

ASSESSMENTS AND INTERVENTION FOR PUPILS WITH READING DIFFICULTIES IN SWEDEN - A TEXT ANALYSIS OF INDIVIDUAL EDUCATION PLANS**Ingela Andreasson****Ulrika Wolff***University of Gothenburg*

Since 1995 all Swedish compulsory schools have been required to establish Individual Educational Plans (IEPs) for pupils with special educational needs. According to the Swedish Education Act such a plan should be drawn up if pupils do not achieve the goals in the curriculum or the syllabus. The process of IEPs covers a prior investigation to identify and assess what kind of problems or difficulties a pupil has. These investigations should be the basis for decision to ensure that the pupils get adequate support for their needs. In the current study we examine the use of IEPs for pupils with reading difficulties. Data in the study comprised 150 IEPs. One important part of the analysis of the IEPs included quality aspects of investigations and interventions. The results show a large variation of the quality for both. In many cases there is a lack of prior investigation in the IEPs and in other cases a limited connection between the assessments of the investigations and the interventions. Furthermore, the results indicate interventions based on assessments of the investigations, generally show a higher quality level. Therefore, the key conclusion is that investigations are crucial in designing interventions and establishing IEPs.

Schools are expected to accept and teach all pupils, and accommodate and respond to their individual differences. According to the Swedish Education Act (SFS 2010:800) schools have to ensure that all children have access to quality education and that pupils should also be able to participate more fully and achieve their potential, which is a major concern. At the same time, schools are under pressure to raise the attainment of academic achievement for individual pupils with challenges to learning and individual planning and documentation have been highly recommended as instruments to achieve this goal (Andreasson, Asp Onsjö & Isaksson, 2013; Ball, 2003).

Since 1995 all Swedish compulsory schools have been required to establish Individual Educational Plans (IEPs) for pupils not attaining the goals in the curriculum or the syllabus. According to the Education Act (SFS 2010:800), such plans should be drawn up in consultation with the pupil and the parents for the planning, follow up and evaluation of the special support provided by the schools. The IEPs should include written goals and strategies, which must be recorded and evaluated. The IEPs should also cover the pupil's performance, school context and teaching, all in relation to the pupil's needs. In the Education Act (SFS 2010:800) from 2011, it is also mandatory for the schools to make an investigation to assess and identify what kind of problems or difficulties a pupil has, previously it was only recommended. This investigation should be the basis for decision to ensure that the pupils get the adequate support for their needs. One specific requirement for the pupil's school situation of each plan is that it must cover individual-, group-, and school organisational level elements of the pupil's needs. Therefore, details should not be restricted solely to individual level requirements, but also include an analysis of the pupil's teaching and social environment (Swedish National Agency for Education [SNAE], 2001; 2008; 2013; 2014). Another important change in the Education Act (SFS 2010:800) from 2011 is that the special support in the IEP now can be appealed.

The purpose of this study is to review the quality of IEPs for Swedish students with reading difficulties with a focus on assessment, interventions, and teacher's descriptions of the student. The focus of the study is how pupil problems are identified and assessed and the types of support proposed in relation to

the students' problems.

The term special education needs and its documentation requirements in a Swedish context are presented in the article, which also includes a review of the literature concerning previous research studies about IEPs in the Swedish context. In addition, issues about students with reading difficulties are presented for further discussion. The study of pupils with reading difficulties and teachers' construction of IEPs, therefore, is placed within this context before discussing the role of the IEP as a tool for assessment and the conclusions made from conducting the study.

In recent years, an increasing number of children in Sweden have been defined as having some form of difficulty in school and approximately 20 % of pupils are considered to be in need of special support. A majority of these pupils have reading problems (Giota & Emanuelsson, 2011; SNAE, 2011). The use of Individual Educational plans in Swedish schools for pupils with reading difficulties, therefore, is the central theme and purpose of the current article.

