

**The Social Participation of Pupils with Special Educational Needs
in Inclusive Classrooms**

Investigating and Facilitating Social Participation in Primary Schools

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Abstract

This thesis investigates the social participation of pupils with special educational needs (SEN) in mainstream classrooms and school-based interventions which can be implemented to facilitate social participation. To define and operationalize social participation, a multidimensional approach was chosen that includes four dimensions: social acceptance by peers, self-perceived social acceptance, social relationships and social interactions among pupils. Based on this definition, the current findings on the social participation of pupils with SEN in mainstream classrooms are described. In addition, selected results of a research project that was conducted in Switzerland are presented. The social participation of pupils with an intellectual disability (ID) who are enrolled in primary mainstream classrooms is described in the scope of two publications. While some pupils with ID seem to experience difficulties in their social participation – they have no friends, are isolated, or they are socially rejected – other pupils with ID are well accepted and have friends in their classroom. In an attempt to explain these differences, the influencing factors on the individual level and on the contextual level are analysed. As expected, individual characteristics, such as disability, special needs, or social skills, are not the only factors that can have an impact on the social participation of individuals, but contextual factors, such as group norms and friendship networks within the classroom, can also produce such effects. Further, the present thesis includes a systematic review of the literature on intervention strategies to facilitate social participation in inclusive classrooms, specifically the teaching of interaction strategies to pupils, group activities in the academic and social context, and training school staff to facilitate interactions among pupils. Based on the findings that are reported in the thesis and on theoretical foundations, an intervention programme is proposed to foster social participation in inclusive classrooms, which considers the influence of contextual factors and the multidimensionality of social participation. Finally, in the discussion section, implications for researchers and practitioners are derived from the main findings of this thesis.

Zusammenfassung

In der vorliegenden Arbeit werden die soziale Partizipation von Schüler_innen mit besonderem Bildungsbedarf in integrativen Klassen evaluiert und Massnahmen zur Förderung der sozialen Partizipation untersucht. Zur Definition und Operationalisierung von sozialer Partizipation wurde ein multidimensionales Konzept gewählt, das vier Dimensionen beinhaltet: soziale Akzeptanz durch Peers, selbstwahrgenommene soziale Akzeptanz, soziale Beziehungen und soziale Interaktionen zwischen den Schüler_innen. Entlang dieser Dimensionen wird in der vorliegenden Arbeit der aktuelle Stand der Forschung dargelegt. Zudem werden ausgewählte Ergebnisse eines in der Schweiz durchgeführten Forschungsprojektes präsentiert. Basierend auf den Erkenntnissen zweier Publikationen wird die soziale Partizipation von Schüler_innen mit einer intellektuellen Beeinträchtigung (IB) beschrieben, die in Regelklassen der Primar unterrichtet werden. Während manche Schüler_innen mit einer IB Schwierigkeiten erleben in ihrer sozialen Partizipation – sie haben keine Freund_innen, sind isoliert oder werden sozial abgelehnt –, werden andere Schüler_innen mit IB akzeptiert und haben Freund_innen in ihrer Klasse. Um Erklärungen für diese Unterschiede zu finden werden mögliche Einflussfaktoren auf der Ebene des Individuums und des Kontextes analysiert. Erwartungsgemäss haben nicht nur individuelle Merkmale, wie die Beeinträchtigung, der besondere Bildungsbedarf oder soziale Kompetenzen, sondern auch Kontextfaktoren, wie die Gruppennorm und die Freundschaftsnetzwerke in einer Klasse, einen Einfluss auf die soziale Partizipation von einzelnen Schüler_innen. Die vorliegende Arbeit beinhaltet zudem eine systematische Review der Literatur zu Interventionsmassnahmen zur Förderung der sozialen Partizipation in integrativen Klassen, wie das Training von sozialen Interaktionsstrategien, sozialen und schulische Aktivitäten in der Gruppe sowie das Training von Schulpersonal zur Förderung von sozialen Interaktionen zwischen Schüler_innen. Basierend auf den Ergebnissen der vorliegenden Arbeit und auf theoretischen Überlegungen wird anschliessend ein Interventionsprogramm zur Förderung der sozialen Partizipation vorgeschlagen, das sowohl kontextuelle Einflussfaktoren als auch die Multidimensionalität des Konzepts der sozialen Partizipation berücksichtigt. Zum Schluss werden im Diskussionsteil anhand der Hauptergebnisse der vorliegenden Arbeit Implikationen für die Forschung und die Praxis abgeleitet.

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1. Introduction

For a long time, it has been assumed that pupils with special educational needs (SEN)¹ should be enrolled in special settings to better meet their needs (Moser Opitz, 2008). Special education settings have been viewed as possessing various advantages, such as lower teacher-pupil ratios, specially trained teachers, and a greater individualization of instruction (Kriwet, 2005; Moser Opitz, 2008; Peetsma, Vergeer, Roeleveld, & Karsten, 2001). Consequently, the education systems in many countries (e.g., Germany, Switzerland, and the Netherlands) have supported the separation of pupils with SEN from pupils without SEN.

However, studies in several Western countries investigating the impact of inclusive settings on the academic achievement of pupils with SEN have revealed the advantages of such inclusive settings over special education settings (Haeberlin, Bless, Moser, & Klaghofer, 2003; Kocaj, Kuhl, Kroth, Pant, & Stanat, 2014; Ruijs & Peetsma, 2009; Sermier Dessemontet, Benoit, & Bless, 2011). In a German study by Kocaj and colleagues (2014) pupils with SEN who were enrolled in mainstream classrooms achieved higher reading and mathematical competences than comparable pupils who were enrolled in special education schools. Similar results have been found in Switzerland for pupils with an intellectual disability (ID) or with learning disabilities (LD) who are enrolled in mainstream classrooms (Haeberlin et al., 2003; Sermier Dessemontet et al., 2011). In the study of Sermier Dessemontet and colleagues (2011) for example, pupils with ID had higher language achievement gains when they were included in mainstream classrooms than pupils who were enrolled in special education settings.

Despite the advantages of inclusive settings with regard to learning opportunities, pupils with SEN by definition reach lower academic achievement levels than their peers. The self-perception of having greater difficulties in school than others can have a negative impact on the self-concept of individuals. In Switzerland, studies revealed that pupils with LD who were enrolled in mainstream classrooms had a lower academic self-concept compared to their peers (Bless, 2007) and pupils with

¹ When referring to all kinds of disabilities, the term SEN will be used; otherwise, the specific disability (e.g., intellectual disability, autism spectrum disorder, learning disability) will be explicitly mentioned.

LD who were enrolled in special education settings (Haeberlin et al., 2003). Further, the LD pupils' self-perception of their social participation in mainstream classrooms was also not found to be positive (Haeberlin et al., 2003).

Indeed, the social outcomes for pupils with SEN who are enrolled in mainstream primary schools have not been found to be positive. Such pupils tend to be rejected by their peers, and they are often not popular in their classrooms (Cambra & Silvestre, 2003; Frederickson, Simmonds, Evans, & Soulsby, 2007; Frederickson & Furnham, 2001; Grütter, Meyer, & Glenz, 2015; Huber & Wilbert, 2012; Koster, Pijl, Nakken, & van Houten, 2010; Krull, Wilbert, & Hennemann, 2014; Schwab, 2015; Pijl & Frostad, 2010; Pijl, Skaalvik, & Skaalvik, 2010). In addition, they are at risk of being isolated because they are less involved in social interactions and tend to have fewer friends than their peers without SEN (Kemp & Carter, 2002; Koster et al., 2010; Pijl, Frostad, & Flem, 2008; Schwab, 2015).

However, some studies have not found differences between pupils with SEN and their typically developing (TD) peers regarding their number of friends (Avramidis, 2010; Grütter et al., 2015). Thus, the question arises as to why diverging findings are being found. One possible explanation can be found at the methodological level. It seems that depending on how social participation is operationalized in studies (e.g., social acceptance, number of friends, social isolation, social interactions), different findings are to be expected (e.g., Grütter et al., 2015). Therefore, using multiple measures to define social participation can help to obtain a balanced view (Koster et al., 2010). Another possible explanation could be the focus on the individual characteristics of pupils with SEN. Having SEN as opposed to not having SEN is commonly chosen as the independent variable to investigate pupils' social participation in inclusive classrooms (e.g., Grütter et al., 2015; Koster et al., 2010; Krull et al., 2014; Schwab, 2015). This approach implies that experiences in social participation are influenced by special educational needs or the label "SEN". However, there is evidence to indicate that pupils with SEN with different types of disabilities (e.g., behavioural problems, sensory and motor disabilities, or LD) make different experiences in their social participation (Avramidis, 2010; Frostad & Pijl, 2007). In addition, a range of influencing factors has not been systematically considered in studies, although the social participation of pupils with SEN is most likely not only

influenced by individual characteristics (e.g., special educational needs, type of disability, behavioural problems) but also by contextual factors (e.g., group norm, classroom composition). Therefore, more knowledge is needed to better understand the processes that influence social participation in inclusive classrooms². From these considerations two research questions can be derived:

- 1) How does the social participation of pupils with SEN and of their TD peers appear in inclusive classrooms from a multidimensional perspective?
- 2) Which individual and contextual level factors influence the social participation of pupils with SEN in inclusive classrooms?

These two research questions will be addressed regarding pupils with SEN in general and specifically pupils with ID. This is based on the fact that current research findings are reported on pupils with SEN who have different types of disabilities and in response to the focus on pupils with ID in two publications that contribute to this thesis (Garrote, 2016; Garrote, 2017).

The answers to these research questions have important implications for the development of strategies to facilitate social participation. Considering that pupils with SEN are at risk of experiencing difficulties in social participation, finding interventions to improve these pupils' social experiences with their peers is an important goal of researchers and practitioners (Camargo et al., 2016; Harrower & Dunlap, 2001). There are numerous difficulties that can appear when pupils experience social rejection or isolation. Social rejection alone is stressful, but it is even worse if affected children do not have friends (Peters, Riksen-Walraven, Cillessen, & de Weerth, 2011). Further, chronic social rejection or isolation can lead in the short term to reduced participation in academic activities (Ladd, Herald-Brown, & Reiser, 2008), and in the long term it can be the source of socio-emotional adjustment problems (Gifford-Smith & Brownell, 2003; Ladd & Troop-Gordon, 2003; Sturaro, van Lier, Cuijpers, & Koot, 2011). To prevent these outcomes, strategies to foster the social participation of pupils with SEN in mainstream classrooms must be studied in a more detailed way.

² An inclusive classroom is understood as a mainstream classroom in which pupils with SEN are full-time members and are enrolled together with pupils without SEN.

Although a number of interventions have been evaluated with the aim of improving the social experiences of pupils with SEN, systematic knowledge of effective school-based interventions to facilitate social participation in inclusive classrooms is lacking. Thus far, systematic reviews and meta-analyses have included intervention studies that have aimed at improving SEN pupils' deficits that potentially hinder their social participation (e.g., Camargo et al., 2016; Camargo et al., 2014; Whalon, Conroy, Martinez, & Werch, 2015). More specifically, the reviewed studies have evaluated the improvement of social interactions between pupils with autism spectrum disorders (ASD) and their peers by teaching interaction skills to pupils with ASD. Thus, the focus of these studies lies in the diminishment of a hindering factor on an individual level, specifically the lack of interaction skills of pupils with ASD. Although this type of intervention can be effective for these pupils, some issues emerge when the complexity of social participation in the context of inclusive classrooms is considered. First, the impact of such interventions on social participation is limited when social processes in the classroom are not considered. Even if children with ASD slightly improve their interaction skills, their peers can continue to avoid interacting with them. Thus, not only individual but also contextual factors must be considered in the development of interventions to foster social participation. Second, this type of intervention is specifically developed for pupils with ASD, which explains the focus on training interaction skills. However, there may be other pupils with SEN (e.g., pupils with learning disabilities), who may not lack basic interaction skills, but experience difficulties in their social participation in inclusive classrooms. This means that other intervention strategies to facilitate social participation should also be considered (e.g., cooperative learning groups). Third, researchers often do not choose a multidimensional approach to operationalize social participation in their evaluation of the impact of training interaction skills on social interactions between pupils with and without SEN. By reducing the scope to one outcome variable of social participation (e.g., social interactions between pupils with and without SEN), the impact of an intervention can be focused. Although this approach may be methodologically effective, the derived findings fail to meet the complexity of social participation. Indeed, social participation not only involves the social interactions between pupils with and without SEN, but also the friendships among them and the social acceptance of pupils with SEN. These considerations lead to the following research questions:

- 3) Which intervention strategies to facilitate social participation in inclusive classrooms have been evaluated in empirical studies?
- 4) How can social participation be facilitated in inclusive classrooms considering the contextual factors and the multidimensionality of social participation?

In response to these four research questions, the present thesis investigates, on one hand, the social participation of pupils with SEN and specifically ID, who are enrolled in mainstream classrooms and, on the other hand, intervention strategies that are designed to facilitate social participation. First, a multidimensional definition of social participation is presented in chapter 2, because it forms the foundation of this thesis. Based on this approach, the current research on the social participation of pupils with SEN in inclusive classrooms is described. In addition, findings are presented from a research project that was conducted in Switzerland and includes mainstream primary classrooms, in which pupils with a diagnosed ID and their TD peers are enrolled together. Further, the results from an analysis of the factors on individual and contextual levels that influence social participation in inclusive classrooms are presented (publications 1 and 2: Garrote, 2016; Garrote, 2017). The scope of chapter 3 is the facilitation of social participation in inclusive classrooms. The findings of a systematic review of the literature, which involves an analysis of intervention strategies that are evaluated in empirical studies, are described (publication 3: Garrote, Sermier Dessemontet, & Moser Opitz, 2017). Based on the results and on theoretical foundations, and considering individual as well as contextual factors, a set of intervention strategies are proposed to foster multiple dimensions of social participation (publication 4: Garrote & Sermier Dessemontet, 2015). Finally, in chapters 4 and 5, implications are derived from the findings on social participation and on its facilitation in inclusive classrooms.

2. Social Participation

2.1 A Definition

Social participation is an umbrella term that is often used synonymously with social inclusion or social integration (Koster, Nakken, Pijl, & van Houten, 2009). Its concept is seldom explicitly defined, and it is operationalized in numerous ways in studies. Koster and colleagues (2009) addressed this problem and conducted a review of the literature to clarify the concepts of social participation, social inclusion, and social integration.

Figure 1 depicts the four dimensions³ and the respective aspects that are linked to the concepts in studies that have investigated the social outcomes for pupils with SEN in inclusive preschool and primary classrooms. Friendships and relationships, contacts and interactions, the acceptance of classmates, as well as the perception of pupils with SEN have been studied in relation to the concepts of the social participation, social integration, and social inclusion of pupils with SEN in inclusive classrooms. The aspects that are listed below the four dimensions are measures that have been used to operationalize the concepts in the literature. Based on these results Koster and colleagues (2009) describe social participation as follows:

Social participation of pupils with special needs in regular education is presence of positive social contact/interaction between these children and their classmates; acceptance of them by their classmates; social relationships/friendships between them and their classmates and the pupils' perception they are accepted by their classmates. (Koster et al., 2009, p. 135)

³ The term "dimension" was chosen instead of the term "key theme" used by Koster et al. (2009).

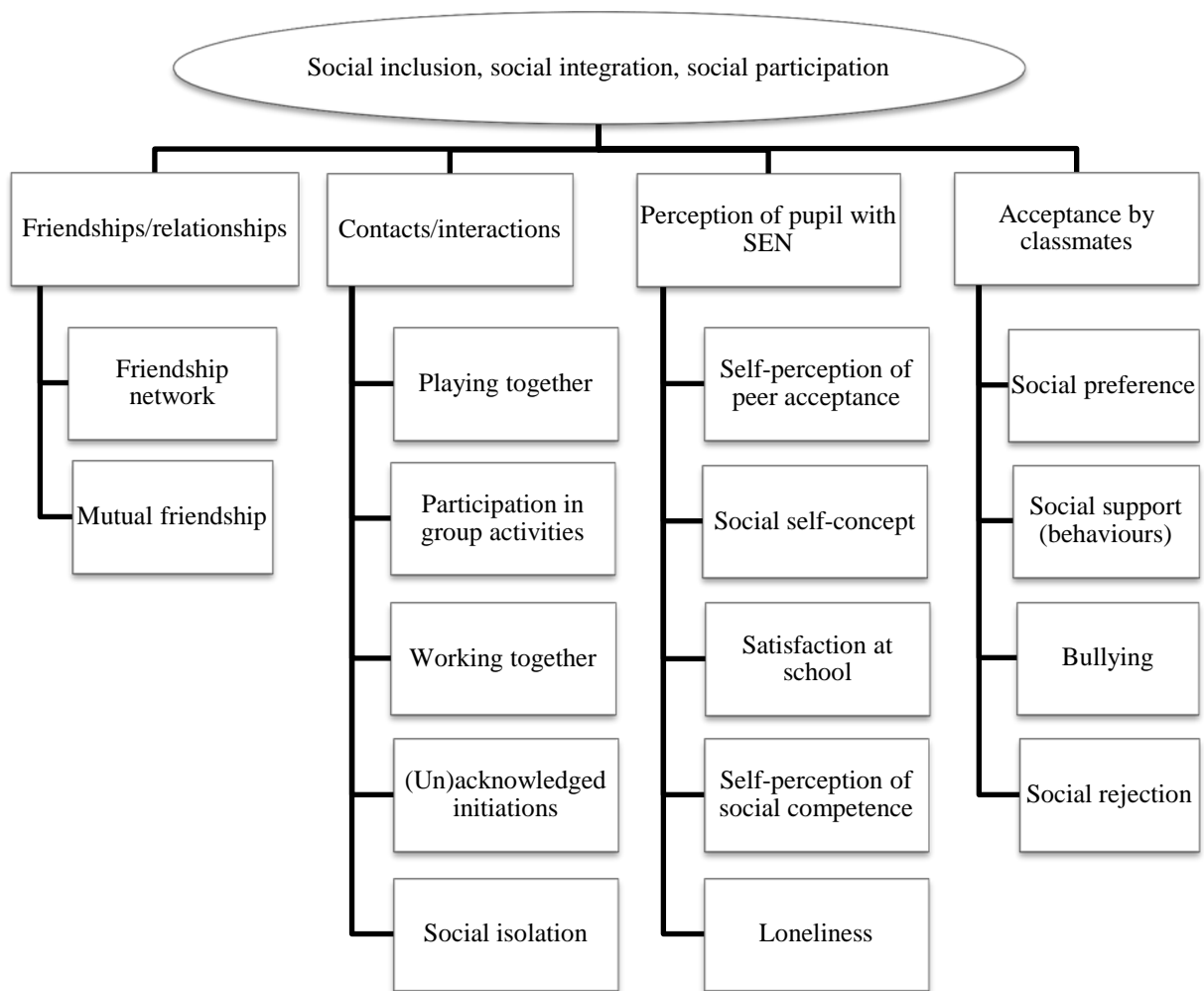


Figure 1. Overview of dimensions and their aspects of social participation (social integration/social inclusion) by Koster et al. (2009).

The three concepts of social integration, social inclusion, and social participation were found to overlap in research practice, and the terms are often used synonymously (Koster et al., 2009). Nevertheless, the authors recommend using the term of social participation. They argue that the term of social integration is less used today because of its negative connotation and that the term social inclusion is regarded as a pleonasm because inclusion already embraces the social dimension (see also Felder, 2012). The term social participation seems in turn to be widely used by policy-makers and international organizations.

However, in some definitions participation is not seen as an overlapping concept with inclusion but rather it is seen as being complementary. The United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006), for example, states that the participation as well as the inclusion of persons with disabilities should be promoted by governments and institutions. The etymology of the terms “participation” and “inclusion” reveals why these two concepts can be regarded as complementary, but it also states out why the former term is preferred over the latter. Participation (Latin verb *participare* = participate in, share in, partake of) suggests an active role of the target individuals while the term inclusion (Latin verb *includere* = include) rather suggests an active role of the environment in the inclusion of the target individual. In the Children and Youth Version of the International Classification of Functioning (ICF) that was developed by the World Health Organization (WHO, 2007) participation is defined as “involvement in life situations”. When seven- to-twelve-year-old pupils with disabilities are asked to describe participation, their wish is “to be part of the group”, “being able to do the same activities as their friends”, and being able to “choose between different activities” (Eriksson & Granlund, 2004). In other words, from the perspective of target individuals, participation not only involves a feeling of belonging (or being included), but also self-determination, and actively taking part in activities. Thus, the concept of social participation seems to better represent the interplay between individuals (actively taking part and feeling included in the group) and group (including the individual) than the concept of social inclusion.

Following this line of argumentation, the definition of social participation by Koster et al. (2009) is interesting, because 1) the active roles of a target individual and group with regard to their interplay in the social context of the classroom are represented in the dimension of social relationships and social interactions, 2) the “objective” perspective (friendships, social interactions, and social acceptance) as well as the “subjective” perspective (the pupils’ perception of the acceptance) of social participation are taken into account, 3) the complexity of the social context is represented with several dimensions and their respective aspects, and 4) it is founded on empirical studies. For these reasons, the present thesis builds upon this definition of social participation. In the following sections, the current state of the research and the findings are described along several dimensions of social

participation. In addition, the assessment measures in publications 1 and 2 (Garrote, 2016; Garrote, 2017) of this thesis were developed based on some aspects that are used to operationalize the four dimensions, such as friendship networks, social isolation, and social rejection (see Figure 1).

2.2 Social Participation in Inclusive Classrooms

In this chapter, the first research question of this thesis is addressed. The current research findings on the social participation of pupils with SEN who are enrolled in mainstream classrooms are hence presented along the four dimensions of social participation: social relationships, social interactions, social acceptance, and perceived social acceptance. Further, the research project “Effective teaching practices in inclusive classrooms” that was conducted in Switzerland is described, which provides the data for two studies that are included in this thesis (publications 1 and 2: Garrote, 2016; Garrote, 2017). Subsequently, the first publication of this thesis (Garrote, 2016) is presented, which investigates social participation in inclusive primary classrooms using a multidimensional approach.

2.2.1 Current Research Findings

Usually, social participation is implicitly defined as being either uni- or two-dimensional by researchers (e.g., measuring mainly social acceptance, perceived social acceptance, or friendships). Studies that investigate social participation with a broader multidimensional approach are scarce (e.g., Grütter et al., 2015; Koster et al. 2010; Schwab 2015). Nevertheless, most findings point in one direction: pupils with SEN are at risk of experiencing difficulties in their social participation.

This result is especially found when a comparison is made between pupils with SEN and their TD classmates with regard to their *social acceptance* and their *social interactions* with peers. Indeed, pupils with SEN seem to be less involved in social interactions with classmates (Kemp & Carter, 2002), and they seem to be more often rejected than their TD peers (Bless, 2007; Cambra & Silvestre,

2003; Frederickson et al., 2007; Haeberlin et al., 2003; Huber & Wilbert, 2012; Krull et al., 2014; Pijl & Frostad, 2010).

However, regarding the *social relationships* and the *perceived social acceptance* of pupils with SEN, the research findings are less clear. In some studies comparisons with TD peers show that pupils with SEN are less involved in social relationships (Pijl et al., 2008) and perceive themselves as being less accepted by classmates (Cambra & Silvestre, 2003; Haeberlin et al., 2003; Schwab, 2015). Conversely, other studies report that pupils with SEN do not feel less accepted by classmates (Krull et al., 2014), and they are not less involved in social relationships than their TD peers (Avramidis, 2010).

