

A holistic view on special education in Sweden exemplified by early reading instruction

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HOW TO CITE:

Fischbein, S., & Marx, E. (2023).

A holistic view on special education in Sweden exemplified by early reading instruction.

International Journal of Special Education, 38(2), 199-210.

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DOI:

<https://doi.org/10.52291/ijse.2023.38.34>

ABSTRACT:

This paper aims to present a holistic approach to special education in Sweden, focusing on early reading instruction and its compatibility with inclusive strategies at school. Special education is an interdisciplinary field comprising subjective and objective aspects of the individual and the environment. Particularly relevant in early reading instruction is the interaction of psychological and biological prerequisites in the environment's individual, social, and physical characteristics. A case description is included to illustrate the complexity of special educational needs in relation to increased freedom of choice and inclusive strategies at school.

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Keywords: special education; early reading; holistic approach; inclusion

INTRODUCTION

Sweden has a compulsory school from age 6 to 16. The first year is called a preschool class. This means you may change teachers from preschool to preschool class and again in grade one. The ambition is that the school should be inclusive and provide equal educational opportunities for all children. Sweden also has a particular school for children with an intellectual disability. It was recently decided that this type of school will change its name from a special school to an adjusted one. This is due to the criticism that this school is segregating and incompatible with an inclusive school ideology.

Children struggling with their education or not progressing as expected may have special educational needs (SEN). If this is the case, the school can provide additional help. If this request is made, the teacher can consult a special education teacher, who will be responsible for planning additional support and monitoring the child's progress. There is a reading-writing-counting guarantee saying that the first step is to adjust the classroom in order to fit all students. The next step is to make extra adjustments, such as training in a smaller group. Finally, if there is no improvement, special education should be provided. However, no specific resources are attached to the three levels of support (The Swedish school law). Sweden has committed itself firmly to inclusive strategies, meaning that, in principle, all children with special educational needs should be included in a regular class with classmates of the same age (Barow & Berhanu, 2021). There should also be a focus on equality and human rights. However, in the 90s, some important decisions were made regarding the Swedish school system. First, there was a decentralization from the state to the municipalities. This tended to increase differences between schools. Secondly, a new grading system was introduced. Relative grading, meaning that teachers were informed how their class performed concerning the whole country, was substituted by absolute grading with criteria for each grade. This was, however, much more subjective, and parents and headmasters could influence the grading. Thus, many children were given grades that were too high concerning their results on national tests. Finally, charter schools that compete with municipal schools were introduced. This means that a market system is prevailing in the Swedish school system. All these changes increased individual and decreased collective influences in the school system, thereby challenging ideas and creating dilemmas when realizing inclusion for all (Gustafsson & Blömeke, 2018).

Special education has been synonymous for a long time with compensatory intervention for children in need of special support, and you could say that the focus has been on 'adjusting' the child to the environment (school). It could be children with learning difficulties, but at the start of compulsory education in the 19th century, all children were supposed to follow a general curriculum for the same number of years. This, of course, turned out to be impossible, and soon, it became evident that a group of children could not reach the goals in the stipulated amount of time. This meant that special groups were created for children with different types of difficulties, for instance, reading problems. Today, there is a change of focus from individual challenges to stressing the importance of environmental aspects. It could be factors in the home environment but how these children are treated at school more recently. It could be classroom influences, the organization of schooling, and societal views on children that did not fulfill the school's expectations (Paulsrud & Nilholm, 2023).

What has become more apparent is that difficulties appear in the interaction between the prerequisites of the child and environmental treatment. This interaction is perhaps most visible when the child is supposed to learn how to read, which is the basis for learning other subjects at school. A failure in this area can make the child feel inferior and different (Anderson et al., 2023).

Aim

This paper aims to present a holistic approach to special education in Sweden, focusing on early reading instruction and its compatibility with inclusive strategies at school.

METHODOLOGY

The theoretical perspective in this paper is based on twin research and interactional models developed by Fischbein (2009), Kylén (1986), Bronfenbrenner & Ceci (1994), and Björck-Åkesson & Granlund (2004).

Results are presented from a micro to a macro perspective comprising health and schooling, leadership and group processes, didactics, school organization, societal aspects, and special education. These parts are mainly based on quantitative methodology.

The case study used to illustrate some results is based on interviews with the special education teacher and the class teacher and observations of the child in school situations.

Early reading instruction

Most children learn how to read when they begin school. Swedish is a language with a comparatively shallow orthography, meaning that the correspondences between letters and sounds (graphemes/phonemes) in the writing system are relatively consistent. Generally, children learn how to read by decoding words and learning what they mean. This is unproblematic for most children, and many of them can read and understand familiar terms before school starts. The children meet texts and books, are curious about the content, and want grown-ups to read for them. This is, however, not true for all children, and some experience significant difficulties. It is, therefore, essential that teachers know how to teach beginning readers and assess children's progress. In Sweden, it has been unusual to administer evidence-based testing at an early age, and this could mean that you tend to wait and see if the child will "crack the code". The worst scenario is that this can devastate the child's self-confidence.

In some cases, when the child has major dyslectic problems, it might be decided to use audiobooks. This has, however, the disadvantage that not all texts can be found as audiobooks. Other assistive technologies can be helpful for these children. There are, for instance, translations of speech to text and other aids used in different school situations (Svensson et al., 2021).

