Sociable in Someone Else's Shoes: A Review of Drama as Social Skills Training for Elementary School Children

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Article Info	Abstract
	The Dutch Central Government wants to focus on preventing mental health issues and the educational system needs to play a role in that process. Research has already shown that art therapy has significant positive results on mental wellbeing, so the question was asked whether arts in the education could help relief mental health stress of children. Specific attention for the effects of drama on social skills of children is justified, because higher social skills are associated with lower psychosocial stress, which in turn seems to be related to improved mental health. This study is a meta-analysis on current research, which was then compared to older meta-analyses on the same topic. Results are promising and consistent with earlier meta-analyses. The average effect size of the current research was found to be 1.174 in current research, but more empirical research on the relationship between drama and social skills is needed to warrant a decisive conclusion.

Introduction

In 2022, the Dutch Central Government published a report on mental health called "Aanpak 'Mentale Gezondheid: van ons allemaal'" ("Approach 'Mental Health: for all of us'"; Rijksoverheid, 2022). The first sentence of the document immediately drives home the importance of mental health: "About fifteen to twenty years longer life expectancy because of good mental health" (Rijksoverheid, 2022, p. 1). Several studies have already shown that mental health problems can lead to health issues. Franke (2014) states that prolonged stress could lead to elevated cortisol levels, resulting in an increased risk for infections, while Quesada et al. (2012) showed that stress can impair memory retrieval in children. The Dutch Central Government states that one of their main areas of interest lies in preventing mental health issues, naming the education system as one of the key factors in achieving this goal. They distinguish between four components of mental health: personal, functional, perceptive, and social (Rijksoverheid, 2022). The main aera of interest of the current study will be the social aspect, more specifically social skills within the education system.

Social Skills

The fact that social aspects play a role in mental health has been confirmed by several studies, with links between psychosocial stress and depression (Lee & Cho, 2013; Siegrist, 2008) as well as psychosocial stress and anxiety (Lee & Cho, 2013) having been found. Other studies have shown that relationships exist between stress and

loneliness, schizophrenia, marital distress, and alcoholism, respectively (Curran, 1977; Jones et al., 1982; Miller & Eisler, 1977; Segrin, 1990). When considering psychosocial stress as discussed by Lee and Cho (2013) and Siegrist (2008), we find several studies that suggest that psychosocial stress is linked to poor social skills (Jones et al., 2014; Segrin & Flora, 2000; Segrin et al., 2016), which in turn may lead to health problems. This would mean that improving children's social skills will lower their psychosocial stress, therefore improving their mental health. Training social skills could thus potentially be a way to help prevent mental health problems.

There is, however, no agreement on what the term "social skills" refers to. Cordier et al. (2015) performed a systematic review of the available tools that measure the concept of social skills. According to them, one of the main problems in this area of research is the lack of a clear consensus on the exact definition of social skills. The instruments they looked at had a few overlapping aims, such as social competence, child-child interactions, social behaviours, social and emotional problems, adjustment, or functioning (Cordier et al., 2015). One of the definitions comes from Spitzberg and Cupach (1989), stating that social skills are skills that enable an individual to communicate with others in an appropriate way. Social skills have also been divided into different components, such as cooperation, (non-)verbal communication, engagement and participation, empathy, and self-regulation and adaptive behaviours in situations where interpersonal interaction occurs (Elliott & Gresham, 1987; Gresham, 1986). The Dutch Central Government did so as well, distinguishing between empathy, social functioning, and belonging (Rijksoverheid, 2022), but this distinction still does not provide a clear definition. Looking at different tools aiming to measure social skills does not help us either, as they often use subscales to encompass whatever definition of social skills is used for a particular study. In sum, Little et al. (2017) stated that almost all definitions of social skills include interactions with others in a social context.

The current study assumes that most of the definitions named above will be used in the literature under the term "social skills". Communication and empathy, however, are often treated in separate studies, even though they are important to social skills as well. Fisher and Kielhofner (1995) argue that communication is whatever is used to communicate intentions and coordinate behaviour for interactions. This means that communication is an important aspect of interaction, which according to Little et al. (2017) is the most common factor in definitions of social skills and fits the definition of social skills given by Spitzberg and Cupach (1989). As for empathy, Smith (2017) has claimed that empathy provides knowledge to understand how others feel, stating that empathy is necessary for feeling what another person feels, therefore making it important for social behaviour and interactions. Multiple studies have shown a link between empathy and social skills (Allemand et al., 2015; Ishak et al., 2014; Riggio et al., 1989). In this study, the assumption is that a definition of social skills is related to communication and empathy.

Social Skills, Mental Health, and the Education System

The Dutch Central Government wants to focus on preventing mental health issues, and the educational system needs to play a role in that process (Rijksoverheid, 2022). One of the ways in which they want to do so is by helping schools find ways to discuss mental health with children and to develop ways to improve mental health of their students. There is a reason that part of their focus is on children and students. "Het is een eenzame,

uitzichtloze tijd" ("It is a lonely, hopeless time"; Het Vergeten Kind, 2021) is a report on mental healthcare for children. According to this report, children in need of mental help may have to wait ten months on average before they are able to receive appropriate help in the Netherlands.

Aside from this specific problem, psychosocial stress in schools has already been an area of interest for several decades now, according to Bouter (1986). Paying proper attention to mental health and more particularly psychosocial stress not just prevents negative effects, it may also have positive effects, specifically in school settings. According to a literature review by Wang et al. (1993), there are three types of key proximal variables that influence learning. These variables are subdivided into psychological, instructional, and the home environment. With respect to psychological proximal variables, cognitive processes are seen as highly influential, and not simply when it comes to general intelligence or prior knowledge. To quote Wang et al. (1993, p. 29): "Motivational and affective attributes are now considered cognitive constructs and play a key role in students' perseverance and enthusiasm for learning." The affective attributes mentioned here appear later in the explanation of instructional variables that influence learning, stating that positive social interactions help gain self-esteem as well as a sense of belonging, irrespective of the fact that positive interactions exist between student and teacher or among students.

