Interteach - A Total Investigation Study of Swedish Schools Regarding the Education of Pupils with Intellectual Disabilities

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Abstract

Interteach is a national Swedish research project, which focuses on Evidence-Based Teaching Programs regarding language and interaction in Swedish special schools. It is a full population study, which means a survey was sent out to all teachers in Sweden who are qualified to teach in the Swedish special schools regarding pupils with intellectual disabilities. Follow-up studies with interviews and observations are planned for. The purpose of the study is more specifically to identify what teaching programs are used within Swedish special schools, and to what extent, in order to promote language and interaction regarding pupils with intellectual disabilities, ID (including Autism Spectrum Condition with ID). Our hope is that increased knowledge within these aspects can lead to development of the education in this area. To our knowledge this is the first Swedish study that studies Evidence-Based Practice in all Swedish special schools.

1. Introduction

Almost 30 years ago, Sweden ratified The Salamanca Statement and Framework for Action on Special Needs Education [11] which states that education should be organized within an inclusive environment. However, it may still be the case that the educational practice does not always live up to this ambition. Thus, there is a need for an inclusive environment, but also an education which offers the best possible education in relation to the pupils' needs. How to best achieve this goal is a challenge per se.

Sweden has about 13450 pupils who study according to a special curriculum for Swedish special schools regarding pupils with intellectual disabilities (ID). The Swedish special school is quite unique from an international viewpoint in that a special curriculum for pupils with ID has been employed since 2011. This means that the goal is that all pupils should have an inclusive environment, although they study according to the special curriculum.

2. Evidence-Based Practice

During the last decades there has been a shift in education towards the use of a more Evidence-Based Practice. Behind this development are increasing demands that the educational practice at school should be based on scientifically grounded knowledge, i.e. evidence [7], [9]. In Sweden, the demand for Evidence-Based Education has grown as a response towards the general opinion that the educational system is characterized by a lack of equality and decreased student skills (development). Thus, there is a need for Evidence-Based professional work in education in order to improve the students' development and skills. In order to solve educational problems, there is therefore a need for a link between research and pedagogical practice to be able to answer questions about how the professional work at school should be performed in order to achieve the best possible environment for pupils with ID [1].

The new curriculum more specifically states what educational skills should be involved. An additional factor is that medical healthcare facilities often are responsible for giving advice regarding the best practice or programs that should be used within the school environment. This means that control documents and healthcare control the school activities to a certain extent, and that the teachers have to respond to these demands.

In relation to this fact, research shows that teachers are not very confident in implementing Evidence-Based Teaching Programs for pupils with ID [3]. A study by Knight with colleagues [4] showed a gap between the number of reported EBP (Evidence-Based Practice) programs and the teachers' training in these programs. This means teachers may not feel very confident in supporting pupils in need of special education at school. There may also exist a lack of knowledge whether teaching strategies are Evidence-Based or not.

3. Inclusive Education

During the autumn of 2021, we have performed literature searches within the field of Special Needs Education in the Nordic countries during the last decade.

We have found a lack of consensus in the literature regarding what inclusion really means. Although The Salamanca Statement and Framework for Action on

Special Needs Education [11] often is used as a general term understanding of the term may vary.

In the literature, four various perspectives on inclusion are described in an article by Göransson and Nilholm [6]:

1. Placement definition – inclusion is defined as a placement of pupils with disabilities in general education classrooms

2. Specified individualized definition – inclusion is defined as meeting the social and academic needs of pupils with disabilities and pupils in need of special support

3. General individualized definition – inclusion is defined as meeting the social and academic needs of all pupils

4. Community definition – inclusion is defined as a creation of communities with specific characteristics.

The authors [6] suggest that the categories are hierarchically related to each other in the sense that each category presupposes another category a>b>c>d. In the literature, there exists a shift in the use of the term, related to these various definitions according to [6], which is very problematic. Often, the placement definition of inclusion is used which can be misleading when attempts are made to include all pupils in creation of communities with certain characteristics. A vague use of the term inclusion means there is a risk for misunderstandings. Researchers who use the placement definition of inclusion tend to see the individual pupil as an object of inclusion, which means a categorical perspective is used. From a more relational perspective and including interaction as a part of inclusion we may increase the possibility of reaching the goal of inclusion. In an attempt to define the term inclusive education, we suggest inclusion can be defined as the pupils' (the children's) interaction with the surrounding environment and life in an educational context.