There can, however, be a relatively large variation between teacher education in different parts of Sweden regarding early reading instruction. "The simple view of reading" describes reading as a product of decoding and understanding. Both are necessary for reading to be efficient (Hoover & Tunmer, 2018). If decoding or guessing become major strategies, understanding will suffer. It is also possible to decode efficiently without understanding the words. Therefore, teachers must know how to make reading easier and discover children who lack sufficient decoding strategies or language understanding. Teachers must learn how to stimulate children's language development, the function of reading and writing processes, and use structured and stimulating learning strategies. Research has shown that training in phonological awareness and letters and sounds is crucial and efficient for children at risk of developing reading and writing difficulties (Lundberg & Strid, 2012).

The following case description shows the problematic school situation of a boy called Alex.

Case description

At the age of four, Alex was diagnosed with autism in childhood (ICD-code F8409). The summative assess-

ment was that Alex had obvious shortcomings regarding interaction and communication. The preschool staff also confirmed this. Alex replies with few words during the evaluation, and his speech is repetitive and inconsistent. He can play with objects but has difficulties with phantasy play and interaction with other children. In the questionnaire answered by his parents, it is evident that Alex is performing below the mean in every aspect, such as communication, social interaction, and physical abilities. Therefore, his IQ level is below the mean for his age, and the recommendation is that his cognitive abilities should be assessed again before school starts. He also has a dyslectic inheritance from both his parents.

The special education teacher at the preschool met with Alex for observation and communication with the parents and the preschool teachers. The preschool staff confirms the results of the assessment. Alex likes to play alone, talks to himself, and plays with toys but has no communication with the other children. During the breaks, he plays next to the other children and prefers younger children's activities.

Alex's parents are distraught that something is wrong with their child and, therefore, have decided not to renew the summative assessment. They want him to attend a regular class and be treated as everyone else. This is a widespread reaction from parents when their child is considered different from other children. They are often afraid that their child will not have adequate support at school. Alex's parents wanted him to attend an ordinary school, but after some consideration, they signed him up for a special class for autistic children. This, however, was a long process that took many years to accomplish (Levinson et al., 2021).

Alex started his schooling at the age of six years in a regular preschool class. His teacher is aware of Alex's difficulties, and together with his personal assistant and the special education teacher, they discuss his future school attendance. When Alex begins regular schooling at seven years of age, it is of prime importance that the structure every day is the same. This makes him feel comfortable and secure. Alex wants to play, preferably with water, and he is not interested in the daily work, although his assistant is trying to involve him in phonological awareness training. After a couple of months, his language has improved, and he not only nods when addressed but can answer with two- or three-word sentences. Alex is very sensitive to sounds and has difficulties in a large group. Therefore, he receives special support alone with the special education teacher, and his progress is assessed according to his functional disability. His individual program is evaluated every semester (Olsson & Nilholm, 2023).

A structured material based on decoding texts (phonics) is used, and there are both progress and failures. In addition to this, language instruction games were used. When Alex got tired, he could rest with air phones or listen to fairy tales.

In grade one, Alex has more difficulties being included in a large group and tends to withdraw from the noise and sit alone. He is continuing his structured program, and the parents are involved in this training. Sometimes, Alex is alert and willing to learn, but other days, he gets tired and stops listening. The phonemic training demands numerous repetitions, and Alex can relate graphemes to phonemes at the end of grade one. He can also synthesize short words and add or detract different sounds at the beginning, the end, and finally, in the middle of words. Alex is familiar with most phonemes at the end of grade one and is training to read aloud at home (Grindle et al., 2020).

In grade two, Alex's individual program is revised, and the goal is that he should accomplish all graphemes and phonemes. All this time, the parents are involved in the process. Socially, Alex is increasingly aware of his shortcomings, and he has problems understanding when playing with his classmates and listening to lectures in the classroom. He, therefore, continues to play with younger children. His self-confidence is hurt, and the parents complain that he refuses to attend school.

In grade three, Alex is learning the final phonemes and graphemes, and repeated reading is practiced using easy-to-read books. He can choose between two books, and his reading fluency and understanding is improving. The goal is that Alex should be able to read simple texts and easy-to-read books at the end of grade three. A language ability test is used, and Alex's results show that he can decode simple words and nonwords. A WISC-test shows that his achievement is below average, and he needs continuous special educational support.

After grade three, Alex is placed in a small class of six pupils with a high staff density. Alex is the only child who can read, and now, for the first time, he feels self-confident and happy that he has friends his age. When he meets his former special education teacher, he says:

"I have two new friends, and I know even more buddies. I bet you don't know that many!"

A holistic perspective

In special education, it has sometimes been stressed that you should not focus on children's difficulties but instead adjust the environment so that all children can have optimal development. Sometimes, these different views are separated, which may be called categorical if focused

on individual difficulties and relational when environmental factors are stressed (Nilholm, 2006). This separation might lead to neglect of the interaction between individual prerequisites and environmental influences.

One of the authors has a background in twin research, and results from these studies show that there tends to appear an interaction between individual prerequisites and environmental influences for most individual characteristics and their development (Fischbein, 2009).