Thus, it seems that depending on the measure that is used for social participation, pupils' social participation can be interpreted in more or less optimistic terms. Studies that measure multiple dimensions of social participation support this assumption. For example, Koster et al. (2010) assessed the social relationships, social interactions, social acceptance and perceived social acceptance of pupils with and without SEN. While the pupils with SEN were less involved in social relationships and interactions, and they were socially less accepted than their peers without SEN, they did not perceive themselves to be less socially accepted than their peers without SEN. Further, in a study by Grütter and colleagues (2015), social participation was assessed with social acceptance, friendships, and membership in cliques. The analysis revealed that pupils with SEN did not have fewer friendships in the classroom than their peers without SEN. However, they were less accepted and less involved in cliques than their peers.

Hence, on one hand, it can be concluded that pupils with SEN are at risk of experiencing social difficulties; however, on the other hand, the findings on social participation always depend on the measures that are chosen to operationalize the concept. Thus, to obtain more balanced findings, it is advisable to measure social participation along multiple dimensions to obtain more balanced results. This approach was chosen to assess social participation in inclusive classrooms in a research project that was conducted in Switzerland, which is described in the following section.

2.2.2 A Study on Effective Teaching Practices in Inclusive Classrooms

The data that was analysed in publications 1 and 2 of this thesis (publication 1 and 2: Garrote, 2016; Garrote, 2017) was withdrawn from the research project “Effective teaching practices in inclusive classrooms” which was supported by the Swiss National Science Foundation⁴. The inclusion of pupils with an ID has become a more common practice in Switzerland. However, there is little empirical knowledge on teaching practices in inclusive classrooms that enrol children with ID together with TD pupils. Thus, this research project focused on inclusive classrooms that include pupils with ID. Hence, in each classroom of the sample at least one pupil was diagnosed with ID based on the criterion of $IQ < 75$. From 2014 to 2016 two cohorts of 17 and 20 inclusive classrooms from German- and French-speaking Cantons in Switzerland participated in the study. The participants were six- to ten-year-old pupils who were enrolled in first- to fourth-grade mainstream classrooms ($N = 692$; 49% girls).

The research questions regarding teaching practices, mathematical achievement, and the social participation of pupils with and without ID in mainstream classrooms were investigated. Mainly, two interventions were evaluated, which aimed at fostering the social participation respectively increasing the mathematical competences of pupils with ID. The participating classrooms of both cohorts were split in half. Each half received one of the two interventions and served as a control group for the other half. To investigate the impact of the intervention there were two measurement points. Thus, the data on social participation and the mathematical achievement of pupils with and without ID were assessed before the interventions were implemented (at the beginning of the school year) and after the interventions were implemented (at the end of the school year).

The present thesis aims to investigate the social participation of pupils in inclusive classrooms and its facilitation, but does not include the evaluation of the intervention programme that was developed for the research project on “Effective teaching practices in inclusive classrooms”. Therefore, only the data of the first measurement point of the intervention study, before the interventions were implemented, is included in this thesis. These data were collected in autumn 2014

⁴ Grant number 146086.

and autumn 2015, approximately four to six weeks after the start of the school year. In individual interviews, the pupils were asked to rate their social participation with the help of sociometric instruments⁵ as well as the social skills (cooperative and prosocial behaviour) of some of their peers.

All four dimensions of social participation were considered in the assessment. The dimensions of social relationships and social interactions were assessed using the nomination method. The participants nominated their regular play partners in the classroom (“With whom of your classroom do you like to play the most?”). The collected data give information about social interactions that occur between pupils during play periods, about the social network of the classroom and about friendships between classmates (reciprocal nominations). The dimension of social acceptance was assessed with the sociometric rating method. The pupils were asked to rate on a five-point-scale how much they liked to play with each classmate. Based on these ratings a score for acceptance and rejection was calculated for each pupil. To assess the perceived social acceptance, the pupils estimated their social acceptance in the classroom with four questions on a five-point-scale (e.g., “Are your classmates nice/friendly to you?”). For each pupil, a score of perceived social acceptance was computed.

Further, the teachers and pupils estimated the social skills of selected pupils in the classroom.⁶ The pupils rated the cooperative and prosocial behaviour of four randomly selected peers on a five-point-scale. These data were summarized into a score of other-oriented social skills for each pupil. The teachers estimated the social skills of the pupils with ID and selected TD pupils (popular, rejected, and isolated) with a questionnaire. The Self- and Other-Oriented Social Competences questionnaire (SOCOMP; see Perren, Forrester-Knauss, & Alsaker, 2012) that was used for this purpose, includes subscales on self-oriented social skills (e.g., leadership, setting limits, and social participation), on other-oriented social skills (e.g., prosocial and cooperative behaviour), and on positive peer relationships (e.g., friendships and social acceptance).

⁵ A description of the assessed variables of social participation is to be found in publication 1 (Garrote, 2016).

⁶ The social skills rated by pupils and teachers are explained in more detail in publication 2 (Garrote, in press).

Publication 1 provides insight on social participation in Swiss inclusive classrooms that enrol pupils with ID, and it includes the data from the first cohort of 2014 (Garrote, 2016; Teaser Publication 1). It focuses on the social participation of the pupils with ID and of their TD peers, and it is therefore a contribution to the first research question of this thesis: How does the social participation of pupils with SEN and of their TD peers appear in inclusive classrooms from a multidimensional perspective?

Teaser Publication 1: The Social Participation of Pupils in Inclusive Classrooms

The first publication describes the actual social participation of pupils in inclusive classrooms and attempts to identify the factors that might influence social participation. To assess social participation the multidimensional approach based on Koster et al. (2009) was chosen. Social acceptance, perceived social acceptance, as well as social relationships and interactions were measured. On one hand, the group of pupils with ID exhibited lower acceptance scores and higher rejection scores than the group of pupils without ID. In addition, pupils with ID were less often chosen as play partners than their peers without ID. On the other hand, there were no significant differences between the two groups regarding their perceived social acceptance and whether they had at least one friend in the classroom. Further analyses were carried out to identify classroom variables that might also have an impact on social participation. Indeed, friendship network and classroom norm turned out to be promising factors that are worth taking into account. Pupils with ID had potentially more friends if they were enrolled in classrooms with dense friendship networks and were more at risk of being rejected if they were included in a classroom with a high rejection norm.

The findings of publication 1 (Garrote, 2016) revealed that pupils with ID who were enrolled in primary mainstream classrooms more often experienced social rejection and were less often chosen as play partners than their TD peers; however, most of these pupils were able to build at least one friendship in their classrooms, and they seemed to estimate their social acceptance rather positively. Thus, the social participation of individual pupils with ID can be interpreted as being more or less

positive depending on the dimension that is analysed. This is an important finding for researchers as well as for practitioners concerning the assessment of social participation. It indicates that to obtain an idea of an individual's social participation it is important to consider several aspects to arrive at a balanced interpretation and act accordingly. Further, the results are in line with most research findings. It appears that the pupils with SEN mainly experience difficulties in the dimensions of *social acceptance* and *social interactions*. This information is crucial to decide on the focus of interventions that aim to facilitate social participation.

Further, analysing the friendship network and the norms in the inclusive classrooms where the pupils with ID are enrolled revealed that contextual factors play a not-negligible role in the social participation of individuals. The pupils with ID were more likely to have friends when they were enrolled in classrooms where a majority of pupils had at least one friend. In addition, they were less likely to be rejected in classrooms where an acceptance norm was established which means that a majority of the pupils were accepting of their peers. In conclusion, in investigating the social participation of pupils with SEN it can be informative to consider contextual factors such as classroom *norms* and friendship *networks*.

2.3 Factors Influencing the Social Participation

Despite the considerable number of unanimous, rather pessimistic, results on the social participation of pupils with SEN in inclusive classrooms, there is little knowledge about the factors that may be responsible for these social outcomes (Simeonsson, Carlson, Huntington, Sturtz McMillen, & Brent, 2001). Difficulties in social participation are usually explained by SEN or by disabilities (e.g., intellectual disability) of the target individuals. From an interventionist perspective this focus on individual rather stable factors is not a fruitful approach. Thus, further, changeable factors should be investigated to develop effective interventions to foster social participation. Therefore, the second research question of this thesis should be addressed: Which factors on an individual and contextual level influence social participation in inclusive classrooms?

2.3.1 Context Level Factors

The level of a pupils' social participation in a classroom is likely to vary as a feature of the context, and therefore it is not only dependent on factors on the individual level (Simeonsson et al., 2001). However, contextual factors have not been thoroughly investigated in relation to social participation in inclusive classrooms. Thus far, only a few studies, such as publication 1 of the present thesis (Garrote, 2016) or a study by Grütter et al. (2015) support the assumption that specific contextual factors may have an impact on the individual experience of social participation. The group composition in terms of friendships networks and heterogeneity as well as the group norm can explain to some extent why pupils with SEN have difficulties socially participating in their classrooms. It appears that the more heterogeneous and the higher the density of a friendship network in a classroom is, the less likely it is that pupils with SEN or ID will be excluded (Garrote, 2016; Grütter et al., 2015). Further, group norms have also been proven to matter in inclusive classrooms, which means that pupils with ID may have more chances of being accepted by peers in a classroom where a majority of pupils are accepting towards their peers (Garrote, 2016). Nevertheless, the fact is that when contextual factors are not favourable, pupils with SEN are more at risk of being excluded and rejected than the majority of their TD peers.

2.3.2 Individual Level Factors

When attempting to explain the low levels of social participation of pupils with SEN, researchers have generally focused on individual factors, such as the type of disability or the lack of social skills of pupils with SEN. Indeed, there is evidence to suggest that pupils with behavioural problems are more at risk of experiencing rejection and isolation than other pupils with SEN (Bless, 2007; Pijl et al., 2008). There are also a few studies that have indicated that a lack of social skills (e.g., prosocial behaviour) may hinder the social participation of pupils with SEN (Frostad & Pijl, 2007; Schwab, Gebhardt, Krammer, & Gasteiger-Klicpera, 2015). However, more empirical studies are needed to support this hypothesis.

Publication 2 of this thesis is a contribution that can shed light on the relationship between social participation and social skills (Garrote, 2017; Teaser Publication 2). It also contributes to the second research question of this thesis that asks which factors on the individual and contextual levels influence social participation in inclusive classrooms. The data analysis of publication 2 includes data on social participation and social skills that were rated by pupils and teachers of the first and the second cohort of the research project “Effective teaching practices in inclusive classrooms”.

Teaser Publication 2: Relationship between the Social Participation and Social Skills of Pupils with an Intellectual Disability: A Study in Inclusive Classrooms

In this second study the social skills of pupils with ID, their social acceptance and social relationships were assessed and compared to those of their peers without ID. To assess the social skills, the peers and teachers were asked to rate the prosocial and cooperative behaviour of the pupils. The teachers also rated the leadership skills, the ability to set limits, and the social initiative of the pupils. The analysis revealed four main results. First, a considerable number of the pupils with ID had at least one friend in the classroom (56%) and/or they were accepted by their peers (63%). Second, the pupils with ID were perceived by their teachers and peers to have lower levels of social skills compared to their TD peers. Third, the pupils with ID who did not have friends in their classrooms had similar levels of social skills as the pupils with ID who had friends. Forth, the pupils with ID who were rejected were perceived by their peers as being less socially skilled than the pupils with ID who were accepted. Conversely, the teacher’s ratings did not reveal any differences in this regard. They reported similar levels of social skills for the rejected as well as for the accepted pupils with ID.

Publication 2 of this thesis (Garrote, 2017) showed that the pupils with ID had lower levels of social skills than their TD peers. Despite that, they probably had the basic social skills that were needed to build and maintain social relationships with their peers without ID (e.g., initiating social interactions, taking turns, sharing things), because there were no differences regarding the level of social skills between the pupils with ID with friends and the friendless pupils with ID. Nevertheless,

approximately one-third of the pupils with ID were not accepted by classmates. It could be argued that having low levels of social skills can enhance social rejection. Indeed, for the TD pupils a correlation were found. The TD pupils who were rejected and/or isolated were significantly less socially skilled than the popular TD pupils. In conclusion, the pupils with ID seem to have some social skills that are beneficial to building and maintaining friendships; however, some of the TD pupils may still reject them because they perceive them as lacking prosocial and cooperative behaviour. Thus, practicing prosocial and cooperative behaviour could be crucial for social acceptance among peers. This needs to be taken into account in the development of interventions to foster social participation in classrooms. Thus, these interventions should include opportunities for pupils with and without SEN to improve their prosocial and cooperative skills.

3. Facilitating Social Participation

Experiencing social exclusion is not exclusively a problem of pupils with SEN in mainstream classrooms. It concerns all pupils who somehow want to belong to the community of a classroom. However, the difference is that pupils with SEN can be socially excluded because of their disabilities (Felder, 2012). Indeed, studies have revealed that pupils with SEN as well as with low academic achievement levels are likely to be socially rejected by their classmates (Huber & Wilbert, 2012; Krull et al., 2014). This means that based on the academic achievement levels, classmates may perceive these pupils as an out-group, with whom they do not wish to be socially involved. This perception can be enhanced on one hand by the important role that is played by academic achievement in school and on the other hand by the special support that is received by pupils with SEN (e.g., pull-out programs, support from special educational teacher). Hence, having special educational needs in an inclusive classroom could cause pupils to be perceived as being different and in turn leave them more at risk of experiencing social rejection and isolation.

Based on Allport's contact theory (1954) it is expected that enrolling pupils with and without SEN together would facilitate the positive contacts between these two groups. Indeed, the three

conditions that are suggested by Allport (1954) to reach this positive social outcome are presumed to be given in inclusive classrooms: institutional support, common goals, and the perception of communality. There is usually institutional support (represented by the school and the teacher), pupils in a classroom have common learning goals (curriculum), and there is the perception of communality between the groups, because all of the pupils belong to one classroom community.

However, assuming that the three conditions for positive contact are given, it seems that mere presence does not change the way in which children with SEN are perceived or accepted by their peers (Cameron, Rutland, & Brown, 2007; Manetti, Schneider, Barry, & Siperstein, 2001; Maras & Brown, 1996). Conversely, as we can also see in publications 1 and 2 of the present thesis, some pupils with SEN seem to be at risk of experiencing difficulties in their social participation due to individual and contextual factors. This is why interventions are needed to facilitate social participation in inclusive classrooms.

3.1 Evaluated Intervention Strategies

Currently, systematic knowledge of effective interventions to foster social participation in inclusive classrooms is lacking. The reviews and meta-analyses have focused on some aspects of social participation (mostly social interactions and more marginally social acceptance), and they have only included some groups of pupils with SEN, mainly pupils with autism spectrum disorder (e.g., Camargo et al., 2014; McConnell, 2002; Whalon et al., 2015).

The third publication of this thesis is thus a contribution to this field of research (Garrote et al., 2017; Teaser Publication 3). A systematic review of the literature was conducted using the concept of social participation that was suggested by Koster and colleagues (2009) and including studies that focus on different groups of pupils with SEN who are enrolled in mainstream preschool and primary classrooms.

Teaser Publication 3: Facilitating the Social Participation of Pupils with Special Educational Needs in Mainstream Schools: A Review on School-Based Interventions

The third publication is a review that systematically collects knowledge on interventions that can be implemented to foster social participation in inclusive classrooms. Studies that evaluate school-based interventions that involve pupils with SEN and their peers were included in the analysis. Three types of intervention strategies were identified in the 35 studies that are included in the review: teaching interaction strategies for pupils with SEN and their peers, the implementation of group activities in the academic or social context, and the training of paraprofessionals to facilitate social interactions among pupils with and without SEN. Teaching interactions strategies to pupils with and without SEN is a well-documented intervention strategy that has positive effects on the social interactions among pupils in mainstream classrooms. A few studies also show that the implementation of group activities and the training of paraprofessional can have positive effects on social interactions and social acceptance of pupils with SEN. Still, more studies are needed to consider the latter strategies evidence-based. Finally, most of the studies evaluated the impact of interventions on social interactions and were conducted with pupils with autism spectrum disorder (ASD).

The findings of the review (publication 3; Garrote et al., 2017) clearly reveal a need for more intervention studies using a broader concept of social participation that do not only evaluate the impact of intervention strategies on social interactions. In addition, the positive effects of peer group learning and training school staff to facilitate social interactions should be further studied. Despite of these issues, the studies that have been reviewed in publication 3 provide some important insights about what to consider in the development of an intervention to foster social participation.

First, the lack of studies that evaluate intervention programmes to foster social participation in German and French speaking countries proves that there is a remarkable research gap. Thus far, the few studies that have been carried out in German-speaking countries focused on the prevention of

emotional and behaviour problems through the training of socio-cognitive skills (e.g., Hennemann et al., 2012; Heckler-Schell, 2011). Although in these programmes pupils are usually trained together in the classroom, it remains an intervention strategy that targets the individual's competences. To foster social participation, this type of intervention is thus insufficient. *Social processes*, such as social learning and the support of social relationships, must also be considered. As the review reveals (Garrote et al., 2017), this can be done, for example, by facilitating social interactions and implementing group activities in the academic and social context. Hereby, individual social skills can be fostered and at the same time positive social processes can be triggered that can positively influence social participation.

Second, teaching pupils social interaction strategies seems to be fruitful, especially promoting the social involvement of pupils with ASD who by definition manifest difficulties in reciprocal social interactions and communication (WHO, 2016). However, for other pupils with SEN (e.g., with learning disabilities) this type of intervention may be too specific. For example, pupils with ID, as is demonstrated in publication 2 of this thesis (Garrote, 2017), have low levels of social skills; however, despite that some of them seem to be able to build and maintain friendships. Thus, pupils with SEN in general may not need to learn basic interaction skills; however, they may rather benefit from gaining social experiences with their TD peers to improve a more developed set of social skills, such as cooperative and prosocial behaviour. In addition, the impact of teaching interaction strategies to selected pupils can be diminished due to problems of generalization in the social context and pupils without SEN, who experience difficulties in their social participation, should also be able to benefit from interventions. This means that interventions to foster social participation should involve all pupils and facilitate *opportunities to interact* for pupils to practice social skills and to enhance the creation of social relationships among them. Indeed, the facilitating of social interactions among pupils with and without SEN seems to be an effective intervention strategy to foster social participation (Garrote et al., 2017).

Third, opportunities for social interactions can be created by implementing *peer mediated learning* methods, such as peer learning groups and peer tutoring. An interesting aspect of this

effective intervention strategy is that in these settings pupils can profit from the heterogeneity of the group in terms of academic achievement. In addition, they can practice social skills, such as cooperative and prosocial behaviour, by means of working together and tutoring each other. Improving these types of social skills in turn can be favourable for the social acceptance of pupils with difficulties in their social participation.

Finally, the review revealed that teachers and other school staff (e.g., paraprofessionals) who work in classrooms matter in social processes. Thus far, only the training of paraprofessionals to facilitate social interactions has been successfully evaluated regarding social participation. However, general and special education teachers implicitly facilitate social interactions when they implement activities such as peer learning methods for the achievement goals. This type of intervention has proven to effectively foster social interactions and social acceptance in inclusive classrooms. Thus, it could be of interest to further evaluate whether the explicit facilitation of social interactions by *teachers* and increasing their awareness of their role in social processes in classrooms can be beneficial in fostering social participation.

In conclusion, school-based interventions potentially have a good chance of serving the purpose of fostering social participation in inclusive classrooms when teachers are involved in the implementation and the benefit of social processes within the classroom is acknowledged by creating opportunities to interact among pupils with and without SEN. In the following chapter, an intervention programme is proposed that takes these considerations into account.

3.2 An Intervention Programme for Inclusive Classrooms

Social processes that occur in inclusive classrooms where pupils with and without SEN are enrolled together can be explained to some extent by Allport's contact theory (1954) and social identity theory by Tajfel and Turner (1979; 1986). These two approaches built the theoretical framework of the intervention programme and provide important insights into the social processes that can be beneficial for the social participation of individuals.

Allport's contact theory (1954) suggests three conditions that work as facilitators to enhance social interactions between groups: institutional support, common goals, and the perception of communality between the groups. Thus, to improve social interactions between pupils with and without SEN in a classroom, an intervention must focus on supporting these three conditions. First, teachers should be aware of their role as representatives for institutional support in regard to the inclusion of pupils with SEN in mainstream classrooms. Second, formulating common goals in highly heterogeneous groups of pupils regarding achievement levels can be challenging. Thus, common goals are preferably formulated that are related to the social aspects of the group. Third, strengthening the perception of communality between pupils with and without SEN is important given the characteristics of the school context, where on a daily basis social groups are created based on achievement levels. Further, the perception of communality between groups can be related to the social identity theory by Tajfel and Turner (1979; 1986). It consists of the assumption that an individual's self-concept is derived from the social categories to which the individual perceives him- or herself belong. This assumption is based on three principles: First, individuals strive to achieve or to maintain a positive self-concept and social identity. Second, social identity may be positive or negative depending on whether social groups or categories and membership in them are associated with positive or negative value connotations. Thus, positive social identity is based to a large extent on favourable comparisons. Third, if the social identity is unsatisfactory, individuals will strive either to leave their existing social group or make it more positively distinct. To summarize, the social identity and the self-concept of pupils with and without SEN depend on the social groups that are created in inclusive classrooms and how these social groups are perceived. This is why building a common group identity with common social goals is important in enhancing the positive contacts between pupils with and without SEN.

The fourth publication of this thesis (Garrote & Sermier Dessemontet, 2015; Teaser Publication 4) describes a multicomponent intervention programme that was developed based on the aforementioned theoretical background and with the consideration of the influencing factors on the individual as well as on the contextual level (group and teacher).

Teaser Publication 4: Social Participation in Inclusive Classrooms: Empirical and Theoretical Foundations of an Intervention Programme

The fourth publication describes a multicomponent intervention for inclusive classrooms. The intervention was developed for heterogeneous groups of pupils and is believed to be beneficial for all pupils in inclusive classrooms regardless if they are with or without SEN. The programme includes strategies on the individual, group, and teacher levels. On the *individual level*, pupils are given the opportunity to practice cooperative and prosocial behaviour in peer learning settings with weekly changing partners. Developing these social skills is not only beneficial for the individuals but also for the classroom community. Changing interaction partners regularly can provide the opportunity of a variety of social experiences with different individuals. On the *group level*, the aim is to create a common group identity and to formulate common social goals that can only be reached if all of the individuals in the group feel responsible and freely make their contributions. Finally, enhancing the *teacher's* awareness of their role in social processes within the classroom is an important goal of the intervention. Only with their support and engagement can social interactions between pupils with and without SEN be facilitated in inclusive classrooms and social processes can be used to foster social participation.

In publication 4 of the present thesis an intervention was described, which is believed to be suitable for inclusive classrooms. The multicomponent intervention has the advantage of including all of the relevant interaction partners who are involved in the social processes of participation in inclusive classrooms: individuals, group, and teachers. Thus, it aims to foster social participation from several perspectives, and it is also believed to be beneficial for all of the pupils in the classroom and not exclusively the pupils with SEN. Further, several social outcomes are targeted, which are assumed to be important for social participation, specifically social interactions, social relationships, social acceptance, and perceived social acceptance. To summarize, a multicomponent and multidimensional approach was chosen for the development of the intervention programme. On one hand, it is an

attempt to capture the complexity of social participation in inclusive classrooms. On the other hand, it is a plea for a perspective that acknowledges the individual's social participation as a process that is influenced by individual and contextual factors.

