

Arts Education for Children with Disabilities: A Systematic Literature Review

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Research, testimonies and descriptions of successful projects and initiatives have shown the benefits of well-planned inclusive arts education for students with disabilities. The group of students with disabilities is diverse. The only thing they have in common is a disability that prevents them from taking advantage of the general curriculum without specialised support. Teaching students with disabilities is a requirement for all teachers, regardless of their subject-matter expertise. The goal of this research is to provide a thorough knowledge map of the intellectual framework of the field of study of arts education for students with disabilities. Using the PRISMA method to analyse articles published between 2012 and 2022, a systematic literature review methodology was used. An overview of the study's articles, authors, top journals and research themes is given. The findings indicate the existence of three themes in the research of arts education for children with disabilities. In summary, this paper reviews key findings from the research analyses and suggests future research trajectories for the arts education area.

Keywords: arts education, PRISMA method, student with disabilities, systematic literature review

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Likovna vzgoja za otroke s posebnimi potrebami: sistematični pregled literature

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∞ Raziskave, pričevanja in opisi uspešnih projektov in pobud so pokazali prednosti dobro načrtovane inkluzivne likovne vzgoje za učence s posebnimi potrebami. Skupina učencev s posebnimi potrebami je raznolika. Skupen jim je le status oseb s posebnimi potrebami, ki jim onemogoča, da bi brez specializirane podpore v polnosti odnesli vse koristi splošnega učnega načrta. Poučevanje učencev s posebnimi potrebami je obvezno za vse učitelje ne glede na njihovo strokovno znanje na področju predmeta. Cilj te raziskave je podati temeljit zemljevid znanja o intelektualnem okviru študijskega področja likovne vzgoje učencev s posebnimi potrebami. Za analizo člankov, objavljenih med letoma 2012 in 2022, je bila z uporabo metode PRISMA uporabljena metodologija sistematičnega pregleda literature. V študiji je podan pregled člankov, avtorjev, najpomembnejših revij in raziskovalnih tem. Ugotovitve kažejo na obstoj treh tem pri raziskovanju likovne vzgoje pri otrocih s posebnimi potrebami. V povzetku tega članka so pregledane ključne ugotovitve raziskovalnih analiz in predlagane prihodnje raziskovalne poti za področje likovne vzgoje.

Ključne besede: likovna vzgoja, metoda PRISMA, učenec s posebnimi potrebami, sistematični pregled literature

Introduction

Persons with disabilities are those who have “long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (WHO, 2021). Around the world, an estimated 240 million children between the ages of 0 and 17 have disabilities. Second only to South Asia with 64.4 million disabled children, East Asia and the Pacific is home to 43.1 million (UNICEF Indonesia, 2023). In Indonesia, 3.3 percent of children (aged 5–17 years) have disabilities (Kementerian Kesehatan RI, 2018), and just under three out of ten of these children have never attended education.

The Indonesian government has devoted more serious attention to children with disabilities through inclusive education initiatives. Children with disabilities participate in mainstream educational settings at lower rates than non-disabled children, and their participation decreases at each level of education (UNICEF Indonesia, 2023). In 2019, there were 59,000 schools providing inclusive education and this figure increased to 99,000 in 2020. As for the number of students with disabilities, in 2019 there were 17,473 and in 2020 there were 17,558 (Puslapdik, 2021). The problem is that not all-inclusive schools can provide proper assistance or treatment at school. Mumpuniarti et al. (2021) identified that special schools and inclusive schools in Indonesia do not know the source of their programmes in the curriculum. The education system is very dependent on curriculum policies, but the reality on the ground is that there are many primary schools, especially inclusive schools, that do not meet the established standard due to the lack of a class guide, the student screening process, the characteristics of children with disabilities, the background of teachers' education, and even the development of teacher competencies according to inclusive school standards. The universal education policy has not been fully implemented. Many children with disabilities are still marginalised from participating and learning in class for various reasons, and there is still a great deal of discrimination, negative labelling, difficulties for instructors in planning acceptable and appropriate treatment, and ineffective teaching methods (Rasmitadila et al., 2021).

Indonesia needs more holistic education programmes for children with disabilities that combine home-based, school-based and arts education-based assistance. There is also a need for more research to ensure access to evidence-based services (Kiling et al., 2018). Creative activities could be relevant solutions to the problem of finding forms and methods of psychological-pedagogical work that encourage students to cultivate their creative thinking and skills