Historically, the use of IEPs in Sweden has been strongly linked to the ideological goals of a 'school for all', which emphasises the egalitarian aspects and demands for support for all pupils not reaching the knowledge goals of the curriculum, and is not dependent upon a psychological or medical diagnosis (Swedish Board of Education, 1987; SNAE, 2014). This principle has a long history in Sweden and has been adhered to by politicians from different political parties for much of the last century. This inclusive ambition is based on democratic ideals about rights to full participation for all pupils in school as well as in society as a whole (Assarson, 2007; Haug, 1999). The Government's aim, as specified in the most recent policy document states that all children and young people with special educational need (SEN) or disabilities should reach their full potential in school. At the same time, it has been noted that the achievement gap between students deemed to be failing the system and those who are achieving has widened. Furthermore, there has been an increase in pupils with SEN in recent years (SNAE, 2011).

The formulation of IEPs for pupils with special educational needs was initially recommended in the compulsory school curriculum of the 1980s (SFS 1980:64) and in 1995 it became mandatory to establish an IEP for pupils with special educational needs (SFS 1994:1194). The Education Act from 2011 (SFS 2010:800) stipulates more stringent rules on investigation before given special support for children with learning disabilities. The legal rights of pupils and their parents/custodians are also strengthened by making it possible to appeal against decisions of special needs support (SFS 2010:800).

Literature Concerning Individual Educational Plans

Studies of the individual educational plans of pupils in compulsory schools show what expectations are directed towards the pupils (Andreasson, 2007). The words used in the programs by teachers show that pupils' approaches to learning are of greater priority than learning itself. Furthermore, independence and desire for learning are attitudes emphasized in the goals for pupils to attain. Several studies have also shown that the IEPs often focus on pupils' own responsibility and self-regulatory language and assessments. It also shows that the personal reviews in these plans are plentiful and how this description can affect children's identity constructs (Andreasson, 2007; Andreasson & Asplund Carlsson, 2013; Vallberg Roth & Månsson, 2006). According to the Swedish National Agency for Education (SNAE, 2013) information about pupils' social and personal development or characteristics are not allowed apart from curricular goals and should be used with caution not to harm the pupils' integrity. Furthermore, the goals formulated in the IEPs are both learning goals and social fostering goals and in many cases the social goals take precedence and are worked on before tackling learning problems (Andreasson, 2007). With this precedence, a student's reading problems may initially be ignored.

Results from both international and national studies, show that the documents often focus on the individual shortcomings and deficiencies (Asp Onsjö, 2006; Isaksson, Lindquist & Bergström, 2007; Millward, Baynes, Dyson, Riddell, Banks, Kane, & Wilson, 2002; Andreasson et al, 2013). In an international meta- study of almost 300 studies, Mitchell, Morton and Hornby (2010) demonstrated that there is some general criticism against support plans that seems to recur in different contexts. They point out the undue influence of behavioural psychology and the over-emphasis on the individual in the documents. They also found an overall criticism in the studies on the unproven efficacy of such plans. Millward et al., (2002) also discuss the influence of behavioural psychological in the documents and note that it fits well with the emphasis on educational accountability.

There also seems to be a gender bias among the pupils receiving special support; 70 % of all IEPs are written for boys (Asp Onsjö, 2006; Persson, 2013). The fact that more boys than girls receive special support in schools is, however, not unique to Sweden; similar patterns exist in most Western countries. The skewed gender distribution among pupils with IEPs also seems to relate to specific categories of problems. For example, a study in Norway found that an outstandingly higher frequency of boys than girls (7.2 % versus 1.3%) in a sample of pupils had been estimated to have behavioural difficulties (Nordahl & Sarromaa, Haustätter, 2009). There is also supposed to be a gender bias among students with dyslexia. For example, Rutter, Caspi, Fergusson, Horwood, Goodman, Maughan, et al. (2004) suggested that the prevalence is two to three times higher among boys than girls. However, Shaywitz, Escobar, Shaywitz, Fletcher and Makuch (1992) found much smaller differences between the sexes, but they also found a significant referral bias in favour of boys. This may be due to the higher incidence of behavioural difficulties among boys, leading to that teachers attend to the boys more and thereby are more likely to detect their reading problems.

