument for assessing risk of bias but instead involved a critical evaluation suited to the particular context, and it gave no formal ratings of certainty. The analytical framework, which was created as a result of the review, combines findings from the individual studies that originally had not been looked at together; it therefore provides a foundation for further research rather than acting as evidence of causal effects or as a way of ranking different placement models. Furthermore, since the studies included students who could take part in conventional interviews, they may not adequately reflect the experiences of students who communicate through alternative or supported methods. It is therefore necessary to take into account the possibility that some views are still underrepresented both in educational decision-making and in research.

8. CONCLUSION

The evidence under consideration shows that attention should be turned from the formal structure of special education to the educational activities which this structure is intended to promote. Even though identification, placement, and the distribution of resources remain important, the educational value of these elements depends on how the support is put into practice in teaching, on whether communication is in fact accessible, and on whether students actually have the opportunity to take part in the decisions that affect their education.

Evidence from a wide range of different settings also cautions against the idea that inclusion simply means having students in the same physical location. When evaluating special education, one should instead consider what students are able to access, what they can learn and take part in, and whether their experiences have an impact on future decisions about the support they receive. The framework set out in this review highlights certain relationships that warrant further investigation while at the same time recognizing the limitations of the existing body of evidence, which is narrow and largely based on observational data. The key practical conclusion from the review is that the processes connecting educational provision with educational outcomes should be made observable before any judgement is reached on the success or failure of a service label, a placement category, or the

characteristics of the student.

DECLARATIONS

Author(s) Contribution

The single author was responsible for all aspects of the manuscript, including conceptualisation, review design, screening, data extraction, analysis, interpretation, drafting, and revision.

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Competing Interests

The author declares that there are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this manuscript.

Clinical Trial Registration (if applicable)

Not Applicable

Human Ethics and Consent to Participate

This study was based exclusively on published literature and did not involve human participants, clinical interventions, experiments, or the collection of individual-level participant data. Formal ethical approval and consent to participate were therefore not required.

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