Kylén (1986) has developed a holistic model including psychological and biological individual prerequisites as well as social and physical aspects of the environment. Special education is an interdisciplinary subject comprising psychological knowledge such as cognition, emotion, and self-confidence but also biological subject knowledge involving genetic factors, maturity, neurophysiology, and functional disabilities. Within the sociological subject area, environmental aspects are found at different levels: the societal level, where questions about the curriculum and grading system are decided, and ethical questions regarding equality and human values. There are huge differences between different schools in Sweden (Strietholt et al., 2019). Children and parents can choose which school to attend, which increases competition between schools and an inclination to give children too high marks in relation to their achievement scores. At the classroom level, there has been a trend towards more freedom for children to search for knowledge and take responsibility, and reflection, argumentation, and problematization have increased at the expense of learning facts. This will be helpful for children with excellent verbal abilities, and girls will benefit from focusing on verbal skills. Boys also have the disadvantage of lagging behind girls in physical maturity. There is an average difference of two years during the whole school period (Fischbein et al., 1997). Children having language difficulties will be negatively influenced by this trend and experience the risk of leaving school without adequate reading and writing abilities. Around 25 % of the population can be considered to belong to this group (Westling Allodi, 2015).

Teacher education has a central function in any school system. What happens in the classroom depends on school leadership and teacher competence. Teacher education also tends to become more individualized. Teachers can choose courses in their education and profile their competence. This could, for instance, mean that teachers to beginners lack knowledge of early reading development in children. This tends to have devastating effects on children in need of special support. It used to be very popular to work as a teacher, but that has

changed since many teachers feel that they do not have support from their headmasters and there are too few resources for extra support. There is a shortage of teachers, and many schools are recruiting persons without teacher certificates. There are also problems filling all places in teacher education, which means you can become a teacher without satisfying qualifications, for instance, in early reading instruction.

Another holistic model emphasizing environmental factors is a Bio-ecological model developed by Bronfenbrenner (1989). He describes how the child interacts with the environment and how different environments are related. A child is not developing in only one environment; all interacting environments influence the child. You can say that this model is a further development of the description of social environmental factors described by Kylén. The closest environments for the child are the home, preschool, school, and playgrounds, but more distant environmental structures, even at the societal level, influence the child. Circumstances in more distant levels affect the environment closest to the child and will be necessary for the child's development. Bronfenbrenner stresses the importance of holistically looking at child development and environment based on a dynamic interactionist perspective. Environments develop and change and can both influence and be influenced by participating individuals. This is true for both the objective and the subjective environment. Thus, a continuous and reciprocal adjustment exists between the growing individual and the environment. Bronfenbrenner presents the environment as a hierarchical pattern of structures comprising the micro-, meso-, exo-, and macro systems. This model focuses on the study of individuals interacting with their everyday environments and the reciprocal process between the individual and the environment. The interaction between environments at different levels has to be taken into consideration. Children's development and interaction in the immediate environment (the micro level) occur through their activities, the roles they play, and their social relations. Interactions between different microenvironments (home, school, peer groups) are called the mesosystem. These environments show reciprocal influences and can strengthen or reduce the effects on the child. The more contact between these microenvironments, the more influential they will be on the child's development. Different activities can strengthen each other and cooperate towards common goals. If the child has difficulties learning to read, the parents must know what the school is doing and what kind of training the child receives so that they can support this (Marx,

2018). Environments where the child is not present can indirectly influence the child's experiences. Examples are the living environment, the working conditions of the parents, and social networks. These circumstances indirectly affect the child. The highest level (the macro level) in this system comprises ideological, economic, and political factors. Examples of these are the school law, the curriculum, laws regulating working conditions, the law regulating planning and building, and student rights to influence and participate in decisions regarding school matters (the Swedish National Agency for Education).

Another example is the Convention on the Rights of the Child, which many countries have ratified. The societal structure will have consequences for what happens in the classroom. Suppose the school structure is changed, for instance, by allowing independent schools, changing the grading system, or compulsory testing; this will influence what happens at other levels in the school system. Bronfenbrenner also added to his ecological model the importance of genetic factors and how these interact with the environment. One example could be dyslexia, where a specific gene contributes to reading and writing difficulties in some families. He stressed the importance of "proximal processes", meaning continuous and positive relations in the microenvironment. These are necessary for the child to reach optimal development. Examples include the importance of structure and stimulation by grown-ups towards the child and the necessity of not neglecting or rejecting the child (Bronfenbrenner & Ceci, 1994).

Referring to Alex, we can see that he has a functional disability that is affecting his self-confidence and school situation. Socially, he tends to be alienated from his peers in the classroom, and the physical environment is not adjusted to his needs. Alex needs structured teaching, cooperation with parents, and stimulation from peers. This is possible to arrange by individual training in primary school, but with growing age, he has to have a school environment adjusted to his cognitive abilities and social needs.

RESULTS

The following results are presented from a holistic perspective, beginning with the prerequisites of the individual, such as health and schooling. After that, we move to the classroom level, where leadership and group processes are in focus. Didactics has, of course, a focus on instructional questions. These are dependent upon organizational factors such as school climate and resources. Finally, societal decisions where changes like the estab-

lishment of charter schools or a more subjective marking system will have far-reaching consequences for the whole school system in Sweden.

The earlier described case study exemplifies changes in all the above-mentioned areas.