(Dmitriev et al., 2020). Arts education fosters creativity and possibly encourages other skills conducive to innovation, such as specialised abilities, thinking and imagination abilities, as well as conduct and interactive abilities (or character). Students enrolled in arts education courses display a more ambitious attitude to academic work as well as higher levels of commitment and motivation. Students who study the visual arts are stronger in geometrical reasoning than students who do not study the visual arts (Winner et al., 2013). Education in the arts promotes habits of mind and ways of thinking that enhance the student experience of school and the outcomes of schooling (Elpus, 2022). Art offers a uniquely profound tool for children and adolescents, one that is easily adaptable to different developmental stages. Choice of materials, ways of facilitating the process of art making, and utilising art products to augment the therapeutic experience also stand out (Metzl, 2022). Art is essential in developing children with disabilities, as every type of art provides opportunities for them to express themselves and develop creative skills. For example, through visual arts, children can explore their self-expression visually, while performing arts such as dance and music can improve their motor skills and interpersonal communication. By involving children with disabilities in various types of art, teachers support their creative development and help to improve their emotional and social well-being. Apart from serving as learning material, art is also important as a therapeutic medium for children with disabilities. Art can assist the bereaved due to its ability to promote exploration and expression of the feelings that occur in the grieving process. The use of art in therapy for children with disabilities therefore also depends on the goals (Green et al., 2021). Art can facilitate both positive and negative emotions, and the act of creating art can bring pleasure to the creator (Wadson, H., 2010). Schwartz and Pace (2008) explain that making art with students with disabilities impacts the ability of these students to experience self-esteem and pride when their art is professionally framed and installed at the exhibition. For students with disabilities, art provides a means to contribute their ideas in positive and powerful ways. Fine art is one type of arts education that can provide or express images and feelings so that arts education can be a means to develop flexibility, self-esteem and visual communication. It can also express students' feelings and emotions in inclusive education programmes (Kencana et al., 2020).

In view of the above, a comprehensive strategy and learning model for arts education with adequate treatment and assistance is needed, taking into account the abilities associated with different student characteristics in terms of talent, interests and abilities. The treatment of arts education programmes for students with disabilities must be adjusted so as not to cause negative emotions

(stress, angry, sadness) or unachieved educational goals due to poor execution. Arts education underlines teaching and learning about art disciplines and processes. Children can learn the different languages, concepts and symbols through which artistic ideas are expressed. They can also develop their own interpretive skills, expertise and understandings, as well as the capacity to appreciate different representations of others (Ewing, 2010).

Research Problem

Based on the background outlined above, the research problem can be formulated as:

- a) How is the existing literature review related to the strategies, models and methods used in practical arts education settings for children with disabilities?
- b) What is the effectiveness of inclusive schools that use arts education as the primary approach, and what pathways are effective in implementing individual education programmes and classroom activities?
- c) What are the research trends in 2012–2022 regarding arts education for students with disabilities?

Method

This research was conducted using the Systematic Literature Review (SLR) method, *which* is a process that aims to identify, review, evaluate and interpret all existing research. In the present study, the researchers identified articles in a structured manner following certain steps. First, Research Questions (RQs) were established. An RQ is devised according to the needs of the chosen topic. The RQs in this study are: (RQ1) How is the existing literature review related to the strategies, models and methods used in practical arts education settings for children with disabilities?; (RQ2) What is the effectiveness of inclusive schools that use arts education as the primary approach, and what pathways are effective in implementing arts education programmes and classroom activities?; and (RQ3) What are the research trends in 2012–2022 regarding arts education for students with disabilities? Second, the search process was determined. The search process is used to obtain relevant data to answer the research questions. In the present research, the process uses databases with the keywords arts education, art therapy, elementary school or primary school, and children with disabilities. Third, inclusion and exclusion criteria were defined. Inclusion and exclusion criteria are used to determine whether the data

obtained can be used in the SLR research. Fourth, Quality Assessment (QA) was undertaken. The data obtained were evaluated according to the following assessment QA criteria:

- (QA1) What kinds of arts education models, such as inclusive models, specialised programmes and community-based programmes, have been used with children with disabilities?
- (QA2) What specific strategies have been used to adapt arts education activities for children with different types of disabilities?
- (QA3) What kinds of improvements in cognitive, motor or social-emotional development are the outcomes of arts education programmes for children with disabilities?
- (QA4) What are the difficulties and constraints of various ways of dealing with arts education for children with disabilities, and how have these been addressed in the literature?
- (QA5) Does the article describe the effectiveness of inclusive schools that use arts education as the primary approach?
- (QA6) In terms of individual education programmes and class activities, which methods are most effective for incorporating arts education into inclusive education?

Each QA will obtain an answer. The fifth step was data collection. In this study, the data collected for review was secondary data, i.e., the data collected from databases is searched for relevant articles from Scopus. Then, data analysis was undertaken. The collected data were analysed according to the RQs. During the present research, there was then a deviation from the protocol to refine the equivalent words for search keywords in the database. A systematic literature review is a critical analysis of existing research on a particular topic. In the context of arts education for children with disabilities, a systematic literature review examines the different strategies, models and methods that have been used in practical settings and analyses the effectiveness of these approaches based on the available evidence. The first stage is a search for related research based on a query. The query in this study was TITLE-ABS-KEY (art AND education) AND (children AND with AND special AND needs), which obtained 1,165 papers. This query was then entered into the advanced search feature available on Scopus. By selecting the year option from 2012 to 2022, the number of papers was reduced to 851. The second stage is Review 1, which identifies and analyses the subject area. The research papers obtained in the paper search are selected at this stage. In the present study, the paper selection excluded papers that were not labelled Social Sciences, Psychology, Arts and