Reading Difficulties

It is a rather simple task for a teacher to detect if a pupil has some kind of reading problems. It may be less clear, though, why the pupil has such problems. There are many possible causes, as the reading process is a very complex activity, involving a host of higher mental processes. For example, it requires syntactic competence, vocabulary, decoding skills and the ability to make inferences. Environmental and cultural factors may also influence the reading performance.

However, Gough & Tunmer (1986) proposed the Simple View of reading (Reading=Decoding x Linguistic comprehension), where reading ability is the product of word decoding and comprehension. If one of the factors equals zero, the product will equal zero too. This implies that both decoding and comprehension are necessary skills for reading, whereas reading disability can derive from three conditions: deficient decoding skills, deficient comprehension skills, or deficient decoding and comprehension skills.

One group of children with poor reading skills is children with dyslexia. The prevalence is estimated to be around five percent. They have reading problems due to poor word decoding skills (Ramus, 2004), which in turn may be caused by poor phonological skills. Most researchers agree that dyslexia is a phonological deficit with word decoding problems as the core manifestation (Høien & Lundberg, 2000; Mellby-Lervåg, Lyster & Hulme, 2012; Snowling, 2000). Even though dyslexia does not imply generally poor comprehension, it may imply poor reading comprehension as a secondary problem, as very slow and effortful reading may be an obstacle in the comprehension process.

In a meta-analysis conducted by the National Reading Panel (2000), explicit instruction in phonemic awareness, phonemic decoding skills, fluency, construction of meaning, vocabulary, and guided reading were found to signify effective reading instruction. Reading intervention studies for children with impaired word decoding, have shown that intensive instruction in phoneme awareness and phoneme/grapheme matching, in a one-to-one setting over a shorter period of time is efficient (Fälth, 2011; Torgesen, Alexander, Wagner, Rashotte, Voeller & Conway, 2001; Wolff, 2011). Multicomponent interventions targeting several aspects of reading, as for example, speed and accuracy, seem to be superior to interventions just addressing accuracy (Fälth, Svensson & Tjus, 2011; Wolff, 2011). For an individual with dyslexia compensatory strategies, like listening to recorded text are often very helpful (e.g. Wolff, 2006).

There are also children, who have average, or good, decoding skills, but who still will have difficulties in understanding the text they read (Catts, Hogan & Fey, 2003; Wolff, 2010). Between seven to ten percent of all pupils have been identified to have poor listening comprehension, but adequate word decoding skills (Nation & Snowling, 1997; Samuelsson, 2002; Wolff, 2010). In contrast to children with dyslexia, recorded texts would most probably not help these children to understand the text (Samuelsson, 2002). However, they may benefit from the same kind of intervention concerning vocabulary and reading comprehension strategies as typically developing children would, only in a much slower pace and embracing a smaller amount of new information.

One could also expect a subgroup of second language learners with adequate decoding skills and poor reading comprehension (Lesaux & Siegel, 2003), even though general comprehension is normal. Children, who are second language learners, are often able to handle the phonological dimension of the new language (Lundberg, 1999). They speak without accent, but may have difficulties to understand

nuances of words, metaphors or idiomatic expressions (Lundberg, 1999). Hence, vocabulary acquisition and syntactic competence may be particular obstacles for them.

On the surface, various reading problems can express themselves in similar ways, even though the character of the reading problem and the underlying cause may be totally different. Therefore, it is of critical importance to understand the nature of the reading problem and to implement interventions accordingly.