Interaction between health and school variables

In 2010, the Royal Swedish Academy of Sciences published a systematic review of research on the relation between school factors, learning, and psychological health (Gustafsson et al., 2010). Particularly interesting were longitudinal studies that illustrate reciprocal links between different variables. An important question is whether vulnerable children have problems at school or if the school is creating difficulties for these children. The answer is that there is a reciprocal relationship between the children's prerequisites and the school's organization, where difficulties may arise. Children expressing internalizing or externalizing behavior, such as depression or aggression, are at risk for showing a negative trend at school. The former may appear passive and indifferent, and the latter tend to conflict with their peers and teachers. Girls tend to show more internalizing behavior, and boys show more externalizing behavior. If the school does not comprehend why the children are acting the way they do and cannot adjust the treatment to child variation, there is a risk that the child will refuse to go to school and finally stay home. We can see this trend today in Sweden, where the number of non-attenders is increasing (The Swedish National Board of Education). Children showing externalizing behavior are more visible at school and often get the diagnosis of ADHD.

Children and youngsters with functional disabilities are particularly vulnerable at school, and it can sometimes be more difficult for a child with an invisible disability compared to a visible one since the school is obliged to adjust schooling to the prerequisites of the child. Jakobsson and Nilsson (2011) have described different types of functional difficulties and what is needed for optimal development. It could be difficulties with reading, writing, mathematics, or more specific difficulties such as dyslexia. The children can have an intellectual disability, neuropsychiatric diagnoses, or physical disabilities. The common denominator is that these children and youngsters have an increased risk of school failure. It is, therefore, of utmost importance how they are treated at school and how adjustment is functioning. Gustafsson et al. (2010) found a reciprocal relationship between school achievement and psychological health. School failure can lead to psychological health problems, but psychological

issues can also lead to school failure. Therefore, it is crucial how the teacher manages instruction and group processes. Children in need of support tend to highlight the importance of peer support. This depends upon positive social relations and the inclusion of the child (Westling Allodi, 2002).

Yet another holistic model called the International Classification of Functioning, Disability and Health (ICF) focuses on health and functional disabilities (Björck-Åkesson & Granlund, 2004). This model stresses the interaction between psychological and physical health and contextual factors such as environmental and individual factors. It has been used as an international classification system and is presented in a particular child version. It is particularly interesting to study which activities the individual can attend and how participation is possible. Both activities and participation depend upon the body's functioning and if it is causing difficulties or illness. Personality factors and the child's environment are critical for function and deviations. We can see that in this model, the starting point is the individual and her/his situation, which may lead to a change of body function, for instance, by using technical assistance or adjusting the environment to fit individual possibilities in order to increase activity level and participation (Svensson et al., 2021).

When Alex is getting older, he refuses to go to school. He shows internalizing behavior and cannot cope with the other children's activities. A change of class that is adjusted to his functional disability makes him feel self-confident. He is proud that he is the only child in his new class who can read and that he finally has friends in his class.

Leadership and group processes

There are situations at school that are particularly sensitive. Early reading is one of these. Children having difficulties learning to read often feel stupid and deviant. It is essential that the teacher is competent and can discover variations in the classroom and apply adequate adjustments. Children are usually good at hiding their difficulties, and boys sometimes use externalizing behavior to avoid reading. Finding yourself in a negative trend that will increase difficulties is easy. Girls, on the other hand, often hide their difficulties in learning by heart. They are ambitious and sometimes get depressed when they fail despite great efforts (Emanuelsson & Fischbein, 1986).

Studies of school failure and psychological health problems have often used achievement and behavior measures of individual children and youth. More seldom

have environmental circumstances at school contributing to these difficulties been in focus. One reason for this has been the lack of adequate measuring instruments. Westling Allodi (2007) has used an instrument measuring psychosocial climate estimated by school children. This is a first step to be able to study the interaction between child development and class climate.

Teacher leadership is thus of utmost importance not only for learning but also for children's well-being (Mintzberg, 1983). Research shows that achievement stress and competition will contribute to marginalization and psychological health problems for children and youth who have problems reaching their goals at school. There has to be a balance between achievement and care, and teachers have a responsibility to make all children participate in both learning and social interaction (Westling Allodi & Fischbein, 2012). To achieve this, the teacher must use a clear structure and planning and be stimulating and encouraging. Children and youth experiencing difficulties at school have a right to participate in group activities and to feel self-confident. Teacher competence is, therefore, the most important prerequisite for children's school success and well-being.

Alex was lucky to have a competent special education teacher at school start. He had a personal assistant, and his class teacher was cooperating both with the above-mentioned staff and with his parents. This created a favorable learning environment for Alex.

Didactics

Special educational activities at school are often focused on didactic questions. Several studies have found that reading and writing activities and difficulties in learning to read are among the prime reasons for special educational support. This support can be given in the regular classroom, a special room, or a small group of children with similar problems. These activities can, therefore, be more or less inclusive. Mathematics learning is another area where many children in need of support are found. This is, among other things, due to the considerable variation in physical maturity in the children, causing difficulties in using abstract thinking (Fischbein, 1990).

Many children can read when they start school; others will find it extremely difficult to learn how to read and develop strategies to avoid being classified as weak learners. It can, therefore, take time before the teacher realizes that the child needs special support. Experienced teachers have strategies both to discover these children at an early stage and to apply adequate interventions. They also know when to consult specialists for dyslexic children (Wolff, 2016).