More recently, Yang et al. (2018) showed that a school-wide Social Emotional Learning (SEL) approach has positive effects on both emotional and cognitive–behavioural engagement. During SEL sessions, children acquire both knowledge and skills to understand and manage emotions and establish and maintain positive relationships while making responsible decisions (CASEL, 2017). Part of the SEL competencies are affective competencies, therefore linking engagement to affective attributes. This makes schools not only important in lowering psychosocial stress and thereby possibly in preventing mental health issues, schools may also be the ideal place to practice social skills. Practicing social skills in schools could not only potentially prevent mental health issues, but it may have a positive influence on the learning abilities of the children at the same time. The focus of interest in this study is primary education.

Drama and Mental Health

A potential way of practicing social skills for children in primary education is through the arts. According to Robinson (2021), arts help us make sense of the world around us by studying what it is to be human, but this is not all there is to arts. Art therapy has been shown to have positive effects on mental health, particularly when it comes to self-discovery, self-expression, relationships, and social identity (Slayton et al., 2010; Van Lith et al., 2013). In schools, children's attitudes towards art appear to be positive (Haladyna & Thomas, 1979; Watts, 2005). It is, therefore, reasonable to assume that art could serve as a tool for practicing mental health in schools.

Arts as education has various forms: music, dance, visual, and drama or theatre (Bloomfield & Childs, 2013; Elpus, 2022; Hickey, 2002). Dance is an art of performance which uses movement in an artistic way, music is art producing sounds with qualities like rhythm, tone and melody, visual arts are used to communicate ideas and feelings through materials, and finally drama is an art of performance involving movement and speech

(Bloomfield & Childs, 2013). A viable hypothesis is that of these four forms of art, drama is the most useful to improve social skills. After all, it requires one to step into another person's life, asking for empathy while acting out communication between fictional characters. But what is drama?

The word drama finds its origin in the Greek word dran, meaning "to do, to act." Stichting Leerplan Ontwikkeling (SLO), the Dutch centre for curriculum, states that drama is about acting out the "what if" (SLO, 2019). Children learn about themselves, others, and their surroundings through drama, meaning that drama uses their social and cultural skills and knowledge. Some say drama and theatre are the same, others argue that drama is part of theatre, showcasing that this is yet another term with no clear definition based on consensus amongst researchers. According to Robinson (2021), drama in schools is often seen as a pedagogical tool, while it could also be studied as an art-form in itself. It is often divided into "practical" and "theoretical". The practical version involves elements like acting and directing, and the theoretical part concerns history and forms, implying that drama knows different forms but never specifying what "forms" mean in this context.

One way of looking at these forms of drama is through the perspective of history, with Gassner (1955) naming genres like realistic, tragicomedy, static, and symbolist drama. One could, however, also look at forms of drama as different dramatic techniques rather than genres. There is no exhaustive list of drama techniques, the most comprehensive one is provided by Davies (1990), saying drama includes Mime, Role Play, Improvisation, Simulation, Interaction Activities, and Dramatized Story-Telling. Atas (2015) adds to that list Language Games and Drama Scripts, based on Dundar (2013) and Karakaya and Kahraman (2013). Despite there being no clear consensus on the definitions of both drama and social skills, it is not the first time that people have reviewed the potential relationship between the two concepts. One review study by Hanshumaker (1980) on this topic has been done forty years ago.

Findings by Hanshumaker (1980)

Hanshumaker wrote a review study discussing how arts education affects intellectual and social development. For his review study, he subsumed social skills under Socialisation, as a part of the section Personal and Intellectual Characteristics. Other elements within this section include Learning Behaviour and Attitude, Creativity, and Intellectual Development and Achievement. Three studies involving drama were found for this aspect of the review study, namely Norton (1973), Berretta (1972) and Wright (1972). All were unpublished doctoral dissertations.

Norton (1973) selected 40 students to keep a "prose diary", with half of them belonging to the experimental group and the other half to the control group. These second-grade children recorded differences in their diaries, which led to the conclusion that the movement and drama program stimulated a positive attitude toward learning in school and curriculum, therefore improving motivation. Berretta (1972) compared a sample of 92 fourth-grade children to see whether structured or nonstructured art, drama, and playground activities would affect creative thinking. Children taking part in more flexible experiences showed better results at the Torrence Tests of Creative Thinking than those taking part in highly structured activities, leading to the conclusion that nonstructured

activities lead to greater creative abilities. The only study that used drama and looked at socialisation was the one by Wright (1972). One hundred sixth-grade children took part in creative drama courses. Pre- and post-tests showed an improvement in role taking skills in middle-class boys, finding some indication that the interaction of "playing-off" another actor in improvisations is more important than discussions of the characters.

The conclusion of the review study states that arts education appears to have a positive influence on personal adjustment, self-concept, and social development. Carefully planned experiences in the arts will result in unique, positive influences on critical aspects of social development. According to this review study, no variables should be eliminated, because of the limited number of studies. Many of the studies should be replicated with different populations and in different parts of the country, with an emphasis on long term effects, and ways should be found to encourage research in drama and dance since such studies are, to quote the original review study, "woefully lacking" (Hanshumaker, 1980, p. 24).

