

This item is the archived peer-reviewed author-version of:

An analysis of research on inclusive education : a systematic search and meta review

Reference:

Van Mieghem Aster, Verschueren Karine, Petry Katja, Struyf Elke.- An analysis of research on inclusive education : a systematic search and meta review
International journal of inclusive education - ISSN 1360-3116 - (2018)
Full text (Publisher's DOI): <https://doi.org/10.1080/13603116.2018.1482012>
To cite this reference: <https://hdl.handle.net/10067/1516430151162165141>

An analysis of research on inclusive education: a systematic search and meta review

Aster Van Mieghem ^{a*}, Karine Verschueren^b, Katja Petry^c and Elke Struyf^d

^a*Faculty of Social Sciences, Department of Training and Educational Sciences, University of Antwerp, Gratiekapelstraat 10, 2000 Antwerp, Belgium, tel. +32 32 65 88 71, Aster.VanMieghem@UAntwerpen.be;* ^b*Faculty of Psychology and Educational Sciences, School Psychology and Child and Adolescent Development, KU Leuven, Tiensestraat 102, 3000 Leuven, Belgium, tel. +32 16 32 61 06, Karine.Verschueren@KULeuven.be;* ^c*Faculty of Psychology and Educational Sciences, Parenting and Special Education Research Unit, KU Leuven, Leopold Vanderkelenstraat 32, 3000 Leuven, Belgium, +32 16 32 59 08, Katja.Petry@KULeuven.be;* ^d*Faculty of Social Sciences, Department of Training and Educational Sciences, University of Antwerp, Venusstraat 35, 2000 Antwerp, Belgium, tel. +32 32 65 49 31, Elke.Struyf@UAntwerpen.be.*

*Gratiekapelstraat 10, 2000 Antwerp, Belgium, Aster.VanMieghem@UAntwerpen.be

INTRODUCTION

Policy developments (UNESCO 2000; United Nations 2007) have put inclusive education (IE) on the worldwide reform agenda. Despite the globally accepted importance of IE, the interpretation of the concept remains ambiguous, varying from 'inclusion as concerned with disability and 'special educational needs (SEN)'' to 'inclusion as a principled approach to education and society' (Ainscow, Booth, and Dyson 2006). Recent legislation in Belgium and the Netherlands (M-Decreet 2014; Wet op Passend Onderwijs 2014) focuses on the first typology, and is aimed to reduce their current segregated school systems in favour of IE. In line with these reform goals, IE is further defined as the commitment to include students with SEN in mainstream education by improving and adapting specific classroom practices to the individual needs of the learner (Coates and Vickerman 2008; de Boer, Pijl, and Minnaert 2010; Lindsay 2007), where students should not only be physically integrated, but also socially included. Regarding the effectiveness of IE, academic outcomes and socio-emotional outcomes should both be considered (Nakken, Pijl, and van Houten 2009). IE is therefore part of a broad human rights agenda that emphasizes the value of educating all students in mainstream education (Kurniawati et al. 2014; Lindsay 2007).

IE is a complex and multidimensional concept and has developed differently in various countries (Artiles and Kozleski 2007). Multiple researchers (e.g., Göransson and Nilholm 2014) point out differences in perspectives from politicians, researchers and practitioners regarding what schools can and should do for IE to succeed, and which should be considered when implementing and monitoring IE. IE involves ideas on how education and schools should be organized and can therefore be regarded as an educational philosophy, however, there will always be an already established educational system from which starting point the goals for IE should be set. According to Göransson and Nilholm (2014) politicians, to a large extent, decide what should be the goal of schooling. Practitioners translate these goals into practice, and therefore play a key role in implementing IE (Rouse 2017). Researchers should be open to different ideas about education, but should investigate how various levels and goals established for an educational system for inclusion can be achieved (Göransson and Nilholm 2014).

Previous research mentions a variety of positive reasons for promoting IE, and Sharma and Mahapatra (2007) suggest that SEN students experience the following benefits from inclusion: decreased rates of inappropriate behaviour; increased rates of individual learning objectives achieved; inclusion in future inclusive environments and social initiations; enhanced skill acquisition and generalization; and increased friendships. The benefits for typically developing students are reported as: increased understanding, acceptance and appreciation of diversity; meaningful friendships; respect for all people; preparation for a future inclusive society; and opportunities to master skills by practicing and teaching others.

As well as benefits, several challenges related to IE are mentioned in the research. According to Sharma and Mahapatra (2007) the greatest barrier to IE is the negative attitude of society towards it and in addition, there are obstacles in the form of physical barriers, the inability of the curriculum to meet the needs of a wide range of learners, and the lack of adequate training for staff.

Many reviews on different aspects of IE have been conducted, but there is no overall synopsis,

so an overview of previous reviews is required to guide future practice and research. The purpose of this paper therefore, is to analyse previous reviews into IE in mainstream primary and secondary education using the following research questions to guide us:

- (1) What themes of IE have already been examined in previous reviews?
- (2) What can be learned from this for future practice?
- (3) What research gaps can be addressed in future research on IE?

MATERIALS AND METHODS

A systematic search and review of studies into IE was carried out to answer these research questions, which aims to conduct a methodical and comprehensive search of relevant literature. It is useful to summarize what is already known, to make recommendations for future practice, and to identify gaps in the current research field (Grant and Booth 2009).

Search

To identify relevant reviews of IE, a comprehensive and systematic search was conducted by one researcher in January 2017, after a pilot search in December 2016 which was thoroughly discussed with all co-authors, using the following electronic databases: Education Resource Information Center (ERIC) and Web of Science (WoS). The descriptors “inclusive education” and “special educational needs” combined with “education” were inserted into the databases as ‘topic’ or ‘Boolean/phrase’ and the search was restricted to ‘peer reviewed journals’ and ‘academic journals’ to ensure a minimum standard of quality of the included article. In WoS it was possible to refine the search to ‘reviews’ and in ERIC ‘review’ was added as a search term, which yielded 616 articles of which 542 remained after duplicates were removed.