Mathematics learning shows a significant variation among children when they start school. Some are interested in figures and can count, while others can repeat figures without understanding what they mean. Hence, teachers must challenge the mathematical thinking in those who excel and those who struggle to understand. Eriksson (2008a; 2008b) has studied the conceptual process in children's mathematical thinking when they start school. She found that there is a large variation in conceptual thinking at school start, and not every child shows a positive development after two years of traditional mathematical instruction. She presents a model based on the child's thinking when solving mathematical problems. In this way, the teacher can adjust instruction to the individual child. This, of course, presupposes that the teacher observes and evaluates the child's progress. In a study of children with intellectual disabilities, Eriksson discovered that this model could be used to apply adequate interventions and evaluate these (Eriksson, 2008b). These children have a right to an individual development plan and an intervention program if the teacher concludes that the child needs special support.

Alex received individual special educational support already at school start. The teaching was structured, and his reading was carefully monitored. This resulted in that he could read easier texts when leaving primary school.

School organization and special education

Many researchers have studied what makes schools efficient. Michael Rutter was among the first to investigate the relationship between school organization and children's school achievement and psychological health (Rutter & Maughan, 2002). Recently, Ramberg et al. (2019) have followed children through the school system and studied which factors contribute to good results and well-being when resources and recruitment are kept under control. The researchers stress the need for a structured and visible leadership where a positive school climate and common values are in focus. The headmaster must have high expectations for both teachers and students and be convinced that the school will offer optimal development for all children and youth. Another critical factor is the close and trustful cooperation with the parents. Regarding children with functional disabilities, the school is responsible for cooperating with other professionals such as psychologists, therapists, medical doctors, social workers, etc. Research has shown that efficient cooperation with a holistic focus can make the school successful for these children (Jakobsson & Nilsson, 2011).

Teacher competence and engagement are decisive for a successful career. The teacher profession and the teacher role have in Sweden been influenced by political decisions inspired by New Public Management, profiling, and competition between schools. It is necessary to balance workload and reward for teachers so that they experience their work as meaningful and important (Fischbein et al., 2011; Westling Allodi & Fischbein, 2012).

In the report by Gustafsson and co-authors (2010), the school is discussed as a potential protection or risk factor in developing children and youth. Inclusive schools where all staff is responsible for children needing support have demonstrated greater efficiency. Exclusive strategies and support in a small group might contribute to students' marginalization and lack of self-confidence. A positive relationship between teacher and student has proved decisive for self-efficacy and well-being. Schools trying to integrate theoretical and practical knowledge can develop the teacher profession towards a better social climate and student well-being.

International studies of school efficiency have presented similar results (Sammons et al., 1995). These types of investigations can contribute to understanding factors increasing variation and inequality. A goal can be to reduce influences of social and ethnic background as well as differences between boys and girls. Instead, international studies show that segregation increases in many countries, including Sweden (Gustafsson & Blömeke, 2018). There tend to be larger differences between schools, and the influence of socioeconomic background is growing. Peer relations and teacher expectations are closely connected to school achievement, and this relationship is reciprocal, meaning that positive trends appear in successful schools.

In contrast, the opposite is true in less successful. Decentralization of resources and organizational changes can also contribute to inequality since regional resources, such as the number of qualified teachers and supplementary education, will vary in different municipalities. Often, necessary resources and special educational needs are not compatible, which will increase variation between schools over time. It has become more frequent to differentiate students according to school achievement, which is a way to handle variation. Small groups can be organized based on the type of support or learning approach, which might result in negative effects since teacher expectations tend to be reduced in groups with lower achievement. This could, however, influence student engagement and self-worth. Another important aspect is the organization of classroom work. Individualization of student activities

tends to move the responsibility from the teacher to the student and from the school to the home.

An efficient school organization is characterized by structure and visibility concerning student learning and consciousness concerning student well-being and positive relations. Consequently, an efficient school is responsible for including all students in a learning and social community (Ramberg et al., 2019).

Alex is attending a small school with comparatively adequate resources. It is, however, evident that his special educational needs cannot be fulfilled in the regular school system in the long run. He is, therefore, accepted in a special class for autistic children where he feels more confident and can participate in social communication.

Societal aspects and special education

In order to study societal influences on learning and the psychological health of children and youth, it will be necessary to have longitudinal data or compare results from different countries.

Freedom of choice has increased in many school systems due to New Public Management. Decentralization has influenced variation between schools and economic prerequisites; the competence of local politicians or priorities of resources will contribute to growing differences between schools. A societal aspect that may contribute to freedom of choice for parents and students is the establishment of independent schools. This increases the possibility of choosing a school that is not in your neighborhood. Thus, schools compete, and they have to show a tempting profile for economic reasons. All parents do not have the possibility to make a choice, and this contributes to increasing socioeconomic differences between schools. Teacher education can also vary depending on where it is given. You have to know which education is most preferable and decide what you must learn to function as a teacher at different stages. It is not easy for headmasters to find out what teachers to hire, even if they have a degree. Special educators may also be specialized, and it is not certain that they have the qualifications needed to, for instance, help children showing reading and writing difficulties. The experience of headmasters can also vary, and it is essential that they assess what qualifications teachers have and if they are qualified for work in primary grades. Headmasters tend to move from one school to another since it is very demanding work, implying administrative, economic, and educational competence. In Sweden, there has been a declining trend in international achievement comparisons, and the differ-

ences between schools, social and ethnical groups, as well as between boys and girls, tend to increase (Yang Hansen et al., 2011; Yang Hansen & Gustafsson, 2019).