4. Linguistic Interaction– Theoretical Starting Point

In performing our own literature searches we have found few Nordic studies on teacher-pupil or pupil-pupil interaction in special schools during the last decade, 2011-2021, since the new curriculum in Sweden has been deployed. This is quite alarming since interaction is a basis for language learning and an important aspect of inclusive education. There are also very few intervention studies in educational settings regarding pupils with ID. Most studies focus on the educational work at special schools.

Our viewpoint, is that from a sociocultural perspective, interaction and cooperation are necessary aspects of learning. To be able to interact and cooperate with others is essential and an important part for all pupils' learning. Thus, interaction is also a ground for learning language skills and being able to communicate as an important part of inclusion. Language skills are developed through intersubjectivity in dyadic (or triadic) interactions in the relation between two or several individuals [10]. Intersubjectivity then develops from a more concrete level where individuals share attention towards the environment to a more abstract level where emotions and thoughts are shared between individuals. An interesting aspect of Evidence-Based Teaching Programs is to examine to what extent these programs involve interaction.

In the scientific literature, several skills, which are related to interaction and that may be of importance for pupils with autism spectrum condition (often including intellectual disabilities), are described. These skills are listening, attention (especially shared attention), intersubjectivity, theory of mind (the understanding of other people's perspective), gestures and the ability to use their own voice. We believe that through interaction and cooperation with the environment, it is possible to develop these skills. Interaction is therefore a necessary ground for learning and should be considered in relation to the teaching programs. Also, interaction can be seen as essential in establishing inclusive education. From this theoretical starting point the next step is to establish teaching programs, which involves interaction and an environment that suit all pupils' individual needs. Although pupils with autism spectrum condition tend to avoid interaction because of sensory overload, which should be taken into consideration, these pupils need to be offered some interaction in order to develop. When it is the case that pupils with autism spectrum condition are totally separated from the environment during most part of the day, they totally lack the opportunity to interact.

5. Evidence-Based Teaching Programs

Evidence-Based Teaching Programs can be described as a basis for professional policy and practice generated by sound research and scientific procedures [5].

In the first survey study, we focus on five various Evidence-Based Teaching Programs, that exhibit some significant scientific evidence as a ground for their use, i.e. TEACCH (Treatment and Education of Autistic and related Communication Handicapped Children), EIBI (Early Intensive Behavioral Interventions) PECS (Picture Exchange Communication Systems), GAAC (Graphic Alternative and Augmentative Communication) and Signs as a Support. All these programs are

used within the Swedish special school for pupils with ID.

In Sweden, TEACCH [8] has laid the ground for Clarifying Pedagogy, which involves adapting the environment according to the child's needs, but does not involve interaction to a great extent. The method is built on the idea that the pupils are helped by meeting a structured and predictable environment. Within TEAACH or Clarifying Pedagogy, matching and sorting skills are typically trained and objects are put into boxes. The pupils are often seated towards a wall and behind a screen and is therefore separated from the environment. This means that the pupil is often working independently, without much sensory input that can be stressful for these pupils. In other words, the pupil is separated or segregated from the environment.

EIBI is an intensive teaching program, which involves play, imitation, pointing and naming objects. This method is directed towards the individual pupil and various kinds of reinforcement are used in order to establish the expected skills. A risk with this method is that it may be very intensive, and also that the pupil may be segregated from the other pupils, and thus miss the opportunity for interaction. On the other hand, dyadic interaction with the pupil's teacher is possible within this method, which is positive from an interactional viewpoint.

In PECS [2] the focus is on teaching the child to use pictures in order to communicate and the purpose per se is to get the pupil to interact. Certain phases are involved and a structured scheme is used to achieve these skills. The pupil gets certain prompts and is encouraged to interact. For example, the pupil is expected to initiate communication or demand a certain object. The pupil is then supported by the teacher by certain rewards. A positive aspect regarding PECS is that the purpose with the method is to achieve that the pupil learns to interact.

GAAC is a teaching program that involves getting the pupil to use pictures or speech-generating devices in order to communicate. It means pressing a button, which reads the pupil's message aloud. This is a method, where the environment is very much arranged and therefore it involves interaction as an important aspect. When using Signs as a Support usually this strategy contains signing of the content words in language, which are then used simultaneously with spoken language. We have now mentioned a few of the Evidence-Based Programs and whether interaction is involved in these strategies.