Selection

To ensure reproducibility and transparency of the review process, a review was included in our study if the search method was explicated, the included articles were mentioned, and if it focused on IE in mainstream primary and/or secondary education (Petticrew and Roberts 2006).

Figure 1 gives an overview of the selection process. This resulted in a final database of 26 reviews which were read thoroughly (Moher et al. 2009). An overview of the details of these studies (author(s); publication year; topics investigated; number of articles included; qualitative, quantitative or mixed articles included; and time frame of the systematic search) is presented in Table 1.

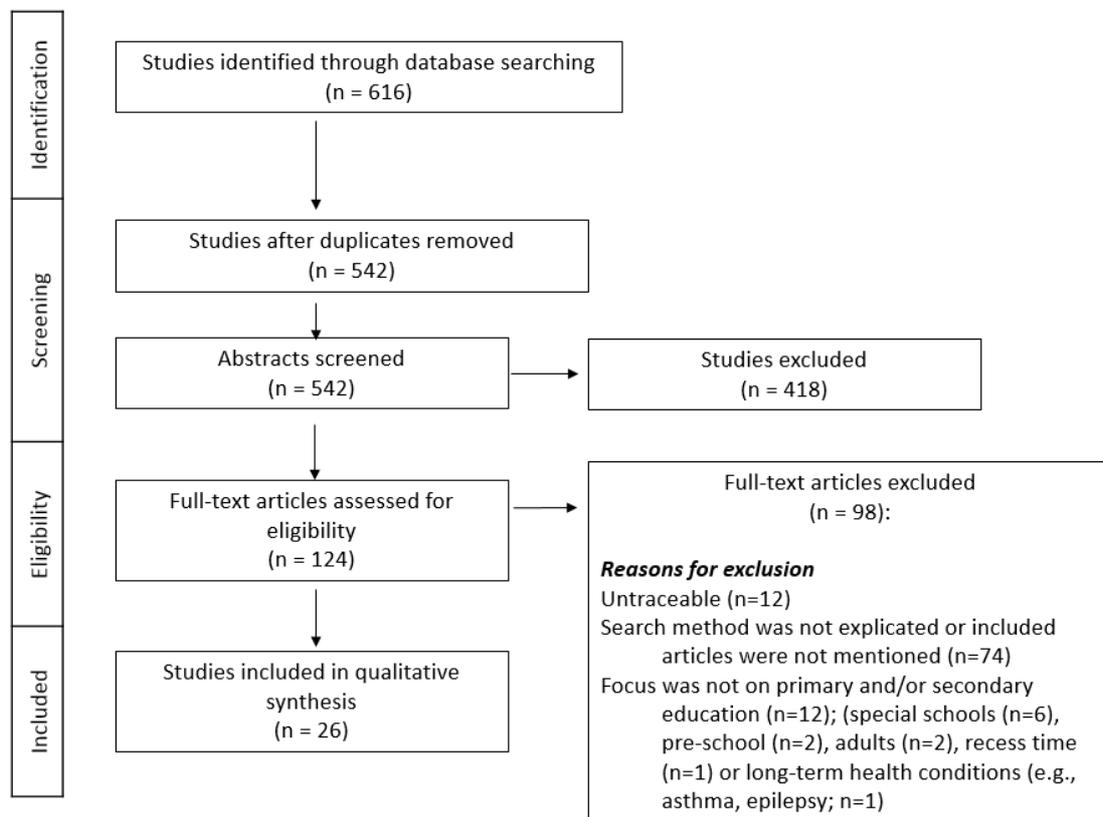


Figure 1: Flow-diagram of the process of this review on IE (based on Moher et al. 2009)

Analysis

A thematic content analysis was conducted to sort the information obtained from the selected reviews. To structure this process, the input-process-outcome model of Kyriazopoulou and Weber (2009) was designated, because it identifies core-areas that contribute to the realization of IE. Input represents “all aspects provided to the system to achieve a certain outcome” (14), and can vary from financial resources and policy developments to the training level of school actors and infrastructural issues. For this review, attitudes of stakeholders related to IE were added as a subtheme of input, because this also influences process and outcome. Process describes “all educational activities including procedures, state/school/district practice, or classroom instructional practice” (15). Outcome refers to “efficiency measures such as participation rates or curricular achievements” (15), for example academic and functional literacy, independence, or citizenship (Kyriazopoulou and Weber 2009).

Table 1: Overview of selected reviews, in alphabetical order (N=26)