Methodology

This study was part of a project about reading difficulties and teachers' competence within this field. The research took place from autumn 2011 to spring 2012. Data comprised Individual Educational Plans from 150 pupils. The sample was gathered from 61 teachers in 11 municipalities in Sweden and includes pupils in the compulsory schools from school Year 1 to Year 9 (7-16 years old). This means that approximately 2-3 IEPs were collected from each teacher. The IEPs were marked with teacher /school identification, the pupils' sex /school year and in compliance with the ethics guidelines of the Swedish Research Council, the children's names were erased by the teachers before submitting the IEP for the research project.

Analysis

To establish both an investigation and an individual educational plan for children with special educational needs are mandatory in the Swedish school system (SFS 2010:800). Therefore, both documents were included in the analyzes, and they were analysed separately. Code schemes were elaborated in order to enable analyzes in regards to the documents quality. The aspects of the code schemes reflected adequate assessments and interventions concerning reading difficulties (SBU, 2014). Further, the aspects in the schemes were based on the National Agency for Education's general guidelines (SNAE, 2014). For example, the guidelines require assessments on individual, group and organization levels.

The Investigation

Five aspects were established as crucial in the investigations, quality of:

- information/naming of the instruments/tests used
- information about which ability the instruments/tests measure
- report of the test results
- interpretation/assessment of the test results
- assessment on Individual/Group/Organization level

Each investigation was assigned a grade on a five grade scale: 1= lowest value; 5= highest value. The grade scale was based on key words such as: word decoding, spelling, phoneme/grapheme correspondence, phonological awareness, phoneme awareness, listening/linguistic comprehension, reading comprehension and working memory. These are concepts crucial for understanding the nature of the reading difficulties (Wolff, 2005). In addition, key words for secondary problems, like problems with tables in mathematics, were also listed. Synonyms to the key words and concepts were included as far as possible. A concluding valuation of each investigation was made based on the values above.

The Individual Educational Plans

The following four aspects were used in the valuation of the IEPs:

1. how were the individual's particular learning needs addressed
 - interventions suggested
 - assistive technology/compensatory strategies suggested
 - subjectivity

Each IEP was ascribed a mark from a five grade scale: 1= lowest value; 5= highest value.

The first aspect was related to the descriptions of the educational needs. Was the problem description specific, i.e. reflecting the characteristics of the reading difficulties, or was the problem described in more general terms? Furthermore, were the problem descriptions adequately linked to the assessments in the investigation?

The second aspect applied to the pedagogical interventions stated in the IEP and whether the interventions were clearly linked to the child's reading assessment/ description of need as stated in the investigation. The grade scale of the interventions were based on key words of practice and skills training such as reading, spelling, phoneme/grapheme mapping, reading comprehension, word decoding, strategies for developing reading comprehension, phonological awareness, phoneme awareness, morphology, reading fluency, and vocabulary.

The third aspect was assistive technology/compensatory strategies, and was related to the use of various methods and technologies for the pupil to employ in order to compensate for their difficulties. Key words such as speech synthesis, scanned text, recorded text, audio books, spelling programs, help with note taking, study techniques, programs for predictions, and Dictaphone were noted.

The fourth aspect was subjectivity. It regards the teachers' statements made in the IEP that may describe, or address, the pupil's personal characteristics such as social behavior or that ascribe general abilities or traits. Some example from the documents are *being behind*, *not wanting to practise and train*, *not wanting to do repetitive skills training*, *slow starter* or *take responsible for home-work*. A concluding valuation of each IEP was made based on the values above.

Validity and Reliability

The coding was carried out by three researchers jointly. Each code was defined and written down and supplied with typical examples in order to make the coding reliable between the three coders. The coding of a specific statement could be unclear. The strategy employed for managing such ambiguities was to deliberate until consensus was reached. The sharpening of the criteria for each code made the coding more distinct and promoted a valid and more reliable coding. Consistency in coding was further ensured by a final comparison of text pieces within the same code. The contents in the documents were interpreted in the context of conducting investigations and assessments of reading difficulties when using IEP as a tool. A context that was familiar to all three coders.