6. Purpose of the Study and Research Questions

The purpose of the study is to identify what teaching programs are used within Swedish special schools (and to what extent) in order to promote language and interaction. The research questions are:

1. Which teaching programs do teachers within Swedish special schools use in order to promote language and interaction regarding pupils with ID including ASC and other conditions? To what extent are these programs used?

2. To what extent do teachers within special schools in Sweden offer pupils with ID, ASC and other conditions interaction and cooperation in relation to the programs that are used?

3. Can any geographical differences regarding the school units view on Evidence-Based Practice regarding pupils with ASC and other conditions be seen?

4. How confident do teachers feel about working with the various Evidence-Based Programs?

5. Which treatment programs do teachers claim are the most important?

7. Method

The project involves the 21 Swedish regions, where some comparisons within the country can be made. It is a total investigation study, which involves all teachers in Sweden who are qualified to work in Swedish special schools.

The digital survey was sent out to 11.932 teachers who are qualified for teaching in special schools in Sweden. We received the teachers' e-mail addresses from the Swedish National Agency for Education. However, there was a large discrepancy between the number of qualified teachers and the number of teachers who actually work in Swedish special schools. About 500 teachers work in Swedish special schools with pupils who exhibit ID, and 429 teachers responded the survey.

The large amount of quantitative data also involves an open-ended question, which means data analyses will take some time to perform. Data analysis will be performed using SPSS (Statistical Package for the Social Sciences) and Excel, which means some mean values and standard deviations can be presented in the future as well as other statistical measures. In summary, the survey consists of about 20 questions and one open-ended question, where the teachers are able to give their view on which teaching programs are the most important within their teaching practice.

A plan for the study is to follow-up with interview studies and observations. In performing the project Interteach, we follow the Swedish Research Council's Ethical Guideline (SRCEG) for research ethics. The aim is not to present results from specific school units, but from larger regions within the country. Neither the teachers, pupils nor the school units will be identified in

the data. Answering the questionnaire is also voluntary for all participants according to (SRCEG).

8. Analyses

The study will be able to answer questions in relation to the following parameters: which Evidence-Based Teaching Programs are used within the country, geographical differences in Sweden in relation to the various programs, the teachers' attitudes towards the various programs, the teacher's educational level in relation to the various programs that are used and finally the teacher's descriptions of which programs are the most important according to their view.

9. Results

Preliminary results show that the Evidence-Based Programs vary to a great extent. The teachers' professional development regarding Evidence-Based Teaching Programs is very low, which is in line with previous studies on this subject [3]. Thus, despite the various programs being used for pupils with ID, the teachers' professional development within this area is low. Preliminary results also shows that the professional development that seems to have the highest level is using Signs as a Support for communication.

10. Discussion

The definition of the term inclusion varies in the literature to a great extent and there is a need for a universal definition of what inclusion really means. A lack of concreteness regarding the definition may have severe consequences for research as well as practice. Without a consensus regarding the definition, we lack guidance in establishing an inclusive school practice.

In addition, interaction has been overlooked as an important aspect of inclusion. We have found few studies during the last decade (Nordic countries) that include interaction and no Swedish studies, which include dyadic interaction. In this paper, we make an attempt to define inclusion as:

"*the pupils' (the children's) interaction with the surrounding environment and life in an educational context.*"

Regarding the matter of equality, there is a great need for increased knowledge about whether geographical differences within the country exist regarding teaching programs for pupils with ID including ASC. Also, there is a need for knowledge about to what extent the Evidence-Based Programs that are used involve interaction and cooperation.

In addition, according to some preliminary results from our study, which is in line with previous research, teachers may not be very confident in implementing Evidence-Based strategies [2] and when this is the case, the increasing demand on Evidence-Based Practice is quite problematic. We believe that in order to develop education for pupils with ID, we need to know more about the actual practice.

11. Conclusion

To our knowledge this is the first study that investigates Evidence-Based practice in all Swedish schools regarding pupils with ID. Research has shown that teachers are not very confident in implementing training programs for pupils with ID and it is therefore interesting to investigate what factors can contribute to this lack of confidence. There exists limited knowledge about the use of the various Evidence-Based Programs and whether teaching is equivalent throughout Sweden as a country for this group of pupils. Since interaction is a basis for inclusion communicative skills are essential.

12. References

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