Author(s)	Year	Topic(s) related to IE	Number of articles included	Study design	Time frame systematic search
Alkhateeb, Hadidi, and Alkhateeb	2016	Attitudes, developmental disabilities; Arab countries	42	Mixed	1990-2014
Armstrong	2014	Teachers' attitudes; social and emotional behavioural disorders	15	Mixed	Since 2000
Bates, et al.	2014	Typically developing students' perceptions	14	Qualitative	1985-2012
Bossaert et al.	2013	Social participation; secondary education	19	Mixed	2000-2009
Brown	2014	Comparative education	19	Mixed	2000-2013
Byrne	2013	Transition from primary to secondary; school choice; parental decision-making; moderate learning disabilities	19	Mixed	1981-2011
de Boer, Pijl, and Minnaert	2010	Parents' attitudes; social participation	10	Quantitative	1998-2008
de Boer, Pijl, and Minnaert	2011	Regular primary schoolteachers' attitudes; social participation	26	Quantitative	1998-2008
de Boer, Pijl, and Minnaert	2012	Typically developing students' attitudes; social participation; primary education	20	Quantitative	1998-2008
De Vroey, Struyf, and Petry	2016	Inclusive school development; secondary education	96	Mixed	2000-2012
Fluijt, Bakker, and Struyf	2016	Co-teaching; team-reflection; normative professionalism	17	Mixed	2004–2015
Giangreco, Suter, and Doyle	2010	Teaching assistants	32	Mixed	2000-2007
Göransson and Nilholm	2014	Conceptual analysis; empirical analysis	20	Quantitative	2004–2012
Grima-Farrell, Bain, and McDonagh	2011	Research to practice; professional development; teacher education	29	Mixed	After 1967
Hughes, Banks, and Terras	2013	Transition from primary to secondary; psychosocial	5	Mixed	NTFM
Kaya, Blake, and Chan	2015	Peer-mediated intervention; emotional and behavioural disorders	12	Quantitative	After 1991
Koster et al.	2009	Social participation; primary education	62	Quantitative	1995-2005
Kurniawati et al.	2014	Teacher training programme; primary education	13	Mixed	After 1994
Loreman	2014	Indicators; outcomes; Canada	51	Quantitative	After 2001
Parker et al.	2015	Exclusion	9	Quantitative	Until 2013
Pijl, Skaalvik, and Skaalvik	2010	Social relations; peer group; self-concept; pupil preferences	22 + 15	Quantitative	Last 15 years
Qi and Ha	2012	Physical education	75	Mixed	1990-2009
Reichrath, de Witte, and Winkens	2010	Interventions; effectiveness	20	Qualitative	2002-2007
Roberts and Simpson	2016	Stakeholders' attitudes; autism	23	Mixed	2004-2015
Waitoller and Artilés	2013	Professional development; teacher learning	46	Mixed	2000-2009
Watkins et al.	2015	Peer-mediated intervention; autism; peer interaction; social skills	14	Quantitative	2008-2014

* No time frame mentioned

RESULTS

This section outlines five main themes that emerged from the selected articles on IE. Four of these are regarding substantive aspects of the implementation of IE: attitudes towards IE (input), teachers' professional development on IE (input), IE practices (process) and student participation (outcome). A final theme addresses aspects of conducting research into IE. For each theme, we will outline the results.

Attitudes towards IE (input)

There were 12 reviews regarding attitudes towards IE (Alkhateeb, Hadidi, and Alkhateeb 2016; Armstrong 2014; Bates et al. 2014; Byrne 2013; de Boer, Pijl, and Minnaert 2010, 2011, 2012; Kurniawati et al. 2014; Loreman 2014; Qi and Ha 2012; Reichrath, de Witte, and Winkens 2010; Roberts and Simpson 2016). Attitudes refer to perceptions, views, beliefs, feelings, and the predispositions of actors towards something or someone (Alkhateeb, Hadidi, and Alkhateeb 2016; de Boer, Pijl, and Minnaert 2010, 2011, 2012; Kurniawati et al. 2014). Four studies define attitudes as a compilation of cognitive (beliefs or knowledge), affective (feelings) and behavioural (predisposition to act in a particular way) components (de Boer, Pijl, and Minnaert 2010, 2011, 2012; Kurniawati et al. 2014). Loreman (2014) emphasizes that positive attitudes towards IE and students with SEN of all actors involved in IE are vital to create a school climate that embraces difference. These actors include teachers, parents, and typically developing students.

Attitudes of teachers towards IE

According to the study of de Boer, Pijl, and Minnaert (2011, 374), "teachers are negative or undecided in their beliefs about inclusive education and do not rate themselves as knowledgeable about educating pupils with special needs." Other results from this study illustrate that those teachers who have less teaching experience in general education, but more teaching experience in IE and training in special needs education have a positive attitude towards IE. In addition, the authors conclude that teachers have more negative attitudes towards children with moderate learning disabilities, behavioural problems and severe cognitive impairment, compared with children with physical disabilities and sensory impairments.

Qi and Ha (2012) found varied attitudes in teachers of physical education ranging from positive to negative. They conclude that positive attitudes are related to the female gender, those with more experience of IE, those who have a higher level of education and a higher level of perceived competence. In addition, they found that physical education teachers are more positive towards teaching students with severe cognitive impairment than towards students with emotional and behavioural disorders.

Nevertheless, Armstrong (2014), found that teachers with more experience of teaching children with social, emotional and behavioural disorders hold more negative attitudes. It is argued that a teacher's sense of professional self-efficacy is aligned with the endorsed attitudes in the wider school environment which can positively or negatively influence the teachers' ability to deal with the behaviour of these students.

Kurniawati et al. (2014) show that changing attitudes appears “to be relevant to increasing teachers’ capability and willingness to educate students with SEN in inclusive settings” (320). In addition, he argues that the organization of training programmes should be well thought out.

Attitudes of parents towards IE

The study of de Boer, Pijl, and Minnaert (2010) points out that parents hold generally positive or neutral attitudes towards IE and that parents of children with SEN hold more neutral attitudes towards IE than parents of typically developing children. Often, these parents did not prefer IE because of concerns about the emotional development of their child, individual instruction and available services in regular schools. In addition, Byrne (2013) identified that parents of SEN children are more likely to select a special school when the child gets older and when it has severe needs. When choosing a secondary school, the parents considered the experiences of the child in primary school, the level of support expected, the child’s ability to cope with a large class, and the teachers’ capacity to meet the child’s needs. The study of de Boer, Pijl, and Minnaert (2010) reveals that parents “with a higher socio-economic status (SES), higher education level and more experience of inclusion hold more positive attitudes compared with parents with a low SES, lower education level and less experience of inclusion” (176). As found in teachers, parents hold more negative attitudes towards children with behavioural problems and severe cognitive impairment, compared to children with physical disabilities and sensory impairments (de Boer, Pijl, and Minnaert 2010).