4. Discussion

This thesis is a contribution to the research on the social participation of pupils with SEN in inclusive classrooms. The social participation of pupils with SEN respectively with ID was described along the four dimensions of social acceptance, perceived social acceptance, social interactions, and social relationships. To obtain explanations of why some pupils with SEN respectively ID experience difficulties in their social participation, individual and contextual factors were investigated. Further, the strategies to facilitate the social participation of pupils with SEN in inclusive classrooms were evaluated. Finally, an intervention programme was presented that is based on a theoretical framework and on empirical findings. In the following sections the most important findings and their implications are discussed along with the four research questions that are investigated in this thesis.

4.1 The Social Participation of Pupils with SEN in Inclusive Classrooms

The first research question of this thesis is aimed at the investigation of the social participation of pupils with SEN respectively ID in inclusive classrooms by using a multidimensional concept. This approach is revealed to be promising because it can help to gain a balanced perspective on the social participation of individuals and provide information on to the necessary aspects upon which to focus in the fostering of social participation. In the following, two cases are described to exemplify these findings. Pupil 1 has a friend in her classroom and feels accepted by her peers; however, she is rejected and excluded by the majority of her classmates. Pupil 2 is accepted by most of her classmates and is involved in social interactions but does not feel accepted and has no friends in the classroom. Based on this information, individual interventions can be planned to improve the social participation

of the respective pupils, although the focus of a respective intervention lies on different dimensions (e.g., social acceptance for pupil 1 and social relationships for pupil 2). However, deciding whether pupil 1 or 2 is experiencing more difficulties regarding her social participation is challenging, when multiple dimensions are considered. With regard to friendships, pupil 2 experiences more difficulties. With regard to social acceptance, pupil 1 may be judged as having less positive social participation in the classroom. Hence, the question of how the social participation of pupils with SEN is generally perceived (optimistic or pessimistic) in comparison to their peers, greatly depends on how the concept is defined, respectively which dimension is being addressed.

In this thesis, current research findings were analysed along different dimensions of social participation. The main finding is that although pupils with SEN who are enrolled in primary classrooms may experience lower levels of social participation than most of their peers, they do not necessarily experience difficulties in all of the dimensions. They do not seem to be more often friendless or to feel less accepted than their TD peers. However, they are more at risk of being rejected, and they tend to be less involved in social interactions than most of their classmates.

Given that being rejected by one's peers not only has negative consequences in the short term, for example, causing stress and reducing pupils' school engagement levels (Ladd et al., 2008; Peters et al., 2011), but also in the long term, for example, having a negative impact on the childrens' socio-emotional development (Gifford-Smith & Brownell, 2003), there is a need for interventions to prevent the rejection and exclusion of pupils with SEN in their classrooms. However, to develop these interventions, it is important to determine why pupils with SEN are more at risk of being rejected than their classmates. The question is whether these pupils' special needs cause these difficulties or whether other reasons can be found on the individual as well as on the contextual levels.

4.2 Factors Influencing the Social Participation

The second research question in this thesis addressed the potential factors which may influence the social participation of pupils with SEN respectively ID in inclusive classrooms. A

common practice is to investigate individual factors that might be responsible for the low levels of social participation of pupils with SEN, such as the type of disability or individual social skills. The second publication of this thesis (Garrote, 2017) aimed to shed light on the relationship between pupils' social skills and social participation. Comparing pupils with ID and their peers without ID revealed that the former indeed have lower levels of social skills. However, in contrast to what is commonly assumed, having low levels of social skills does not have an overall negative impact on the social participation of pupils with ID. Despite their being less socially skilled, most of these pupils had friends and were accepted. However, there seemed to be a relationship between being popular and being perceived as cooperative and prosocial by peers. To conclude, these findings indicated that the social participation of individuals is not solely influenced by individual factors. This means that explanations considering contextual factors must also be investigated.

The first publication (Garrote, 2016) investigated the relationship between the social participation of pupils with ID respectively and contextual factors, specifically classroom norms and friendship networks. Pupils with ID were more likely to be accepted if they were enrolled in a classroom, where peers were more accepting towards one another. In addition, if most of the pupils in the classroom were involved in friendships, the pupils with ID were also more likely to be befriended by a classmate. To summarize, whether the social participation of the pupils with ID could be interpreted as being rather positive was dependent on the group level factors. Thus, in the investigation of social participation it must be taken into account that inclusion is not possible in a community that is exclusive and does not try by free means to include members who differ somewhat from the group norm (Felder, 2012). Researchers and practitioners must obtain knowledge and awareness of the social processes that influence the individual's social participation in inclusive classrooms. Therefore, a shift from individual to group, classroom, or community must be made in regard to the search for explanations or when interventions are developed and implemented in inclusive classrooms.

4.3 The Facilitation of Social Participation in Inclusive Classrooms

Considering the empirical findings show that some pupils with SEN are socially rejected and less involved in social interactions in their mainstream classrooms, it can be assumed that mere physical inclusion does not automatically lead to the social participation of pupils with SEN, and thus social participation must be actively fostered. The third and fourth research questions of this thesis acknowledged the need for effective interventions to foster the social participation of pupils with SEN in inclusive classrooms. Thus, intervention strategies that are investigated in empirical studies were evaluated, and an intervention programme was suggested that considers the influence of contextual factors and the multidimensionality of social participation. Based on the findings and on the considerations that are reported in this thesis, a number of implications can be derived to improve the facilitation of social participation in inclusive classrooms.

For the social participation of pupils with SEN, not only their individual characteristics but also social processes in the classroom play an important role. Indeed, group norms and classroom network characteristics seem to influence individual social experiences. Ideally, social participation is thus fostered by means of improving individual as well as group characteristics.

Peer mediated learning methods, such as cooperative learning groups and peer tutoring, seem to fulfil this criterion. In these settings pupils are given plenty of opportunities to interact with each other. It is in such interactions where pupils can practice cooperative and prosocial skills with their peers. In addition, the probability increases for the creation of new friendships as well as for the strengthening of already existing friendship ties, which in turn is beneficial for the friendship network in a classroom. The implementation of peer learning methods in inclusive classrooms has proven to be beneficial for learning and for social processes. A positive impact on academic achievement goals as well as on the social interactions between pupils with and without SEN has been reported (Garrote et al., 2017). Considering that pupils with SEN often miss social interactions with their TD peers because they are not present most of the time and they are not close enough to their peers due to the special support that they receive (e.g., Feldman, Carter, Asmus, & Brock, 2015), peer mediated learning methods can be a chance to increase the involvement of pupils with SEN in classroom activities and

consequently to improve their social participation. In addition, because the active involvement of all pupils is required for these learning methods, also pupils without SEN who experience difficulties in their social participation can benefit.

Further, the social acceptance of an individual in a group seems not only to be dependent on the individual but it is to some extent connected to the group norm. If an accepting group norm prevails in the classroom, pupils with SEN are rather accepted by their peers, than in classrooms where a rejecting group norm is established (Garrote, 2016). Thus, as suggested in publication 4 of this thesis (Garrote & Sermier Dessemontet, 2015), an aim of interventions to foster social participation, must be to positively influence the classroom norm. This goal can be reached by creating a common group identity and by setting common social goals (Bierman, 2004). Common social goals in turn can only be attained if all of the members of a classroom are held accountable for making their own contributions for the classroom community.

Finally, teachers play an important role in all of these social processes, which are beneficial for the social participation of individuals in a classroom. Teachers influence social participation by modelling social behaviour as well as by triggering and enhancing social processes. Knowledge of one's role is a first and important step. Being aware and exploiting one's role in social processes must be a key competence of teachers in inclusive classrooms.

5. Conclusion

The inclusion of pupils with SEN in mainstream classrooms can no longer be fought with arguments based on the difficulties that these pupils experience in their social participation. A not negligible proportion of these pupils included in primary school is accepted by their peers and is able to build and maintain social relationships. This needs to be acknowledged because it is a supporting argument for the shift towards the inclusion of pupils with SEN in mainstream classrooms. However, when social processes in a classroom are not optimal, pupils with SEN tend to be more at risk of being

excluded than their peers. For the successful social participation of individuals, all of the members of a community must make their own voluntary contributions. It takes the effort of individuals, peers, and teachers to improve social acceptance, social relationships and social interactions. Thus, teachers who are willing to improve the social participation in their inclusive classrooms must perceive social participation as the result of social processes, consequently involve all of the pupils, and acknowledge their own roles.

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Apendix

A Publications

Soziale Teilhabe von Kindern in inklusiven Klassen⁷

Abstract

The present study analyses the social participation of N = 336 pupils of 20 inclusive classrooms in early school including pupils with cognitive impairments (severe learning disability or an intellectual disability). The pupils' social participation was assessed with sociometric methods. In comparison with their peers, pupils with cognitive impairments (CI) are less often nominated as play partners, are more often rejected and less popular. No significant differences were found between the pupils with CI and their peers regarding the amount of friendships. However, pupils with CI tend to have more friends if they are included in classrooms where there are more friendships and less rejection.

Zusammenfassung

Die Studie untersucht die soziale Teilhabe von N = 336 Kindern der ersten bis dritten Stufe in 20 inklusiven Primarschulklassen, in denen Kinder mit einer kognitiven Beeinträchtigung (intellektuelle Beeinträchtigung oder schwere Lernbeeinträchtigung) unterrichtet werden. Die soziale Teilhabe wurde mit soziometrischen Methoden erhoben. Kinder mit einer kognitiven Beeinträchtigung sind weniger beliebt, werden weniger oft als Spielgefährten genannt und werden öfter abgelehnt als ihre Peers. Bezüglich der Anzahl Freunde wurde jedoch kein signifikanter Unterschied zwischen den Lernenden mit einer kognitiven Beeinträchtigung und ihren Peers gefunden. In Klassen, in denen viele Kinder miteinander befreundet sind und die Ablehnung zwischen den Kindern insgesamt niedriger ist, scheinen Lernende mit einer kognitiven Beeinträchtigung leichter Freundschaften knüpfen zu können.

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1. Einleitung

Die Umsetzung von inklusiver Beschulung ist ein zentrales bildungspolitisches Ziel. Dieses darf nicht nur schulorganisatorische Maßnahmen umfassen, sondern muss die soziale Teilhabe von allen Kindern gewährleisten (Avramidis, 2010; Bossaert, Colpin, Pijl & Petry, 2013; Huber, 2006; Koster, Nakken, Pijl & van Houten, 2009; Pijl, Frostad & Flem, 2008). Während sich im Leistungsbereich positive Effekte für die inklusive gegenüber der separierenden Beschulung zeigen (Kocaj, Kuhl, Kroth, Pant & Stanat, 2014; Ruijs & Peetsma, 2009), sind die Forschungsergebnisse bezüglich der sozialen Teilhabe⁸ uneinheitlich. Zahlreiche Studien berichten, dass Lernende mit sonderpädagogischem Förderbedarf (SFB) öfter abgelehnt werden als ihre Mitschüler (Ellinger & Stein, 2012; Schwab, 2015; Pijl, Skaalvik & Skaalvik, 2010). Andere Untersuchungen zeigen hingegen, dass Lernende mit SFB genauso viele Freunde haben wie ihre Peers (Avramidis, 2010; Grütter, Meyer & Glenz, 2015).

Koster et al. (2009) und Bossaert et al. (2013) identifizierten vier Aspekte, anhand derer soziale Teilhabe in inklusiven Klassen beschrieben werden kann: soziale Akzeptanz durch die Peers, Wahrnehmung des Kindes mit SFB, soziale Beziehungen und soziale Interaktionen zwischen den Kindern.

Soziale Teilhabe umfasst demzufolge mehrere Aspekte. Es sind jedoch wenige Studien bekannt, die die soziale Teilhabe umfassend operationalisieren (z. B. Koster, Pijl, Nakken & van Houten, 2010). Meistens werden nur einzelne Aspekte anhand einer Stichprobe untersucht, was zu unterschiedlichen Schlussfolgerungen führt (Grütter et al., 2015).

Eine weitere Schwierigkeit in Bezug auf die Deutung von Ergebnissen entsteht durch die Verwendung der Kategorie „Sonderpädagogischer Förderbedarf“. Diese umfasst eine sehr heterogene Gruppe von Kindern, deren soziale Teilhabe von ihren unterschiedlichen Bedürfnissen geprägt ist (Avramidis, 2013; Pijl et al., 2008). Außerdem kann soziale Teilhabe maßgeblich von Kontextfaktoren beeinflusst werden (Grütter et al., 2015). Aktuell fehlen jedoch dazu Forschungsergebnisse.

⁸In Anlehnung an Bossaert et al. (2013) wird der Begriff der sozialen Teilhabe als Synonym für soziale Integration bzw. soziale Inklusion verwendet.

In der Folge werden der Forschungsstand zur sozialen Teilhabe von Kindern mit SFB in inklusiven Klassen dargestellt sowie mögliche beeinflussende Kontextfaktoren auf der Klassenebene erläutert. Da zur hier interessierenden Gruppe der Kinder mit kognitiver Beeinträchtigung nur wenige Forschungsergebnisse vorliegen, beziehen sich die Ausführungen zur sozialen Teilhabe auf Kinder mit unterschiedlichen Förderbedarfen.

2. Soziale Teilhabe

Soziale Akzeptanz: Dauerhafte soziale Ablehnung durch die Peers verursacht Stress (Peters, Riksen-Walraven, Cillessen, & de Weerth, 2011) und erschwert die sozio-emotionale Entwicklung der betroffenen Kinder (Gifford-Smith & Brownell, 2003). Die Folgen zeigen sich in Form einer verringerten Teilnahme der Kinder am Unterricht (Ladd, Herald-Brown & Reiser, 2008). Längerfristig wirkt sich die Ablehnung aber auch negativ auf das Selbstkonzept aus (Salmivalli & Isaacs, 2005) und führt zu Verhaltensproblemen (Sturaro, van Lier, Cuijpers & Koot, 2011).

Zahlreiche Studien berichten übereinstimmend, dass Kinder mit SFB öfter abgelehnt werden und weniger beliebt sind als ihre Peers (Grütter et al., 2015; Koster et al., 2010; Pijl & Frostad, 2010), sowohl auf dem Pausenhof als auch in den Interaktionen im Unterricht (Cambra & Silvestre, 2003; Frederickson, Simmonds, Evans & Soulsby, 2007). Huber und Wilbert (2012) haben aufgezeigt, dass Kinder mit hohem Förderbedarf und schlechteren Leistungen als Sitznachbarn unbeliebt sind (vgl. auch Krull, Wilbert & Hennemann, 2014). Dies führt zur Annahme, dass Kinder aufgrund ihrer schlechteren schulischen Leistungen sozial abgelehnt werden. Zudem scheint bezüglich der sozialen Akzeptanz die Art der Beeinträchtigung der Kinder eine zentrale Rolle zu spielen (Avramidis, 2013; Pijl et al., 2008).

Wahrnehmung der sozialen Akzeptanz: Angesichts der Ablehnung, die Lernende mit SFB erfahren, stellt sich die Frage, ob sie selbst ihre soziale Akzeptanz negativ einschätzen. In der Regel scheint dies nicht der Fall zu sein. Primarschüler mit SFB nehmen ihre soziale Akzeptanz positiver wahr, als sie tatsächlich ist (Avramidis, 2013; Cambra & Silvestre, 2003; Koster et al., 2010; Krull et al., 2014; Schwab, Gebhardt, Krammer & Gasteiger-Klicpera, 2015). Bei jüngeren Schulkindern mit

SFB unterscheidet sich die Wahrnehmung der sozialen Akzeptanz nicht von der ihrer sozial akzeptierten Peers (Koster et al., 2010; Krull et al., 2014). Ältere, sozial abgelehnte Lernende mit SFB hingegen, schätzen ihre soziale Akzeptanz zwar positiv, aber signifikant schlechter als ihre sozial akzeptierten Peers ohne SFB ein (Cambra & Silvestre, 2003; Schwab, 2015).

Soziale Beziehungen und Interaktionen: Der Kontext der Klasse bietet Kindern einen natürlichen Rahmen, um mit Gleichaltrigen zu interagieren und soziale Beziehungen zu entwickeln. In sozialen Interaktionen mit ihren Peers eignen sich Kinder wichtige Kompetenzen für ihre soziale Entwicklung bzw. für die Bildung und den Erhalt von Freundschaftsbeziehungen an. Diese reziproken Beziehungen können sich einerseits günstig auf die sozio-emotionale Gesundheit von Kindern auswirken (Gifford-Smith & Brownell, 2003), indem sie bspw. in Stresssituationen als „Pufferfunktion“ dienen. Kinder, die Freunde haben, ertragen scheinbar den Stress von sozialer Ablehnung besser als solche, die ohne Freunde sind (Peters et al., 2011). Andererseits scheinen fehlende oder defizitäre Freundschaftsbeziehungen negative Folgen für die sozio-emotionale Entwicklung mit sich zu bringen (Ladd & Troop-Gordon, 2003).

Im Hinblick auf diese Befundlage können Lernende mit SFB als Risikogruppe betrachtet werden. Zahlreiche Studien haben gezeigt, dass Lernende mit SFB im Vergleich zu ihren Peers weniger in Interaktionen mit anderen Kindern involviert sind (Kemp & Carter, 2002; Koster et al., 2010), weniger Freunde haben (Koster et al., 2010; Pijl et al., 2008) und weniger oft als Freunde genannt werden (Kemp & Carter, 2002; Pijl et al., 2008). Im Kontrast dazu stehen die Ergebnisse von Avramidis (2010) und Grütter et al. (2015), die keine Unterschiede bezüglich der Anzahl der Freundschaften zwischen Lernenden mit und ohne SFB fanden. Diese gegensätzlichen Ergebnisse werfen die Frage auf, ob eventuell Kontextfaktoren die soziale Teilhabe von Kindern begünstigen bzw. verhindern.

3. Faktoren auf Klassenebene

Kontextfaktoren auf der Klassenebene wie z. B. die Klassengröße oder die Heterogenität der Lernenden (Alter, Geschlecht, usw.) können die soziale Teilhabe von einzelnen Kindern beeinflussen.

Je kleiner die Klassen, desto eher haben die Kinder eine aktive Rolle in sozialen Interaktionen (Blatchford, Bassett & Brown, 2005) und je größer die Heterogenität unter den Lernenden, desto höher ist die soziale Teilhabe (Grütter et al., 2015).

Weiter könnte die Gruppennorm die soziale Teilhabe der Individuen in einer Klasse beeinflussen. Im Gegensatz zu einer inklusiven Norm führt eine ausschließende Norm dazu, dass Kinder, die sich in einem Merkmal (z. B. Geschlecht, Ethnie, usw.) von einer Gruppe unterscheiden, eher abgelehnt werden (Nesdale, 2011). Zudem hängen Klassennormen mit der Akzeptanz von Verhaltensweisen zusammen (Hitti, Mulvey & Killen, 2011; Nesdale, 2011). In Klassen, in denen bspw. eine eher aggressive Gruppennorm herrscht, findet aggressives Verhalten mehr Akzeptanz (Chang, 2004).

Diskutiert wird auch, welche Rolle das Beziehungsnetz in einer Klasse bezüglich der sozialen Teilhabe spielt. Schaefer, Light, Fabes, Hanish und Martin (2010) sowie Daniel, Santos, Peceguina und Vaughn (2013) untersuchten die Genese von Klassennetzwerken im Vorschulalter. Die ersten Strukturen die gebildet werden sind reziproke Dyaden, also Freundschaften. Durch diese Freundschaften werden die Interaktionen intensiviert und die Kinder kommen dadurch in Kontakt mit den Spielkameraden ihrer Freunde (Transitivität). Dies ermöglicht die Entstehung von weiteren Freundschaften. Je mehr Freundschaften es also in einer Klasse gibt, desto einfacher können die einzelnen Kinder Freundschaften knüpfen.

Es kann vermutet werden, dass die Gruppennorm und das Beziehungsnetz die soziale Teilhabe in inklusiven Klassen beeinflussen. Dies wurde bisher allerdings kaum erforscht.

4. Fragestellungen

Zusammenfassend verdeutlicht die dargestellte Befundlage, dass Lernende mit SFB im Vergleich zu ihren Peers bezüglich mehrerer Aspekte der sozialen Teilhabe benachteiligt sind. Sie sind weniger in Interaktionen mit ihren Peers involviert, haben meist weniger Freunde und werden öfter abgelehnt.

Obwohl das Gesamtbild eindeutig zu sein scheint, stellt sich die Frage, in welcher Relation die verschiedenen Aspekte der sozialen Teilhabe stehen. Zudem ist wenig über den Einfluss des Klassenkontextes auf die soziale Teilhabe in inklusiven Klassen bekannt. Schließlich interessiert, welche Rolle kognitive Beeinträchtigungen (CI⁹) spielen. Die vorliegende Studie beabsichtigt daher folgende Fragen zu beantworten:

1. Wie sieht die soziale Teilhabe (soziale Akzeptanz, wahrgenommene soziale Akzeptanz, soziale Beziehungen und Interaktionen) in inklusiven Klassen aus?
2. Welche Unterschiede gibt es zwischen den Lernenden mit und ohne CI bezüglich ihrer sozialen Teilhabe?
3. Welchen Einfluss hat der Klassenkontext auf die soziale Teilhabe?

5. Methode

5.1 Stichprobe

Die Stichprobe umfasst 20 inklusive Klassen im ersten bis dritten Schuljahr aus deutsch- und französischsprachigen Kantonen der Schweiz. Insgesamt nahmen 336 Kinder (184 Mädchen) an der Befragung teil (Alter 6;0 – 9;11, $M = 93.73$, $SD = 8.54$).

In jeder Klasse wurde mindestens ein Kind mit einer intellektuellen Beeinträchtigung ($IQ < 70$) oder einer schweren Lernbeeinträchtigung ($69 < IQ < 80$) unterrichtet. Die IQ-Testergebnisse der Kinder wurden bei den zuständigen Abklärungsstellen mit dem Einverständnis der Eltern eingeholt. Es nahmen 26 Kinder (11 Mädchen) mit einer intellektuellen Beeinträchtigung ($n = 20$) oder mit einer schweren Lernbeeinträchtigung ($M\ IQ = 63.5$, $SD = 10.3$) im Alter zwischen 6;11 und 9;11 ($M = 102.15$, $SD = 8.83$) teil.

5.2 Messinstrumente

Zur Erhebung der vier Aspekte der sozialen Teilhabe kamen verschiedene soziometrische Instrumente zum Einsatz.

⁹ Die Abkürzung CI steht für den englischen Begriff „Cognitive Impairment“.

Soziale Akzeptanz: Mittels der Ratingmethode wurde die soziale Akzeptanz ermittelt (Terry, 2000). Bezogen auf die Mitschüler beantworteten die Kinder die Frage „Wie gerne spielst du mit Y?“. Die Namen der jeweiligen Peers wurden einzeln auf Karten vorgelegt und gleichzeitig vorgelesen. Die Kinder zeigten auf einer Smiley-Skala mit entsprechenden Zahlen von eins („überhaupt nicht gerne“ bzw. ☹) bis fünf („sehr gerne“ bzw. ☺), wie gerne sie mit den einzelnen Peers spielen. Um das Verständnis der Kinder bezüglich des Instruments zu überprüfen, fand im Vorfeld eine Erprobung mit Regelschülern als auch mit Kindern mit dem Förderschwerpunkt Geistige Entwicklung der ersten bis dritten Primarstufe (n = 77). Zudem wurden in der Befragung Kontrollfragen eingebaut (z. B. Wie gerne isst du Schokolade?).