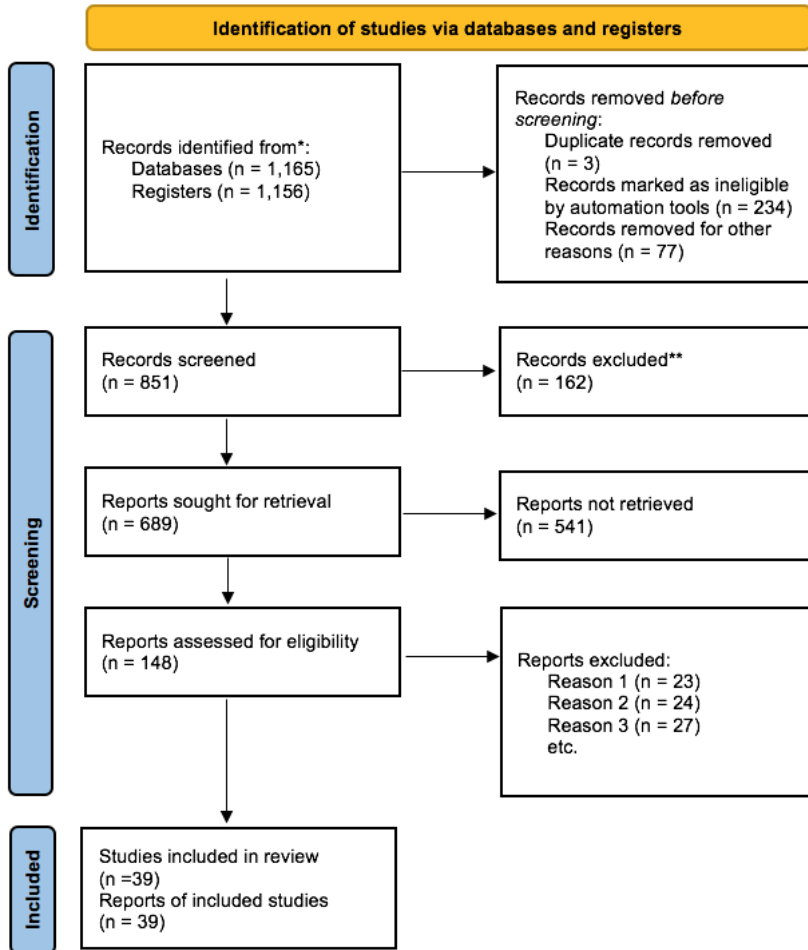
Humanity, and Multidisciplinary. This reduced the number of papers to 689. The number was further reduced by eliminating papers based on the type of article, the accessibility options (must be open access) and the language (must be English), resulting in 148 document papers. Subsequent paper elimination was based on a checklist of keywords, namely Education, Child, Inclusive Education, Art, Creativity, Learning, Art Education, Children, Disability, Music, Arts, Arts Education, Schools, Student, Teaching, Arts-Based Methods, Autism, Gifted Education, Inclusion, Music Therapy, Teacher, Art Therapy, Elementary Education, Elementary School, Imagination, Learning Disabilities, Play and Learn through The Arts, Teacher Education, Teaching and Learning, Therapy, ADHD, Aesthetic Experience, Antiretroviral Therapy, Highly Active. This reduced the selection to 74 papers.

The results of Review 1 were carried over to Review 2, in which the content of the papers was analysed. In the Review 2 stage, analysis was carried out through abstracts. Research methods were selected by eliminating papers with content and research subjects unrelated to arts education for children with disabilities, as well as papers with research methods such as literature reviews. After the Review 2 stage, 39 papers remained. These were further analysed in Review 3, which examined the content of the writing in the research. A selection was made by assessing the quality of the paper based on the aforementioned QA list, which was formed according to a list of problem formulations.

By synthesising and analysing existing research on these topics, the aim of the present SLR research on arts education for children with disabilities in the period 2012–2022 is to provide a comprehensive overview of the state of knowledge in the field, to identify gaps in the existing research, and to suggest directions for future research. It can also provide insights for art educators, special education teachers and other practitioners working with children with disabilities, thus helping them to develop effective strategies and programmes based on evidence-based practices. The results of each process are summarised briefly in Figure 1.

Figure 1

PRISMA Table



PRISMA Method (Page et al., 2021).

The initial stage was a search for papers based on the proposed query of 1,165 papers. A search based on year found 851 papers on arts education for children with disabilities. Further paper selection was based on Review 1, Review 2 and a Quality Assessment Review. Review 1 obtained 689 papers related to arts education for children with disabilities, Review 2 obtained 148 such papers and the Quality Assessment Review, which was based on six Quality Assessments, obtained 39 such papers.