Roberts and Simpson (2016) noted that parents of children with autism were optimistic that IE gave their child a better chance to have a ‘normal life’, but were not convinced that IE was the best educational environment for their child.

Attitudes of Peers towards IE

The study of de Boer, Pijl, and Minnaert (2012) shows that typically developing students generally hold neutral attitudes towards peers with SEN. Students’ attitudes, however, were more positive when they were female, older, had experiences with IE/peers with disabilities in their class, had knowledge of IE and were informed about disabilities by their parents. The study by de Boer, Pijl, and Minnaert (2012) also concluded that students with moderate to severe cognitive impairment and behavioural problems are more vulnerable in terms of negative attitudes of peers. Students were particularly negative towards peers with behavioural problems because of their non-typical behaviour.

Bates et al. (2015) also found a wide array of attitudes in students regarding their SEN peers, ranging from open to hostile. Consistent with de Boer, Pijl, and Minnaert (2012) the importance of disability awareness was identified, as was difficulty in understanding “hidden” SEN, such as behavioural problems for young children (aged 5-11). It was also acknowledged that students were confused about what they called “double standards” or different treatment for SEN peers (Bates et al. 2015; Roberts and Simpson 2016).

The findings of Qi and Ha (2012) regarding physical education show that female students are more positive and that positive attitudes of typically developing peers are also related to structured experiences with acquaintances who have a special need.

Professional development of teachers fostering IE (input)

Professional development is mentioned in four of the selected reviews (Kurniawati et al. 2014; Loreman 2014; Qi and Ha 2012; Roberts and Simpson 2016). The implementation of IE requires teachers to reconsider their teaching practice, but many teachers do not feel competent doing this, so professional development should support teachers by providing good practice (Loreman, 2014).

Kurniawati et al. (2014) found that these training programmes had positive effects on mainstream primary teachers. All programmes had common characteristics, such as: the relatively short length, 200 minutes to 56 hours; the integration of field experiences; direct and systematic contact with SEN students; and a focus on attitude, knowledge and skills. Training programmes focussing on specific student needs or disabilities were found to be more effective than general training programmes. It is suggested that tools and strategies, related to specific teachers' concerns and their teaching context (e.g., curriculum), are the most helpful and effective in encouraging change in teachers' practice (Kurniawati et al. 2014; Roberts and Simpson 2016). Qi and Ha (2014) suggest that teacher educators (in physical education) must provide successful approaches for including SEN students within their own curricula, as good practice for pre-service teachers.

Practices enhancing IE (process)

Loreman (2014) points out that "inclusion is realized mainly at the classroom level" (468). Within the selected reviews, eight described practices that foster IE (De Vroey, Struyf, and Petry 2016; Fluijt, Bakker, and Struyf 2016; Giangreco, Suter, and Doyle 2010; Kaya, Blake, and Chan 2015; Qi and Ha 2012; Reichrath, de Witte, and Winkens 2010; Roberts and Simpson 2016; Watkins et al. 2015). Practices to enhance IE for SEN students can be divided into two categories; additional support by teachers and support by peers.

Additional support by teachers/teaching assistants for SEN students

Co-teaching. Co-teaching is found to be an effective instrumental and pedagogical model for handling diversity from which students with and without SEN can benefit. Fluijt, Bakker, and Struyf (2016) define co-teaching as: "Multiple professionals working together in a co-teaching team, with a shared vision, in a structured manner, during a longer period in which they are equally responsible for good teaching and good learning to all students in their classroom" (197). Co-teaching teams develop an attitude in which they embrace the complexity in their work as an opportunity for professional development. In addition, team-reflection is suggested to empower co-teachers and increase normative professionalism in co-teaching teams. To implement co-teaching models effectively, training for teachers is required and organizational aspects should be considered, such as training and time for co-planning, co-instruction, co-assessment, and co-reflection. Effective co-teaching strategies focus directly on student learning goals and provide adequate planned instruction (Fluijt, Bakker, and Struyf 2016).

Teaching Assistants. Teaching assistants provide special education services within regular education (Giangreco, Suter, and Doyle 2010; Qi and Ha 2014). Clear role clarification for

teaching assistants is vital for success (Giangreco, Suter, and Doyle 2010; Robert and Simpson, 2016; Qi and Ha 2014). Giangreco, Suter, and Doyle (2010) suggest that their “roles should be restricted to supplemental, teacher-designed instruction as well as essential non-instructional roles (e.g., clerical duties, materials preparation, personal care, group supervision) that help create time and opportunities for general and special educators to collaborate with each other and spend more time directly instructing students with disabilities” (52).

Support by peers for SEN students

Peer support practices are mentioned in five studies (De Vroey, Struyf, and Petry 2016; Kaya, Blake, and Chan 2015; Reichrath, de Witte, and Winkens 2010; Watkins et al. 2015; Qi and Ha 2014). Peers provide a profound foundation for mutual support (De Vroey, Struyf, and Petry 2016).

Two reviews identified peer support practices as: (1) cooperative learning (students work and thereby learn together in sustainable groups) and (2) peer tutoring (students teach each other within or cross class settings) (De Vroey, Struyf, and Petry 2016; Qi and Ha 2014). Another three reviews used the term peer-mediated interventions to indicate peer support practices (Kaya, Blake, and Chan 2015; Watkins et al. 2015; Reichrath, de Witte, and Winkens 2010). A peer-mediated intervention is “a peer-to-peer social dynamic in which didactic instruction occurs in the context of a positive social relationship that facilitates experiential social skills learning and practice” (Kaya, Blake, and Chan 2015, 121). It is indicated that these interventions can enhance desired behavioural change in a rather short period of time (3 to 6 weeks) (Kaya, Blake, and Chan 2015). Positive results of peer support practices were shown for increasing social skills of students with emotional and behavioural disorders (Kaya, Blake, and Chan 2015; Watkins et al. 2015). Reichrath, de Witte, and Winkens (2010) concluded that peer-mediated intervention is also a feasible strategy to increase reading comprehension and phonological skills of students with reading and/or moderate learning disabilities.