Aim of This Study

The goal of this study is to conduct a meta-analysis of empirical studies that were published after 1980 that have investigated the effect of drama on social skills. With renewed attention for mental health in Dutch education, it is time to see whether these directions were followed, whether more answers have been found, and if so, how they compare to the findings of Hanshumaker (1980).

Method

To find records to include in this paper, limits had to be determined. First, to be able to compare results to Hanshumaker (1980) based on the time of the systematic review, records from before 1980 were excluded. All records published after 1980 up until 24/03/2022 were considered. A second requirement was that publications had to be written in Dutch, English, or Spanish because these are the languages familiar to the authors. Searches included all relevant keywords and terms to ensure that as many records as possible would be found. This included the terms "Communication Skill*" and "Empathy" for the topic of Social Skills for reasons named in the Introduction section. Records were retrieved from Web of Science and Scopus. The exact search criteria per search engine were as follows:

> Web Of Science: [Topic: "Primary School*" OR "Elementary School*" OR "Primary Education" OR "Elementary Education"] à 85367 results; [Topic: Drama OR Theatre] à 114641 results; [Topic: "Social Skill*" OR Empathy OR "Communication Skill*"] à 70413 results
>
> Scopus: [Topic: "Primary School*" OR "Elementary School*" OR "Primary Education" OR "Elementary Education"] à 98043 results; [Topic: Drama OR Theatre] à 82869 results; [Topic: "Social Skill*" OR Empathy OR "Communication Skill*"] à 103699 results.

Combining those searches led to 50 records. These records were used to find more research, which is a process known as snowballing. For this paper both forward and backward snowballing was used. Through snowballing an additional 22 records were found. These records were assessed based on empirical and thematical limits.

Records would have to offer a methodology section, a table with results, include children no younger than the age of four and no older than the age of thirteen because of the age of elementary school children and on children in regular elementary schools, excluding children with disabilities. The quality of the records was not assessed, as it will be discussed in the results section of this paper. There were several possible reasons why a record had to be excluded based on the research subject. Roughly put, of the 34 excluded records 5 focused on a specific set of children, like children with autism spectrum disorder or low-income children; 19 were not focused on the effects on social skills, and an additional 10 pertained to children below the age of four or above the age of thirteen. This led to the following flowchart (Figure 1).
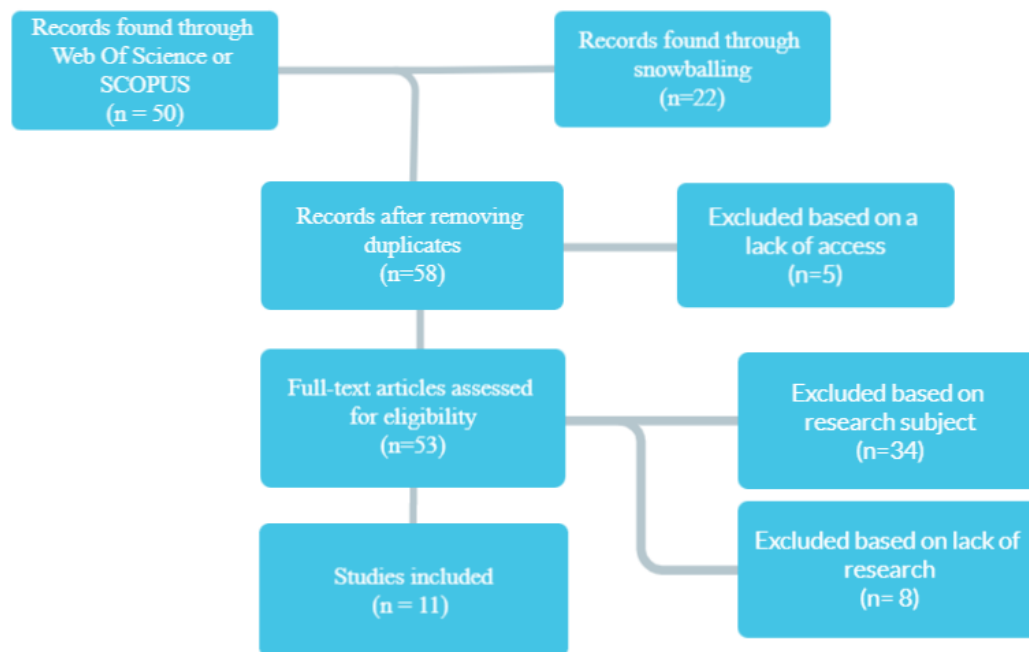

Figure 1. Flowchart of the Search Process

Of the 11 remaining records, one was a meta-analysis (Batdi & Elaldi, 2020) conducted in Turkey with mostly Turkish studies, which together with that of Hanshumaker (1980) will be used to compare the results of 10 empirical studies that complied with the inclusion criteria. The studies were first analysed by putting their descriptives and results into tables. These results will be discussed before the average effect sizes will be listed, as well as how those influence the initial results.

Results

Table 1 shows the included papers and their descriptives. Out of the ten papers included in Table 1, nine are written in English and one (Cruz Colmenero et al., 2013) in Spanish. Three of the papers included were written before 2010, with the oldest being written in 2003 (Freeman et al., 2003) and the most recent inclusion in 2020 (Celume et al., 2020). Nine of the papers used a pre-post-test design, except for a follow-up research (Moore & Russ, 2008). Nine of the papers were peer-reviewed, the only exception being Pekdogan (2016). Seven of the papers included children older than 9 years, of which two studied a range of ages larger than a two-grade difference.

The dependent variables that were researched in the papers were Theory of Mind (ToM), collaborative behaviour, (developing) social skills, showing emotions, recognising emotions, self-concept, problem behaviour, social relationships, bullying, play, creativity, emotional processes, social competence, self-discrepancy, and role-taking. Vocabulary has also been explored in these papers, but those results will not be discussed in this review because of thematical limits.