Wahrnehmung der sozialen Akzeptanz: Die Kinder schätzten ihre soziale Akzeptanz anhand von vier Items in Anlehnung an die FEES1-2-Skala zur sozialen Integration (Rauer & Schuck, 2004) mit einer fünfstufigen Skala ein. Die Fragen lauteten wie folgt: „Sind die Kinder deiner Klasse lieb/nett zu dir?“ („Nett sein“), „Lassen dich die Kinder deiner Klasse mitspielen, wenn du das möchtest?“ („Mitspielen“), „Suchen die Kinder deiner Klasse Streit mit dir?“ („Streit“) und „Lachen dich die Kinder deiner Klasse aus?“ („Auslachen“). Die interne Konsistenz war bei der Erprobung zufriedenstellend ($\alpha = .74$), bei der Haupterhebung war sie jedoch unbefriedigend ($\alpha = .51$). Die Auswertungen erfolgen deshalb auf Itemebene.

Soziale Beziehungen und Interaktionen: Zur Messung der Beziehungen und Interaktionen kam die Nominationsmethode zum Einsatz (Terry, 2000). Anhand der aktivitätsbezogenen Frage „Mit wem in deiner Klasse spielst du am meisten?“ nannten die Kinder alle für sie zutreffenden Peers. Erhoben wurde, wie oft ein Kind von den Peers genannt wird (Indegree) und wie viele Kinder es selbst nennt (Outdegree). Gegenseitige Nennungen wurden als Freundschaften definiert (Hymel, Vaillancourt, McDougall & Renshaw, 2004; Schaefer et al., 2010).

Geschulte Testleiterinnen führten die standardisierte Befragung (ca. 10 Minuten) mit den einzelnen Kindern in einem separaten Raum durch.

5.3 Datenanalyse

Für die Analysen erfolgte zunächst die Berechnung folgender Variablen zur sozialen Teilhabe und zu den Klassenfaktoren.

Soziale Akzeptanz: Der Grad der Beliebtheit und der Ablehnung der einzelnen Kinder wurde auf der Grundlage der Ratingwerte eins und fünf ermittelt. Jedes Kind erhielt einen Beliebtheitswert, gebildet aus der Summe erhaltener höchste Ratings (fünf) und einen Ablehnungswert, aus der Summe erhaltener tiefste Ratings (eins) (Bukowski, Sippola, Hoza & Newcomb, 2000). Beide Werte wurden durch die Anzahl befragter Kinder der Klasse dividiert.

Wahrnehmung der sozialen Akzeptanz: Die vier Items (aus der FEES-Skala) entsprechen den vier Variablen der wahrgenommenen sozialen Akzeptanz „Nett sein“, „Mitspielen“, „Streit“ und „Auslachen“ (z-standardisiert). Die negativ gepolten Items „Streit“ und „Auslachen“ wurden für die Analysen umcodiert.

Soziale Beziehungen und Interaktionen: Aus den Nominationen wurden mit der Software UCINET (Borgatti, Everett & Freeman, 2002) die Indegree- und Outdegree-Werte und die Anzahl an Freunden ermittelt. Da Netzwerkdaten von der Anzahl Teilnehmenden eines Netzwerkes abhängig sind (Gifford-Smith & Brownell, 2003), wurden die standardisierten bzw. normalized Indegree- und Outdegree-Werte¹⁰ verwendet und die Anzahl der Freunde anhand der maximal möglichen Freundschaften ($n-1$; n = Anzahl befragte Kinder pro Klasse) relativiert.

Klassenvariablen: Auf der Klassenebene wurden die Mittelwerte der Beliebtheit (Beliebtheitsnorm), der Ablehnung (Ablehnungsnorm) und der Anzahl Freunde (Beziehungsnetz) gebildet. Eine Relativierung der Normen und des Beziehungsnetzes erfolgte durch die Anzahl der befragten Kinder der Klasse respektive anhand der maximal möglichen gegenseitigen Nennungen pro Klasse ($(n*(n-1))/2$, n = befragte Kinder). Anschließend wurden die Klassenvariablen dichotomisiert.

6. Ergebnisse

¹⁰ Wenn in der Folge von Indegree- und Outdegree-Werten berichtet wird, sind damit normalized Indegree- und Outdegree-Werte gemeint.

6.1 Soziale Teilhabe

Erwartungsgemäß korrelieren die Aspekte der sozialen Teilhabe geringfügig miteinander ($-.23 < r < .30$). Es ist somit anzunehmen, dass die Variablen der sozialen Beziehungen und Interaktionen (Indegree, Outdegree und Anzahl Freunde), der sozialen Akzeptanz (Beliebtheit und Ablehnung) und der wahrgenommenen sozialen Akzeptanz unterschiedliche Aspekte der sozialen Teilhabe repräsentieren. Lediglich zwischen dem Indegree und der Beliebtheit zeigt sich ein bedeutsamer positiver Zusammenhang ($r = .40$). Dieser spricht für die gängige Handhabung, die positiven Nominationen als Index für die Beliebtheit zu verwenden (z. B. Pijl & Frostad, 2010).

6.2 Vergleiche zwischen Kindern mit und ohne CI

Kinder mit CI unterscheiden sich bezüglich mehrerer Aspekte der sozialen Teilhabe signifikant von ihren Peers (Tabelle 1). Im Vergleich zu ihren Peers werden Kinder mit CI im Mittel halb so oft als Spielkameraden genannt ($U = 2499.00$, $z = -3.22$, $p = .001$), bekommen weniger positive Ratings ($U = 2191.50$, $z = -3.86$, $p = .000$) und zwei Drittel mehr negative Ratings ($U = 2138.50$, $z = -3.99$, $p = .000$). Keine signifikanten Unterschiede zwischen den Gruppen gibt es beim Outdegree und der Anzahl Freunde, obwohl die Kinder mit CI im Durchschnitt tendenziell mehr Spielkameraden nennen und weniger Freunde haben.

Tabelle 1: Mittelwerte (Standardabweichung) der Variablen zur sozialen Teilhabe

Kinder	n	Soziale Beziehungen und Interaktionen			Soziale Akzeptanz	
		Indegree	Outdegree	Freunde	Beliebtheit	Ablehnung
mit CI	26	1.27 (1.31) **	2.96 (1.84)	.92 (1.13)	3.81 (2.79) ***	3.62 (2.47) ***
ohne CI	310	2.65 (1.89)	2.75 (1.46)	1.32 (1.11)	5.94 (3.31)	2.16 (2.24)

Anmerkung: *** $p < .001$. ** $p < .01$.

Bezüglich der wahrgenommenen sozialen Akzeptanz lassen sich keine signifikanten Unterschiede zwischen den Gruppen erkennen (Tabelle 2). Insgesamt schätzen die Lernenden ihre soziale Akzeptanz positiv ein, wobei die Kinder mit CI fast überall etwas tiefere Mittelwerte aufweisen. Eine Ausnahme bildet die Variable „Nett sein“. Im Vergleich zu ihren Peers (42.9 %), findet hier die Mehrheit der Kinder mit CI (61.5 %), dass ihre Klassenkameraden nett zu ihnen sind.

Zudem gibt die Hälfte der Kinder mit CI an, dass sie nie ausgelacht werden. Demgegenüber steht das Ergebnis, dass nur 38.5 % der Kinder mit CI immer mitspielen dürfen, wenn sie es wünschen, während dies bei fast der Hälfte ihrer Peers (47.4 %) der Fall ist. Bei der Variable „Streit“ ist der Unterschied zwischen den Gruppen klein und die Streuung innerhalb der Gruppen relativ groß.

Tabelle 2: Mittelwerte der Variablen zur wahrgenommenen sozialen Akzeptanz und Antwortverteilung (in Prozent)

	n	Wahrgenommene soziale Akzeptanz			
		Nett sein	Mitspielen	Streit	Auslachen
Kinder mit CI	26				
M (SD)		4.35 (1.01)	3.65 (1.44)	3.38 (1.49)	3.88 (1.36)
Trifft sehr zu		61.5	38.5	15.4	11.5
Trifft gar nicht zu		3.8	11.5	34.6	50.0
Kinder ohne CI	310				
M (SD)		4.20 (.80)	4.02 (1.09)	3.84 (1.19)	4.27 (1.06)
Trifft sehr zu		42.9	47.4	6.5	2.9
Trifft gar nicht zu		1.0	2.3	39.0	60.0

6.3 Einfluss des Klassenkontextes

Um herauszufinden, inwiefern der Klassenkontext mit der sozialen Teilhabe der Kinder zusammenhängt, wurden die Variablen zur sozialen Akzeptanz und zu den sozialen Beziehungen mit den Variablen der Klassennorm und des Beziehungsnetzes korreliert (Tabelle 3).

Tabelle 3: Korrelationen zwischen den Klassenvariablen und der Variablen zur sozialen Teilhabe

	n	Klassenvariablen		
		Beziehungsnetz	Beliebtheitsnorm	Ablehnungsnorm
Kinder mit CI	26			
Freunde		.52**	.21	-.31
Beliebtheit		-.02	.19	-.07
Ablehnung		-.19	-.34	.42*
Kinder ohne CI	310			
Freunde		.29**	.10	-.08
Beliebtheit		-.04	.25**	-.24**
Ablehnung		.09	-.17**	.20**

Anmerkung: ** p < .01. * p < .05.

Die Korrelationen zwischen den Variablen der sozialen Teilhabe und den Kontextfaktoren sind mehrheitlich relativ niedrig. Einzig bei den Kindern mit CI sind sie teilweise bedeutsam. Das heißt, dass Kinder mit CI deutlich mehr Freunde haben, wenn das Beziehungsnetz in der Klasse dichter ist bzw. mehr Freundschaftsbeziehungen vorhanden sind ($r = .52$). Herrscht in ihrer Klasse

eine Ablehnungsnorm, so haben sie weniger Freunde ($r = -.31$) und werden eher abgelehnt ($r = .42$). Sie werden hingegen weniger abgelehnt, wenn unter den Kindern der Klasse eine Beliebtheitsnorm dominiert ($r = -.34$).

7. Diskussion

In dieser Studie wurde die soziale Teilhabe von Kindern in inklusiven Klassen, in denen Lernende mit einer kognitiven Beeinträchtigung oder einer schweren Lernbeeinträchtigung unterrichtet werden, anhand mehrerer Aspekte untersucht. Dabei interessierte ein Vergleich zwischen Kindern mit CI und ihren Peers bezüglich der sozialen Beziehungen und Interaktionen, der sozialen Akzeptanz und der wahrgenommenen sozialen Akzeptanz. Zudem war ein möglicher Zusammenhang zwischen Klassenfaktoren und der sozialen Teilhabe Gegenstand der Untersuchung.

7.1 Unterschiede zwischen Kindern mit und ohne CI

Im Einklang mit aktuellen Untersuchungen zeigen die vorliegenden Ergebnisse, dass Kinder mit CI weniger beliebt sind (Pijl et al., 2008), öfter abgelehnt (Huber & Wilbert, 2012; Krull et al., 2014) und seltener als Spielkameraden genannt werden als ihre Peers (Grütter et al., 2015; Pijl & Frostad, 2010). Insgesamt scheinen sie ihre soziale Akzeptanz jedoch nicht signifikant negativer wahrzunehmen als ihre Peers (Koster et al., 2010; Krull et al., 2014). Rund zwei Drittel der Kinder mit CI finden, dass ihre Mitschüler sehr nett sind zu ihnen und genau die Hälfte berichtet, dass sie nie ausgelacht werden. Im Gegensatz dazu geben nur etwa zwei Fünftel an, immer mitspielen zu dürfen. Diese Einschätzung deckt sich besser mit der tatsächlichen sozialen Akzeptanz.

Insgesamt deuten die Ergebnisse also darauf hin, dass Kinder mit einer kognitiven Beeinträchtigung oder mit schweren Lernbeeinträchtigungen von ihren Peers nicht in Spielaktivitäten – der wohl wichtigsten Freizeitbeschäftigung in diesem Alter – involviert werden, dass der Umgang miteinander jedoch freundlich ist.

Bezüglich der Anzahl Freunde wurden, ähnlich wie in der Studie von Grütter et al. (2015), keine signifikanten Unterschiede zwischen den Kindern mit CI und ihren Peers gefunden. Angesichts

dessen, dass Kinder mit CI dem Risiko von sozialer Ablehnung ausgesetzt sind, ist das Ergebnis positiv zu bewerten. Freundschaften können soziale Ablehnung erträglicher machen (Peters et al., 2011) oder sogar verringern (Hodges, Boivin, Vitaro & Bukowski, 2011). Deskriptiv betrachtet, hatten die Kinder mit CI aber weniger Freunde als ihre Peers, was mit den Beobachtungen mehrerer Autoren übereinstimmt (Frostad & Pijl, 2007; Pijl et al., 2008; Schwab, 2015). Diese wenig eindeutige Befundlage bezüglich der Freundschaften von Kindern mit SFB könnte bedingt sein durch eine unterschiedliche Operationalisierung oder durch das Alter der befragten Kinder. In den Studien, die keine Unterschiede fanden, handelte es sich um Stichproben mit jüngeren Kindern. Gifford-Smith und Brownell (2003) weisen darauf hin, dass sich die Erwartungen der Kinder an Freundschaftsbeziehungen mit zunehmendem Alter verändern. Hier müsste untersucht werden, ob für Kinder mit kognitiven Beeinträchtigungen die Bildung von Freundschaften mit Gleichaltrigen mit zunehmendem Alter schwieriger wird, weil ihre Peers immer mehr von Freunden erwarten (z. B. vermehrtes Bedürfnis nach Gesprächen auf „Augenhöhe“).

7.2 Einfluss des Klassenkontextes

Insbesondere bei Kindern mit CI scheinen sich Kontextfaktoren auf die soziale Teilhabe auszuwirken. Sind die Kinder in Klassen integriert, in denen das Beziehungsnetz sehr dicht ist bzw. viele Freundschaftsbeziehungen vorhanden sind, ist die Wahrscheinlichkeit groß, dass sie selbst auch Freunde haben. Dies spricht für die Transitivität, wodurch bestehende Freundschaften die Bildung von neuen sozialen Beziehungen begünstigen können (Daniel et al., 2013; Schaefer et al., 2010).

Eine ablehnende Klassennorm hingegen kann bei Kindern mit CI die Entstehung von Freundschaften negativ beeinflussen und die soziale Ablehnung verstärken. Im Gegensatz dazu kann eine akzeptierende Klassennorm die soziale Ablehnung dieser Kinder mildern. Diese Befunde stimmen mit den Beobachtungen zur Wirkung von Normen auf die soziale Akzeptanz von Außenseitern überein (Chang, 2004; Hitti et al., 2011; Nesdale, 2011) und bestärken die Annahme, dass Klassennormen einen Einfluss auf die soziale Teilhabe einzelner Individuen haben können.

An dieser Stelle sei auf die Grenzen der Studie hingewiesen. Viele der hier präsentierten Ergebnisse beschränkten sich auf das Aufzeigen von Zusammenhängen. Soziometrische Daten sind außerdem abhängig von der Klassengröße und haben eine niedrige Stabilität (Gifford-Smith & Brownell, 2003). Hier wären Längsschnittdaten mit Messungen in kurzen Zeitabständen notwendig, um zuverlässige Aussagen machen zu können. Weitere Einschränkungen sind die kleine Stichprobe der Kinder mit CI und das unbefriedigende Messinstrument zur wahrgenommenen sozialen Akzeptanz. Die Ergebnisse sind aus diesen Gründen vorsichtig zu interpretieren und müssten durch weitere Studien überprüft werden.

8. Folgerungen

Die vorliegenden Ergebnisse zeigen, dass die soziale Teilhabe hinsichtlich mehrerer Aspekte betrachtet und untersucht werden muss, um die Prozesse der sozialen Teilhabe besser zu verstehen und Handlungsmöglichkeiten entwerfen zu können. Kinder mit CI scheinen zum einen von sozialer Ablehnung betroffen zu sein. In Bezug auf ihre sozialen Beziehungen scheinen sie aber nicht schlechter integriert zu sein als ihre Peers. Dieser Umstand könnte unter anderem vom Beziehungsnetz und der Norm in der Klasse abhängen. Interventionen zur Förderung von sozialer Teilhabe müssten somit das Ziel verfolgen, die Entstehung von Freundschaften in inklusiven Klassen zu ermöglichen und soziale Akzeptanz durch Gemeinschaftsförderung (z. B. mit gemeinsamen Zielen, Kooperation, usw.) zu erreichen (Garrote & Sermier Dessemontet, 2015).

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The Relationship between Social Participation and Social Skills of Pupils with an Intellectual Disability: A Study in Inclusive Classrooms¹¹

Abstract

Researchers claim that a lack of social skills might be the main reason why pupils with special educational needs (SEN) in inclusive classrooms often experience difficulties in social participation. However, studies that support this assumption are scarce, and none include pupils with an intellectual disability (ID). This article seeks to make an important contribution to this discussion. The social skills and social participation of pupils with ID and their typically developing (TD) peers in 38 general education classrooms were assessed with multidimensional instruments. The analyses indicate that the majority of pupils with ID were not popular but were socially accepted and had friends. Additionally, no significant relationship was found between social skills and the social participation of pupils with ID, although such pupils had lower levels of social skills compared with their TD peers. Thus, it appears that pupils with ID do not require high levels of social skills to be befriended or accepted by classmates. In contrast, social skills were associated with popularity and social acceptance within the group of TD pupils. In fact, popular TD pupils had the highest level of social skills. These findings support the assumption that in addition to low levels of social skills, there must be other mechanisms that influence the social participation of pupils with ID in inclusive classrooms.

1. Introduction

Children learn a wide range of social behaviours and skills in their social interactions with peers. Their experiences within this social context influence their socio-emotional development and their later adjustment during adulthood (Rubin, Bukowski, & Parker, 2006). This phenomenon is one reason why the UN Convention recommends the social participation of pupils with disabilities in the community and the classroom (United Nations, 2006). Consequently, an increasing tendency to

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include pupils with special educational needs (SEN) in general education schools is observed internationally (Koster, Nakken, Pijl, & van Houten, 2009; Pijl, Frostad, & Flem, 2008; Ruijs & Peetsma, 2009). However, the mere presence of these pupils in general education classrooms does not automatically result in successful social participation. Pupils with SEN are less involved in social interactions with peers, less accepted and more frequently rejected than their typically developing (TD) peers (Avramidis, 2013; Estell et al., 2008; Feldman, Carter, Asmus, & Brock, 2015; Garrote, 2016; Grütter, Meyer, & Glenz, 2015; Huber, 2006; Koster, Pijl, Nakken, & van Houten, 2010; Nepi, Fioravanti, Nannini, & Peru, 2015; Pijl & Frostad, 2010; Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010).

On one hand, studies demonstrate that TD pupils do not like to work with their low-achieving peers, including peers with SEN (Huber & Wilbert, 2012; Krull, Wilbert, & Henneman, 2014; de Monchy, Pijl, & Zandberg, 2004). Thus, teachers tend to avoid mixing pupils with SEN and their TD peers for certain activities, such as group work, and therefore, pupils with SEN lack shared learning experiences. In fact, Feldman et al. (2015) found that due to their teacher's planning students with severe disabilities included in general education classrooms were not present in most of the classes and were not physically close enough to their peers if present. Therefore, pupils with SEN not only miss opportunities to interact and to become involved in social relationships but also do not receive the chance to learn and practice social skills with their TD peers.

On the other hand, researchers hypothesize that the difficulties pupils with SEN experience with social participation may be due to their lack of social skills (e.g., Avramidis, 2013; Huber & Wilbert, 2012; Pijl et al., 2008; Schwab, Gebhardt, Krammer, & Gasteiger-Klicpera, 2015). However, the relationship between the social participation of pupils with SEN and their social skills has not been thoroughly studied, and the concepts of social participation and SEN vary from study to study. Typically, the samples of pupils with SEN are heterogeneous and include pupils with different needs and problems (e.g., children with behavioural problems, with learning disabilities, or with physical disabilities). Therefore, valid knowledge on the topic is lacking.

This study contributes to closing this research gap. It investigates to what extent the social participation of pupils with SEN in general education classrooms is associated with their social skills. Social participation and social skills were measured in a large sample of pupils with a diagnosed intellectual disability (ID) and their TD peers. This study contributes the following novelties to the literature. First, although there are a number of studies investigating the social participation of pupils with SEN enrolled in inclusive classrooms, there is little knowledge about influencing factors. Thus, this study focusses on social skills, which are assumed to influence the social participation of pupils with SEN. Second, the heterogeneity of the group of pupils with SEN was decreased by limiting the sample to pupils with ID. Third, social participation was measured using a multidimensional approach that included aspects of social relationships (i.e., friendships) and social acceptance (i.e., popularity and rejection), which are two important dimensions of social participation (Bossaert, Colpin, Pijl, & Petry, 2013; Koster et al., 2009). Fourth, to measure social skills, an empirically well-studied scale with a theoretical foundation was used. Fifth, until now, no findings have been reported regarding the relationship between the social participation and the social skills of pupils with ID in inclusive classrooms. Finally, this study shall give new insights about processes influencing social participation in inclusive classrooms, to derive important implications for further research and for the development of suitable interventions.

1.1 Social skills

There is no commonly accepted concept of social skills (or competences). However, there is consensus regarding the connection between social skills and successful social interactions as well as the ability to establish and maintain positive social relationships. Socially competent individuals are described as being able to use social interactions to satisfy their goals and needs while considering the needs and goals of others (Groeben, Perren, Stadelmann, & Klitzing, 2011; Perren, Forrester-Knauss, & Alsaker, 2012; Rose-Krasnor, 1997). This definition differentiates between social skills that are important for the self and social skills that are oriented towards the others. Malti and Perren (2016) term these two dimensions of social skills self- and other-oriented. Initiating and maintaining social interactions, leadership skills and the ability to set limits with peers are considered to be self-oriented

skills because they aim at satisfying one's own needs. Other-oriented social skills, such as helping, caring, and cooperating, are based on considering the interests and benefits of others in social interactions.

Whereas deficits in self- and other-oriented social skills have been associated with negative peer relations, peer rejection, and victimization (Bellini, Peters, Benner, & Hopf, 2007; Perren et al., 2012; Malti & Perren, 2016; Henricsson & Rydell, 2006), engaging in prosocial behaviour and being able to initiate social interactions can help children become positively involved with peers (Fabes, Martin, & Hanish, 2009; Henricsson & Rydell, 2006; Perren, Argention-Groeben, Stadelmann, & Klitzing, 2016; Rubin et al., 2006).

1.2 Social skills of pupils with SEN

There is evidence that certain groups of pupils with SEN are less socially skilled than TD children (Gresham & MacMillan, 1997). For example, pupils with autism spectrum disorders (ASD) have difficulties with self-oriented social skills, such as initiating social interactions, which places them more at risk of being socially isolated (Bellini et al., 2007). However, intervention studies have demonstrated that these children can benefit from the supportive behaviour of their TD peers with respect to the development of social interaction skills (Camargo et al., 2014; Whalon, Conroy, Martinez, & Werch, 2015). In addition, engaging in other-oriented social skills, such as cooperative and prosocial behaviour, can also have a positive impact on the social participation of pupils with ASD (Kamps et al., 2002). Similar results have been found for pupils with intellectual disabilities (Goldstein, English, Shafer, & Kaczmarek, 1997), learning disabilities (Kavale & Forness, 1996), and behavioural problems (Frederickson & Turner, 2003).