Student participation (outcome)

Eight of the selected reviews refer to social participation of SEN students (Bates et al. 2014; Bossaert et al. 2013; Hughes, Banks, and Terras 2013; Koster et al. 2009; Parker et al. 2015; Qi and Ha, 2012; Roberts and Simpson, 2016; Watkins et al. 2015) and two reviews mention academic participation (De Vroey, Struyf, and Petry 2016; Loreman, 2014).

Social participation

Several researchers consider social participation to be the most adequate concept to describe the social dimension of inclusion (Bossaert et al. 2013; Koster et al. 2009). “Social participation of pupils with special needs in regular education is the 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, 135). The review studies reveal that students in general are open to friendships with SEN peers (Bates et al. 2015; Qi and Ha 2012). Nevertheless, possible barriers such as ‘caretaking’ roles, safety concerns (e.g.,

medication needs), and discrepancies between interests and abilities are highlighted. Furthermore, bullying (e.g., pushing, stealing, lying, teasing), alienation and exclusion were reported as an existing problem in the interaction between students and their SEN peers (Bates et al. 2015). Exclusion of SEN students may occur more among students with attention deficit hyperactivity disorder (ADHD), depression, disruptive behaviour, and moderate learning disabilities (Parker et al. 2015; Pijl, Skaalvik, and Skaalvik 2010). Prevention and mixed classes that include a minority of SEN students in a class of typically developing peers, may help to foster positive relationships (Parker et al. 2015; Pijl, Skaalvik, and Skaalvik 2010).

Hughes, Banks, and Terras (2013) investigated the psychosocial impact of the transition from primary to secondary school for SEN students in IE and concluded that these students “are more likely to have anxieties regarding the practical aspects (e.g., provision) of the new secondary school pre-transition” (30), and they are also more worried about being bullied. Students with severe cognitive impairment experience more bullying and alienation and perceive lower levels of support than typically developing peers after the transition (Hughes, Banks, and Terras 2013).

Academic participation

De Vroey, Struyf, and Petry (2016) record higher achievements in academic and vocational skills for SEN students who are part of secondary mainstream classes in comparison to special education, whereas, the results for students with emotional and behavioural disorders were found to be inconsistent. Fewer emotional problems were observed in students with autism spectrum disorders in large secondary schools and classes where teachers are more familiar with SEN students (De Vroey, Struyf, and Petry 2016). Furthermore, Loreman (2014) noticed that some groups of students (with severe disabilities) have fewer career opportunities than their peers.

Reflection on conducting research on IE

A final main theme found in research concerning IE involves critical reflection and is described in four of the selected reviews (Brown 2014; Göransson and Nilholm 2014; Grima-Farrell, Bain, and McDonagh 2011; Waitoller and Artiles 2013).

Göransson and Nilholm (2014) point out that there is ambiguity regarding what is meant by IE. Therefore, it is advocated that “the operative definition – whatever that might be in the given context – ought to be clear” (Göransson and Nilholm 2014, 276). Brown (2014) also underpins this, noting that “disability is conceptualized differently depending on the cultural context of the study” (62). Waitoller and Artiles (2013) note that much research uses a narrow approach regarding exclusion and describe it as a complex phenomenon that not only considers unequal access and outcomes for SEN students, but also their broader background. This “is problematic considering that students experience interacting and complex forms of exclusion” (347).

Finally, Grima-Farrell, Bain, and McDonagh (2011) examined factors that enhance the practical impact of research on IE. Three themes were abstracted to assist researchers and practitioners when conducting or implementing research on IE: (1) the responsiveness of research such as usability, accessibility and consistency, and the organisational demands for

implementation; (2) long-term collaboration between researchers and practitioners; and (3) support for the school acting on researchers' advice.

DISCUSSION AND CONCLUSIONS

The purpose of this study was to analyse reviews on IE regarding what themes have been studied, what can be learned from these themes and what gaps in the research can be addressed.

What themes have been studied?

Five main themes were abstracted from the selected reviews, four are about substantive aspects of the implementation of IE: (1) attitudes towards IE; (2) teachers' professional development fostering IE; (3) practices enhancing IE; and (4) participation of students with SEN. The last theme refers to aspects of conducting research into IE.

The results relating to the first main theme show that in general the attitudes of teachers towards IE are rather negative, in contrast with the attitudes of parents and peers (Bates et al. 2015; de Boer, Pijl, and Minnaert 2010, 2011, 2012). Teachers, however, play a key role in the implementation of IE so it is vital to positively influence their attitudes. Positive attitudes of teachers, parents and typically developing students are related to their knowledge of disabilities and their experience of IE (de Boer, Pijl, and Minnaert 2010, 2011, 2012; Qi and Ha 2012). Teachers, parents and typically developing students are less positive towards children with behavioural problems and severe cognitive impairment, compared with children with physical disabilities and sensory impairments (de Boer, Pijl, and Minnaert 2010, 2011, 2012; Qi and Ha 2012).

Professional development of teachers, the second main theme, is found to be more effective if it focusses on specific student needs or disabilities, rather than on IE in general (Kurniawati et al. 2014). Training programmes considering specific teachers' concerns and their teaching context are the most helpful in encouraging change in teachers' practice (Kurniawati et al. 2014; Roberts and Simpson 2016; Qi and Ha 2014).