Results

The results are presented in two sections: the investigations, and the individual educational plans. Of the total 150 IEPs, 102 (68%) were written for boys and 48 (32%) were written for girls. This is in line with previous research that showed that more boys than girls received special support in Swedish schools (Asp Onsjö, 2006; SNAE, 2011; Persson, 2013).

The Quality of Investigations

Figure 1 shows that most of the investigations have a high or very high quality as a whole (56 %). However, 29 % of the total IEPs do not include an investigation at all, and another 9 % received a low valuation of the investigations. This indicates that many pupils get interventions for their reading difficulties without adequate investigation of their specific difficulties. Thus, the lack of investigation means that the teachers do not have a decision support for the assessments of the reading difficulties, or for the choice of interventions.

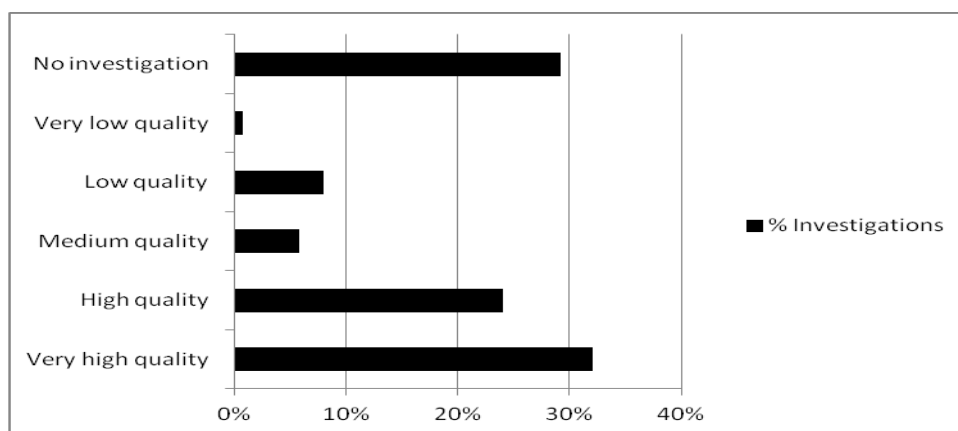


Figure 1. Quality of Investigations based on overall evaluations.

The Individual Educational Plan

In 76% of the IEPs, specific problem descriptions of the reading difficulties were given. Hence, in 24 %

of the total IEPs the descriptions of the pupils' problems were unspecified. In turn, almost half of those with unspecified descriptions (47%) did not receive any investigation. Also, the same IEPs received low values on the quality of both pedagogical and compensatory interventions (83% values 0-2).

Interventions

In 97%, of the IEPs there are pedagogical interventions prescribed (see figure 2). Of those, 29% have a medium valuation, and 37% have a high or a very high valuation. However, 31% of the pedagogical interventions have none or low or very low values, and are thus estimated to be below adequate standard.

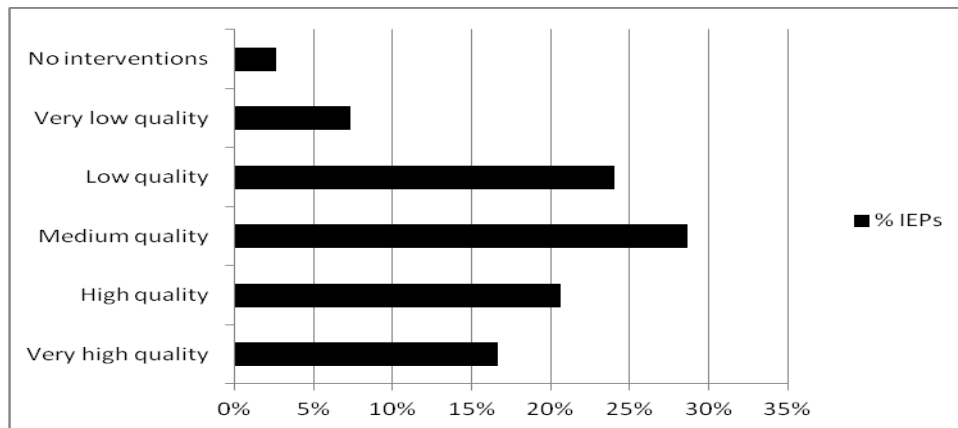


Figure 2. Quality of pedagogical interventions related to difficulties formulated in the pupils' IEPs.