However, few studies have investigated the relationship between social skills and the social participation of pupils with SEN, and the findings are ambiguous. For example, Frostad and Pijl (2007) found a weak relationship between the social skills (cooperative behaviour and empathy) and the social position (acceptance, friendships and membership in a subgroup) of pupils with SEN. However, a separate examination of the group of pupils with learning difficulties and the group of

pupils with behaviour problems changed the results. While there was no relation between social position and the social skills of pupils with learning difficulties, there was a significant relationship for pupils with behavioural problems. The authors concluded that a low level of empathy (i.e., exhibiting concern and respect for the feelings and viewpoint of others) might be an explanation of social difficulties only for pupils with behavioural problems. Additionally, Schwab et al. (2015) described a link between self-rated social participation and prosocial behaviour. Students with SEN (not specified) in secondary schools felt less socially included and reported lower levels of prosocial behaviour than their TD peers. Thus, the authors interpreted that the poor social participation of pupils with SEN might be associated with their reported low levels of prosocial behaviour.

This study attempts to contribute to the clarification of the relationship between the social skills and the social participation of pupils with SEN in general education classrooms. To obtain more focused findings, the sample of pupils with SEN consisted only of children with a diagnosed ID. These pupils were compared with selected TD peers with respect to social acceptance, social relationships, and self- and other-oriented social skills. The following research questions were addressed:

1. How does the social participation of pupils with ID in general education classrooms appear in terms of social relationships and social acceptance?
2. How do peers and teachers rate the social skills of pupils with ID compared with popular, rejected, and isolated TD pupils?
3. Is there a relationship between the social participation of pupils with ID and their social skills?

2. Method

2.1 Sample

The sample consisted of 38 inclusive primary classrooms of the German- and French-speaking parts of Switzerland. A total of 692 first- to fourth-graders (aged $M = 97.92$; $SD = 10.51$) participated in the study. Only general education classrooms that included pupils with ID were allowed in the

study.¹² Therefore, in each classroom, at least one pupil was officially diagnosed by a school psychologist as having ID. Based on this diagnosis special educational resources were allocated to support these pupils¹³. In a first step, all 692 participants were individually interviewed regarding their social involvement in the classroom and the social skills of their peers. In a second step, popular, rejected, and isolated pupils were identified based on the collected data (for a detailed description, see the analyses). Finally, social skills and peer relationships were estimated by teachers for the selected TD pupils (n = 89; 51.6% female) and for the sample of pupils with ID (n = 43; 39.5% female).

2.2 Measures

Social acceptance, social relationships, and social skills were assessed with teacher questionnaires and by individual pupil interviews. The instruments used for the interviews were developed and piloted to be suitable for pupils with ID.

2.2.1 Social acceptance and social relationships

To assess social acceptance, the rating method was applied. All pupils rated how much they liked to play with each classmate on a five-point-scale using smileys (1 = ☹ = “I do not like to play with this classmate at all” to 5 = ☺ = “I like to play with this classmate a lot”). Each classmate’s name was read to the participants and presented on an individual card.

The social relationships of pupils within the classroom were assessed using the nomination procedure. All participants were asked to nominate their regular playmates in the classroom (“With whom in your classroom do you play the most?”). The number of same- and cross-gender nominations was unlimited.

¹² Pupils with ID were full-time members of the general education classrooms. In each classroom, a special education teacher was present for four to 14 hours per week (M = 7.22, SD = 3.36).

¹³ The school psychologists applied the criterion IQ < 75 to diagnose ID at the time of the data collection. Here, it is important to mention that IQ tests have their limitations when it comes to assessments of children with first language different from the test language or who are in a difficult affective state. In addition, a dichotomous categorisation of TD pupils and pupils with ID does not reflect disability as a social construct. Nevertheless, this categorisation is used in the present study because it is common in practice and affects processes of social participation.

Teachers also estimated the social acceptance and relationships of the pupils. The teacher version of the Self- and Other-Oriented Social Competences questionnaire (SOCOMP; see Perren et al., 2012) includes the subscale positive peer relationships (5 items; $\alpha = 0.89$). The items in this subscale primarily address friendships (e.g., “Has at least one good friend”) and social acceptance (e.g., “Is generally popular among peers”).

2.2.2 Social skills

The social skills were rated by teachers and peers. The teachers were requested to estimate the social skills of their pupils with ID and selected TD pupils (popular, rejected, and isolated; for criteria, see 2.3.1) using the SOCOMP questionnaire. The teachers were not informed regarding the selection criteria of the TD pupils they rated, which means they were unaware of their sociometric status (popular, rejected, or isolated). All of the SOCOMP items were estimated on a three-point scale (0 = “not true at all” to 2 = “definitely true”). Two dimensions of social skills were assessed: self-oriented social skills ($\alpha = 0.88$) with the three subscales leadership (3 items; e.g., “Organizes, suggests play activities to peers”), setting limits (3 items; e.g., “Refuses unreasonable requests from others”), and social participation (4 items; e.g., “Converses with peers easily”), and other-oriented social skills ($\alpha = 0.88$), including the two subscales prosocial (5 items; e.g., “Frequently helps other children”) and cooperative behaviour (5 items; e.g., “Compromises in conflicts with peers”).

The other-oriented social skills of the pupils were also estimated by peers with two questions regarding cooperative and prosocial behaviour ($\alpha = 0.83$). All of the participants rated on a five-point-scale with smileys (1 = ☹ = “I do not agree at all” to 5 = ☺ = “I totally agree”) four randomly selected classmates with respect to how well they could work with them and how helpful they were.

2.3 Analyses

2.3.1 Social status

Popular, rejected, and isolated pupils were selected for the study based on individual interviews with all of the participants. To identify popular and rejected pupils, the rating data were

analysed. Pupils who received the highest score on the scale (5) from most of their peers (at least one standard deviation above average) were categorized as popular. Those pupils who received the lowest score on the scale (1) from most of their peers (at least one standard deviation above average) were categorized as rejected. To identify isolated pupils, indegree and outdegree scores were calculated based on the nomination data with UCINET (Borgatti, Everett, & Freeman, 2002). Children who were not nominated by any classmate and did not nominate anyone as a playmate (indegree = 0 = outdegree) were categorized as isolated. However, pupils were only identified as isolated if at least 80% of the pupils of the classroom had participated in the study. This cut-off criterion was established to respect the interdependency of network data (Huisman & Steglich, 2008; Robins, Pattison, & Woolcock, 2004).

Table 1 shows the distribution of sociometric status among TD pupils and pupils with ID. In 38 classrooms, 89 TD pupils were identified as popular, rejected, or isolated. In the case of 14 pupils, there was an overlap of the sociometric statuses “rejected” and “isolated”. For 46.5% of the pupils with ID, a classification into status groups was possible. While most of these pupils were in the category rejected, five were identified as isolated and only one as popular. The rest of the pupils with ID (53.5%) were “average”, which means they were not rejected, isolated, or popular.

Table 1

Sociometric status of pupils with ID and their TD peers

Sample	n	Popular	Rejected	Isolated	Isolated and rejected	Average
Pupils with ID	43	1	14	4	1	23
TD pupils	89	38	19	18	14	

2.3.2 Social acceptance and social relationships

Several scores for social acceptance (popularity and social rejection) and social relationships (number of friendships and at least one friend) were computed and standardized for each participant. Therefore, the rating data, the nomination data, and the subscale on positive peer relationships of the teacher questionnaire were analysed.

The rating data were used to calculate the scores for social acceptance. The popularity score consists of the sum of the highest rating on the scale (5) received by all classmates, whereas the social rejection score corresponds to the sum of the lowest ratings on the scale (1) received by all classmates. In addition, a mean score of social acceptance was calculated for each pupil with all ratings from 1 to 5 received by peers.

For each pupil, two social relationship scores were calculated. One was the number of reciprocated friendships. The other was a dichotomized score, which represents whether the pupil had at least one friend or none. According to the common practice, reciprocal nominations were defined as friendships (Hymel, Vaillancourt, McDougall, & Renshaw, 2004). Because social network data are strongly influenced by the participant ratio, the values were divided by the maximum number of possible friendships in the classroom $((n * (n - 1)) / 2)$.

The teacher's view of the social relationships and social acceptance of the pupils was represented with standardized sums of the SOCOMP dimension of positive peer relationships.

2.3.3 Social skills

The social skills were estimated by teachers and peers. For the teacher's perspective, the standardized sums of the two dimensions self- and other-oriented social skills of the SOCOMP questionnaire were calculated for each pupil. Based on the peer ratings regarding the cooperative and prosocial behaviour of classmates, a standardized mean score was calculated for each pupil. This score represents the other-oriented social skills from the peer's perspective.

3. Results

3.1 Social acceptance and social relationships

Practically all popular TD children had at least one friend and on average the highest number of friends compared with the other pupils (Table 2). In addition, more than half of the rejected TD pupils had friends. A majority of the pupils with ID (63%) had at least one reciprocal friend.

Interestingly, this was the case for most of the rejected pupils and for most of the average children but not for the only popular pupil in this sample.

Table 2

Friendships of pupils with ID and their TD peers

Group	n	Friendships	
		M (SD)	At least one friend (%)
Pupils with ID	43	.98 (1.08)	27 (63)
Popular	1		
Rejected	14	.71 (.47)	10 (71)
Average	23	1.39 (1.27)	17 (74)
TD pupils	89	1.18 (1.48)	48 (54)
Popular	38	2.32 (1.53)	35 (92)
Rejected	19	.89 (.83)	13 (68)

Isolated pupils are not represented in this table.

3.2. Social skills

The relationship between the social skills of pupils with ID, their sociometric status, and their friendships were analysed with nonparametric tests and correlations. In a first step, comparisons within the status groups of pupils with ID and of TD pupils were performed. In a second step, status groups of pupils with ID were compared with status groups of TD pupils.

3.2.1 Pupils with ID

According to teacher reports, popular and accepted pupils with ID ($n = 24$) did not differ significantly from rejected and isolated pupils with ID ($n = 19$) in their social skills (Table 3). In addition, only weak correlations were found between the mean acceptance score of pupils with ID and their self-oriented ($r = 0.119$) and other-oriented ($r = 0.197$) social skills. However, differences were found with respect to their positive peer relationships ($U = 103.50$, $z = -3.07$, $p = 0.002$). Consistent with their sociometric status, rejected and isolated pupils with ID were estimated by teachers to be less accepted and less popular among their peers. Additionally, these pupils were perceived by their peers as having lower levels of other-oriented social skills ($U = 140.00$, $z = -2.15$, $p = 0.031$) than the popular and accepted pupils with ID. In line with this result, the correlation between the other-oriented

social skills rated by peers and the mean acceptance score was high ($r = 0.662$). However, rejected and isolated pupils with ID did not have significantly fewer friends than popular and accepted pupils with ID.

For further analyses, the sample of pupils with ID was split into two groups: pupils with at least one friend ($n = 27$; 62% accepted and 37% rejected) and pupils without friends ($n = 16$; 62% accepted and/or isolated, 31% rejected, and 6% popular). Regarding social acceptance and rejection, the two groups did not differ significantly. In addition, based on peer and teacher estimations, no significant differences were found regarding self-oriented or other-oriented skills. Surprisingly, the groups were also similar in their positive peer relationships reported by teachers. There was only a significant difference regarding the item “Has at least one good friend” ($U = 127.00$, $z = -2.52$, $p = 0.012$), which indicates that teachers notice when pupils with ID do not have friends.

Table 3

Social skills mean values (SD) of pupils with ID

Group	n	Teacher-reported		Peer-reported
		Self-oriented	Other-oriented	Other-oriented
Pupils with ID	43	9.35 (3.92)	11.53 (4.39)	3.08 (.77)
Popular & average	24	10.29 (4.20)	12.42 (4.37)	3.35 (.62)
Rejected & isolated	19	8.58 (3.42)	10.42 (4.27)	2.74 (.82)*
With friends	27	9.52 (3.98)	11.63 (4.85)	3.09 (.71)
Without friends	16	9.56 (3.97)	11.38 (3.63)	3.06 (.89)

The values displayed are not standardised. The teacher-reported values reported range from 0 to 20, and the peer-reported values range from 1 to 5. The indicated significant differences refer to a comparison with the value in the row above (* $p < 0.05$).

3.2.2 TD pupils

According to the teacher reports, popular TD pupils ($n = 38$) had significantly higher levels of self-oriented social skills ($U = 588.50$, $z = -3.16$, $p = 0.002$), other-oriented social skills ($U = 305.50$, $z = -5.53$, $p = 0.000$), and positive peer relationships ($U = 142.50$, $z = -6.98$, $p = 0.000$) than rejected and isolated TD pupils ($n = 51$). Additionally, rejected and isolated TD pupils had fewer friends ($U = 312.50$, $z = -6.60$, $p = 0.000$) and were estimated by peers as exhibiting a lower level of other-oriented

social skills ($U = 107.00$, $z = -7.15$, $p = 0.000$) than popular TD pupils (Table 4). In addition, high correlations were found between the mean acceptance score and the other-oriented social skills reported by teachers ($r = 0.616$) and by peers (0.727). However, the correlation between the mean acceptance score and the self-oriented social skills was low ($r = 0.254$).

There were significant differences between TD pupils with at least one friend ($n = 48$; 73% popular and 27% rejected) and without friends ($n = 41$; 48% rejected, 43% isolated, and 7% popular). TD pupils with friends were estimated by teachers as having higher self-oriented social skills ($U = 1406.50$, $z = 3.49$, $p = 0.000$) and other-oriented social skills ($U = 1449.00$, $z = 3.85$, $p = 0.000$). Similar results emerged regarding peer-reported other-oriented social skills ($U = 1504.50$, $z = 4.28$, $p = 0.000$). Thus, according to teacher and peer reports, TD pupils without friends tend to be less socially competent than TD pupils with friends. In addition, the teacher reports displayed differences regarding positive peer relationships ($U = 1578.50$, $z = 4.98$, $p = 0.000$). This outcome indicates that teachers notice when pupils do or do not have friends.

Additionally, TD pupils with and without friends differed significantly with respect to social acceptance ($U = 1611.00$, $z = 5.16$, $p = 0.000$) and rejection ($U = 626.00$, $z = -2.82$, $p = 0.005$). Thus, popular TD pupils tend to have friends, whereas rejected TD pupils tend to be friendless. These accentuated results might have appeared because the subsample consists of pupils of extreme status groups: the most popular and the most rejected pupils in the classroom. This fact must be considered when interpreting the results.

Table 4

Social skills mean values (SD) of TD pupils

Group	n	Teacher-reported		Peer-reported
		Self-oriented	Other-oriented	Other-oriented
TD pupils	89	13.02 (5.42)	14.03 (5.15)	3.60 (.97)
Popular	38	15.08 (4.56)	17.50 (3.11)	4.35 (.56)
Rejected & isolated	51	11.49 (5.54)**	11.45 (4.86)***	3.04 (.82)***
With friends	48	14.90 (4.57)	15.92 (4.58)	3.97 (.83)
Without friends	41	10.83 (5.55)***	11.78 (4.91)***	3.17 (.94)***

The values displayed are not standardised. The teacher-reported values range from 0 to 20, and the peer-reported

values range from 1 to 5. The indicated significant differences refer to a comparison with the value in the row above (*** $p < 0.001$. ** $p < 0.01$).

3.2.3 Comparison of pupils with ID with TD pupils

Compared with rejected TD pupils ($n = 19$), rejected pupils with ID ($n = 14$) had a significantly lower level of self-oriented social skills ($U = 54.50$, $z = -2.87$, $p = 0.003$; Table 5). However, they did not differ with respect to their other-oriented social skills and positive peer relationships reported by their teachers. In addition, the result of a comparison of all pupils with ID ($n = 43$) with the rejected and/or isolated TD pupils ($n = 51$) revealed no significant differences regarding social skills, whereas regarding social relationships, a difference was found: an advantage for pupils with ID. The teachers estimated the positive peer relationships of pupils with ID on a higher level than of rejected and/or isolated TD pupils ($U = 777.00$, $z = -2.44$, $p = 0.015$). In addition, pupils with ID had significantly more friends than rejected and/or isolated TD pupils ($U = 660.50$, $z = -3.68$, $p = 0.000$).

Table 5

Social skills mean values (SD) of pupils with ID and TD pupils

Group	n	Teacher-reported		Peer-reported
		Self-oriented	Other-oriented	Other-oriented
Rejected pupils with ID	14	7.93 (3.45)	10.93 (4.51)	2.71 (.78)
vs. Rejected TD pupils	19	13.26 (5.34)**	10.79 (4.76)	2.95 (.77)
Pupils with ID	43	9.35 (3.92)	11.53 (4.39)	3.08 (.77)
vs. Popular TD pupils	38	15.08 (4.56)***	17.50 (3.11)***	4.35 (.56)***
Rejected & isolated TD pupils	51	11.49 (5.54)	11.45 (4.86)	3.04 (.82)

The values displayed are not standardised. The teacher-reported values range from 0 to 20, and the peer-reported values range from 1 to 5. *** $p < 0.001$. ** $p < 0.01$.

A different set of results emerged from the comparison of pupils with ID ($n = 43$) with popular TD pupils ($n = 38$). Significant differences in all aspects were found. The pupils with ID were estimated to have lower levels of self-oriented social skills ($U = 295.00$, $z = -4.95$, $p = 0.000$), other-oriented social skills ($U = 212.00$, $z = -5.75$, $p = 0.000$), positive peer relationships ($U = 169.00$, $z = -6.29$, $p = 0.000$), and peer-reported other-oriented social skills ($U = 99.00$, $z = -6.79$, $p = 0.000$) than

popular TD pupils. In addition, pupils with ID had significantly fewer friends than popular TD pupils ($U = 162.50$, $z = -6.19$, $p = 0.000$).

In addition, a Fishers' z-Test was performed to compare pupils with ID ($n = 43$) with their TD peers ($n = 89$) regarding the correlations between social acceptance and social skills. Only the correlation between social acceptance and the other-oriented social skills rated by the teachers was significantly higher ($Z = 2.711$, $p = 0.003$) in the group of TD pupils ($r = 0.616$) than in the group of pupils with ID ($r = 0.197$). This result indicates that pupils with ID are not less accepted if they have lower levels of other-oriented social skills. In contrast, socially accepted TD pupils have higher levels of other-oriented social skills. In addition, the correlations between other-oriented social skills rated by peers and social acceptance were high for both groups and in turn did not differ significantly. This outcome means that for pupils with ID and for TD pupils being socially accepted was related to being perceived by peers as being helpful and cooperative. In contrast, for both groups, the self-oriented social skills were weakly correlated with social acceptance.

4. Discussion

Until now, little was known regarding the social participation of pupils with ID enrolled in general education classrooms. In addition, no studies have investigated the role that social skills may play in social participation. This study contributes to clarifying the relationship between the social skills and the social participation of pupils with ID in inclusive classrooms. Therefore, the social relationships and social acceptance of these pupils were analysed in relation to their self- and other-oriented social skills. In addition, a comparison of social skills was performed between pupils with ID and TD pupils experiencing a more or less positive social participation.

This study reveals that most pupils with ID enrolled in inclusive classrooms were not popular but were accepted by their peers. In addition, a majority, including socially rejected pupils, had reciprocal friends. These findings agree with studies which report that not all pupils with SEN are at risk of being isolated or rejected in general education classrooms (e.g., Avramidis, 2013; Frostad, Mjaavatn, & Pijl, 2011; Frostad & Pijl, 2007; Grütter et al., 2015; Koster et al., 2010; Schwab, 2015).

Regarding social skills, in this study, pupils with ID were generally less socially competent than their TD peers. However, no significant association was found with having friends. Pupils with ID who had friends exhibited a similar level of social skills as pupils with ID who were isolated or did not have reciprocal friendships. Thus, it seems that their ability to form and maintain friendships was not influenced by a lack of social skills, and they even appear to possess skills that benefit interaction with peers. According to the literature, children require a number of basic social skills to form friendships (Gest, Graham-Bermann, & Hartup, 2001; Sebanc, 2003). Thus, it seems that the majority of the pupils with ID in this sample must possess these basic social skills. This finding is promising because peer relationships can positively contribute to the socio-emotional adjustment of children (Gifford-Smith & Brownell, 2003; Murray & Greenberg, 2006).

In addition, the social skills of pupils with ID were not always related to their social acceptance. From the perspective of peers, rejected pupils with ID were estimated as being less cooperative and prosocial than accepted pupils with ID. However, from the perspective of teachers, the social skills of rejected pupils with ID did not differ from those of accepted pupils with ID. Similar results were presented in a study by Frostad and Pijl (2007), who found no significant relationship between the social skills of pupils with learning disabilities and their social acceptance or their social relationships. In addition, the two variables were only weakly related when the entire sample of pupils with and without SEN was analysed. However, pupils with SEN had lower levels of social skills than their TD peers.

In this study, pupils with ID were also compared regarding their social skills with TD pupils experiencing more or less difficulties in their social participation in classroom. While the social participation of popular TD pupils seemed to be satisfactory, rejected and isolated TD pupils experienced difficulties in their social participation.

In a first step, the rejected and isolated TD pupils were compared with the entire sample of pupils with ID. As expected, there were no differences between the two groups with respect to social skills. However, pupils with ID had fewer difficulties in building and maintaining social relationships

than rejected and isolated TD pupils. This outcome means that although pupils with ID had levels of social skills similarly low to those of their rejected and isolated TD peers, they tended to have more friends. However, the latter finding could be biased because isolated pupils are friendless by definition. Thus, only rejected pupils with ID and rejected TD pupils were compared. These two groups displayed similarities in their peer relationships and their other-oriented social skills. However, rejected pupils with ID had lower levels of self-oriented social skills than their rejected TD peers. Based on these results, the obvious conclusion is that pupils with ID can experience more positive social relationships than certain of their TD peers but tend to have more difficulties in setting limits, initiating social interactions and leading than their rejected TD peers. Otherwise, the pupils with ID have levels of social skills similarly low to those of their rejected and isolated TD peers. This result means that in general education classrooms not only pupils with SEN but also certain of their TD peers lack social skills and can therefore also be at risk of social exclusion. Consequently, interventions to foster social participation should not only focus on pupils with SEN but also should involve the entire class. In fact, peer-mediated learning activities that involve all pupils can positively influence the social interactions in inclusive classrooms (Fuchs, Fuchs, Mathes, & Martinez, 2002; Jacques, Wilton, & Townsend, 1998).

In a second step, a comparison between pupils with ID and popular TD pupils was performed. Significant differences between the two groups were found. Pupils with ID had fewer friends and exhibited lower levels of self- and other-oriented social skills than popular TD pupils. This contrast between the two groups was perhaps because practically none of the pupils with ID were popular. Consequently, it could be argued that pupils with ID are not as popular as certain of their TD peers because of their lack of social skills. On one hand, a strong positive relationship was found between the level of other-oriented social skills and the social acceptance of TD pupils. This outcome could indicate that for TD pupils providing particular consideration to the needs and goals of others can positively influence their social acceptance or popularity in a group. A similar finding was reported by Gest et al. (2001). In their study, children who were perceived by teachers and peers as socially skilled were more popular among peers. On the other hand, among pupils with ID, there was a weak

relationship between social skills and social acceptance. More specifically, only peer rated other-oriented social skills were related to social acceptance, but not self- and other-oriented social skills reported by teachers. That is, if pupils with ID were rejected by their peers, it was probably not only because of their low level of social skills. Thus, there must be other mechanisms influencing the social participation of pupils with ID in inclusive classrooms, for example, the achievement level of pupils. In fact, Krull et al. (2014) and Nepi et al. (2015) found a relationship between low academic achievement levels and low social acceptance by peers. Further, on a group level, classroom composition and group norms can play a crucial role regarding the social participation of individuals (Garrote, 2016; Grütter et al., 2015). But, additional studies are required to support these findings.