The results of the papers in Table 1 led to the creation of Table 2. Based on the descriptives in Table 1 the analysis of Table 2 was divided into several separate groups to be able to analyse how common factors may have influenced the results. These common factors were creative drama (Freeman et al., 2003; Oztug & Ciner, 2017; Çetingöz & Cantürk Günhan, 2012), role play (Moore & Russ, 2008; Wright, 2006), based in Turkey (Oztug & Ciner, 2017; Pekdogan, 2016; Çetingöz & Cantürk Günhan, 2012), children over the age of 10 (Celume et al., 2020; Cruz Colmenero et al., 2013; Joronen et al., 2012; Tsiaras, 2016; Wright, 2006), and children up to the age of 6 (Pekdogan, 2016; Çetingöz & Cantürk Günhan, 2012).

Out of the ten papers included in Table 2, nine found at least some positive results. These were found on the following dependent variables: ToM, collaborative behaviour, interpersonal skills, skills to manage anger behaviours, skills to cope with peer pressure, skills to control oneself, verbal explanation skills, skills to accept results, listening skills, goal setting skills, skills to complete tasks, showing emotions, recognizing emotions in pictures, social relationships, quality of play, basic social skills, advanced speaking skills, relation-continuing skills, directing skills, cognitive skills, role-taking ability and, to some degree, social competence.

Significant positive effects were found in both studies using the Social Skills Evaluation Scale (SSES). Three papers used a training program, all three led to significant results on the dependent variables apart from recognizing emotions based on videos. Four out of five studies using more than 100 participants found significant positive effects.

Creative Drama (Freeman et al., 2003; Oztug & Ciner, 2017; Çetingöz & Cantürk Günhan, 2012)

Creative drama is improvisational drama that focusses on the process rather than the performance. Participants are guided by a leader to enact experiences within the natural world of children. By developing their world and play, it uses theatrical techniques to create learning experiences (Youth Stages, 2001). Çetingöz and Cantürk Günhan (2012) and Freeman et al. (2003) were peer reviewed and used a pre- and post-test as well as a control group. Oztug and Ciner (2017), while peer reviewed and using pre- and post-test, did not use a control group. Freeman et al.'s control group set-up was slightly different from Cetingöz et al.'s because Freeman et al. did not use two, but four research groups. Groups 1 and 2 received a pre-test, groups 1 and 3 received intervention, and all four groups were post-tested to control for pre-test sensitization. Cetingöz et al. found highly significant positive effects for most of the SSES, self-control, and listening having slightly fewer significant effects. Freeman et al. found no significant effects for self-concept, problem behaviour or social skills. Oztug and Ciner found significant positive effects for basic social skills, advanced speaking skills, relation-continuing skills, directing skills and cognitive skills. Overall, two of the studies that specified using creative drama found positive results.

However, the study that did not result in significant effects is the study that had the most reliable set-up and the most participants. This means that the results for the specified use of creative drama are not undisputed.

Role Play (Moore & Russ, 2008; Wright, 2006)

Role play is drama specifically focussing on seeing things from another person's perspective. It is used to challenge children to try and understand what someone else might be seeing or experiencing, without truly experiencing it themselves (Farmer, n.d.). Moore and Russ (2008) and Wright (2006) were both peer-reviewed and used a control group, with Wright using five groups of which one did not take part in the intervention at all. Wright did have a pre- and post-test, whereas Moore et al. did a follow-up to an earlier study. This means that Wright's results are based on direct post-intervention results, whereas Moore et al. looked at long-term results instead. Moore et al. found significant long-term positive effects for the quality of play, but not for emotional processes and even significant negative effects for creativity. Wright found significant positive effects on role-taking ability, but not on self-concept and self-discrepancy.

Overall, both studies using some form of taking on roles found at least some positive results, but both found these results on only a part of their dependent variables. Moore et al. stated that emotional processes and creativity were significantly affected immediately post-intervention, but these results did not hold up over time, while also stating that the intervention may have been too far removed from these dependent variables. Because Wright used five groups, each with a different level of exposure to the intervention, the conclusion is that there might be a minimum number of exposures before there is a significant impact. It was also stated that self-concept, while not improved to a significant degree, did improve most for the classes that at pre-test scored at or below average self-concept scores compared to their peers, indicating that this intervention is more effective for those groups. Thus, significant effects on the role-taking ability of children were found, in the long run as well as regarding the quality of play.

Based in Turkey (Oztug & Ciner, 2017; Pekdogan, 2016; Çetingöz & Cantürk Günhan, 2012)

The work of Çetingöz and Cantürk Günhan (2012) was peer reviewed and they used a pre- and post-test as well as a control group. Oztug and Ciner (2017), while peer reviewed and using pre- and post-test, did not use a control group. Pekdogan (2016) used a pre- and post-test, as well as a control group, but was not peer-reviewed. Pekdogan's post-test differed from Cetingöz et al.'s because they not only provided a post-test directly after the intervention, but also after four weeks to look for a long-term effect. Cetingöz et al. found highly significant positive effects for most of the SSES, with self-control and listening having slightly less significant effects. Oztug and Ciner found significant positive effects for basic social skills, advanced speaking skills, relation-continuing skills, directing skills and cognitive skills. Pekdogan found significant effects for all subscales of the SSES, both immediately after the intervention and four weeks later.