Figure 3 indicates that it is unusual for pupils to obtain good quality compensatory interventions in the IEPs. Firstly, 32 % of the total numbers of IEPs have in fact no compensatory interventions at all, and secondly, another 28 % of the cases are estimated to have interventions of low or very low quality.

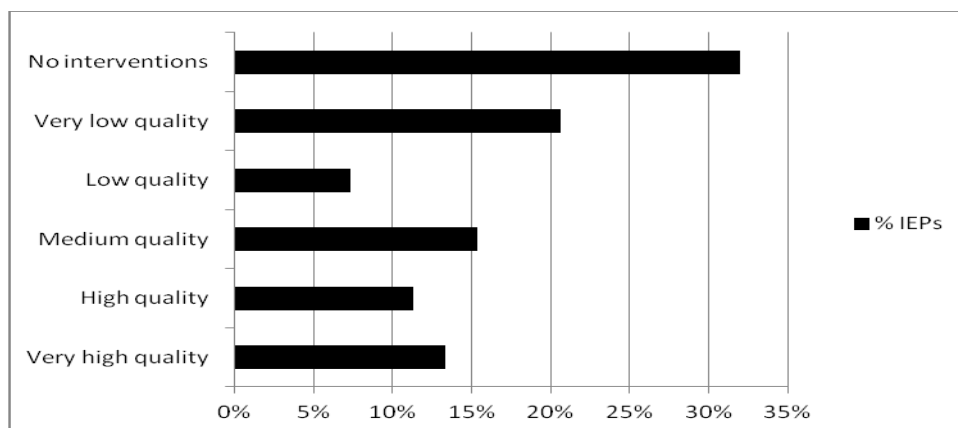


Figure 3. Quality of compensatory interventions related to difficulties formulated in the pupils' IEPs.

Figure 4 shows that 69% of the IEP interventions are written without any connection to the investigations, whereas 31% have a clear connection between the investigation and the intervention. This means that a remarkably high proportion of the teachers do not use the investigations when planning the interventions. To better understand how this affects the quality of the interventions the results were split between connection/no connection to the investigations. Figures 5 and 6 below illustrate the relationship between the pedagogical respectively the compensatory interventions and their connection to the investigations.

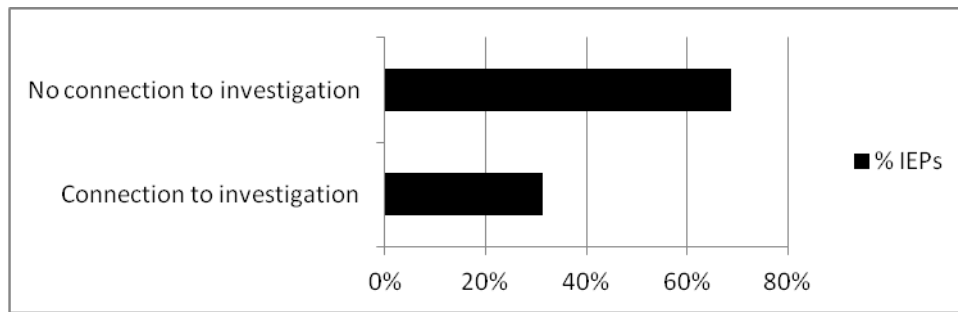


Figure 4. IEP interventions connections to investigations.