The findings of this study are a contribution to current knowledge on the social participation and the social skills of pupils with ID in inclusive classrooms. Nevertheless, several limitations of this study should be mentioned. First, a specific concept of social skills was chosen. While such a choice makes the findings more conclusive within a study, comparisons with other studies using different concepts are challenging. Second, when interpreting the results, it must be considered that correlations between aspects of social participation and social skills might appear because of overlapping concepts. For example, the aspect of social interactions can be found (in a different function) in relation to the assessment of social skills and of social participation. Third, the high correlations between social acceptance and peer-rated other-oriented social skills might result from the assessment method. Participants were requested to rate how much they liked to play with their classmates. Subsequently, they rated how helpful their classmates were and how well they could work with them. If we consider the cognitive process of dissonance (Festinger, 1957), it is expected that pupils will rate their classmates consistently or that the two variables will correlate highly. Fourth, in this study, groups were compared regarding social skills. The question of which basic social skills pupils with SEN require to have friends or be accepted by their peers remains unanswered. Fifth, pupils with ID were compared to TD pupils of extreme status groups: the most popular and the most rejected pupils in the classroom. This was due to the study design, in which detailed data collection was restricted to a number of pupils in the sample. Sixth, a dichotomous categorisation of pupils with ID and TD pupils

was used to investigate possible hindering factors in the social participation of pupils with ID. Although, this categorisation does not reflect disability as a social construct, it is commonly used in practice to allocate special education resources to support individual pupils. In addition, how special educational support is implemented (e.g., in a resource-room) can enhance the perception of pupils with ID as an out-group and influence processes of social participation in inclusive classrooms. To shed light into social processes influenced by this dichotomy used in practice further studies are needed.

In conclusion, the findings support the assumption that social skills are only one possible explanation why certain pupils with ID are more at risk of being less socially involved in their classrooms than their TD peers. Having friends or being rejected did not seem to depend on the low level of social skills of pupils with ID. Thus, there must be other factors that have a stronger influence on the social participation of these pupils. Possible factors may be identified on the individual level (e.g., having the label “ID”). However, group processes should be considered as well. Focusing on group processes rather than on individual characteristics has been a promising approach regarding the development and evaluation of interventions to foster social interactions among pupils with and without SEN (Whalon et al., 2015). Indeed, facilitating social participation requires the effort and engagement of all, including peers and teachers (Farmer, McAuliffe Lines, & Hamm, 2011; Garrote, Sermier Dessemontet, & Moser Opitz, 2017; Gest & Rodkin, 2011). This change of perspective could also be beneficial for research on social participation. This approach demands from researchers focusing more on variables on classroom or group level rather than solely on individual characteristics. In fact, social participation of individuals in inclusive classrooms is very likely to vary as a function of group and individual factors.

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Facilitating the Social Participation of Pupils with Special Educational Needs in Mainstream Schools: A Review on School-Based Interventions¹⁴

Abstract

Inclusive education of pupils with special educational needs (SEN) has become a global trend. However, a considerable number of studies have shown that mere enrolment in mainstream classrooms is not enough to support the social participation of pupils with SEN. These children are at risk of experiencing difficulties in their involvement with peers at school. Thus, the question arises of how social participation can be fostered in mainstream classrooms. A systematic review of 35 studies was conducted to investigate which interventions are effective in inclusive mainstream preschool and elementary classrooms. Teaching interaction strategies to typically developing pupils, group activities in the academic context (cooperative learning and peer-tutoring), support groups for pupils with SEN, and training paraprofessionals to facilitate social interactions, were found to improve the social participation of pupils with SEN in general education classrooms. Nevertheless, there is need for more intervention studies implementing a variety of strategies and including different groups of pupils with SEN.

1. Introduction

The UN Convention on the Human Rights of Persons with Disabilities guarantees the right of persons with disabilities to an inclusive education system at all levels (United Nations, 2006). As a consequence, in recent decades, inclusive education of pupils with special educational needs (SEN) in mainstream schools has become a global trend (Bless, 2004; Huber 2006; Koster, Nakken, Pijl, & van Houten, 2009; Pijl, Frostad, & Flem, 2008; Ruijs & Peetsma, 2009). Enrolment in mainstream classrooms is meant to give pupils with SEN the opportunity to live and learn next to typically developing (TD) children of the same age and to be considered full members of the classroom and the

¹⁴ Copyright © 2017 by Elsevier. Reproduced [or adapted] with permission. The official citation that should be used in referencing this material is: Garrote, A., Sermier Dessemontet, R., & Moser Opitz, E. (2017). Facilitating the social participation of pupils with special educational needs in mainstream schools: A review of school-based interventions. *Educational Research Review*, 20, 12–23. doi:10.1016/j.edurev.2016.11.001

community. However, many studies reveal that the social participation of pupils with SEN in inclusive classrooms is not optimal and therefore interventions are clearly needed. Yet, sound knowledge on effective teaching practices in this domain is lacking. Our review attempts to fill this gap and provide an overview of the research on the topic. The following question shall be answered: What type of school-based interventions can foster the social participation of pupils with SEN in mainstream preschool and primary classrooms?

Firstly, we describe the results of studies on the social participation of pupils with SEN in general education classrooms. Secondly, we present a systematic review of the research identifying school-based interventions aiming to foster the social participation of children with SEN in general education classrooms. Compared to other reviews and meta-analyses published up to the present, which focus on a specific group of children with SEN, mainly children with autism spectrum disorders (ASD), this study takes into account all pupils with SEN (e.g., children with learning disabilities, intellectual disability, ASD, and behavioural difficulties). In addition, while the previous reviews and meta-analyses describe only studies published in English, our systematic research also considers studies in German and French.

1.1 Social participation of SEN pupils in inclusive classrooms

The concept of social participation usually involves the aspects of engagement in activities, feelings of belonging, and social interactions (Eriksson & Granlund, 2004; Falkmer, Granlund, Nilhom, & Falkmer, 2012; Hammel et al., 2008). The concept can be defined in many different ways, however, depending on the context (e.g., school, leisure, professional life; Bossaert, Colpin, Pijl, & Petri, 2013; Falkmer et al., 2012; Simeonsson, Carlson, Huntington, Sturtz McMillen, & Brent, 2001). In the context of inclusive primary school, Koster and her colleagues (2009) carried out a review of the literature to evaluate the definitions used in different studies to describe the social participation of pupils with SEN included in mainstream classrooms. They identified four dimensions of social participation in inclusive classrooms: (1) the acceptance of pupils with SEN, (2) the pupils' perceptions of their acceptance by the classmates, (3) the presence of positive social interactions

between pupils with SEN and their classmates, and (4) social relationships/friendships. Intuitively, the social interactions between pupils with SEN and their classmates can be regarded as the most essential dimension for social participation. Without social interactions with classmates, it is technically impossible for pupils with SEN to build friendships or to be socially accepted by them. Further, social acceptance not only manifests itself within social interactions, but can also facilitate social interactions and consequently the creation of friendships. From the individual perspective, feeling accepted by peers and having friends is important for positive experiences in social participation. In the following section, the research on the social participation of pupils with SEN will be described along these four dimensions.

1.1.1 Social acceptance of pupils with SEN

The most studied dimension of social participation is the social acceptance of pupils with SEN. A majority of the studies show that pupils with SEN included in preschool or primary classrooms are more often rejected and less well accepted by their peers than TD pupils (Avramidis, 2013; Cambra & Silvestre, 2003; Estell et al., 2008; Frederickson, Simmonds, Evans, & Soulsby, 2007; Freeman & Alkin, 2000; Garrote, 2016; Grütter, Meyer, & Glenz, 2015; Hestenes & Carroll, 2000; Huber & Wilbert, 2012; Koster, Pijl, Nakken, & van Houten, 2010; Krull, Wilbert, & Henneman, 2014; de Monchy, Pijl, & Zandberg, 2004; Nadeau & Tessier, 2003; Nowicki, 2003; Nepi, Fioravanti, Nannini, & Peru, 2015; Odom & Diamond, 1998; Pijl & Frostad, 2010; Pijl, Skaalvic, & Skaalvic, 2010; Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010; Yude, Goodman, McConachie, 1998). This is the case not only during recess but also in the classroom (Cambra & Silvestre, 2003; Frederickson et al., 2007). TD pupils in primary schools prefer not to work with pupils with SEN or with low-achieving pupils (Huber & Wilbert, 2012; Krull et al., 2014; de Monchy et al., 2004). These findings mean that achievement plays an important role regarding the acceptance of pupils in primary school. Additionally, social acceptance by peers depends on the social behaviour of children with SEN (Avramidis, 2013; Huber & Wilbert, 2012; Pijl et al., 2008; Schwab, Gebhardt, Krammer, & Gasteiger-Klicpera, 2015). Thus, pupils with behavioural difficulties (BD) are at greater

risk of being rejected by their peers than pupils with learning disabilities (LD) or motor and/or sensory disabilities (Avramidis, 2010; Krull et al., 2014; Pijl et al., 2008).

1.1.2 Self-perception of SEN pupils of their social acceptance

Findings are more ambivalent regarding the pupils' perception of their social acceptance. Some studies involving 6- to 9-year-old pupils with SEN show that their perception of social acceptance does not differ from the perception of their peers, who are more accepted (Koster et al., 2010; Krull et al., 2014). Studies involving older pupils with SEN found that these pupils feel less socially accepted and report more feelings of loneliness than their TD peers (Cambra & Silvestre, 2003; Schwab et al., 2015). Nevertheless, altogether, the SEN pupils' self-perception of social acceptance is positive, even if their real social acceptance in the classroom is low (Avramidis, 2013, Cambra & Silvestre, 2003; Koster et al., 2010; Krull et al., 2014; Schwab et al., 2015). The question arises as to whether other aspects of social participation, such as being involved in social interactions or having friends, may have an effect on the pupils' self-perception of social acceptance. Indeed, friendships can have a positive influence on the socio-emotional development of children (Gifford-Smith & Brownell, 2003) and can reduce the negative impact of social rejection (Peters, Riksen-Walraven, Cillessen, & de Weerth, 2011; Hodges, Boivin, Vitaro, & Bukowski; 2011).

1.1.3 Social interactions between pupils with and without SEN

Only a few studies have focused on social interactions; however, they show consistently that pupils with SEN are less involved in social interactions with their peers than their TD classmates in preschool and primary school. This has been especially shown for pupils with ASD, intellectual disability (ID), and Down syndrome (Hestenes & Carroll, 2000; Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011; Kemp & Carter, 2002; Koster et al., 2010; Scheepstra, Nakken, & Pijl, 1999). Studies on the social interactions of other groups of pupils with SEN are lacking. Extending knowledge on this dimension of social participation is important because a lack of interactions often leads to an inability to create stable social relationships and friendships.

1.1.4 Friendships and social relationships of pupils with SEN

The findings regarding the social relationships and friendships of pupils with SEN in inclusive classrooms are not very clear. Many studies have shown that pupils with SEN included in preschool and primary school have fewer friends than their TD peers (Avramidis, 2013; Estell et al., 2008; Frostad & Pijl, 2007; Koster et al., 2010; Odom & Diamond, 1998; Pijl et al., 2008; Rotheram-Fuller et al., 2010; Yude et al., 1998); however, other studies have not found this difference (Avramidis, 2010; Garrote, 2016; Grütter et al., 2015; Walker, 2007). Clearly, more studies are needed to investigate which factors might facilitate the creation and maintenance of social relationships and friendships in some cases, but not in others.

1.2 Implemented interventions

Pupils with SEN included in mainstream classrooms seem to be at risk of experiencing difficulties in their social participation. This raises questions about the implementation of the interventions and the framework conditions. Historically, the first approach that was investigated involved teaching social skills to children with SEN (Bierman & Powers, 2009). Several meta-analyses have shown, however, that these interventions have rather weak effects on the social skills of pupils with LD, ASD or BD, and on their social acceptance in class (Bellini, Peters, Benner, & Hopf, 2007; Kavale & Forness, 1996; Kavale & Mostert, 2004; Quinn, Kavale, Mathur, Rutherford, & Forness, 1999). These rather deceiving results could be because the evaluated interventions were often implemented separately from the natural context of the children, for example, in clinical settings or pull-off resources (Bellini et al., 2007; Kavale & Forness, 1996; Quinn et al., 1999). Therefore, it is possible that pupils with SEN could not transfer the learned social skills into a natural context with their peers. In addition, focusing exclusively on children with SEN and not involving their TD peers in the interventions may not help to change the latter's perception and behaviour towards pupils with SEN (Soodak & McCarthy, 2006).

Up to the present, the reviews and meta-analyses evaluating the effects of interventions with dependent variables other than the social skills of pupils with SEN have focused only on one or two

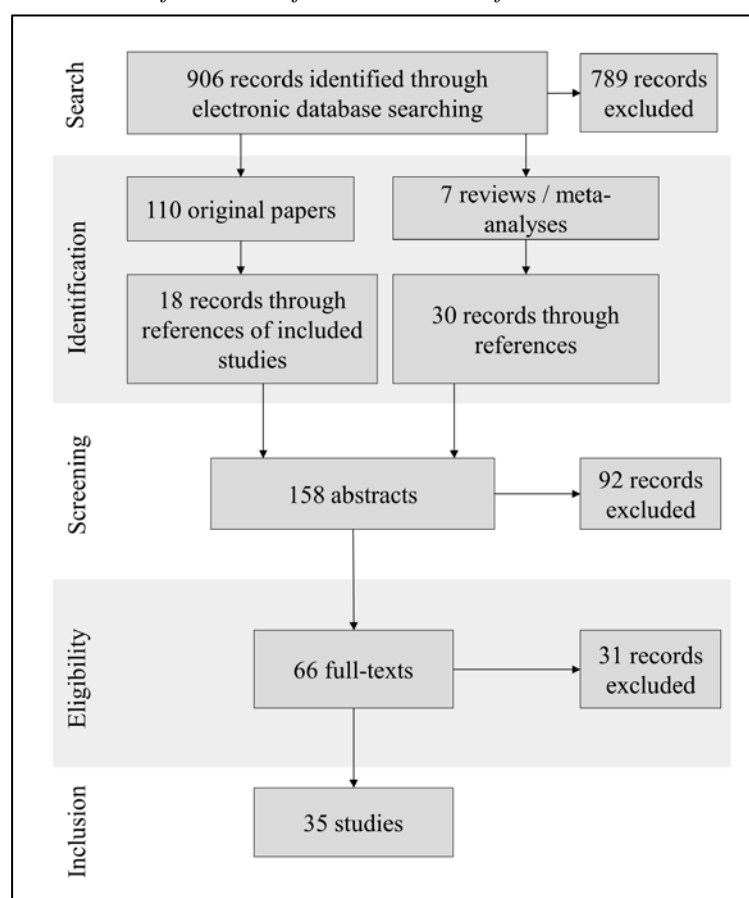
dimensions of social participation, social interactions and social relationships/friendships (e.g., Camargo et al., 2014; McConnell, 2002; Whalon, Conroy, Martinez, & Werch, 2015). There is clearly a need for reviews using a broader definition of the concept of social participation, involving the evaluation of interventional effects not only on social interactions but also on the social acceptance, perceived social acceptance, and social relationships/friendships of pupils with SEN. This systematic review aims to identify and describe different studies evaluating the effect of interventions developed to foster the social participation of pupils with SEN in preschool and primary mainstream classrooms.

2. Methodology

This review involves studies on the topic published between January 1990 and June 2016 in the databases PsycINFO, PSYINDEX, ERIC, FIS Bildung, and FRANCIS searched with the key words inclusive education or inclusion, combined with the key words social participation or its dimensions (social relationships/friendships, social interactions, social acceptance, social self-concept/social self-perception), as well as different key words used to designate pupils having special educational needs (e.g., learning disability, language disability, behavioural disorders/problems, intellectual disability, visual impairment, hearing impairment, motor impairment, and autism). The key words were entered in English, German, and French. Only journal contributions were included. Figure 1 shows the number of identified and selected records.

Figure 1

Flowchart of the search for and inclusion of studies



In a first step, records identified through the database search were selected if their titles matched the topic of interest. In a second step, the references of selected records, as well as of meta-analyses and reviews on the topic were searched for further records. The third step consisted of screening the abstracts of the selected records and excluding them if they did not meet the selection criteria. Finally, the full-text articles were assessed for eligibility. The articles were included in the review only if they corresponded to the following selection criteria. (a) The study evaluated the effects of school-based interventions aiming to foster the social participation of children with SEN in mainstream preschools or primary classrooms. (b) All participating pupils with SEN were full-time members of a general education classroom. (c) The study had an experimental, a quasi-experimental, or a single-case experimental design. (d) The study was published in a peer-reviewed journal.

A total of 66 articles seemed to correspond to the criteria according to the titles and abstracts. Among these articles, 31 were excluded after reading the content, in several cases because the pupils with SEN were enrolled in special education or self-contained classrooms and were therefore not full-time members of a general education classroom with TD peers (e.g., Hartzell, Gann, Liaupsin, & Clem, 2015; Hundert, Rowe, & Harrison, 2014; McFadden, Kamps, & Heitzman-Powell, 2013; Stanton-Chapman & Brown, 2015; Stanton-Chapman & Snell, 2011). No studies in French or German fulfilled the criteria. The study of Kamps et al. (2002) fulfilled all criteria, but was excluded because the results were also reported in Kamps et al. (1992) and Kamps, Barbetta, Leonard, and Delquadri (1994). A final total of 35 articles were selected for the review, 14 of which were found in the reviews of Camargo et al. (2014), Chang and Locke (2016), Harrower and Dunlap (2001), and Watkins et al. (2015).

3. Results

Of the 35 selected studies, 14 evaluate school-based interventions taking place in preschool settings, 15 in primary schools and six in preschool and primary schools. The detailed content of the studies is summarized in tables 1, 2, and 3. In the following sections, the interventions are described based on the type of school-based intervention. Three intervention types were identified: teaching interaction strategies (table 1), group activities (table 2), and training of paraprofessionals (table 3). More than half of the studies ($n = 19$) measure the effects of teaching interaction strategies to pupils on the social interactions among them. A third of the studies ($n = 12$) measure the effects of group activities. A minority of the studies ($n = 4$) measure the effects of training paraprofessionals with the goal to increase the frequency of social interactions between pupils with SEN and their peers. The intervention effects are reported in relation to the four dimensions of social participation (friendships, social interactions, social acceptance, and perceived social acceptance). In single case studies, effects are considered positive if a meaningful change in the dependent variable was established for at least three-fourths of the participants, as recommended by the Council for Exceptional Children (2014). Effects are described as mixed if a significant change occurred for less than three-fourths of the participants. For single-case studies, as well as group studies, effects are described as mixed if a

positive effect was established when the intervention was implemented, but was not maintained once the intervention was removed. Finally, effects were described as neutral when neither positive, negative or mixed effects were found. Effect sizes were not reported in most studies. When they were reported, different types of effect sizes were used among the group studies (Cohen's d or η^2) and the single case studies (percentage of non-overlapping data or Tau-U). For some of the single-case studies included in this review the effect sizes (non-overlap of all pairs and Tau-U) were calculated in the meta-analysis by Whalon et al. (2015). When researchers did not offer an interpretation of effect sizes, the guidelines suggested by Cohen (1988) for group studies and by Scruggs and Mastropieri (1998) for single-case studies were used to categorize effects as small, medium or large.

Table 1

Articles included in the review: teaching interaction strategies

Authors (year)	Target pupils (number, age)	Intervention	Involved pupils	Implementation	Measures	Effect
Banda et al. (2010)	ASD (n = 2; 6 y)	Interaction strategies to SEN pupils and peers	Entire class	Teachers	Interactions	+
Batchelor & Taylor (2005)	ID (n = 1; 4 y)	Awareness, interaction strategies, and social problem solving to peers	Entire class	Teacher	Interactions Acceptance	+ +
Goldstein & Cisar (1992)	ASD (n = 2; NR), BD (n = 1; NR)	Interaction strategies to peers	Two selected peers per SEN pupil	Teachers	Interactions	+
Goldstein et al. (1997)	ID (n = 8; 3 – 5 y)	Awareness and interaction strategies to peers	One selected peer per SEN pupil	Researchers	Interactions Acceptance	+ +
Goldstein et al. (1992)	ASD (n = 5; 2 – 6 y)	Interaction strategies to peers	Entire class	Teachers or researchers	Interactions	+
Harjusola-Webb et al. (2012)	ASD (n = 1; 5 y)	Interaction strategies to peers	Entire class	Teachers	Interactions	+
Harper et al. (2008)	ASD (n = 2; 8 – 9 y)	Interaction strategies to peers	Six volunteering peers	Researchers	Interactions	+
Hundert & Houghton (1992)	DD (n = 9), BD (n = 2), HI (n = 1), VI (n = 1); (3 – 5 y)	Interaction strategies to SEN pupils and peers	Entire class	Therapists and teachers	Interactions Acceptance	mixed neutral
Kamps et al. (2015)	ASD (n = 95; 6 – 8 y)	Interactions strategies to SEN pupils and peers	Four to six selected peers per SEN pupil	Speech language pathologists, paraprofessionals, special education teachers, or counsellors	Interactions	+
Kamps et al. (1992)	ASD (n = 3; 7 y)	Interaction strategies to SEN pupils and peers	Entire class	Teacher	Interactions	+
Katz & Girolametto (2013)	ASD (n = 3; 4 – 5 y)	Interaction strategies to SEN pupils and two selected peers	Two peers per SEN pupil	Teachers	Interactions	+

Articles included in the review: teaching interaction strategies

Authors (year)	Target (number, age)	pupils	Intervention	Involved pupils	Implementation	Measures	Effect
Kohler et al. (2007)	ASD (n = 1; 4 y)		Interaction strategies to peers	Six peers	Teacher	Interactions	+
Mason et al. (2014)	ASD (n = 3; 6 – 8 y)		Interaction strategies to peers	Four to six selected peers per SEN pupil	Speech language pathologist, paraprofessional, or researcher	Interactions	+
McGrath et al. (2003)	ASD (n = 1; 4 y)		Interaction strategies to six selected peers	Entire class	Researcher	Interactions	+
Nelson et al. (2007)	ASD (n = 4; 3 – 4 y)		Interaction strategies to SEN pupils and peers	Entire class	Research assistants	Interactions	+
Owen-De Schryver et al. (2008)	ASD (n = 3; 7 – 10 y)		Awareness and interaction strategies to peers	Two to four selected peers per SEN pupil	Researchers	Interactions	+
Pierce & Schreibman (1997)	ASD (n = 2; 7 – 8 y)		Interaction strategies to peers	Six peers	NR	Interactions	+
Storey et al. (1993)	DD (n = 8; 4 y)		Interaction strategies to peers	Two selected peers per SEN pupil	Classroom assistants	Interactions	+
Thiemann & Goldstein (2004)	ASD (n = 5; 6 – 9 y)		Interaction strategies to peers	Two selected peers per SEN pupil	Teachers and/or researchers	Interactions Acceptance	 +

DD = developmental delays, HI = hearing impairment, NR = not reported, VI = visual impairment

Table 2

Articles included in the review: group activities

Authors (year)	Target pupils (number, age)	Intervention	Involved pupils	Implementation	Measures	Effect
Dugan et al. (1995)	ASD (n = 2; 9 – 10 y)	Cooperative learning	Entire class	Teacher and paraprofessional	Interactions	+
Frea et al. (1999)	DD (n = 2; 4 y)	Structured play and friendship activities	Entire class	Teachers	Interactions	mixed
Frederickson & Turner (2003)	BD (n = 20; 6 – 12 y)	Circle of Friends	Four to eight selected peers per circle	Research assistants and teachers	Acceptance Perceived acceptance	+ neutral
Frederickson et al. (2005)	ASD (n = 1), BD (n = 6), LD (n = 7); (6 – 11 y)	Circle of Friends	Six to eight volunteer peers per circle	Assistant educational psychologist	Acceptance	mixed
Fuchs et al. (2002)	LD (n = 25; 8 – 11 y)	Peer tutoring	Entire class	Teachers	Acceptance (Friendship)*	+
26 Hunt et al. (1997)	ASD (n = 1; 10 y), DD (n = 1; 5 y), ID (n = 1; 10 y)	Multi-component intervention	Entire class	Teachers, speech language therapists, and researchers	Interactions	+
Jacques et al. (1998)	ID (n = 24; 9 – 11 y)	Cooperative learning	Entire class	Researcher	Acceptance	+
Kalyva & Avramidis (2005)	ASD (n = 5; 3 – 4 y)	Circle of Friends	Five selected peers per circle	Teacher	Interactions	+
Kamps et al. (1994)	ASD (n = 3; 8 – 9 y)	Peer tutoring	Entire class	Researchers and teachers	Interactions	+
Koegel et al. (2012)	ASD (n = 3; 9 – 12 y)	Interest clubs	Six to ten volunteer peers per club	Research assistants	Interactions	+
Shechtman (1997), elementary pupils	BD (n = 112; NR)	Therapeutic counselling group	Entire class	Teachers	Acceptance Perceived acceptance	neutral neutral
Sideridis et al. (1997)	ID (n = 1; 13y), LD (n = 2; 12 – 13y)	Peer tutoring	Entire class	Teacher	Interactions	+

*Friendships were only measured after the intervention

Table 3

Articles included in the review: training of paraprofessionals

Authors (year)	Target pupils (number, age)	Intervention	Involved pupils	Implementation	Measures	Effect
Feldman & Matos (2012)	ASD (n = 3; 5 – 8 y)	Facilitating interactions	Entire class	Paraprofessionals	Interactions	+
Kretzmann et al. (2015)	ASD (n = 24; 6 – 11 y)	Facilitating interactions	Peers at recess	Paraprofessionals	Interactions	+
Licciardello et al. (2008)	ASD (n = 4; 6 – 8 y)	Facilitating interactions	Peers at recess	Paraprofessionals	Interactions	+
Malmgren et al. (2005)	BD (n = 3, NR)	Facilitating interactions	Entire class	Paraprofessionals	Interactions	mixed

3.1 Teaching interaction strategies

Almost all of the studies measuring the effects of teaching interaction strategies to pupils are single case studies. Only one study is an experimental study with control group (Kamps et al., 2015). In most of the studies, interaction strategies were only taught to TD pupils. In other cases, both, pupils with SEN and their TD peers, learned strategies to communicate with each other. A majority of interventions were implemented by teachers alone or in collaboration with the researchers.