Results and discussion

The results obtained from various viewpoints will be analysed and demonstrated. Figure 2 shows the number of papers published by year. As described above, each review stage involved a significant elimination process, with the final QA review reducing the 148 eligible papers to only 39, thus discarding 109 papers because they were deemed irrelevant to the selected variable. Figure 2 shows that the 39 papers included in the study comprised two papers published in 2013, two in 2015, two in 2016, three in 2017, six in 2019, seven in 2020, nine in 2021 and eight in 2022. Thus, more and more papers related to arts education for children with disabilities were published over the period studied, although the size of the increase is not particularly significant.

Figure 2

Number of articles published by year

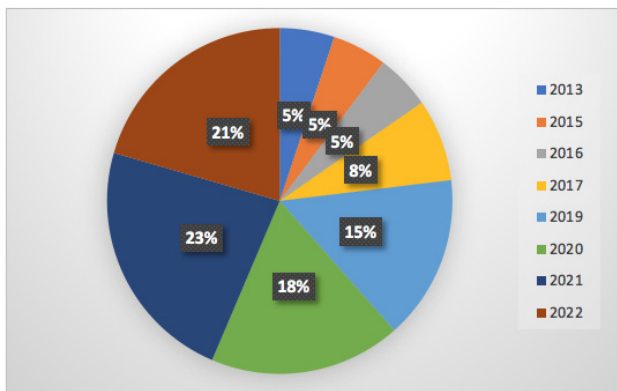


Figure 3

Graph of author's country of origin

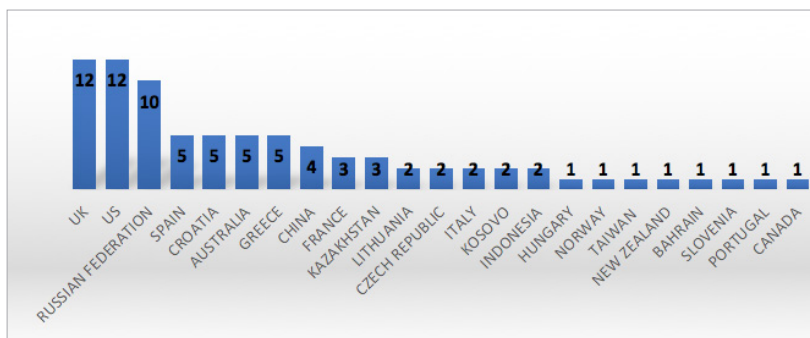
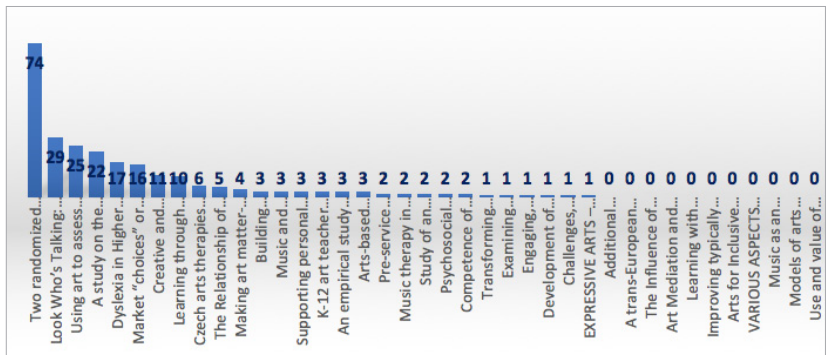


Figure 3 shows the number of papers by country of origin, based on an analysis of the country of origin of the authors of the selected papers, some of which were written by several authors from different countries. The data in Figure 3 show that the number of authors from the United Kingdom and the United States was the same, with 12 authors from each country. The Russian Federation follows with 10 authors, after which there were 5 authors each from Spain, Croatia, Greece and Australia. China follows with 4 authors, and then France and Kazakhstan with 3 authors. There are 2 authors each from five countries, namely Lithuania, the Czech Republic, Italy, Kosovo and Indonesia. Finally, there were eight countries with 1 author each, namely Hungary, Norway, Taiwan, New Zealand, Bahrain, Slovenia, Portugal and Canada. This shows that the use of arts education for children with disabilities has penetrated every continent.