Overall, all studies that were done in Turkey found positive results on most of their dependent variables, including most if not the entirety of the SSES. Even Pekdogan, which was the only study of the three which included a

bigger sample size than the common size of thirty participants, found significant effects on the development of social skills. Even though two out of the three studies had less than twenty participants, this is not necessarily a problem if a control group has been used. This is the case for Cetingöz et al., but not for Oztug and Ciner, indicating that these results are mostly reliable; Oztug and Ciner's addition should, thus, be considered with caution.

Children Over the Age of 10 (Celume et al., 2020; Cruz Colmenero et al., 2013; Joronen et al., 2012; Tsiaras, 2016; Wright, 2006)

Celume et al. (2020), Cruz Colmenero et al. (2013), Joronen at al. (2012), Tsiaras (2016) and Wright (2006) all used a pre- and post-test as well as a control group and were all peer-reviewed. Celume et al. used three separate groups, with one control group, one group using Drama Pedagogy Training (DPT) and one group using Collective Sportive Games (CSG). As stated before, Wright used five groups of which one did not take part in the intervention at all. Celume et al. found significant effects on both ToM and collaborative behaviour, with DPT being more effective than CSG. Cruz et al. found significant effects for the ability to show emotions and to recognize emotions in pictures. Joronen et al. found significant effects for social relationships. Tsiaras found significant effects for the popular, rejected, and neglected sociometric groups in fourth and fifth grade, and for the popular and neglected groups in sixth grade. Wright found significant positive effects on role-taking ability, but not on self-concept and self-discrepancy.

Overall, all studies including children over the age of 10 found positive results on at least one of their dependent variables. These positive results suggest that the drama interventions that were used have positive effects on ToM, collaborative behaviour, showing emotions, recognising emotions in pictures, social relationships, and role-taking ability of children of age 10 or older. The popular group grew in children, while the neglected group saw a decrease of children in all three observed grades. Because all five studies included were peer reviewed and had more than thirty participants and used a pre- and post-test and a control group, these results seem to be reliable.

Children Up to Age 6 (Pekdogan, 2016; Çetingöz & Cantürk Günhan, 2012)

Çetingöz and Cantürk Günhan (2012) and Pekdogan (2016) both used a pre-test post-test design as well as a control group. Pekdogan was not peer-reviewed while Cetingöz at al. was. Pekdogan also differs in the fact that four groups were used instead of two. Groups 1 and 2 received a pre-test, groups 1 and 3 received intervention, and all four groups were post-tested to control for pre-test sensitization. In this study the participants were tested both directly after the intervention as well as four weeks later, checking for retention of results. Cetingöz at al. found highly significant positive effects for most of the SSES, with self-control and listening having slightly less significant effects. Pekdogan found significant positive results for all subscales of the SSES directly after the intervention and after four weeks.

Overall, both studies including children up to the age of 6 found positive results on all dependent variables. However, only Pekdogan used a bigger sample size than the common size of thirty participants, though this is not

necessarily a problem because of the use of control groups in both studies. This indicates that results seem to be significant and retained for children up to the age of 6.

Effect Sizes

The information above is based on the results and conclusions found in the original studies. To substantiate these conclusions, we computed a quantitative measure, namely Cohen's *D*'s. The results of these calculations are presented in the last column of Table 2, with precise calculations being listed in the Appendix. Note that not all studies provided the necessary data to do be able to compute effect sizes. Wright (2006) did not provide any means or *SD*s, therefore no effect size could be calculated. Celume et al. (2020) has a large effect size, if collaborative behaviour is not considered. The pre-test for collaborative behaviour was done in week 2 of the intervention, explaining the unusually small *SD*, in turn explaining the unusually large Cohen's *D* of 10.77. Another weak point of Celume et al.'s (2020) results was that no *SD* was provided for the post-test results, meaning that Cohen's *D* was based on pre-test *SD* only. Moore and Russ (2008) had a similar problem, but in this case the pre-test results are unpublished. Instead, Cohen's *D* was calculated using the difference between the experimental group and the control group. As a final note, Joronen et al. (2012) did not provide the results needed to calculate the effect size on bullying, meaning this variable was not a part of the average effect size for this study.

Excluding Celume et al.'s (2020) collaborative behaviour, Wright (2006), and Joronen et al.'s (2012) bullying, the total average effect size is 1.174, which is a large effect. Most of the common factors described above found large effects, with creative drama finding an average of 1.768, based in Turkey finding was 2.138, children over the age of 10 was 0.830, and children under the age of 6 was 2.626. The only exception being role play with an average *D* of .540 which is based on Moore and Russ (2008) only since Wright (2006) was excluded. Despite this not being a large effect, it is still classified as a medium effect. These results seem to support the findings that were obtained based on the conclusions written in the original studies.

Findings by Batdi and Elaldi (2020)

While looking for studies for the current study, a recent meta-analysis from Turkey was found. Since Batdi and Elaldi (2020) used 24 studies, 21 of which being Turkish, it might be useful to consider their results and conclusion as well as those of Hanshumaker's (1980) and compare these with the present studies. Batdi et al. aimed at finding the effectiveness of drama on social communication skills by analysing studies that included a pre- and post-test as well as a control group. The three studies included that were not written in Turkish were written in English. Looking at the studies, the effect sizes, and the thematic, qualitative analysis they found, they concluded the following.

The average effect size was 0.93, which is positive and large according to Cohen's classification (1992). When separating the studies into preschool, primary school, secondary school, and high school, the highest effect size was found in primary school. This means that drama methods had a significant positive effect on the social communication skills of children, especially so in primary education.