The third main theme is additional support for teachers and support from peers for SEN students which are two types of practice that enhance IE, and which can be provided by other teachers (co-teaching) or teaching assistants (Fluijt, Bakker, and Struyf 2016; Giangreco, Suter, and Doyle 2010; Qi and Ha 2014,). This additional support aims to help teachers create more opportunities to directly instruct SEN students and focus more directly on their learning goals (Fluijt, Bakker, and Struyf 2016; Giangreco, Suter, and Doyle 2010). Peer support practices (cooperative learning, peer tutoring) increase the social skills of students with emotional and behavioural disorders, and enhance the reading comprehension and phonological skills of students with reading and/or moderate learning disabilities (Kaya, Blake, and Chan 2015; Reichrath, de Witte, and Winkens 2010; Watkins et al. 2015).

The fourth main theme, student participation, focuses on the social and academic participation of SEN students within mainstream education. Social participation refers to the presence of mutual positive social contact or interaction, acceptance and friendships between students and their SEN peers (Bossart et al. 2013; Koster et al. 2009). In general, students are

open to friendships with SEN peers, but barriers (e.g., 'caretaking' roles) should be considered (Bates et al. 2015; Qi and Ha 2012). Mixed classes with a minority of SEN students and a larger number of typically developing peers, fosters positive relationships (Parker et al. 2015; Pijl, Skaalvik, and Skaalvik 2010). In addition, within the selected reviews there were remarkably few results reported on the academic participation of students compared to their social participation. Nevertheless, the higher achievements of SEN students regarding academic and vocational skills have been described (De Vroey, Struyf, and Petry 2016).

The final theme reflects on the methodological aspects regarding research into IE. It is argued that an operative definition of IE should be included in each study because of the ambiguity of the concept (Göransson and Nilholm 2014). In addition, aspects to enhance the practical impact of IE research (e.g., responsiveness) must be considered when conducting IE research (Grima-Farrell, Bain, and McDonagh 2011).

What can be learned from these themes?

These substantive main themes can be placed within the input-process-outcome model of Kyriazopoulou and Weber (2009): 'attitudes towards IE' and 'professional development' relate to input, 'practices enhancing IE' to process and 'participation of students with SEN' to outcome. The model states that input influences the process and outcome. In keeping with this model, it can be concluded that we must focus on attitudes towards IE and professional development to stimulate the implementation of IE. The results indicate that knowledge of disabilities and experience of IE positively influence the attitudes of teachers, parents and typically developing students (de Boer, Pijl, and Minnaert 2010, 2011, 2012; Qi and Ha 2012). In addition, the crucial role of teachers in implementing IE is echoed in the literature (e.g., Rouse 2017). Teacher professional development is emphasized to change attitudes and increase teachers' capability and willingness to educate students with SEN in mainstream education (Kurniawati et al. 2014). Accordingly, training programmes should provide effective pedagogical strategies and focus on specific student needs or disabilities, specific teachers' concerns, and their teaching context. In addition, it is important to bear in mind that the sense of professional self-efficacy of teachers is aligned with the endorsed attitudes in the wider school environment (Armstrong 2014). IE implies a shared responsibility among all school team members and a shared vision with explicit goals towards IE can be helpful in its successful implementation (Theoharis and Causton 2014).

The conclusion is that teacher professional development on evidence-informed IE practices that lead to successful teacher experiences, is vital for the successful implementation of IE. Support for teachers in favour of SEN students can be provided through external training programmes, as well as by co-teaching which serves as a good model for professional development of teachers in the workplace.

What gaps are there in the research that can be addressed?

There are multiple research gaps that can be addressed regarding the input-process-outcome model of Kyriazopoulou and Weber (2009).

Regarding the *input* of the model, three research gaps are identified. Firstly, it is remarkable that the attitudes of SEN students and school leaders towards IE were not reported in the selected articles. As multiple researchers point out, IE is for all children, therefore, the

voices of students with and without SEN should be highlighted (e.g. Göransson and Nilholm 2014; Messiou 2017). In addition, the role of school leaders within the implementation process of IE should not be underestimated (Ainscow and Sandill 2010), so it is apparent that future research is required that includes an analysis of the attitudes of all children and school leaders. Secondly, teachers' professional development is only considered within training programmes, whereas much professional development for IE teachers can be generated at the workplace, for example through learning communities that include special teachers or co-teaching (Fluijt, Bakker, and Struyf 2016; Rieser 2012). Research into this topic is mandatory regarding the implementation of IE. Thirdly, financial resources and accommodated infrastructure for implementing IE were not explored in the selected reviews and it can be argued that these subject matters are addressed in national or international reports not included in this study.

Concerning the *process* of the model, 'state/school/district practice' was little discussed in comparison to 'classroom instructional practice' and it can be argued that these are the subject of national or international reports not included in this study.

Regarding the *outcome*, it is noteworthy that the topic of academic participation is only mentioned in two studies, whereas social participation is mentioned in eight. Furthermore, only some aspects of participation for SEN students was mentioned, whereas the participation of all students in IE should be considered, so further research on this topic, especially on academic participation, is required.

Finally, it is acknowledged that the literature reviewed in this article is limited to review studies selected from two databases: ERIC and WoS. The reviews call for careful reading and interpretation, so a loss of detail about context and the way in which the studies were conducted may occur (Hopayian 2001). Within this meta review, the loss of detail is compensated for as much as possible by only including reviews that explicated their systematic search method and mentioned the included studies.

This meta review provides an overview of what has been studied within the field to guide future practice and research. Five main themes were abstracted: attitudes towards IE, teachers' professional development on IE, IE practices, student participation, and critical reflections on IE research. The main conclusion is that teacher professional development on evidence-informed IE practices leading to successful teacher experiences, is vital for the implementation of IE. In addition, future research on the attitudes of all students, with and without SEN, and the attitudes of school leaders, as well as academic participation of all students is necessary.