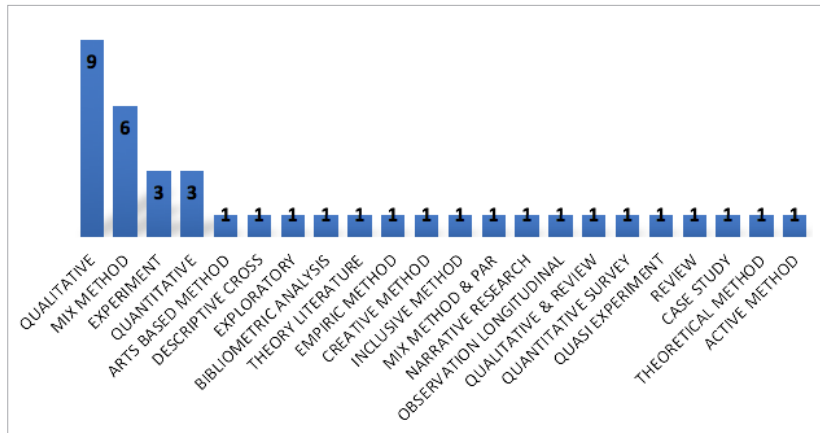
Figure 4
Number of citations obtained



As shown in Figure 4, an analysis of the number of citations obtained for each paper reveals that the paper by Mehr et al. (2013) is the most cited paper, with a total of 74 citations, followed by the paper by Blaisdell et al. (2019), which is cited 29 times. Ranked third is the paper by Flowers et al. (2015) but their efficacy and feasibility across diverse contexts has not been adequately explored. To examine the potential utility of integrating art into evaluations of environmental education outcomes, we adapted an existing drawing prompt and corresponding grading rubric to assess the environmental attitudes and awareness of children (ages 6–12, which is cited 25 times, followed by the paper by Hsiao and Su (2021) with 22 citations. The other articles have fewer than 20 citations each.

Strategies, models and methods used in arts education settings for children with disabilities

RQ₁ concerns the classification of papers based on the strategies, models and methods used in arts education settings for children with disabilities. Table 2 (below) shows the grouping of each category of strategies, models and methods used in arts education settings for children with disabilities. Several research methods are applied to the study of arts education for children with disabilities. From Figure 5, it can be seen that the qualitative research method is the most frequently used method in the papers examined in this study, indicating that most researchers are more interested in using qualitative methods than other research methods. The mixed method has the second highest frequency followed by the experimental and quantitative methods. Regarding RQ₁, the results therefore show that the most frequently used method for research on arts education for children with disabilities in the last ten years has been the qualitative research method. Qualitative research is focused on understanding the experiences and perspectives of children with disabilities, their families and the art educators with whom they work. Qualitative research methods include interviews, observations and focus groups (Sugiyono, 2015). Researchers can conduct in-depth case studies of special needs children to explore how arts education affects their learning and development. This approach helps researchers to identify specific strategies that are effective for different types of disabilities. Mixed-methods research combines quantitative and qualitative research methods to gain a more comprehensive understanding of the impact of arts education on children with disabilities. Researchers use surveys or other quantitative measures to collect data on specific outcomes (such as improvements in motor skills or social-emotional development), while also gathering qualitative data on how children and families experience arts education. Ultimately, the research method chosen depends on the research question being investigated and the available resources. It is important to consider ethical considerations when researching children with disabilities, such as obtaining informed consent and ensuring that the research does not cause harm (Milbrandt et al., 2018).

Figure 5*Types of research methodology used in the articles*

Tables 1 and 2 show that assessment using questionnaires and interviews is most favoured by researchers, as these tools enable users to provide written feedback. The questionnaire method can also be used as a quantitative value with a statistical approach such as the ANOVA method. A simple procedure is more popular because it does not take long.

In the period 2012–2022, researchers were more interested in using qualitative methods than other research methods. Mixed method has the second highest frequency, with six studies, followed by experimental and quantitative types. However, various research methods are also widely used in the application of research on arts education for children with disabilities. Various research methods can provide diverse research results related to the research on arts education for children with disabilities. The results regarding RQ2 show that the qualitative research method has been in great demand for the study of arts education for children with disabilities in the last ten years, followed by mix methods.

Table 1*Model and method categories in arts education for children with disabilities*

Model/Method	Definition	Research Papers	Number of Documents
Inclusive models	Inclusive models of arts education seek to provide opportunities for all students, including those with disabilities, to participate in arts education programmes alongside their peers. This may involve adapting teaching strategies and materials to meet the diverse needs of students, providing accommodations and modifications to support participation, and fostering a sense of belonging and community for all students.	(Žolgar & Stopar, 2016), (Puzanova et al., 2021), (Craw, 2015), (Al Hashimi et al., 2021), (Sydykova et al., 2020), (Rihter & Potočnik, 2022), (Santos & Lima-Rodrigues, 2016), (Cole et al., 2021), (Chapman & O’Gorman, 2022), (Devolli & Avdiu-Kryeziu, 2022), (Haerani et al., 2020), (Nieto-Miguel et al., 2022)	12
Specialised programmes	Specialised programmes for arts education may be designed specifically for students with disabilities and may focus on addressing specific needs or goals. For example, art programmes may use art as a tool for promoting emotional expression and well-being, while vocational art programmes may focus on developing skills that can lead to employment opportunities.	(Katušić & Burić, 2021), (Østergaard, 2019), (Nguyen Viet, et al, 2022), (Madrid-Manrique, 2020), (Erina et al., 2019), (Mehr et al., 2013), (Lian et al., 2020), (Bacon & Bennett, 2013), (Petsilas et al., 2019), (Carpio et al., 2017), (Shaughnessy, 2022), (Grosvenor & Pataki, 2017)	12
Community-based programmes	Community-based programmes for arts education may be offered outside traditional school settings and may involve partnerships between schools, community organisations and arts institutions. These programmes may be designed to provide additional opportunities for students with disabilities to engage in arts education, or to provide access to resources and expertise that may not be available within the school setting.	(Kamenets et al., 2021), (Theodotou, 2019), (Blaisdell et al., 2019), (Flowers et al., 2015), (Feliu-Torruella et al., 2021), (Theodotou, 2020)	6
Multidisciplinary programmes	Multidisciplinary programmes for arts education may involve collaboration between art educators, special education teachers, therapists and other professionals to address a range of needs and goals. For example, a programme may combine arts education with occupational therapy or speech therapy to promote the development of fine motor skills or communication skills.	(Kantor et al., 2019), (Gaztambide-Fernández & Parekh, 2017), (Kerby et al., 2021), (Martinec et al., 2022), (Kantor & Lei, 2020), (Dobson & Stephenson, 2022)	6