Table 2. Descriptives

Authors	Type of drama	Subject	Participants	Participants' descriptives	Pre-Post test	Control group	Peer review
Celume et al. (2020)	Not specified	Theory of Mind (ToM), collaborative behaviour	126	Ages: 9 – 10 ($n = 55$), 10 – 11 ($n = 71$) Genders: Unknown Other: Private School ($n = 48$), Public School ($n = 43$) and Priority School ($n = 35$)	Yes	Yes	Yes
Çetingöz & Cantürk Günhan (2012)	Creative drama	Acquisition of social skills	19	Ages: 4 – 6 ($n = 19$) Genders: Male ($n = 10$), Female ($n = 9$) Other: School in Buca	Yes	Yes	Yes
Cruz Colmenero et al. (2013)	Dramatic expression	Showing and recognizing emotions	49	Ages: 10 – 11 ($n = 49$) Genders: Unknown Other: School in the northwest of Madrid ($n = 49$)	Yes	Yes	Yes
Freeman et al. (2003)	Creative drama	Self-concept, problem behaviour, social skills	237	Ages: 8 – 9 ($n = 119$), 9 – 10 ($n = 118$) Genders: Unknown Other: Rural school ($n = 237$).	Yes	Yes	Yes
Joronen et al. (2012)	Not specified	Social relationships, bullying	134	Ages: 9 – 12 ($n = 134$) Genders: Male ($n = 67$), Female ($n = 67$) Other: Public comprehensive schools ($n = 134$)	Yes	Yes	Yes
Moore & Russ (2008)	Pretend play	Play, creativity, emotional processes	45	Ages: 6 – 8 ($n = 45$) Genders: Unknown Other: Approximately 99% of the student population is African-American	No	Yes	Yes
Oztug & Ciner (2017)	Creative drama	Development of social skills	14	Ages: 8 – 10 ($n = 14$) Genders: Male ($n = 4$), Female ($n = 10$) Other: Schools in the area of Guzelyurt	Yes	No	Yes
Pekdogan (2016)	Storytelling	Development of social skills	60	Ages: 5 – 6 ($n = 60$) Genders: Unknown Other: Independent preschools affiliated with Turkish Ministry of National Education. No prior drama experience ($n = 60$)	Yes	Yes	No
Tsiaras (2016)	Educational drama	Social competence	1826	Ages: 9 – 11 ($n = 1826$) Genders: Male ($n = 904$), Female ($n = 922$) Other: None	Yes	Yes	Yes
Wright (2006)	Roleplay	Self-concept, self-discrepancy, role-taking ability, vocabulary	140	Ages: 10 – 13 ($n = 140$) Genders: Male ($n = 72$), Female ($n = 68$). Other: Two classes of urban schools and three classes of rural schools	Yes	Yes	Yes

Table 2. Analysis

Authors	Independent variable	Dependent variable	Measurement tool	Key results	Conclusion	Effect sizes
Celume et al. (2020)	Drama pedagogy training	ToM, collaborative behaviour	ToM — French version of the Reading the Mind in the Eyes Test, Child Version Collaborative behaviour — The prisoner's dilemma (PD) task (Garaigordobil, 1995)	ToM - An ANOVA 2x2 model using type of training (Drama Pedagogy Training, DPT) or Collective Sportive Games, CSG) and time of measurement (before or after intervention) showed F (1,124) = 28.79, $p < .001$, $\eta^2 = .19$, with DPT increasing more. T –test analysis showed $p < .001$. Collaborative behaviour - An ANOVA analysis showed F (1, 124) = 74.83, $p < .001$, $\eta^2 = .38$, with DPT increasing more. T –test analysis showed $p < .001$.	DPT affected ToM and collaborative behaviour more so than CSG did.	5.864 without collaborative behaviour 0.957
Çetingöz & Cantürk Günhan (2012)	Creative drama activities	Acquisition of social skills	Social Skills — Social Skills Evaluation Scale (SSES) with the following subscales: Interpersonal skills, skills to manage anger behaviours, skills to cope with peer pressure, skills to control himself, verbal explanation skills, skills to accept results, listening skills, goal setting skills and skills to complete tasks	Social Skills – An ANCOVA analysis of the post test scores between experiment and control group showed all p's < .000, except for skills to control himself ($p = .001$) and listening skills ($p = .008$)	Self-control and listening skills were less affected by the creative drama activities than other subscales of the SSES.	3.850
Cruz Colmenero et al. (2013)	FACS-training program	Showing and recognizing emotions	Showing emotions – Scale A for teachers to observe children's ability to show emotions based on Ekman (1972) Recognizing emotions based on videos – One scale (B) for students	Showing emotions – Student's t-test showed $p < .001$ for the experiment group Recognizing emotions scale B – Student's t-test showed $p > .05$ for the experiment group	Showing emotions and recognizing emotions in pictures were improved upon receiving the FACS-trainings.	.954

				Recognizing emotions scale C - Student's *t*-test showed $p < .001$ for the experiment group		
Recognizing emotions based on pictures - One scale (C) for students						
Freeman et al. (2003)	Creative drama activities	Self-concept, problem behaviour, social skills	Self-concept - Student Self-Concept Scale	Self-concept - A 2x2 factorial analysis using pre-test (present or absent) and treatment (present or absent) was used to show $F(1, 180) = 1.025, p = .313$	Creative drama activities did not affect any of the dependent variables.	.293
			Problem behaviour and Social skills - Social Skills Rating System	Problem behaviour – The same 2x2 factorial analysis of variance showed $F(1,191) = 0.617, p = .443$		
				Social skills – The same 2x2 factorial analysis of variance showed $F(1, 191) = 1.122, p = .291$		
				An ANCOVA analysis was done to show that controlling for pre-test performance did not cause a significant difference in results.		
Joronen et al. (2012)	Classroom drama sessions	Social relationships, bullying	Social relationships - The scale of social relationships in the classroom, of the School Wellbeing Profile	Social relationships - A paired samples' *t*-test resulted in $p < .001$. The effect of group-by-time interaction resulted in $p = .011$, making it statistically significant.	After the classroom drama sessions, social relationships seem to have improved.	.764
			Bullying – Two questions with three response alternatives	Bullying – A paired samples' *t*–test showed $p = .531$ on self-reported bullying and $p = .885$ on self-reported victimization.		
Moore & Russ (2008)	Affect play intervention, imagination play intervention	Play, creativity, emotional processes in long term	Play - Affect in Play Scale (APS)	Play – Repeated measures ANOVAs with pairwise comparisons showed $p < .05$ for both frequency of affect expression and	After 2 to 8 months post-intervention, only Play showed improved	.540
			Creativity - Alternate Uses Test (AUT) with three subscales;			