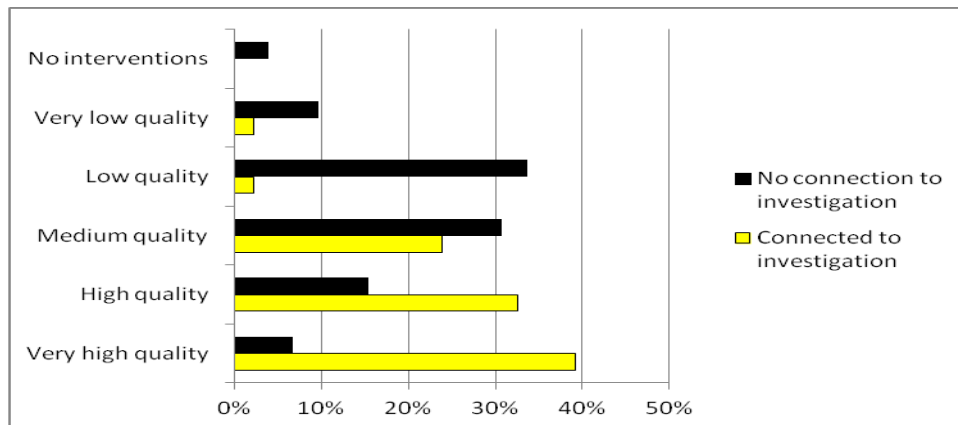


Figure 5. Pedagogical interventions relative IEPs connections to investigations.

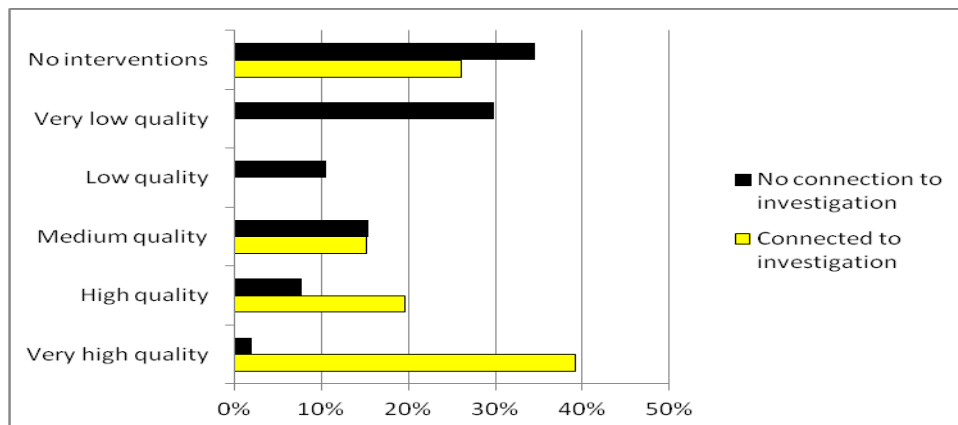


Figure 6. Compensatory interventions relative IEPs connections to investigations.

The results generally show a higher quality for interventions based on investigations, although 22% of the interventions not connected to the investigations also show high or very high quality, and 48% show low or very low quality. In contrast, only 4% of the interventions based on investigations show a low quality.

Compared to the pedagogical interventions the compensatory interventions show a pattern with a clearer split of quality between connected/not connected to the investigations. When there are no connections to the investigations, the interventions show a predominance of low-medium quality results, whereas the interventions based on investigations show medium to very high quality values with no low quality scores.

Subjectivity

The descriptions of the pupils are predominantly in subject-specific terms and related to students' reading and writing difficulties. Descriptions of the pupils' attitudes, behaviour, personal and social developments in the IEPs do take place in the material. 29% of the cases include statements of subjectivity. Generally, the comments describe the pupils' attitudes to the school work, motivation and

degree of responsibility in both positive and more negative terms. Explicit and implicit blame was not unusual. Pupils are told to be in time, need help to discipline themselves, or focus on the homework. Notable are that many of the statements in this category are focused on the pupils' shortcomings in areas outside of reading. These statements may have serious consequences for the pupils' self-confidence, motivation and future learning (see, Andreasson, 2007, Vallberg Roth & Månsson, 2006)

Sex

There were no, or very modest differences, between girls and boys regarding the quality of investigations and pedagogical interventions in the material. In regard to the quality of compensatory interventions it was a tendency of more boys (35%) than girls (29%) that received no or low estimated interventions. However, there was one substantial difference between boys' and girls' IEPs. There were negative statements, in the category of subjectification for 96% of the boys. In contrast, there were only such statements for 4% of the girls.