Participants: The 19 studies included 163 pupils with SEN, aged 2 to 10 years. The number of participants per study varies from one to 95. The majority of the pupils (n = 132) were diagnosed with ASD. Nine participants had ID, 17 pupils had a developmental delay (DD), three had BD, one had a hearing impairment, and one had a visual impairment.

Interventions: Thirteen studies evaluated the effects of teaching interaction strategies to TD peers to increase or improve their social interactions with pupils with ASD, BD, DD, or ID (Batchelor & Taylor, 2005; Goldstein & Cisar, 1992; Goldstein, Kaczmarek, Pennington, & Shafer, 1992; Goldstein, English, Shafer, & Kaczmarek, 1997; Harjusola-Webb, Hubbell, & Bedesem, 2012; Harper, Symon, & Frea, 2008; Kohler, Greteman, Raschke, & Highnam, 2007; Mason et al., 2014; McGrath, Bosch, Sullivan, & Fuqua, 2003; Owen-DeSchryver, Carr, Cale, & Blakeley-Smith, 2008; Pierce & Schreibman, 1997; Storey, Smith, & Strain, 1993; Thiemann & Goldstein, 2004). The strategies taught by adults involved mainly the initiation and maintenance of social interactions during episodes of free play (e.g., suggesting games, sharing or exchanging objects, initiating a conversation, making compliments or commenting on an ongoing game). Two studies evaluated the programme “Stay, Play, Talk”. In this intervention, selected TD pupils (Goldstein et al., 1997) or all TD classmates (Batchelor & Taylor, 2005) learned strategies to initiate and maintain interactions with their peers with ID.

In six studies, pupils with ASD, DD, BD, or visual and hearing impairments were also taught how to better interact with their TD peers (Banda, Hart, & Lui-Gitz, 2010; Hundert & Houghton, 1992; Kamps et al., 1992; Kamps et al., 2015; Katz & Girolametto, 2013; Nelson, McDonnell,

Johnston, Crompton, & Nelson, 2007). For example, in the intervention programme “Keys to Play” (Nelson et al., 2007), preschool pupils learned to use a golden key to initiate interactions with their peers with ASD. Pupils with ASD were simultaneously taught by an adult to respond to the visual trigger (golden key) or to initiate a game by using the key as well.

Effects: Almost all the reviewed studies showed positive intervention effects on the social interactions between pupils with ASD, BD, DD, and ID and their TD peers regarding the frequency, duration, and/or quality of the social interactions. Effect sizes were only mentioned by Banda et al. (2010), Katz and Girolametto (2013), and Mason et al. (2014). They reported medium to large effect sizes. In their meta-analysis, Whalon et al. (2015) also reported medium to large effect sizes for some of the single-case studies described in this section (Kohler et al., 2007; Nelson et al., 2007; Owen-DeSchryver et al., 2008; Thiemann & Goldstein, 2004). Several of these studies show that this positive effect was generalized or maintained once the intervention was removed (Batchelor & Taylor, 2005; Harper et al., 2008; Kamps et al., 1992; Kamps et al., 2015; Katz & Girolametto, 2013; Kohler et al., 2007; Nelson et al., 2007; Pierce & Schreibman, 1997; Thiemann & Goldstein, 2004). In the only study finding a mixed effect (Hundert & Houghton, 1992), a meaningful increase in interactions was found during the intervention, but this effect was neither generalized nor maintained once the intervention was removed.

Three studies found positive effects on the social acceptance of pupils with SEN, regardless of whether all classmates or only some were involved in the intervention, but do not mention effect sizes (Batchelor & Taylor, 2005; Goldstein et al., 1997; Thiemann & Goldstein, 2004). Indeed, the study by Thiemann and Goldstein (2004) revealed a positive influence on the TD pupils who did not actively participate in the intervention. Their social acceptance towards peers with ASD seemed to also improve. In contrast, one study found no positive effect on the social acceptance of pupils with SEN (Hundert & Houghton, 1992).

3.2 Group activities

Half of the studies measuring the effects of group activities on the social participation of children with SEN are experimental or quasi-experimental studies ($n = 6$). The others are single-case studies ($n = 6$). Two intervention strategies were implemented: group activities in the academic context (peer tutoring and cooperative learning), and group activities in the social context (e.g., support groups, interest clubs, group counselling, friendship activities, and structured play). In most studies, the group activities were moderated by teachers alone or in collaboration with the researchers.

Participants: A total of 216 pupils with SEN, aged 3 to 13 years, participated in these studies. The number of participants per study varies from two to 112. The participants are described as having BD ($n = 138$), LD ($n = 34$), ID ($n = 26$), ASD ($n = 15$), or DD ($n = 3$).

Interventions: Five studies evaluated the effects of cooperative learning and peer tutoring involving pupils with LD, ID, or ASD and their TD peers (Dugan et al., 1995; Fuchs, Fuchs, Mathes, & Martinez, 2002; Jacques, Wilton, & Townsend, 1998; Kamps et al., 1994; Sideridis et al., 1997). For example, in the study of Jacques et al. (1998), cooperative learning groups were implemented for six weeks in several classrooms during geography lessons. Fuchs and his colleagues (2002) studied the effects of peer tutoring in reading classes on the social acceptance and friendships of pupils with LD and their TD peers. Higher-performing pupils were paired with lower-performing pupils during the reading sessions, alternating the role of tutor and tutee.

In seven studies, the group activities were related to social topics. The group interventions involved structured play and friendship activities for pupils with DD and their TD peers (Frea, Craig-Unkefer, Odom, & Johnson, 1999), interest clubs during lunch or recess in which pupils with ASD and their TD peers were involved in fun activities related to a topic of interest of the pupils with ASD (Koegel, Vernon, Koegel, Koegel, & Paullin, 2012), weekly therapeutic group counselling for the whole class (Shechtman, 1997), or support groups focused on pupils with BD, LD, or ASD involving their TD peers (Frederickson & Turner, 2003; Frederickson, Warren, & Turner, 2005; Kalyva & Avramidis, 2005). In the study of Frederickson and Turner (2003), support groups called “Circle of

Friends” were created to discuss strategies weekly to solve the social problems and help pupils with BD. The study of Hunt, Farron-Davis, Wrenn, Hirose-Hatae, and Goetz (1997) is the only one evaluating a multi-component intervention including (1) information provision on the communication system and adapted curriculum of children with SEN, (2) the use of media to facilitate interactions, and (3) a partner system in which interactions are prompted and promoted by teachers.

Effects: In five studies (two experimental studies and three single-case studies), the implementation of group activities in an academic context involving pupils with ASD, BD, DD, ID, and LD and their TD peers, namely cooperative learning and peer tutoring, had a positive impact on the social interactions and social acceptance of pupils with SEN (Dugan et al., 1995; Fuchs et al., 2002; Jacques et al., 1998; Kamps et al., 1994; Sideridis et al., 1997). Cooperative learning and peer tutoring also positively influenced the academic achievement of pupils with and without SEN (Dugan et al., 1995; Kamps et al., 1994; Sideris et al., 1997). Effect sizes for these interventions were not reported.

The effects of group activities in a social context depended of the type of intervention. Findings of three experimental studies suggest that support groups such as the “Circle of Friends” have a positive effect on the social acceptance and social interactions of pupils with ASD, BD, and LD (Frederickson & Turner, 2003; Frederickson et al., 2005; Kalyva & Avramidis, 2005). In two of these studies medium to large effect sizes were reported (Frederickson & Turner, 2003; Frederickson et al., 2005). However, “Circle of Friends” had no significant impact on the perception of pupils with SEN regarding their social acceptance in the peer group (Frederickson & Turner, 2003). In addition, the positive effects did not seem to last once the “Circle of Friends” was no longer implemented (Frederickson et al., 2005). Interest clubs had a positive effect on interactions with peers during recess for children with ASD, but no effect size was reported (Koegel et al., 2012). A multi-component intervention to foster interactions with pupils with SEN also had a positive effect on interactions, but effect size was not reported (Hunt et al., 1997). Structured play and friendship activities in preschool classrooms, as well as therapeutic group counselling in primary classrooms, did not have a significant

positive effect on the social interactions, the social acceptance, and self-perceived social acceptance of pupils with SEN (Frea et al., 1999; Shechtman, 1997).

3.3 Training of paraprofessionals

Three of the studies measuring the effects of training paraprofessionals with the goal of increasing the frequency of social interactions between pupils with SEN and their peers are single-case studies (Feldman & Matos, 2012; Licciardello, Harchik, & Luiselli, 2008; Malmgren, Causton-Theoharis, & Trezek, 2005). One of them is an experimental study (Kretzmann, Shih, & Kasari, 2015).

Participants: These studies involved 34 pupils with SEN, aged 5 to 11 years. The number of target participants varies from three to 24. The participants are described as having ASD (n = 31) or BD (n = 3).

Intervention: The interventions reported in these studies targeted paraprofessionals who accompanied pupils with ASD or BD. Paraprofessionals received short trainings to learn how to facilitate social interactions between pupils with SEN and their TD peers. The training involved techniques in modelling, triggering, and positive reinforcement to stimulate the initiation and maintenance of social interactions. In a study by Kretzmann et al. (2015), for example, the paraprofessionals received active coaching to learn how to facilitate social interactions between pupils with ASD and their peers.

Effects: Three studies (two single-case studies and one experimental study) showed positive intervention effects of training paraprofessionals on the frequency and/or the quality of the social interactions between pupils with ASD and their TD peers (Feldman & Matos, 2012; Kretzman et al., 2015; Licciardello et al., 2008). Two studies reported medium to large effect sizes (Kretzman et al., 2015; Licciardello et al., 2008). In contrast, the single-case study conducted with children with BD yielded mixed findings (Malmgren, et al., 2005). The average rate of interactions increased for the three participants, but the low percentage of non-overlapping data reported by the authors suggests

that the intervention had a small positive effect for one participant, and a neutral effect for the other two participants.

4. Discussion

The goal of this systematic review was to identify and describe studies assessing the effects of interventions in mainstream preschool and primary classrooms aiming to improve the social participation of included pupils with SEN. Social participation of pupils with SEN has been defined along the four dimensions found by Koster and her colleagues (2009): the social acceptance of pupils with SEN by their peers, their self-perception of their own social acceptance, their social interactions with the peers and their social relationships/friendships with peers.

4.1 School-based interventions and their effectiveness

Different types of school-based interventions were identified in this systematic review: teaching interaction strategies to TD pupils, group activities in the academic or social context, and training of paraprofessionals to facilitate social interactions among pupils with ASD, BD, DD, HI, ID, LD, and VI and their TD peers. Although a majority of the studies report a positive impact of interventions, not all intervention types can be regarded as evidence-based. For most of them research is currently insufficient.

Based on the findings of this review, teaching social interaction skills to TD pupils in preschool and primary school classrooms is well documented and can be considered as an evidence-based intervention to improve social interactions among pupils with ASD, BD, DD, and ID and their TD peers. Indeed, several methodologically thorough studies revealed positive effects and reported medium to large effect sizes. This type of intervention also seems to have a positive effect on the social acceptance of children with SEN (Batchelor & Taylor, 2005; Goldstein et al., 1997; Thiemann & Goldstein, 2004), but studies are lacking to draw firm conclusions.

Three other intervention types seem to be effective, even if they are not yet sufficiently documented by methodologically thorough studies to be considered evidence-based according to the

criteria from the Council of Exceptional Children (2014). First, group activities in the academic context, namely cooperative learning and peer tutoring, were found to have a positive effect on the social acceptance and social interactions of pupils with SEN (Dugan et al., 1995; Fuchs et al., 2002; Jacques et al., 1998; Kamps et al., 1994; Sideridis et al., 1997). Unfortunately, no effect sizes were reported, making it difficult to compare its effectiveness with the other type of interventions. Second, regularly implemented support group meetings (i.e., “Circles of Friends”) positively influenced the social acceptance and social interactions of pupils with ASD or BD with medium to large effect sizes (Frederickson & Turner, 2003; Frederickson et al., 2005; Kalyva & Avramidis, 2005); however, this positive effect does not seem to last for children with BD once the support group is no longer implemented (Frederickson et al., 2005). The existing research is insufficient to draw conclusions on the effectiveness of other types of group activities in the social context. Third, training and coaching paraprofessionals has a positive effect on social interactions between pupils with ASD and their peers with medium to large effect sizes (Feldman & Matos, 2012; Kretzmann et al., 2015; Licciardello, et al., 2008). Findings are mixed, however, regarding the effect of this intervention for children with BD (Malmgren et al., 2005).

4.2 Studies’ characteristics

A first observation that can be drawn from this systematic review relates to the type of school-based interventions. The necessity of involving classmates when implementing interventions to improve the social participation of pupils with SEN in general education classrooms seems to be recognized. All reviewed studies involved the participation of SEN pupils’ TD peers. The majority of the researchers even decided to involve all classmates in the interventions to ensure the maintenance and generalization of the positive effects. In addition, most of the studies delegated the implementation of interventions to the school staff, such as teachers, classroom assistants, and/or paraprofessionals. Teaching interaction strategies to pupils was by far the most evaluated type of intervention, followed by group activities in the academic or social context. The least investigated type of school-based intervention is the training of paraprofessionals or other members of the school staff to facilitate

interactions among pupils with and without SEN. Thus, there is a clear need for increased quantity and quality of research on school-based interventions to foster the social participation of SEN pupils in mainstream classrooms, especially on group activities and training of school staff. The Council for Exceptional Children (2014) offers useful guidelines to plan methodologically sound studies with experimental group comparison designs or single-subject experimental designs. Finally, it could be interesting to further investigate the implementation of group activities in the academic context, namely cooperative learning and peer tutoring. This type of intervention strategy is promising because first, it is inclusive, since all pupils can be involved in the activities, second, academic as well as social positive outcomes can be expected, and third, the implementation is relatively easy and cost-effective.

A second observation is that a majority of the studies were conducted with pupils with ASD. As a consequence, there is a broad knowledge on interventions to foster the social participation of these pupils. However, there are also other groups of pupils with SEN who are included in general education classrooms and need special support with regard to social participation. More intervention studies on different groups of children with SEN are clearly needed.

A third observation is that social interactions are by far the most assessed dimension of social participation for evaluating the effects of school-based interventions to improve the social participation of pupils with SEN. The emphasis on this dimension could be due to the difficulties individuals with SEN face and the fact that the majority of the studies actually involved pupils with ASD, who generally have difficulties interacting with peers (Camargo et al., 2014; Whalon et al., 2015). Another potential reason for the focus on social interactions is that this dimension is perceived as being easier to influence and evaluate than, for example, the self-perception of social acceptance or friendships. Social interactions can certainly be seen as the “basic dimension” when trying to foster the social participation of pupils with SEN. Without social interactions, it is impossible to form social relationships or friendships (Fabes, Martin, & Hanish, 2009). Although a great number of studies show that pupils with SEN are less accepted and more often rejected by their classmates compared with TD peers, studies evaluating interventions aimed at improving social acceptance are less frequent. The few

studies demonstrate that this dimension of social participation can be positively influenced by school-based interventions (Batchelor & Taylor, 2005; Goldstein et al., 1997; Frederickson & Turner, 2003; Fuchs et al., 2002; Jacques et al., 1998; Thiemann & Goldstein, 2004). The two other dimensions of social participation, friendships between SEN pupils and their classmates, and the SEN pupils' self-perception of their social acceptance in the classroom, have been clearly neglected in intervention studies. This is somewhat surprising given the important role of friendships for children's socio-emotional development (Ladd, 1990; Ladd & Troop-Gordon, 2003). In addition, pupils' self-perception of their social acceptance can be regarded as an aspect of the sense of belonging that has been identified by several researchers as an important part of social participation (Eriksson & Granlund, 2004; Falkmer et al., 2012; Hammel et al., 2008). This research gap makes it difficult to draw conclusions concerning the types of interventions that could improve the friendships and the self-perception of social acceptance of pupils with SEN. When planning future interventions studies it could be interesting to measure several dimensions of social participation to encompass the multidimensionality of the concept and better understand the social processes influenced by the intervention.

4.3 Limitations

This systematic review has several limitations. First, the definition of social participation by Koster et al. (2009) was used to determine the key words for the search of articles. Only generic terms were used, neglecting the descriptive parameters (e.g., victimization in the dimension of social acceptance). Interesting articles might have been excluded because they did not match the selection criteria (e.g., interventions on social cognition). Second, the inclusion criteria regarding the full membership of pupils with SEN in mainstream classrooms turned out to be challenging. The inclusion practices were not always described in detail in the studies. Third, the results are not representative regarding pupils with SEN as a whole and social participation in general. The findings especially focused on pupils with ASD and the dimension of social interactions.

4.4 Conclusion

This review shows that there are various effective strategies to foster the social participation of pupils with SEN in inclusive classrooms. Interestingly, no studies have been conducted in French- and German-speaking countries, and a majority of the reviewed studies were conducted with pupils with ASD. This means that the knowledge on interventions to facilitate social participation tends to be restricted to a specific group of pupils and selected educational systems. If researchers wish to recommend evidence-based intervention strategies, more methodologically sound studies evaluating the effects of interventions on multiple dimensions of social participation of pupils with SEN, especially children with LD, BD, ID or sensory and/or motor impairments, are clearly needed.

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Social Participation in Inclusive Classrooms: Empirical and Theoretical Foundations of an Intervention Program¹⁵

Abstract

Improving the social participation of children with special educational needs (SEN) is one of the central goals of inclusive education. However, studies consistently show that children with SEN included in general education classrooms are at risk of being socially excluded by their peers. Interventions are required to promote every child's social participation. This article reviews skill-based, environment-based, and multicomponent interventions promoting the social participation of children with SEN included in general education classrooms. It then describes a multicomponent intervention program encompassing intervention strategies taking place at the individual, group, and teacher level. A first strategy is to provide pupils with opportunities to learn social skills in peer learning dyads. A second aims at forging a common group identity by holding regular group meetings to discuss common social goals. A third consists of supporting teachers to improve their feedback.

1. Introduction

Currently, international and national policies promote inclusive education for children with disabilities. The UN Convention on the Rights of Persons with a Disability (United Nations, 2006) supports the right of children with disabilities to be educated alongside their typically developing peers. Increasing the participation of all pupils, whatever their differences, in all of the academic and

¹⁵ Copyright © 2015 by Springer. Reproduced [or adapted] with permission. The official citation that should be used in referencing this material is: Garrote, A., & Sermier Dessemontet, R. (2015). Social participation in inclusive classrooms: Empirical and theoretical foundations of an intervention program. *Journal of Cognitive Education and Psychology*, 14(3), 375–388.

social opportunities offered at school is seen as one of the major aims of inclusion (Ainscow & Caesar, 2006; Booth & Ainscow, 2002). From a social perspective, inclusion in a general education classroom allows pupils with special educational needs (SEN)¹⁶ more contact with typically developing peers than do special schools or special classes. These interactions can lead to typically developing children (Maikowski & Podlesh, 2009; Nowicki & Sandieson, 2002; Siperstein, Norins, & Mohler, 2006) and teachers (Parasuram, 2006; Sermier Dessemontet, Morin, & Crocker, 2014) developing more positive attitudes towards disability. This is a crucial issue because negative attitudes towards persons with disabilities can create a barrier to their social participation in society (Scior, 2011). Studies have even showed that being included in a general education classroom reduces the risk of children with SEN being bullied by other children at school and in the neighbourhood (Rose, Monda-Amaya, & Espelage, 2010).

Although inclusive education in comparison with differentiated education seems to be the better option for the social participation of pupils with SEN, studies conducted in inclusive settings show that those settings also have their problems. Successful social participation in inclusive classrooms means that children with SEN have positive social interactions with their classmates, that they are socially accepted by them, that they feel socially accepted, and that they have friends (Bossaert, Colpin, Pijl, & Petry, 2013; Koster, Nakken, Pijl, & van Houten, 2009). However, the majority of the studies found that pupils with SEN tend to be less involved in social interactions, have fewer friends and are more often rejected compared to their peers without SEN (Freeman & Alkin, 2000; Huber, 2009; Kasari, Locke, Gulsrud, & Rotherdam-Fuller, 2011; Koster, Pijl, Nakken, & van Houten, 2010; Nadeau & Tessier, 2003; Nowicki, 2003; Ochoa & Olivarez, 1995). This finding seems to be consistent across all types of disability. Studies conducted with children with learning disabilities (Nowicki, 2003), behaviour problems (De Monchy, Pijl, & Zandberg, 2004; Mand, 2007), physical disabilities (Nadeau & Tessier, 2003), autism spectrum disorders (ASD; Chamberlain, Kasari, & Rotherdam-Fuller, 2007; Kasari et al., 2011), and intellectual disability (ID; Freeman & Alkin, 2000),

¹⁶ When referring to all kinds of disabilities the expression social educational needs will be used, otherwise the specific disability (e.g., intellectual disability, autism spectrum disorder) will be explicitly mentioned.

or hearing impairments (Cappelli, 1995) find that these children are more at risk of having difficulties in their social participation than children without disabilities. This phenomenon is also observed across different national school systems. For example: the USA (Pavri & Luftig, 2001), the Netherlands (Koster et al., 2010), Spain (Cambra & Silvestre, 2003), Norway (Pijl, Frostad, & Flem, 2008), Canada (Nadeau & Tessier, 2003), Germany (Huber, 2009), and Switzerland (Grütter, Meyer, & Glenz, 2015). In addition, it is worrying that social rejection tends to be stable throughout the school years (Frostad, Mjaavatn, & Pijl, 2011; Kuhne & Wiener, 2000). It seems that simply including students with SEN in general education classrooms is not sufficient to guarantee their social participation; therefore interventions must be implemented (Cambra & Silvestre, 2003; Maras & Brown, 1996; Terpstra & Tamura, 2008).