			fluency, spontaneous flexibility and originality Emotional processes – Emotion regulation checklist (ERC) with two subscales; negativity and emotion regulation, Multidimensional Student Life Satisfaction Scale for Children (MSLSS-C) with the five factors being family, friends, school, living environment and self	imagination in the imagination group, while no significant differences were found in the affect or control groups. With MANOVA, four more significant differences were found in the combined intervention groups, namely total frequency of affect expression, frequency of positive affect (F = 4.63; $p < .05$), quality of fantasy (F = 4.51; $p < .05$) and organization (F = 4.02; $p < .05$). Creativity – The AUT was not named in the results, authors stated fluency was the only significant outcome with control groups scoring higher than the play groups. Emotional processes – The results of neither the ERC nor the MSLSS-C were published, authors stated that none of the scores reached significance.	values compared to pre-test results.	
Oztug & Ciner (2017)	Drama-based education	Development of social skills	Development of social skills - Hasan Avcioglu's scale for evaluating social skills of 7-12 ages, including the subscales of basic social skills, basic speaking skills, advanced speaking skills, relation-initiating skills, relation-continuing skills, working in	Development of social skills – The scores on the scale for evaluating social skills increased after the intervention, with the minimum score going from 145 to 216 and the maximum score going from 314 to 340. It seems that the difference in scores results in $p < .05$ for the subscales of basic social skills, advanced	Unknown drama activities caused an improvement in scores on basic social skills, advanced speaking skills, relation-continuing skills, directing skills and cognitive skills.	1.162

			group skills, emotional skills, self-control skills, skills for dealing with aggressive behaviour, skills for accepting results, directing skills and cognitive skills.	speaking skills, relation-continuing skills, directing skills and cognitive skills.		
Pekdogan (2016)	Story-based social skills training program	Development of social skills	Development of social skills - Social Skills Evaluation Scale (SSES) with the following subscales: Interpersonal skills, skills to manage anger behaviours, skills to cope with peer pressure, skills to control himself, verbal explanation skills, skills to accept results, listening skills, goal setting skills and skills to complete tasks. SSES was done immediately after intervention as well as four weeks later.	Development of social skills – An independent sample t –test shows all p's > .05 for pre-test groups. The ANCOVA analysis for the post-test results show all p's < 0.001 in favour of the experimental group. After four weeks a related sample t –test showed all p's > 0.5 between post-test and retention test scores.	The training program caused positive effects up to at least four weeks post-intervention.	1.401
Tsiaras (2016)	Dramatic activities	Social competence	Social competence - Sociometry combined with Coie and Dodge's nomination procedure (1983), and the five sociometric status groups; popular, rejected, neglected, controversial and average.	Social competence - A two-tailed Student's t test showed significant results for popular, rejected and neglected in the experimental groups (p < .01). Controversial and average had no significant differences in results (p > .01). This is the same for fourth, fifth and sixth grade except for rejected in sixth grade (p < .001)	The popular and neglected status groups were positively affected by drama activities in all of the grades, as did the rejected group in grades four and five.	.645
Wright (2006)	Drama intervention	Self-concept, self-discrepancy, role-taking ability	Self-concept - The Piers-Harris Children's Self-Concept Scales (P-H; Piers, 1984) Self-discrepancy -	The doubly multivariate form of analysis of variance, using CLASS, GENDER and TIME, was used to find effects. Only CLASS by TIME was significant, F	The drama intervention does not seem to have affected any of the dependent variables other	-

| | | | The Self-Discrepancy Questionnaire (SDQ; Brown & Kafer, 1994)

Role-taking ability - The Chandler Story Task (CST; Chandler, 1973) | $(16,452) = 2.520$, $p < 0.001$

Self-concept - CLASS by TIME shows $F(4,113) = 2.777$, $p = .0653$. The difference between classes were not significant, with the no intervention class scoring higher means than three out of the four intervention classes.

Self-discrepancy - CLASS by TIME shows $F(0,274) = .274$, $p = .895$. The class with no intervention shows lower scores for self-discrepancy than three out of the four intervention classes, but not significantly so.

Role-taking ability - CLASS by TIME shows $F(4,113) = 4.114$, $p = .0038$. The difference in effects is most significant for the class with no intervention and the class with the most intervention ($p < 0.0001$). Differences between some intervention and the most intervention were not significant. | than role-taking ability. | |

A thematic analysis was done as a part of this meta-analysis. According to Batdi et al., after coding all replies given within these studies, the codes that stood out the most were "improving relationships with friends", "providing opportunities to form groups", "providing opportunities to develop social skills", "increasing social integration", and "providing participants to express themselves comfortably", showing that participants felt that their social skills were improved. This is important because it shows that not only do the data provide evidence, but it also means that confidence was increased as well. Phillips (2003) specifically stated that even the shy students gained more confidence through the method of drama.