Notes on Contributors

Aster Van Mieghem, MSc, is currently working on her PhD thesis on the perceptions of practitioners on the implementation of inclusive education in Flanders. She is affiliated to the Department of Training and Education Sciences of the Faculty of Social Sciences, University of Antwerp, and the Research Unit School of Psychology and Development in Context of the KU Leuven, Belgium.

Karine Verschueren, PhD, is a full professor in Psychology and coordinator of the Research Unit School of Psychology and Development in Context, Faculty of Psychology and Educational Sciences, at the KU Leuven, Leuven. She conducts research on the psychosocial and academic development of students and the role of teacher-student and peer relationships, both in the general student populations and in specific groups (e.g., socially disadvantaged students, high ability students).

Katja Petry, PhD, is associate professor affiliated to the Research Unit in Parenting and Special Education of the KU Leuven, focusing on research into the academic and the psychosocial functioning of children and adolescents with SEN. Next to disability specific research within regular and special school settings, she was involved in several fundamental, practice-oriented as well as more policy-oriented research projects examining the special needs education system in Flanders and abroad.

Elke Struyf, PhD, is a professor in Education Sciences. Within the research group EduBRON, Faculty of Social Sciences, at the University of Antwerp, she conducts research on teachers' expertise development, its relationship with characteristics in the contextual (classroom or school) environment and students' outcomes. Her research activities concern basic as well as applied research with a multidisciplinary approach.

Disclosure statement

This research was funded by the Flemish Government of Education.

References

Ainscow, M., T. Booth, and A. Dyson. 2006. *Improving Schools. Developing Inclusion*. London: Routledge.

Ainscow, M. and A. Sandill. 2010. Developing inclusive education systems: the role of organisational cultures and leadership. *International Journal of Inclusive Education* 14 (4): 401-416. doi:10.1080/13603110802504903.

Alkhateeb, J. M., M. S. Hadidi, and A. J. Alkhateeb. 2016. Inclusion of children with developmental disabilities in Arab countries: a review of the research literature from 1990 to 2014. *Research in developmental disabilities* 49: 60-75. doi:10.1016/j.ridd.2015.11.005.

Armstrong, D. 2014. Educator perceptions of children who present with social, emotional and behavioural difficulties: A literature review with implications for recent educational policy in England and internationally. *International Journal of Inclusive Education* 18 (7): 731-745. doi:10.1080/13603116.2013.823245.

Artiles, A.J., and E.B. Kozleski. 2007. Beyond convictions: interrogating culture, history, and power in inclusive education. *Language Arts* 84 (4): 351–358.

Bates, H., A. McCafferty, E. Quayle, and K. McKenzie. 2015. Review: typically-developing students' views and experiences of inclusive education. *Disability and rehabilitation* 37 (21): 1929-1939. doi:10.3109/09638288.2014.993433.

Bossaert, G., H. Colpin, S. J. Pijl, and K. Petry. 2013. Truly included? A literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education* 17 (1): 60-79. doi:10.1080/13603116.2011.580464.

Brown, A. 2014. Situating Disability within Comparative Education: A Review of the Literature. *Global Education Review* 1 (1): 56-75.

Byrne, A. 2013. What factors influence the decisions of parents of children with special educational needs when choosing a secondary educational provision for their child at change of phase from primary to secondary education? A review of the literature. *Journal of Research in Special Educational Needs* 13 (2): 129-141. doi:10.1111/j.1471-3802.2011.01211.x.

Coates, J., and P. Vickerman. 2008. Let the children have their say: children with special educational needs and their experiences of physical education – a review. *Support for Learning* 23 (4): 168-175. doi:10.1111/j.1467-9604.2008.00390.x

de Boer, A., S. J. Pijl, and A. Minnaert. 2010. Attitudes of parents towards inclusive education: A review of the literature. *European Journal of Special Needs Education* 25 (2): 165-181. doi:10.1080/08856251003658694.

- de Boer, A., S. J. Pijl, and A. Minnaert. 2011. Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education* 15 (3): 331-353. doi:10.1080/13603110903030089.
- de Boer, A., S. J. Pijl, and A. Minnaert. 2012. Students' attitudes towards peers with disabilities: A review of the literature. *International Journal of Disability, Development and Education* 59 (4): 379-392. doi:10.1080/1034912X.2012.723944.
- De Vroey, A., E. Struyf, and K. Petry. 2016. Secondary schools included: a literature review. *International Journal of Inclusive Education* 20 (2): 109-135. doi:10.1080/13603116.2015.1075609.
- Fluijt, D., C. Bakker, and E. Struyf. 2016. Team-reflection: the missing link in co-teaching teams. *European Journal of Special Needs Education* 31 (2): 187-201. doi:10.1080/08856257.2015.1125690.
- Giangreco, M. F., J. C. Suter, , and M. B. Doyle. 2010. Paraprofessionals in inclusive schools: A review of recent research. *Journal of Educational and Psychological Consultation* 20 (1): 41-57. doi:10.1080/10474410903535356.
- Göransson, K., and C. Nilholm. 2014. Conceptual diversities and empirical shortcomings – a critical analysis of research on inclusive education. *European Journal of Special Needs Education* 29 (3): 265-280. doi:10.1080/08856257.2014.933545.
- Grant, M.J., and A. Booth. 2009. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal* 26: 91-108. doi:10.1111/j.1471-1842.2009.00848.x.
- Grima-Farrell, C. R., A. Bain, and S. H. McDonagh. 2011. Bridging the research-to-practice gap: A review of the literature focusing on inclusive education. *Australasian Journal of Special Education* 35 (02): 117-136. doi:10.1375/ajse.35.2.117.
- Hopayian, K. 2001. The need for caution in interpreting high quality systematic reviews. *BMJ: British Medical Journal* 323 (7314): 681-684.
- Hughes, L. A., P. Banks, and M. M. Terras. 2013. Secondary school transition for children with special educational needs: a literature review. *Support for Learning* 28 (1): 24-34. doi:10.1111/1467-9604.12012
- Kaya, C., J. Blake, , and F. Chan. 2015. Peer-mediated interventions with elementary and secondary school students with emotional and behavioural disorders: a literature review. *Journal of Research in Special Educational Needs* 15 (2): 120-129. doi:10.1111/1471-3802.12029.
- Koster, M., H. Nakken, S. J. Pijl, and E. van Houten. 2009. Being part of the peer group: A literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education* 13 (2): 117-140. doi:10.1080/13603110701284680