Recent research focuses on the influence of teachers on social participation (Huber, 2011; Huber, Gebhardt, & Schwab, 2015; Mikami, Griggs, Reuland, & Gregory, 2012; Mikami, Lerner, & Lun, 2010). In a qualitative study by Salisbury, Galluci, Palombaro, and Peck (1995), inclusive classrooms teachers emphasized the importance of modelling social acceptance in order to foster the social participation of children with severe disabilities. It seems that children prefer peers who appear to be accepted by the teacher (Huber, 2011, Mikami et al., 2012). A strong connection has been found between social acceptance and teacher feedback. Children regularly receiving negative feedback from their teacher seem to be less accepted by their peers. In an experimental study by Huber et al. (2015) pupils rated pictures of children more favourably when they were presented in the context of positive teacher feedback. Conversely, pictures of children accompanied by negative teacher feedback were rated less favourably. These findings suggest that the role of the teacher ought to be considered when planning interventions to foster the social participation of pupils.

Research on social participation has predominantly focused on the individual deficits of children that contribute to their difficulties with peers (Killen, Mulvey, & Hitti, 2013; Mikami et al., 2010). Consequently, the development of interventions has been influenced by this approach. Interventions to foster social participation in inclusive classrooms are reviewed in the following section. The focus will be on programs implemented in preschool and primary settings.

2. Interventions fostering the social participation of children with SEN in inclusive classrooms

In the following, interventions improving the social participation of children with SEN included in general education classrooms are reviewed within an organizational framework adapted from a review by Carter and Hughes (2005). These authors distinguish between skill-based interventions (interventions focusing on teaching skills to the children with SEN) and support-based interventions (interventions focusing on the social environment). We also describe a third type of intervention: multicomponent interventions, which combine skill-based and support-based approaches.

Skill-based interventions. One of the factors identified as contributing to the difficulties in social participation experienced by children with SEN in inclusive classrooms is a lack of social skills (Camargo et al., 2014; Carter & Hughes, 2005; De Monchy et al., 2004). Skill-based interventions focus exclusively on children with SEN teaching them social skills. Meta-analyses indicate that these interventions only have a modest effect on the social skills of children with learning disabilities (Forness & Kavale, 1996), children with behavioural or emotional disorders (Quinn, Kavale, Mathur, Rutherford, & Forness, 1999) and children with ASD (Bellini, Peters, Benner, & Hopf, 2007). The interventions also have only a small effect on SEN pupils' social acceptance and abilities to form friendships in the classroom (Forness & Kavale, 1996; Quinn et al., 1999). One possible explanation for the weak effects of social skills training is that these interventions often take place in non-naturalistic settings, such as clinical settings, resource rooms or other pull-out settings (Gresham, Sugai, & Horner, 2001). This hinders the generalization of the learned social skills into the natural context, which may involve different persons and different social situations (Camargo et al., 2014; Gresham et al., 2001). The importance of the setting where social skills are learned is supported by a recent meta-analysis of single-case studies from Whalon, Conroy, Marinez, and Werch (2015), which indicates that child-specific social skills interventions taking place in the children's natural school setting do have a moderate to strong positive effect on the social interactions of children with ASD. Another possible explanation for the lack of success is that studies usually assess the effect of social training packages. Therefore, the intervention is not tailored to each child's social skills and social needs (Gresham et al., 2001; Quinn et al., 1999). As regards the small effect of social skills training on

social acceptance, it is also possible, that even if these children slightly improve their social skills, their peers continue to avoid interacting with them. This might impede them from altering their perception and acceptance of their peers with SEN. For many children with SEN, particularly for children with behavioural problems or AS, tailoring social interaction skills training to the children's needs seems to be a necessary component of an intervention aiming to improve their social participation (Camargo et al., 2014; Frostad & Pijl, 2007; Quinn et al., 1999). However, interventions that only focus on skills for children with SEN seem insufficient, by themselves, to improve the social participation of children with SEN, especially with regard to their social acceptance and social relationships within the classroom.

Support-based interventions. A second set of interventions focuses on modifying the social environments of children with SEN in order to promote or support positive interactions with their peers. One type of support-based intervention consists of teaching typically developing peers to use interaction strategies with their SEN peers and is also known as peer-mediated intervention (Whalon et al., 2015). Indeed, typically developing children do not always know how to initiate and maintain interactions with children with SEN, especially when the latter have limited communication skills. In several single-case studies conducted in preschool or elementary schools, typically developing children have been trained to interact with their peers with SEN. For example, in the single-case study of Goldstein, English, Shafer, and Kaczmarek (1997) typically developing children were taught three strategies, mutual attention to the play activity, commenting about ongoing activities, and general acknowledgement of communicative behaviours, in order to improve their social interactions with eight peers with ID. This type of intervention was found to increase the social interactions between children with ID and their classmates without disabilities during free play, lunch-time or recess. Better maintenance effects were observed when several peers had been trained or when children were encouraged to use the learnt skills not only during free play, but also while undertaking a variety of activities across the day. This type of intervention was also found to improve the social acceptance of some children with ID (Goldstein et al., 1997; Moreau & Leduc, 1993). As regards children with ASD, findings from a meta-analysis of single-case studies indicate that peer-mediated interventions

have a strong effect on their social interactions with peers (Whalon et al., 2015). Interestingly, in the single-case study of Owen-DeSchrywer, Carr, Cale, and Blakeley-Smith (2008) conducted in elementary schools untrained peers unexpectedly increased their interaction initiations with three children with ASD during lunch-time and recess. This suggests that untrained peers observed and modelled the behaviours of their trained peers towards the children with ASD.

A second type of support-based intervention consists of engaging volunteer typically developing children to pro-actively support the social participation of children with SEN. A few studies used a supportive network called “circle of friends”. Volunteer children met each week with a child with disability and an adult facilitator and tried to resolve, collaboratively, the social problems experienced by the child with SEN and then planned supportive practical arrangements (Whitaker, Barratt, Joy, Potter, & Thomas, 1998). This intervention resulted in increased social interactions between five children with ASD and their peers without SEN in preschool settings (Kalyva & Avramidis, 2005). In a group study conducted in elementary school settings, the “circle of friends” approach was found to have positive effects on the social acceptance of children with emotional or behavioural difficulties by their classmates (Frederickson & Turner, 2003). In a qualitative study, an increase in the frequency of the social interactions of six children with ASD with their non-SEN peers was observed (Whitaker et al., 1998).

A third type of support-based intervention is peer learning – cooperative learning or peer tutoring – to promote and support the contact between the children with SEN and their classmates. Generally, the effects of peer learning are well researched (Topping, 2005). Studies show that peer tutoring and cooperative learning can be successfully implemented in groups of children with and without SEN (Murphy, Grey, & Honan, 2005; Spencer & Balboni, 2003). However, there has only been limited research into whether peer tutoring and cooperative learning works in inclusive classrooms. In one group study, implementing cooperative learning was found to improve the social acceptance of children with mild ID included in general education classrooms (Jacques, Wilton, & Townsend, 1998). In the case study of Tan and Cheung (2008), collaborative group work on a computer, with an adult facilitator, seemed to improve the social acceptance of a child with attention

deficit hyperactivity disorder by his peers. Introducing peer tutoring during reading instruction was found to have a positive effect on the social acceptance of children with learning disabilities in another group study (Fuchs, Fuchs, Mathes, & Martinez, 2002). A single-case study conducted with children with ASD showed class-wide peer tutoring during reading instruction resulted in an increase in their social interactions with their peers during free time play (Kamps, Barbetta, Leonard, & Delquadri, 1994).

Multi-component interventions. Some authors recommend the combination of skill-based interventions with support-based interventions (Carter & Hughes, 2005; Xie, Potměšil, & Peters, 2014). Several single case studies conducted with children with ASD investigated the effects of combining skill-based interventions (focusing on the included children with disabilities) with support-based interventions (focusing on his social environment). Whalon et al. (2015) conclude from their meta-analysis that such multicomponent interventions have a strong positive effect on the social interactions of children with ASD with their typically developing peers. For example in the single-case study from Banda, Hart, and Liu-Gitz (2010) conducted in two kindergarten classes, an adult instructed two pupils with ASD and their typically developing peers concurrently. Increased initiations and responses during circle time academic activities were subsequently observed. Other studies have incorporated additional strategies. For example, Thiemann and Goldstein (2004) combined peer training with social skills instruction provided by an adult using written text cues with five children with ASD in inclusive elementary classrooms. This resulted in an improvement in their social-communication skills and the perceived quality of their interactions. An improvement of social acceptance was observed for only two of the participants with ASD.

3. Implications for planning interventions

Recapitulating, three approaches can be found in the literature regarding interventions to improve social participation in inclusive classrooms: skill-based (focusing on the pupil with SEN), support-based (focusing on the social environment) and multi-component interventions (targeting both individuals and the social environment). While skill-based interventions on their own do not appear to

foster social participation, support-based and multi-component interventions can lead to an improvement of social interactions between children with and without SEN.

Although the interventions reviewed above provide valuable insights for researchers and practitioners, they do have some limitations. First, most of the support-based interventions or multi-component interventions were planned for children with ASD, and to a lesser extent for children with ID. Children with ASD are not the only ones to experience difficulties with social participation in inclusive classrooms. Children with more common disabilities, such as learning disabilities, and behavioural and emotional difficulties, are also at risk of being less accepted by their peers (De Monchy et al., 2004; Mand, 2007; Nowicki, 2003). However, skill-based interventions with these groups of children have shown only limited success. Therefore, studies on support-based interventions or multi-component interventions aiming at improving the social participation of children with ID, learning disabilities, behavioural and emotional difficulties are clearly needed.

Second, the majority of the interventions reviewed were directed solely at children identified as having special educational needs. We should not forget that some children who may not be classed as SEN could have other issues, perhaps low academic achievement, which may also make them less accepted by their peers (Nowicki, 2003). Therefore, it is important to create intervention programs that aim to improve the social participation of all children in inclusive classrooms. From a more practical point of view, it may also be easier to convince teachers to implement an intervention that may be beneficial for the whole class, rather than specific interventions that are perceived to benefit only a few pupils. Peer learning arrangements benefit individuals and the larger peer group. As described in the section of support-based interventions, programs implementing cooperative learning and peer tutoring seem to improve the social acceptance and the social interactions of children with SEN in inclusive classrooms.

Third, most of the reviewed interventions aiming to improve components of social participation targeted individuals: the child with SEN or/and some of their peers. Interventions also need to consider group factors rather than focusing only on the development of individual social skills (Killen et al., 2013). Several studies documented the impact of group identity and group norms on

components of social participation, such as social acceptance (Abrams, Rutland, & Cameron, 2011; Chang, 2004; Hitti, Mulvey, & Killen, 2011; Mikami et al., 2010; Nesdale, 2011). Elementary school pupils show a sense of collective identity at an early age, often feeling responsible for the actions of in-group members (Bennett & Sani, 2008). They are also well aware of group norms and tend to behave accordingly (Nesdale, 2008). Chang (2004) investigated the role of group norms on the acceptance of behavioural traits and found that prosocial children were more accepted in classrooms with a “prosocial norm” whereas aggressive children were rather accepted in classrooms with an “aggressive norm”. As the findings indicate, the social exclusion of children showing divergent behaviour might be dependent on group dynamics. Interestingly, studies investigating the factors that facilitate contact between different groups, defined by different traits, show that children are more positive toward out-group members when the in-group norm endorses acceptance and inclusion (Nesdale, 2011). Creating a common group identity also seems to facilitate acceptance between groups (Gaertner et al., 2008). Taking these findings into account, facilitating the creation of a more inclusive group norm and a common class identity in inclusive classrooms seems to be an important goal to pursue in intervention programs.

Fourth, most of the interventions reviewed aimed at improving only one component of social participation: Social interactions. It is important to design intervention programs that combine skill- and support-based approaches and that do not only aim to increase social interactions, but also to improve other components of social participation such as social acceptance, perceived social acceptance and friendships.

Finally, teachers must be actively involved in order to achieve such an ambitious goal. It is important to ensure that they conscientiously implement intervention strategies in their classrooms while being aware of the importance of teacher feedback in influencing social acceptance of pupils.

In conclusion, the following points should be considered when planning an intervention: 1) The intervention should aim to improve the social participation of children with all forms of disabilities, 2) all of the pupils in a classroom should be involved in the intervention, 3) the influence of group dynamics on the social participation of individuals should be given due consideration, 4)

skill- and support-based approaches should be combined, and 5) the role of teacher feedback with regard to the social participation of pupils should be highlighted.

4. Effective strategies to foster social participation

As described in the introduction, although teaching children with SEN and children without SEN in the same classroom gives them the opportunity to be in contact with each other, these contacts do not necessarily lead to a satisfactory social participation. More than half a century ago Allport (1954) investigated the optimal environment conditions that can lead to positive contact between different ethnic groups. He claimed that contact must be structured to get positive outcomes. The contact would be greatly enhanced by the presence of a number of conditions including equal status between the groups in the situation, institutional support, common goals and intergroup cooperation. Over the past few decades, the effects of Allport's optimal conditions have been identified in several studies and extended to other groups, like groups of children with and without SEN (Pettigrew & Tropp, 2006).

In inclusive classrooms, equal status is assumed between pupils with and without SEN. The contact between pupils with and without SEN also has to be supported institutionally by the school and the teaching personnel, especially with the implementation of strategies like giving supportive feedback to pupils. Research on peer learning – peer tutoring and cooperative learning – shows, cooperation and common goals can be implemented effectively within groups of children with and without SEN leading to positive social outcomes (Maras & Brown, 1996; Murphy et al., 2005; Piercy, Wilton, & Townsend, 2002). Taken together, in order to foster positive contacts in inclusive classrooms, interventions need to aim at improving cooperation between pupils, creating common goals for pupils and enhancing the teacher support. Therefore, an optimal intervention improving the social participation of all pupils in inclusive classrooms as its primary goal, combines aims and strategies focusing on the individual but also on environmental components on the group and teacher level.

Individual level. As described before, several studies report particular individual differences and personality variables leading to problems in social participation. For example, difficulties in maintaining social relationships seem to be connected to individual social skills deficits (Perren, Forrester-Knauss, & Alsaker, 2012). Therefore, it is difficult for pupils with SEN, who tend to be less

involved in social interactions (Koster et al., 2010), to get opportunities to acquire social skills like cooperative or prosocial behaviour. As a result, interventions aiming to foster social participation need to not only focus on imparting social skills to individuals at risk (Camargo et al., 2014), but must also involve their peers (Bierman, 2004; McConnell, 2002). These findings lead to a first intervention aim, focusing on the individual level: (1) Providing pupils opportunities to learn other-oriented social skills with their peers.

Malti and Perren (2008) differentiate between self-oriented and other-oriented social skills. Self-oriented skills aim to fulfil one's own needs and other-oriented skills aim to promote the wellbeing of others and maintain positive social relationships. The latter foster social participation and are beneficial to individuals and to the class as a group. Other-oriented social skills involve prosocial and cooperative behaviour (Perren et al., 2012) and can be complemented with cooperative learning and peer tutoring. While cooperative learning groups provide an optimal setting for learning cooperative behaviour, peer tutoring is best suited for practising prosocial behaviour. Both peer learning arrangements can be successfully implemented in groups of pupils with and without SEN (Murphy et al., 2005; Spencer & Balboni, 2003).

Group level. Interventions targeting individual social skills can also have an impact on the group level. The learning of other-oriented social skills can modify group behaviour to move the norm towards a more cooperative and accepting one (Jordan & Le Métails, 1997), which in turn would have an impact on aspects of the social participation of individuals (Nesdale, 2011). Interventions should thus aim to foster group specific factors rather than focusing only on imparting individual social skills (Killen et al., 2013). As discussed in the review section, a more accepting group norm as well as a common group identity has been shown to have an impact on components of the social participation of individuals (Gaertner et al. 2008; Nesdale, 2011). A second intervention aim should therefore target the group level: (2) Creating a common group identity.

Introducing objectives for the whole class can help to create a common group identity (Bierman, 2004). Ensuring the social participation of all pupils in a classroom is one possible objective (Wiebe Berry, 2006). As full social participation within the group can only be achieved with the

cooperation and prosocial behaviour of everyone in the classroom, each individual is responsible for contributing to this common social goal. Discussions held in “circles of friends” with the aim to finding strategies for achieving common social goals seem to be effective in groups of pupils with and without SEN (Whitaker et al., 1998). However, “circles of friends” only involve some pupils and focus solely on improving the social participation of the pupil with SEN. The promotion of social participation by everyone in the classroom requires strategies which involve every pupil in the group discussions. In such collaborative classroom meetings lead by the teacher, children can also practice talking about their wellbeing, listening to each other and respecting others’ opinions.

Teacher level. Developing an intervention program that targets the environment should focus not only on the peer group but also on the teacher. As mentioned in the introduction, studies show that the social participation of pupils is associated with teacher feedback. Pupils are more accepted by other children when teachers give them positive valuations and less accepted when teachers give them negative valuations. However, negative feedback seems to have a bigger impact on the social acceptance of pupils than positive feedback (Huber et al., 2015; White & Jones, 2000). A third intervention aim should therefore focus on teacher feedback: (3) Fostering supportive teacher feedback.

Interventions that foster the social acceptance of pupils by focusing on teacher feedback have not been much researched. Nevertheless, positive social outcomes can be expected when teachers use supportive feedback strategies like positive praise or avoiding public reprimand (Bierman, 2004; Jordan & Le Métails, 1997).

To sum up, improvements to the level of social participation by all pupils in inclusive classrooms can be achieved by targeting interventions at three levels: Individual children, the group and the teacher (Figure 1). The strategies involved in achieving the primary goal are first, giving children with and without SEN opportunities to learn cooperative and prosocial behaviour in peer dyads; second, creating a group identity by calling regular class meetings to discuss common social goals; and third, training teachers to give supportive feedback to their pupils.

5. Fostering social participation in inclusive classrooms: Describing an intervention

We designed an intervention program intended for implementation by teachers during their regular classroom activities. The methodology of the different components of the intervention is described below.

Individual level. Pupils are given the opportunity to practice cooperative and prosocial behaviour in peer dyads cooperating regularly and taking alternately the role of tutor and tutee. In order to provide learning opportunities in different social situations it is foreseen that the peer learning dyads are randomly created every week using games like finding matching cards (with the same animal, instrument, etc.) and that pupils are involved in peer activities (e.g. conducting an experiment, inventing a story, reading-aloud) during fifteen-minute-periods three times a week. The teachers are free to choose when to implement the peer learning dyads in their regular classroom activities. So that pupils can gradually learn the basic rules of cooperation and tutoring, the activities in the peer dyads are less demanding in the beginning (e.g. creating a collage together, helping to carry out a simple task) and gradually become more complex (e.g. explaining an exercise, inventing a story).

Group level. A weekly class meeting is instituted for pupils to discuss social matters concerning the whole class. They report how they feel in their learning dyads and generally in their class by putting a sticker on a provided poster. The better the pupils feel, the higher up on the poster they place the stickers. The cluster of stickers placed by the pupils builds a “cloud” (of stickers) that illustrates the overall feeling of wellbeing in the classroom. The common social goal is to make the “cloud” go up or stay high. In addition, these meetings give children the opportunity to discuss optimal strategies for dealing with any problems relating to social participation that might emerge. The meeting also helps to improve the norm towards a more accepting one by introducing social rules like listening to each other and respecting the ideas of others. Additionally, group meetings are ideal settings for fostering group identity.

Teacher level. Teachers attend two training sessions during which they are informed about the relationship between feedback and social acceptance and are instructed on how to give supportive

feedback in the classroom by increasing positive praise and avoiding public reprimand. The teachers then plan strategies to improve supportive feedback, like being reminded by their colleagues or practicing supportive feedback in specific situations (e.g., in a class meeting, during peer learning sessions).

The three components of the intervention program – peer learning, weekly class meetings and supportive feedback – can be easily integrated by teachers into their regular activities. To find out if the multi-component intervention program targeting different levels can positively influence the social participation of pupils in inclusive classrooms, we want to study the impact on friendships, perceived social acceptance and social acceptance, but also on individual social skills.

6. Conclusion

This paper provides an empirical and theoretical foundation for designing intervention programs that foster social participation in inclusive classrooms. It describes several interventions for the improvement of social participation in inclusive classrooms. The following factors were found to be important for planning successful interventions: a combination of skill- and support-based approaches is most efficacious, all pupils in a classroom should be involved, children with different forms of disabilities should be able to benefit, and environmental factors, like the influence of group dynamics and the role of teacher feedback, need to be taken into account.

As a result, strategies for promoting social participation in inclusive classrooms were suggested on three levels: On the individual level, opportunities to learn other-oriented social skills with peers should be provided. This can be implemented with peer learning dyads in regular activities to learn cooperative and prosocial behaviour. On the group level, creating a common group identity seems to be beneficial. We suggested weekly group meetings to discuss common social goals. And finally, teachers should be encouraged to give supportive feedback and trained in how best to deliver it, increasing positive praise and avoiding negative feedback.

This multicomponent approach has limitations and weaknesses. Since several components are meant to influence several aspects of social participation it is possible that positive outcomes cannot

be clearly related to a specific component of the intervention. In addition, research on the influence of teacher feedback on social participation is new and we do not know yet if it is possible to affect an improvement.

Nevertheless, there is a clear need for additional research on multi-component interventions aimed at improving or fostering the social participation of pupils with SEN included in general education classrooms. Increased knowledge on effective strategies would allow a greater number of pupils with SEN to truly benefit from all of the potential social advantages offered by inclusive education.

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B Curriculum Vitae

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Academic and Working Experience

- 09/2012 – present Research assistant and lecturer, Institute of Educational Science, University of Zurich
- 04/2010 – 04/2012 Research assistant, Department of Developmental Psychology and Department of Economics, University of Zurich
- 09/2009 – 01/2010 Independent researcher at the Columbia University, New York
- 03/2008 – 07/2009 School psychologist
- 10/2005 – 06/2008 Research assistant, Department of Developmental Psychology, University of Zurich
- 2002 – present Social worker, disability care worker and teacher in several institutions for child and youth support

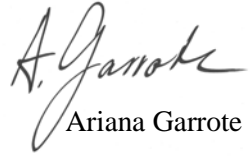
Education

- 09/2012 – present Doctoral program, Institute of Educational Science, University of Zurich
- 10/2016 Certificate in Teaching Skills, University of Zurich
- 07/2013 Diploma for Expert in Sexual Health Education and Consulting, Santé Sexuelle Suisse, Hochschule Luzern
- 03/2009 Master of Arts in Psychology, Psychopathology of Children and Youth, and Criminology, University of Zurich

C Statement of Authorship

I hereby declare that I am the sole author of this doctoral thesis and that I have not used any sources other than those listed in the bibliography and identified as references. I further declare that I have not submitted this thesis at any other institution in order to obtain a degree.

Zürich, 7 December 2016


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