Model/Method	Definition	Research Papers	Number of Documents
Technology-based programmes	Technology-based programmes for arts education may use digital tools and resources to support learning and participation for students with disabilities. For example, students may use assistive technology to create digital art, or participate in virtual arts education programmes that provide access to resources and expertise from a distance.	(Hsiao & Su, 2021), (Strycker, 2020), (Corradi et al., 2022)	3

Table 2*Category strategies in arts education for children with disabilities*

Strategy	Definition	Research Papers	Number of Documents
Visual supports	For students with visual impairments, providing tactile materials or using verbal descriptions to supplement visual instruction can help ensure that they can fully participate in art activities.	(Žolgar & Stopar, 2016), (Carpio et al., 2017)	2
Assistive technology	Assistive technology can be used to support students with a range of disabilities in participating in art activities. For example, students with communication or cognitive disabilities may use assistive technology to access digital art tools or to communicate their ideas and preferences.	(Hsiao & Su, 2021), (Strycker, 2020), (Madrid-Manrique, 2020), (Corradi et al., 2022)	4
Multi-sensory approaches	Multi-sensory approaches can help engage students with disabilities who may have sensory processing differences. For example, using different textures or scents in art materials, or incorporating music or movement into art activities, can help support participation and engagement.	(Puzanova et al., 2021), (Dobson & Stephenson, 2022), (Østergaard, 2019), (Kamenets et al., 2021), (Kantor et al., 2019), (Chapman & O'Gorman, 2022), (Flowers et al., 2015), (Craw, 2015), (Rihter & Potočnik, 2022), (Theodotou, 2019), (Santos & Lima-Rodrigues, 2016), (Cole et al., 2021), (Haerani et al., 2020), (Petsilas et al., 2019), (Kantor & Lei, 2020), (Mehr et al., 2013), (Gaztambide-Fernández & Parekh, 2017), (Nieto-Miguel et al., 2022), (Kerby et al., 2021), (Sydykova et al., 2020)	20

Strategy	Definition	Research Papers	Number of Documents
Social stories and scripts	Social stories and scripts can be used to help students with autism or other social communication difficulties understand expectations and routines during art activities, and to practise social skills related to sharing materials and collaborating with peers.	(Feliu-Torruella et al., 2021), (Martinec et al., 2022), (Theodotou, 2020), (Blaisdell et al., 2019), (Lian et al., 2020), (Erina et al., 2019)	6
Simplified instructions and steps	Simplifying instructions and breaking down complex steps into smaller, more manageable tasks can help students with intellectual disabilities or learning differences to better understand and participate in art activities.	(Shaughnessy, 2022)	1
Individualised instruction	Providing individualised instruction, including one-on-one support or small group instruction, can help ensure that students with disabilities receive the level of support they need to fully participate in art activities.	(Katušić & Burić, 2021), (Bacon & Bennett, 2013), (Devolli & Avdiu-Kryeziu, 2022), (Al Hashimi et al., 2021), (Ngyuen Viet, et al, 2022), (Grosvenor & Pataki, 2017)	6

Research has suggested that inclusive schools that use arts education as the primary approach can effectively promote the learning and development of children with disabilities. One review of the role of arts education in cognition and the curriculum found that such programmes can support the development of a range of skills and competencies, including cognitive, social-emotional and artistic skills (Eisner, 2020). Inclusive arts education programmes can also foster a sense of belonging and community for students with disabilities and provide opportunities for self-expression and creative exploration. Additionally, research has suggested that inclusive schools that use various inclusive strategies, including arts-based learning, can improve academic outcomes for all students, including those with disabilities. For instance, studies conducted in the United States, Western Australia, and Central and Eastern Europe found that schools with more inclusive practices, such as arts education, had better outcomes for students with disabilities than schools with less inclusive practices. Educational programme goals emphasise imaginative articulation, using aesthetic experiences as points of direction and motivation (Paris et al., 2018; Kárpáti, 2019). However, it is essential to keep in mind that the specific requirements of each student may depend on a range of factors, including the specific needs of individual students, the quality of instruction, and the level of support provided to teachers and students.