Batdi et al. ended their meta-analysis by recommending directions for future research. They state that findings of current research should be generalised in the context of the study, meaning that the context of the country in which the study was done should be considered. Although all studies were performed in Turkey, the implications may well be applicable in other countries too. They also suggest that future studies should apply different methods within the same study, based on what fits the nature of the researched question or problem and conclude with the suggestion to perceive drama as a necessary part of the job of a teacher, both by authorities and preservice teachers.

Discussion

The Dutch Central Government aims at improving the prevention of mental health issues in the education system. Psychosocial stress, an indicator of mental health, is affected by social skills. Finding ways to improve social skills could therefore be useful for Dutch schools. The aim of the current study was to see whether drama could be such a way. Even though caution was taken to find all studies in this field of interest, some might have been missed. Another source of potential error when interpreting these results is that even though forty years have passed since Hanshumaker's (1980) review study, there still has not been a lot of research into this potential contribution of drama. Another problem is the lack of a proper and agreed upon definition of social skills and drama. The classifications of both terms in this study might not include everything that would be considered a social skill in the broadest definition of the concept. Depending on the definition used, one will find different studies to include and as a result the conclusion might be different. Finally, there is the problem of publication bias. There is a reasonable chance that (small) studies with a lack of significant results do not get published. Unpublished studies that reveal an absence of effects of drama on social skills are not considered when looking for an answer to the question asked.

Based on all ten studies included in the current study, a modest conclusion is that creative drama as a method for improving social skills has gained some positive results, and while these are not undisputed, the average effect size seems to imply large effects. The role-taking ability of children can be improved by drama, even in the long run, but the effect is of medium size only. The studies performed in Turkey all showed positive, reliable results with a large average effect size. The results of the studies included were consistent for both children over the age of 10 as well as children up to the age of 6, with both finding large effects. These studies did show positive effects on ToM, collaborative behaviour, interpersonal skills, skills to manage anger behaviours, skills to cope with peer pressure, skills to control oneself, verbal explanation skills, skills to accept results, listening skills, goal setting skills, skills to complete tasks, showing emotions, recognizing emotions in pictures, social relationships, quality of play, basic social skills, advanced speaking skills, relation-continuing skills, directing skills, cognitive skills, role-taking ability and, to some degree on social competence.

A Comparison with Hanshumaker (1980)

The aim of Hanshumaker's review study was to investigate how arts education affects intellectual and social development. These studies led to Hanshumaker concluding that arts education appears to have a positive influence on personal adjustment, self-concept, and social development. According to the studies included in the

current study, drama does not have an influence on self-concept (Freeman et al., 2003; Wright, 2006), which contrasts with Hanshumaker's conclusion. Personal adjustment did not show as a term in any of the included studies, but social development seems to be positively affected by drama (Oztug & Ciner, 2017; Pekdogan, 2016; Tsiaras, 2016; Çetingöz & Cantürk Günhan, 2012), which is in accordance with Hanshumaker's findings. However, these results are not undisputed. Freeman et al. (2003) also studied social skills and did not find any significant effects.

A Comparison with Batdi and Elaldi (2020)

The aim of the meta-analysis done by Batdi and Elaldi (2020) was to investigate the effects of drama on social skills. The effect sizes of the studies included were positive and large, with the highest effect size being found in primary school. These findings were confirmed by the participants, who told the investigators that they felt they had improved in the areas of relationships with friends, forming groups, developing social skills, social integration, and self-expression.

Social integration as a term was not used within the studies included in the current study, but the other variables were mostly confirmed by the literature (Joronen et al., 2012; Oztug & Ciner, 2017; Pekdogan, 2016; Tsiaras, 2016; Çetingöz & Cantürk Günhan, 2012; see, however Freeman et al., 2003 for the opposite conclusion). The ability to express emotions was positively affected according to Cruz Colmenero et al. (2013). This means that the results of the current study are mostly in accordance with Batdi et al.'s conclusion.

Conclusions

Drama and its effects on socialisation have been a subject of research for over four decades. Many studies have found promising results since then, yet the domain remains largely unexplored. More research could tell us whether drama in elementary schools could not only improves children's motivation to learn but may also prevent mental health issues that have become more prominent in recent years.

Hanshumaker's (1980) findings on the positive effect of drama on self-concept have been disputed by recent research, whereas the positive effect on social development has received more evidence. Findings by Batdi and Elaldi (2020) on the positive effect of drama on social relationships, self-expression, social integration, and social skills were confirmed by studies in the current study. These findings are not completely undisputed, as one of the studies found no positive effects on social skills (Freeman et al., 2003). In general, the results that were found are promising. Notwithstanding these encouraging results, there still is a lack of evidence based on current studies, which leads to several directions for future research.

First, while the number of studies on the effect of drama on the social skills of elementary school children has grown since 1980, it is still rather limited. The results that have been found generally show significant, positive effects on several aspects of social skills. Because of the small number of studies, however, more research is needed to verify these results. Therefore, more research into this subject should be encouraged. This is especially

true for self-concept, for which contradicting results have been found, as well as role play, which shows promising results in the long run, but currently has only one study to base the effect on.

Second, while studies included in the current study were performed in several countries, none were performed in Africa, South America, or Northern Europe, and only very few took place in Southern Europe or Asia. To be able to generalise results, future research should try to focus on a more international level. Results have shown promise for using drama to train social skills, but almost all studies included in Batdi and Elaldi (2020) were written in Turkish, meaning that they are only accessible to those who know the language. By writing more studies in English, international collaboration will give increased access to information, which is already out there, giving us a clearer view of the potential of drama.

Finally, only two studies investigated long-term effects. Since the results of these studies were positive, more research should focus on long-term effects to verify these findings.

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