The relationship between economic resources and school achievement shows the effects of market adaptation and freedom of choice. Those who are in favor of competition between schools mean that this will lead to improvement, but results of comparison show that parents and students who lack resources will lose in a market system. Different types of resources and their relationship with results have been compared. It seems that the number of children in a class needing special support is related to achievement. The most critical resource, however, is teacher competence, which means that negative changes in teacher education will influence school achievement. The number of children having difficulties learning to read is increasing in Sweden, often leading to more students leaving school in advance.

Continuous measurements in extensive international studies like PISA give better opportunities to compare which aspects contribute to higher or lower achievement results (OECD & OCDE, 2013). Home background, the importance of schooling, and teacher competence have been studied in relation to school achievement and student well-being. Activities and resources at home are related to achievement, using computers, and reading traditions. Countries with a good supply of computers may show less book reading and lower reading ability. Other important aspects of school achievement are discipline and class climate, security in the school environment, and school attendance.

It is interesting to compare Finland and Sweden regarding achievement in reading since they are neighboring countries and used to have similar school systems. Finland is doing very well in these comparisons, while Sweden tends to be less successful. The variation between students and schools is smaller in Finland, related to early intervention for struggling readers. Socioeconomic background is less important in Finland, which means that the school can compensate for this. Attitudes towards reading, teacher competence, and variation in reading habits can also explain the differences between the two countries. Finland is a homogenous country that values education and has a well-functioning teacher education with high professional status. They have a centralized school system and a strong engagement for human rights and equality. Special education tends to be introduced early at school without segregating, positively affecting students. The number of children getting special educational support in primary school is around 30 percent. Moberg

and Savolainen (2006) compared two cohorts of students from 1966 and 2005 after the introduction of the compulsory school. The number of children receiving special educational support increased dramatically from 2 to 29 percent, and improvement in reading ability for struggling readers is visible. The transition from preschool to primary school is a critical period, and teachers carefully monitor it. In Sweden, the transition is from preschool to a preschool class and, after that, to primary school. There is often a teacher change in this transition, which may lead to a failure to discover children who need special educational support. Special education is closely related to discussions of inclusion in many countries, and the class teacher is often supposed to differentiate instruction and adjust to pupil differences. It is, however, important if the intervention is given in a regular classroom situation with sufficient resources or if you wait until the child fails and then supply the necessary support.

Comparisons over time in Sweden show increasing inequality and lowering of school achievement. An important aspect seems to be increased individualization and freedom of choice at different school system levels. This can increase the risk of marginalization and vulnerability among students who cannot take advantage of this system change.

Referring to Alex we can see that he enjoyed moving to a special class where his self-confidence increased and he met new friends. Inclusive education does not always mean that all children have to be in the same classroom.

CONCLUSIONS

Special education is a broad and interdisciplinary field of research and practice. Traditionally, there has been much focus on the biological and psychological prerequisites among children and youth and which interventions have proved efficient. You could say that the goal was to adjust the child to the school situation (Paulsrud & Nilholm, 2023). This focus has changed, and instead, a study of the school system and the organization has been introduced in order to understand why children and youth were stigmatized and dropped out of school in advance (Hodkinson & Williams-Brown, 2023). Educational sociology and philosophical questions related to equality and human rights were highlighted. Categorizing and diagnostics had previously been the focus of research in special education. Power relations and the inability of school staff to adjust to children from lower socioeconomic circumstances now became central research questions.

In this chapter, a holistic view of special education is presented. You have to consider not only individual differences but also environmental circumstances, such as changes in the school system and particularly the interaction between individual and environmental aspects. Teacher education and instructional practice, as well as school organization and societal decisions, will affect children and parents differently depending on whether they can profit from these changes. Increasing individualization and freedom of choice that characterizes the Swedish school system tend to be harmful to low-achieving children and youth and those from a home background lacking academic traditions.

Despite this, there are well-functioning schools and dedicated teachers. The case description given in this chapter illustrates that special educational intervention can make a huge difference and be a positive aspect at school. This, however, presupposes a holistic approach that considers positive continuous relations and adequate resources.

Referring to the case study in this paper, it is evident that the child at the beginning of schooling was feeling confident and had many friends, especially among his younger peers. Gradually, however, he became more alienated, which hurt his self-confidence and made him refuse to go to school. This changed when he was placed in a special class with fewer children with similar cognitive levels.

Both in his original class and in the special class, there were very qualified teachers who were aware of his specific strengths and weaknesses. They also cooperated with his parents, which was favorable for Alex.

The teachers used a structured and efficient strategy to instruct Alex in his reading development. This resulted in him being able to read short texts when he left primary school.

At the organizational level, there were adequate resources to make inclusion work. Alex could be referred to a special class with more specialized personnel and fewer pupils when leaving primary school.

The placement in a special class functioned very well, and Alex could feel confident and included in this group of children.

Finally, we can conclude that from the individual to the societal level Alex had access to positive continuous relations with school personnel, adequate classroom and school resources, and access to a small class for autistic children. This could make Alex feel included and accepted. All this, taken together, has to be underlined: inclusion must not always be placed in a regular classroom but depends on whether you feel accepted and confident.

In summary, two main conclusions can be drawn from the development of the Swedish school system:

1. Freedom of choice will increase inequality in society, and
2. Inclusion is not placement in the same classroom but is dependent upon participation and acceptance.

ACKNOWLEDGEMENT:

We want to thank Christina Hellman, chairman of the Swedish Dyslexia Association, for valuable suggestions.

DECLARATION OF INTEREST:

The author reported no potential conflict of interest.