Art activities frequently involve fine motor skills, and arts education programmes for children with disabilities have shown a variety of positive outcomes in cognitive, motor or social-emotional development. Arts education programmes can provide opportunities to practise and enhance these skills for children with disabilities that affect their fine motor skills. According to Upitits (2001), art activities can provide a nonverbal means of self-expression, which is especially important for children whose disabilities affect their social or communication skills. Kárpáti (2019) reports that art activities, such as image as a medium of communication, can provide a setting for practising communication skills like expressing preferences, receiving feedback and working with peers. Alter et al. (2009) claim that arts education programmes can provide children with opportunities to express their knowledge, ideas and feelings, and to socialise with their peers and develop relationships through shared experiences. Children are roused by the need to communicate with others, to be engaged and to resolve individual issues or interests (Freedman et al., 2013). Art can open doors for young people's abilities to investigate their inventiveness and creative minds, which can decidedly influence their general prosperity and make a significant contribution to the broader community in developing identity, confidence, social participation and inclusion (Ewing, 2020). According to Boyd and Cutcher (2015), children can gain confidence and self-esteem by participating in art activities and creating art. The best practices in early childhood education theory, philosophy and pedagogy can inspire effective arts education in other educational settings. Children with disabilities who participate in arts education programmes may gain a variety of advantages that contribute to their overall development and well-being.

The effectiveness of inclusive schools that use arts education as the primary approach and a practical path in implementing individual education programmes and class activities

The paper classification problem referred to in RQ2 is based on the effectiveness of inclusive schools that use arts education as the primary approach and a practical path to implementing inclusive education in individual education programmes and class activities. Table 3 (above) shows the categorisation of each type of arts education into the primary strategy, the most efficient means of implementing arts education and inclusive education, such as class activities or individual education programmes. Comprehensive arts education projects might consolidate systems; for example, adjusting educational programmes and guidance to meet the different needs of students, providing proper facilities

and changes, and utilising a range of training approaches and materials to draw in and support all students. The art teacher's role also shifts to become a collaborator, support and resource for the school (Tarr, 2008). Additionally, students with disabilities, particularly those who may struggle with traditional literacy skills, can benefit from using the visual arts as a tool for developing visual literacy and communication skills. Art has potential for cognitive and affective growth beyond traditional assumptions about education through art for social and cultural settings (Kędra & Žakevičiūtė, 2019; Boughton, 1986; Kárpáti & Gaul, 2017).

Art educators, special education teachers and other professionals may collaborate to ensure that each student's needs are met when arts education is integrated into individual education programmes and classroom activities. In addition, ongoing teacher professional development and ongoing evaluation and monitoring of student progress may be necessary for effective implementation.

Several challenges and limitations are associated with different approaches to arts education for children with disabilities. Children with disabilities may require specialised materials or equipment to participate fully in art activities. Some strategies to address this challenge include seeking funding to purchase specialised materials, adapting existing materials and equipment, and collaborating with local organisations or businesses to support general education classrooms, as well as ensuring organisational structures and professional development that target the needs of special education students (Cherney et al., 2006; Malley & Silverstein, 2014). Children with disabilities may have difficulty communicating their preferences or needs related to art activities. Strategies to address this challenge include providing alternative modes of communication, such as picture boards or communication devices, and working with families and caregivers to better understand the child's communication needs (Heinisch & Gerber, 1988; Hajeak, 1980). Art educators may not have experience working with children with disabilities or may feel unsure how to adapt activities to meet their needs. Offering support to art teachers helps them to become familiar with the most forward-thinking patterns in arts education (Pataky, 2020). Strategies to address this challenge include providing professional development and training opportunities for educators, partnering with local organisations or experts, using the principles of Universal Design for learning, and creating a support network for educators to share resources and strategies (Malley & Silverstein, 2014).

Different approaches to arts education for children with disabilities are associated with a number of difficulties and limitations. In order to fully participate in art activities, children with disabilities may require specialised

materials or equipment. Some techniques to address this challenge include looking for financing to buy specific materials, adjusting existing materials and equipment and teaming up with neighbourhood associations or organisations to obtain donations so that arts teachers can address the needs of children with disabilities in their classroom or school (Malley & Silverstein, 2014). Children with disabilities may have trouble communicating their art-related preferences or requirements. It is therefore necessary to provide alternative means of communication, such as picture boards or communication devices, as well as to collaborate with families and caregivers in order to better understand the child's communication needs as a means of addressing this obstacle. Children with difficulty executing fine-motor movements will need customised arts equipment. Some art educators may not have prior experience working with disabled children or may be unsure about how to modify activities to meet their needs. Procedures may therefore be required in order to address this challenge, including improving proficiency and opening doors for teachers, cooperating with neighbourhood associations or specialists, and creating a support group for instructors to share resources and systems. Teachers who have participated in various forms of education and training and have gained experience in working with pupils with SEN are more positive about the inclusion of pupils with SEN (Rihter et al., 2023).