Discussion and Conclusions

The ideological goals of a *school for all* have for a long time being strong in Sweden which implies ensuring a basic minimum standard of education for all, for example everyone should be able to read, write and do simple arithmetic. The individual educational plans have in policy texts launched as a tool for pupils in need of special support to achieve the educational goals in the syllabus and curricula (SNAE, 2013; 2014). Our research focuses on the use of individual educational plans for pupils with reading difficulties and the results show that there is a large various qualities of the Swedish IEPs. Many of the IEPs seem to be effective as tools for enhancing pupils' learning but at the same time there is a large quantity of IEPs that do not contains the qualities that make them suitable as operative tools. We argue that a number of issues require particular consideration in the IEP-process and should be highlighted. These issues will be further discussed here.

In almost every IEP there are pedagogical interventions prescribed, and two thirds of these are of medium, high or very high quality. However, this is not true for compensatory strategies; more than one of three IEPs have actually no compensatory interventions, although needed, and another 28 % of the IEPs have low or even very low quality of the interventions.

Around 60% of all IEPs were preceded by an investigation. On the whole, these investigations were of high quality. However, almost one third of the IEPs do not include any investigation at all. This is indeed quite surprising as it is mandatory by the Education Act (SFS 2010:800) to perform an investigation when establishing an IEP. The lack of investigations implies that the teacher do not have any decision support before considering appropriate interventions. Furthermore, more than two of three IEPs do not reflect the adherent investigations. These facts raise questions about the status of the investigation in the IEP-process. One possible explanation why the investigations are not used in the process might be that the investigation sometimes is made by external specialists, e.g. a psychologist or a speech therapist. They may not be able to translate the meaning of the results into educational terms. Additionally, the teachers may not be competent in the area of reading difficulties, and may not be able to interpret the results in order to design adequate interventions. Of course, the reason may simply be limited resources to carry out possible interventions.

Among the IEPs that do not reflect the investigation, almost half are estimated to have pedagogical interventions with low or very low quality. In the IEPs where the pedagogical intervention reflects the investigation, only 4% are estimated to be low or very low quality. It is a plausible assumption that there is a difference between the quality of interventions depending on if they are based on investigations or not. Thus, interventions based on investigations increases the quality. Children with reading difficulties exhibit different profiles of reading performance (Wolff, 2010), and not having an investigation of the pupils' difficulties will make it impossible to adapt the intervention to the pupil's needs.

The importance of connections to the investigations is even more pronounced when it comes to compensatory strategies. There is a clear pattern indicating that without connections between the investigation and the intervention, the intervention is estimated to be of low or very low quality, or there are no compensatory strategies at all suggested. The use of compensatory strategies may prevent children from failure in a broad range of academic skills, not only in the domain of reading. It is therefore of critical importance that teachers fully recognize the need to implement these strategies for pupils with reading difficulties.

In accordance with previous research, there were substantially more boys than girls who had IEPs. There were no noticeable differences in quality between the girls' and boys' investigations or interventions. However, the boys' IEPs comprised more negative statements about their personal characteristics, not related to reading difficulties. There are reasons to believe that this may impact their future learning, self-confidence and motivation (see Andreasson, 2007).

We can conclude that there are many IEPs that have adequate, or very good investigations and interventions. Nevertheless, there is also a number of IEPs where the investigations are completely absent or of questionable quality, often resulting in low quality interventions. Thus, the results show the investigation's importance for good quality of the interventions, not least for implementation of compensatory strategies.

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