FUNDING:

None

REFERENCES

- Anderson, N. J., Rozenman, M., Pennington, B. F., Willcutt, E. G., & McGrath, L. M. (2023). Compounding Effects of Domain-General Cognitive Weaknesses and Word Reading Difficulties on Anxiety Symptoms in Youth. *Journal of Learning Disabilities*, 56(5), 343–358. <https://doi-org.ezp.sub.su.se/10.1177/00222194221098719>
- Barow, T., & Berhanu, G. (2021). Inclusive Education in Sweden: Policy, Politics, and Practice. In: Hanssen, N. B., Hansén, S.-E. & Ström, K. (Eds.). *Dialogues between Northern and Eastern Europe on the Development of Inclusion: Theoretical and Practical Perspectives* pp. 35–51. London: Routledge.
- Björck-Åkesson, E., & Granlund, M. (2004). Early Intervention in Sweden: A Developmental Systems Perspective. *The Developmental Systems Approach to Early Intervention International Society on Early Intervention*, 571–592. Baltimore, Paul H Brookes Publishing Company.
- Bronfenbrenner, U. (1989). Ecological Systems Theory. In: R. Vasta (ed.), *Six Theories of Child Development: Revised Formulations and Current Issues*, pp. 185–246. Greenwich: JAJ Press.

- Bronfenbrenner, U. & Ceci, S. J. (1994). Nature-Nurture Reconceptualized in Developmental Perspective: A Bio-ecological Model. *Psychological Review*, 101, 4, 568-586.
- Emanuelsson, I., & Fischbein, S. (1986). A Study on Sex and Schooling. *Scandinavian Journal of Educational Research*, 30(2), 71–84. <https://doi.org/10.1080/0031383860300202>
- Eriksson, G. (2008a). Arithmetical thinking in children attending special schools for the intellectually disabled. *Journal of Mathematical Behavior*, 27(1), 1–10. <https://doi-org.ezp.sub.su.se/10.1016/j.jmathb.2008.03.001>
- Eriksson, G. (2008b). Supervision of teachers based on adjusted arithmetic learning in special school. *The Journal of Mathematical Behavior*, 27(4), 264–276. <https://doi-org.ezp.sub.su.se/10.1016/j.jmathb.2009.02.001>
- Fischbein, S. (1990). Biosocial Influences on Sex Differences for Ability and Achievement Test Results as Well as Marks at School. *Intelligence*, 14(1), 127–139.
- Fischbein, S. (2009). Heredity-Environment Influences on Early Childhood Literacy: The example of Sweden. *The Forum on Public Policy*, Part 1.
- Fischbein, S., Grosin, L., Skarlind, A., & Westling Allodi, M. (2011). Organizational Climate and Working Conditions of Teachers. *Skoleffektprojektet (Projektledare Lennart Grosin) New Horizons for Facet Theory*, 227–240. Israel: FTA Publications.
- Fischbein, S., Lange, A., & Lichtenstein, P. (1997). Quantitative Genetic Analyses of Gender Differences in Educational and Occupational Careers. *Scandinavian Journal of Educational Research*, 41(1), 73–86. <https://doi-org.ezp.sub.su.se/10.1080/0031383970410105>
- Grindle, C., Kurzeja, O., Tyler, E., Saville, M., Hughes, J. C., Hastings, R. P., & Brown, F. J. (2020). Teaching Children with Autism Reading Comprehension Skills Using Online Reading Instruction: Preliminary Evaluation of Headsprout Reading Comprehension. *Journal of International Special Needs Education*, 23(1), 1–12.
- Gustafsson, J.-E., Allodi Westling, M., Alin Åkerman, B., Eriksson, C., Eriksson, L., Fischbein, S., Granlund, M., Gustafsson, P., Ljungdahl, S., Ogden, T., & Persson, R. S. (2010). School, Learning and Mental Health: A systematic review. In: Gustafson J.E. (ed.), *Barn Och Ungdomars Psykiska Hälsa*. Stockholm: Royal Academy of Sciences
- Gustafsson, J.-E., & Blömeke, S. (2018). Development of School Achievement in the Nordic Countries During Half a Century. *Scandinavian Journal of Educational Research*, 62(3), 386–406. <https://doi-org.ezp.sub.su.se/10.1080/00313831.2018.1434829>
- Hodkinson, A., & Williams-Brown, Z. (2023). *International Issues in SEND and Inclusion: Perspectives Across Six Continents*. London: Routledge.
- Hoover, W. A., & Tunmer, W. E. (2018). The Simple View of Reading: Three Assessments of Its Adequacy. *Remedial & Special Education*, 39(5), 304–312. <https://doi-org.ezp.sub.su.se/10.1177/0741932518773154>
- Jakobsson, I.-L., & Nilsson, I. (2011). *Specialpedagogik och funktionshinder [Special Education and functional disabilities]*. Stockholm: Natur & Kultur Publishing Company.
- Kylén, G. (1986). *Holistic structure, holistic dynamics and holistic development*. ALA. Stockholm Institute of Education.
- Levinson, S., Neuspiel, J., Eisenhower, A., & Blacher, J. (2021). Parent-Teacher Disagreement on Ratings of Behavior Problems in Children with ASD: Associations with Parental School Involvement Over Time. *Journal of Autism and Developmental Disorders*, 51(6), 1966–1982. <https://doi-org.ezp.sub.su.se/10.1007/s10803-020-04675-1>
- Lundberg, I., Larsman, P., & Strid, A. (2012). Development of phonological awareness during the preschool year: The influence of gender and socio-economic status. *Reading and Writing*, 25(2), 305–320. <https://doi-org.ezp.sub.su.se/10.1007/s11145-010-9269-4>
- Marx, E. (2018). *Steg för steg (Step by step). Training reading at home, with children in pre- and primary school*. Stockholm: Hogrefe.
- Mintzberg, H. (1983). *Power in and around Organization*. New York, NY: Prentice-Hall Inc.
- Moberg, S., & Savolainen, H. (2006). *Reading literacy and special education. The particular case of Finland*. Paper presented at the Symposium of Special Pedagogy: State of the art in practical work, research and education. University of Vienna, 5-7 May.
- Nilholm, C. (2006). Special education, inclusion and democracy. *European Journal of Special Needs Education*, 21(4), 431–445. <https://doi-org.ezp.sub.su.se/10.1080/08856250600957905>
- Olsson, I., & Nilholm, C. (2023). Inclusion of pupils with autism: a research overview. *European Journal of Special Needs Education*, 38(1), 126–140. <https://doi-org.ezp.sub.su.se/10.1080/08856257.2022.2037823>
- OECD, & OCDE. (2013). *PISA 2012 Results: What Makes Schools Successful (Volume IV) : Resources, Policies and Practices*. OCDE / OECD Publishing. <https://doi-org.ezp.sub.su.se/10.1787/9789264201156-en>