Kurniawati, F., A. A. de Boer, A. E. M. G. Minnaert, and F. Mangunsong. 2014. Characteristics of primary teacher training programmes on inclusion: a literature focus. *Educational Research* 56 (3): 310-326. doi:10.1080/00131881.2014.934555.

Kyriazopoulou, M., and H. Weber, eds. 2009. *Development of a set of indicators: For inclusive education in Europe*. European Agency for Development in Special Needs Education.

Lindsay, G. 2007. Educational psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology* 77 (1): 1-24. doi:10.1348/000709906X156881

Loreman, T. 2014. Measuring inclusive education outcomes in Alberta, Canada. *International Journal of Inclusive Education* 18 (5): 459-483. doi:10.1080/13603116.2013.788223.

Messiou, K. 2017. Research in the field of inclusive education: time for a rethink? *International Journal of Inclusive Education* 21 (2): 146-159. doi:10.1080/13603116.2016.1223184.

Ministerie van Onderwijs, Cultuur & Wetenschappen. 2014. *Wet op Passend Onderwijs* [Law to Appropriate Education]. Accessed April 17 2018. <http://www.rijksoverheid.nl/ministeries/ocw/nieuws/2014/09/16/onderwijsbegroting-2015-beter-onderwijs-voor-iedereen.html>

Moher, D., A. Liberati, J. Tetzlaff, D. G. Altman, and The PRISMA Group. 2009. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6 (7): 264-270. doi:10.1371/journal.pmed.1000097.

Parker, C., R. Whear, O. C. Ukoumunne, A. Bethel, J. Thompson-Coon, K. Stein, and T. Ford. 2015. School exclusion in children with psychiatric disorder or impairing psychopathology: a systematic review. *Emotional and Behavioural Difficulties* 20 (3): 229-251. doi:10.1080/13632752.2014.945741.

Petticrew, M., and H. Roberts. 2006. *Systematic Reviews in the Social Sciences: A Practical Guide*. Malden/Oxford/Carlton: Blackwell Publishing.

Pijl, S. J., E. M. Skaalvik, and S. Skaalvik. 2010. Students with special needs and the composition of their peer group. *Irish Educational Studies* 29 (1): 57-70. doi:10.1080/03323310903522693.

Qi, J., and A. S. Ha. 2012. Inclusion in Physical Education: A review of literature. *International Journal of Disability, Development and Education* 59 (3): 257-281. doi:10.1080/1034912X.2012.697737.

Reichrath, E., L. P. de Witte, and I. Winkens. 2010. Interventions in general education for students with disabilities: a systematic review. *International journal of inclusive education* 14 (6): 563-580. doi:10.1080/13603110802512484.

Rieser, R. 2012. *Implementing inclusive education: A Commonwealth guide to implementing Article 24 of the UN Convention on the Rights of Persons with Disabilities*. London: Charlesworth Press.

Roberts, J., and K. Simpson. 2016. A review of research into stakeholder perspectives on inclusion of students with autism in mainstream schools. *International Journal of Inclusive Education* 20 (10): 1084-1096. doi:10.1080/13603116.2016.1145267.

Rouse, M. 2017. A Role for Teachers and Teacher Education in Developing Inclusive Practice. In M. Etherington (Ed), *What teachers Need to Know: Topics in Diversity and Inclusion* (19-35). Eugene, Oregon: Wipf and Stock.

Sharma, K., and B.C. Mahapatra. 2007. *Emerging trends in inclusive education*. New Delhi: IVY Publication House.

Theoharis, G., and J. Causton. 2014. Leading inclusive reform for students with disabilities: A school-and system wide approach. *Theory into Practice* 53 (2): 82-97. doi:10.1080/00405841.2014.885808.

UNESCO. 2000. *Inclusion in Education: The Participation of Disabled Learners*. Dakar, Senegal: World Action Forum.

<http://unesdoc.unesco.org/images/0012/001234/123486e.pdf>

United Nations. 2007. *Convention on the Rights of Persons with Disabilities and Optional Protocol. Resolution Adopted by the General Assembly*. Accessed May 16 2018.

<http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

Vlaams Ministerie van onderwijs en vorming. 2014. *M-Decreet* [Measures for Children with Special Educational Needs]. Accessed April 17 2018. <http://onderwijs.vlaanderen.be/nl/het-abc-van-het-m-decreet-maatregelen-specifieke-onderwijsbehoeften>

Waitoller, F. R., and A. J. Artiles. 2013. A decade of professional development research for inclusive education: A critical review and notes for a research program. *Review of Educational Research* 83 (3): 319-356. doi:10.3102/0034654313483905.

Watkins, L., M. O'Reilly, M. Kuhn, C. Gevarter, G. E. Lancioni, J. Sigafos, R. and R. Lang. 2015. A review of peer-mediated social interaction interventions for students with autism in inclusive settings. *Journal of autism and developmental disorders* 45 (4): 1070-1083. doi:10.1007/s10803-014-2264-x.