Transportation difficulties or financial constraints may make it difficult for children with disabilities to participate in community-based art programmes. Techniques to address this challenge include working with local area associations to provide transportation or other help, seeking grants or diminished cost programmes, and encouraging expanded availability and consideration of programmes based in the local area. Some teachers are turning to alternative methods of evaluation that include a variety of indicators (Kraft, 2006; Lund & Massey, 2016). There is a need for more research on the effectiveness of different approaches to arts education for children with disabilities and the specific outcomes that can be achieved through these programmes. Strategies to address this challenge include conducting rigorous research studies, sharing data and outcomes across organisations and programmes, and advocating for increased funding for research in this area.

A combination of strategies, including increased awareness, funding, collaboration and research, will be required to address the difficulties and limitations posed by various approaches to arts education for children with disabilities. Implementing arts education in inclusive education as individual education programmes and class activities can be complex. The effective paths may depend on a range of factors, including the needs and abilities of individual

students, the resources available and the specific goals of the programme. Collaboration between art educators, special education teachers and other professionals can be vital to implementing effective arts education programmes for students with disabilities. Art instructors obviously use additional art materials for educating and learning. However, there are therapeutic aspects of arts education and the best teachers will sustain their feelings of capability in a very valuable way. Arts have a significant role in controlling stress and improving relaxation, while art music therapy can also reduce stress (Davis & Thaut, 1989). Implementation may involve developing individual education plans that incorporate arts education goals, identifying appropriate accommodations and modifications, and ensuring that arts education activities are accessible to all students (Dunn-Snow et al., 2000; Huotilainen et al., 2018). Instructional procedures are needed for increasing teacher responsiveness to expressions of preference and choice among students with disabilities. Adapting arts education activities to meet the needs of individual students can be an effective strategy for promoting inclusive education. It may involve modifying materials, providing additional support or instruction, or using alternative communication or expression to accommodate diverse learning needs (Houghton et al., 1987). An essential component of inclusive arts education is the differentiation of instruction to meet the requirements of diverse students. Providing students with a variety of art-related activities and materials or employing a variety of teaching methods to accommodate a variety of learning styles may be necessary, because making art incorporates artistic causality, idiosyncratic meaning, and purposeful symbolisation (Kellman et al., 1988). Teachers and other professionals involved in arts education can benefit from receiving ongoing professional development to ensure that they have the knowledge and abilities necessary to effectively support diverse students. This might include preparing unambiguous arts education procedures or methodologies and more extensive preparation in comprehensive training and working with students with disabilities. The main purpose of arts education, whether formal (in the regular art classes) or informal (after school), is to equip students not only with the necessary skills to create art, but also with a set of mental tools to comprehend its meaning and appreciate it (Blagoeva, 2019). Assessing and observing the adequacy of arts education programmes for students with disabilities is fundamental to ensuring that they address the issues of individual students. According to Malley and Silverstein (2014), this may entail collecting data on student progress and outcomes and using this information to continuously adjust and enhance the arts education programme. Children with disabilities will benefit from experts who are committed to providing comprehensive instruction, so that children

can achieve maximum educational benefits.

Information regarding research categories that frequently appear between 2012 and 2022 has been obtained from the formulation of the research questions. The results obtained depend on the subjectivity of the researcher, so there may be confirmation bias or inaccuracy in conducting the review. However, the results and analysis of the Systematic Literature Review (SLR) can provide important information for researchers or developers interested in arts education for children with disabilities in recent years. The results also demonstrate that the mode or trend of interest in researchers is similar to previous years. Another finding is that each category still has the same mode or trend as in previous years, demonstrating that researchers prefer to research arts education in inclusive settings. This is probably because arts education is more accessible to children than therapy, which has been used in everything from inclusive schools to hospitals.

Arts education has advantages not only as a means of entertainment, but also as a means of education. The results of the present survey can be utilised in advocating for the improvement of programming projects in the field of arts education. In addition, it is hoped that this information will serve as a reference when designing arts education for children with disabilities in other areas, such as outbound, role plays and art performances. Nonetheless, this exploration should be developed further. The author was the only researcher to investigate the obtained results, which therefore remain subjective. Additionally, since this study only focuses on Scopus data, additional research on arts education for children with disabilities is required moving forward.

Conclusions

This study conducted a Systematic Literature Review regarding research on arts education for children with disabilities. From 2012 to 2022, as many as 39 studies were conducted. The present SLR investigates public research on arts education for children with disabilities, within the specific categories of strategies, models and methods. Qualitative research methods used are questionnaires and interviews with a focus on the impact or results of learning that has been done. These results are expected to provide information to researchers or developers interested in arts education for children with disabilities. This research is also helpful in improving the quality of arts education for children with disabilities in education and community outreach. However, this research still tends to be based on subjective judgments. Future research is expected to carry out SLR by implementing a voting system for several people with field

experts related to arts education research for children with disabilities to overcome the elements of individual subjectivity or confirmation bias. In addition, further research can conduct SLRs regarding arts education for children with disabilities for 2020 and later, in order to create a track record of the development of arts education for children with disabilities.

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Biographical note

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