- Paulsrud, D., & Nilholm, C. (2023). Teaching for inclusion – a review of research on the cooperation between regular teachers and special educators in the work with students in need of special support. *International Journal of Inclusive Education*, 27(4), 541–555. <https://doi-org.ezp.sub.su.se/10.1080/13603116.2020.1846799>
- Ramberg, J., Brolin Låftman, S., Fransson, E., & Modin, B. (2019). School effectiveness and truancy: a multilevel study of upper secondary schools in Stockholm. *International Journal of Adolescence and Youth*, 24(2), 185–198. <https://doi-org.ezp.sub.su.se/10.1080/02673843.2018.1503085>
- Rutter, M., & Maughan, B. (2002, January 1). School Effectiveness Findings 1979-2002. *Journal Of School Psychology*, 40(6), 451–475.
- Sammons, P., Hillman, J., & Mortimore, P. (1995). *Educational effectiveness and ineffectiveness. A critical review of the knowledge base*. Springer.
- Strietholt, R., Gustafsson, J.-E. , Högbe, N., Rolfe, V. , Rosén, M. , Steinmann, I., & Yang Hansen, K. (2019). The Impact of Education Policies on Socioeconomic Inequality in Student Achievement: A Review of Comparative Studies. In: L. Volante, V.S. Scnepf, J. Jerrim, A.D. Klinger (Eds.), *Socioeconomic Inequality and Student Outcomes. Cross-National Trends, Policies, and Practices.*, *Education Policy & Social Inequality, Vol 4*, 17–38. https://doi-org.ezp.sub.su.se/10.1007/978-981-13-9863-6_2
- Svensson, I., Nordström, T., Lindeblad, E., Gustafson, S., Björn, M., Sand, C., Almgren, B. G., & Nilsson, S. (2021). Effects of assistive technology for students with reading and writing disabilities. *Disability and Rehabilitation: Assistive Technology*, 16(2), 196–208. <https://doi-org.ezp.sub.su.se/10.1080/17483107.2019.1646821>
- Westling Allodi, M. (2002). Children's Experiences of School: narratives of Swedish children with and without learning difficulties. *Scandinavian Journal of Educational Research*, 46(2), 181–205. <https://doi-org.ezp.sub.su.se/10.1080/00313830220142191>
- Westling Allodi, M. (2007, January 1). Assessing the quality of learning environments in Swedish schools: Development and analysis of a theory-based instrument. *Learning Environments Research*, 10(3), 157–175.
- Westling Allodi, M. (2015). *The Swedish Model Of Upper Secondary Education: An Analysis Of Recent Reforms And Trends Of School Attendance And Dropout*. Stockholm University, Department of Special Education, SwePub.
- Westling Allodi, M., & Fischbein, S. (2012). Teachers' Perceptions of their Work Environment in Swedish Junior High Schools. *Framgångsrika Skolor Socialt Klimat, Delaktighet Och Lärande Research in Comparative and International Education*, 7(3), 376–393. <https://doi-org.ezp.sub.su.se/10.2304/rcie.2012.7.3.376>
- Wolff, U. (2016). Effects of a Randomized Reading Intervention Study Aimed at 9-Year-Olds: A 5-Year Follow-up. *Dyslexia* (10769242), 22(2), 85–100. <https://doi-org.ezp.sub.su.se/10.1002/dys.1529>
- Yang Hansen, K., & Gustafsson, J.-E. (2019). Identifying the key source of deteriorating educational equity in Sweden between 1998 and 2014. *International Journal of Educational Research*, 93, 79–90. <https://doi-org.ezp.sub.su.se/10.1016/j.ijer.2018.09.012>
- Yang Hansen, K. , Rosén, M. , & Gustafsson, J.-E. (2011). Changes in the Multi-Level Effects of Socio-Economic Status on Reading Achievement in Sweden in 1991 and 2001. *Scandinavian Journal of Educational Research*, 55(2), 197–211.